

University of Alberta

Risk Construction at a Public Hearing:
An Application of Socio-cultural Theories into Organizational Risk

by

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To my wife and daughter

Abstract

This study poses the question of how different stakeholders construct or give meaning to an organizational project as an organizational risk. The goal is to analyze the meaning construction process by applying socio-cultural theories to an empirical organizational setting, and extend and enrich organizational research and theory on risk. The research setting is a public hearing into a proposal for drilling a sour oil well within a residential area in Edmonton, Alberta.

First, the study develops a multi-faceted perspective on the process of giving meaning to organizational risk, which complements and extends the existing insights in organizational literature. It provides theoretical insights into how social actors define risk boundaries, how they refer to common and different social rationalities to understand risk, how they use rational and ritualistic risk management instruments, how they engage in relations of communication, power, legitimacy, and individualization to interpret risk, and how societal and institutional contexts affect risk meanings.

Second, the study applies socio-cultural theories into an empirical organizational setting where social actors interpret risks produced by an organization and shows the potential of these theories for organizational risk research. The study indicates that the concepts derived from these theories can be used as sensitizing frameworks to analyze and elaborate on organizational risk and to ground the theories in empirical settings and data.

Third, the study highlights inequalities between different social actors in their capacity to participate in settings like public hearings where they give

meaning to and decide on risks produced by organizations, and the consequences of those inequalities in terms of risk distribution for different social actors and society at large. The study shows that public hearings in Alberta should be radically transformed to allow effective participation and representation of public stakeholders as well as deliberation on organizational projects and risks. Business practitioners should develop ongoing relations with local public stakeholders for effective risk management.

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Chapter 1

Introduction

This study poses the question of how different stakeholders construct or experience and give meaning to an organizational project as an organizational risk. The goal is to analyze the meaning construction process by applying socio-cultural theories to an empirical organizational setting, and to extend and enrich organizational research and theory on risk. The research setting is a public hearing into a proposal for drilling an oil well within a residential area in Edmonton, Alberta; the well contains sour gas, a high hazard product of the project. The methodology followed in the analysis is based on grounded theory approaches (Glaser and Strauss, 1967) and the textual approach (Gephart and Pitter, 1995).

Organizations are a major producer of health, environmental, and economic risks (Beck and Holzer, 2007), using risky technologies, making risky dangerous investments, and operating on risky procedures (Shrivastava, Mitroff, Miller, and Miglani, 1988; Perrow, 1999). They are also a major instrument to manage and mitigate risks produced by organizational activities (Beck and Holzer, 2007; Hutter, 2006). Hence, risk is an important and consequential topic of study in organizational research. The study of risk provides researchers, practitioners, and citizens with analytical tools to give meaning to risks created by organizations and with practical tools to anticipate, mitigate, or manage risks.

Risk is a very broad area of research in social science and a focused approach is inevitable. This study focuses on the literature of organizational studies. Socio-cultural theories and concepts are used as sensitizing frameworks

to contribute basically to organizational literature on risk. The study makes use of the socio-cultural theories of Peter Berger, Mary Douglas, Jurgen Habermas, Michel Foucault, and Ulrich Beck. The theories of Douglas, Foucault, and Beck, provide the major approaches used in socio-cultural risk studies (Dean, 1999; Ericson and Haggerty, 1997; Fox, 1999; Lupton, 1999a, 1999b, 2006; Rayner, 1992; Tulloch, 1999; Zinn and Taylor-Gooby, 2006a). Habermas' theories are increasingly applied in organizational risk research (Ehrenfeld, 1996; Gephart, 1992, 2007; Gephart and Pitter, 1993) and Berger's theories are foundational in social constructionist approaches to understanding risk (Baccus, 1986; Brown, 2000; Clarke and Short, 1993; Gephart, 1993, 1997; Stallings, 1990).

Research Questions

There are eight specific questions the study addresses in relation to the construction process of organizational risk and the five socio-cultural theories:

1. How do different social actors from business, government, and public give meaning to or construct organizational risk?
2. What are the key themes related to organizational risk that emerge in the discourse of social actors?
3. What social institutions and stocks of knowledge do social actors use to give meaning to an organizational project as an organizational risk?
4. How do social actors use cultural boundaries and rituals to give meaning to an organizational project as an organizational risk?
5. How do government actors legitimate their decisions on organizational projects and risks?

6. How do social actors use rational-purposive and communicative actions to give meaning to an organizational project as an organizational risk?

7. How do social actors engage in power relations and utilize different discourses and subject positions in those relations in the process of giving meaning to organizational risk?

8. How do social actors experience and reflect the context of risk society and related phenomena of techno-scientific rationality and individualization in the meaning construction process of risk?

Defining Risk and Organizational Risk

In this study, I define risk as a socially constructed phenomenon (Berger and Luckmann, 1966; Castel, 1991; Dean, 1999; Fox, 1999; Tulloch, 1999). First, risk is based in human actions including organizational actions and decisions (Beck and Holzer, 2007; Calas, 1999; Luhmann, 1993; Rohrman and Renn, 2000). It is an interactive phenomenon; a person's or organization's actions have consequences for others (Adams, 1995). Second, risk refers to the expectation that those actions will possibly result in some damage to what human-beings value (Rohrman and Renn, 2000; Scott and Walsham, 2005). Lupton (1999a, 15) states "to call something a risk is to recognize its importance to our subjectivity and wellbeing". In this sense, risk refers to something undesirable (Luhmann, 1993; Douglas and Wildavsky, 1982). Third, undesirability and thus risk are located within individual and collective experiences of human-beings (Jasanoff, 2006); but risk is not simply based in individual perceptions as suggested by psychology (Scott and Walsham, 2005; Shrivastava, 1995). It is contextual and cultural.

In sum, risk refers to a human activity considered as potentially harmful to other human-beings' physical, social-cultural, or economic well-being in a given society or culture (Lupton, 1999a; Macnaghten, 2006; Tulloch, 2006). Thus, an organizational risk refers to an organizational activity or project that might inflict a significant harm on the wellbeing of a social actor, who can be a person, a group, or an organization. Organizational risk has a basis in organizational actors' activities, which people think potentially harmful for their wellbeing and consider risky as opposed to other social and organizational activities (Lupton, 1999a). The focus of this study is this risk that is produced by organizations and that mainly affects other social actors outside organizations.

Objectives and Contributions

This study has three general objectives and associated contributions. These are theoretical, empirical, and practical.

Theoretical objective and contributions. The theoretical objective is to develop a multi-faceted view on the process of giving meaning to organizational risk, which complements and extends existing insights in organizational literature. By using five different theories, this study provides a more complete framework to understand and analyze how social actors interpret an organizational activity as an organizational risk. Risk scholars express the need for using different theories to develop a better understanding of risk (Dean, 1999; Lupton, 1999b; Rohrman and Renn, 2000). Although there are studies that use these five theories in analyzing risk (e.g. Baccus, 1986; Marshall and Goldstein, 2006), there is almost no study that brings their insights within a more inclusive framework (Lupton,

1999a). The studies that do not use these theories generally highlight one particular aspect of the risk construction process (e.g. Brown, 2000).

The research within mainstream organization theories including structural contingency (Lewin and Stephens, 1994; Stuart, 1992), resource dependency (Katila, Rosenberger, and Eisenhardt, 2008), behavioral theory (Chen, 2008; Greve, 2003), institutional theory (Alessandri and Khan, 2006; Kondra and Hinings, 1998), transaction cost theory (Mayer, 2006; Warden, 2001), population ecology (Miner, Amburgey, and Stearns, 1990), social network theory (Batjargal and Liu, 2004; Meuleman et al., 2010), resource-based view (Steensma and Corley, 2001; Yang, Lin, and Lin, 2010), and stakeholder theory (Schwarzkopf, 2008) has also a limited focus on risk, conceptualizing risk as a threat to the existence and performance of firms or analyzing risk in terms of risk propensity of managers and firms. Risk is considered as an objective fact that can be calculated through statistical methods and thus socio-cultural process of risk construction is generally ignored.

This study goes beyond the objectivist understanding of risk and shows the process of giving meaning to risks produced by organizations is more complex and multi-faceted than the existing research describes. The study addresses different aspects of the process at the micro level of social interactions and macro level of social institutions. It also addresses the role of power and communicative relations in developing risk meanings. The study develops theoretical insights into how social actors define risk boundaries, how they refer to common and different social rationalities to understand risk, how they use rational and ritualistic risk

management instruments, how they engage in relations of communication, power, legitimacy, and individualization to interpret risk, and how institutional and societal contexts affect risk meanings.

Empirical objective and contributions. The empirical objective of the study is to apply socio-cultural theories into an empirical organizational setting where social actors interpret risks produced by an organization and to show the potential of these theories for organizational risk research. Socio-cultural theories are generally formulated as grand theories not based in empirical studies (Lupton, 1999b, 2006; Wilkinson, 2006). The application of these theories in risk settings is rare in organizational research (e.g. Gephart and Pitter, 1993). Few studies demonstrate that the theories are useful in analyzing the construction process of organizational risk and are grounded in social actors' experiences and meanings.

This study shows that there is an unrealized potential for organizational researchers to make use of socio-cultural theories in empirical studies of risk and to complement and extend organizational risk research. These theories that provide very general frameworks but result in few empirical works can inform organization studies in risk analysis. The study indicates that the concepts derived from these theories can be used as sensitizing frameworks to analyze and elaborate on organizational risk. It also demonstrates the concepts can be used to ground the theories in empirical settings and data. While the study utilizes a limited number of concepts, it shows the possibility of exploiting analytical opportunities provided by socio-cultural theories, which can provide other conceptual instruments for organizational researchers. The study thus shows the

issue of risk is a fertile area of empirical research for organizational scholars, who can make use of socio-cultural theories as well as the existing frameworks of organization studies to develop and extend theoretical insights into the issue.

Practical objective and contributions. The practical objective of this study is to examine and highlight potential inequalities between different social actors in their capacity to participate in settings like public hearings where they give meaning to and decide on risks produced by organizations, and the consequences of those inequalities in terms of risk distribution for different social actors and society at large (Jones, Abbott, and Quilgars, 2006; Beck, 1992; Otway, 1992). In organizational settings, particular constructions of risk dominate others and create a situation in which the concerns and interests of some social actors are disregarded (Beamish, 2002; Gephart, 1984). Government regulations, through which organizational projects and risks are evaluated, represent the interests of particular social groups (Keeling, 2001; Perrow, 1984). This study explores these potential problems in the process of risk construction and develops suggestions for government and business practitioners.

The study shows public hearings (in Alberta) as an organizational setting are ineffective for individual public stakeholders to address organizational risks. There are constraints especially on public stakeholders' participation in public hearings. Government's approval of risky organizational projects is a likely outcome because government and business stakeholders have common guides of reference (mainly government regulations and guidelines) used to evaluate those projects. The study suggests that public and business stakeholders should have

equal status in terms of their decision-making power on organizational projects and risks and that government stakeholders should only arbitrate the process. The concerns not covered by governmental regulations should be the main issue to discuss and address. The study also indicates the importance of the representation of public stakeholders in hearing boards, the decision-making body, so that local rationalities in addition to regulative frameworks affect project and risk decisions.

The study also points to the need for business practitioners to develop ongoing relations with local public stakeholders for risk management. Business organizations should ensure the contribution of local public through unofficial or official participation mechanisms and try to integrate local rationalities into risk management instruments.

Study Overview

The study contains 11 chapters. Following Chapter 1, Introduction, I review organizational research on risk and the five socio-cultural theories in Chapter 2. The goal of Literature Review is to show the gaps of organizational research, discuss the utility of the socio-cultural theories in addressing those gaps, and ground the research questions that will help utilize those theories. First, I discuss positivist risk research in organization studies including business risk, risk management, and disaster research, and psychometric research as an example from social science. I provide a critical summary at the end and propose research questions. Second, I discuss interpretivist organization research and point out key findings and limitations. Then, I review socio-cultural theories of Peter Berger and Mary Douglas in the same tradition, with a focus on the concepts that are key

to analyzing risk. I provide a summary in which I discuss how those concepts can be utilized to address the limitations and extend organizational research, and propose research questions. Third, I discuss critical organization research and highlight key findings and limitations. Then, I review the theories of Jurgen Habermas, Michel Foucault, and Ulrich Beck in the same tradition again with a focus on the concepts that are key to risk analysis. In the summary, I discuss the utility of the concepts for addressing the limitations and extending organizational research and propose research questions. I summarize the chapter at the end.

The goal of Chapter 3, Methodology, is to describe and justify the methodology developed and the methodological choices made to address the research focus and questions of the study. First, I explain the research design of the study and provide reasons why qualitative research methodology is utilized. Second, I describe and justify a public hearing into an oil well project as the research site of the study. Third, I discuss and describe the data sources regarding the hearing. Fourth, I explain the specific procedures of data analysis including developing substantive codes, categories, properties, and key issues, detailed analysis of textual segments and statements induced from the data, and theoretical interpretation. Fifth, I provide an overview of key events in the hearing to give the reader background knowledge that helps communicate and understand the results of the study in the analysis chapters. I conclude the chapter with a summary.

In Chapters 4 to 9, which are the core of the study, I develop a detailed analysis of the six key issues that emerged in the hearing. The goal of these chapters is to understand the hearing participants' meanings of the key issues and

to develop theoretical insights into the discursive construction of the key issues in relation to organizational risk. The issues include project, concerns, measures or plans, consultations, actor approaches or ways, and hearing setting. In each chapter, I first provide a descriptive analysis of the textual data including key word statements, in which the stakeholders discuss the key issue in question to recover the stakeholders' meanings for the issue. Second, I develop a comparative analysis of the meanings across the stakeholders and summarize my findings in a comparative table. Third, I present a conceptual analysis of the findings by using the concepts derived from the five socio-cultural theorists and develop theoretical propositions. Lastly, I summarize each chapter.

In Chapter 10, I discuss the results of the study. The goal of this chapter is to integrate the results of the analysis, develop additional insights, and construct a theoretical framework of the risk construction process. First, I answer the research questions of the study, summarize and integrate the results, and develop further insights by extending the propositions developed in the analysis. Second, based on this discussion, I construct a theoretical framework to understand and analyze the process of giving meaning to organizational risk. Third, I provide a summary.

Chapter 11 concludes the study. The goal is to discuss the contributions of the study as well as new research directions and the limitations. First, I highlight the study's theoretical, empirical, and practical contributions. Then, I suggest future research directions and discuss the limitations.

Chapter 2

Literature Review

This chapter reviews organizational research on risk and socio-cultural theories that can be used to analyze risk. The first goal of the chapter is to review organizational literature and show the limitations or gaps. The second is to review five socio-cultural theories and related theoretical concepts, which can help address the gaps in the literature and extend organizational risk research and theory. The third goal is to construct research questions that guide the study and that help utilize the theoretical concepts in the analysis.

As the risk literature is vast, the section provides a focused review of how risk is conceptualized in organization studies. I use Gephart's (2004a) framework of organizational research traditions to guide the review. Gephart's is one of many similar frameworks that attempt to categorize traditions in organizational research and social science (e.g. Burrell and Morgan, 1979; Denzin and Lincoln, 2000; Guba and Lincoln, 1994; Perrow, 1973; Ritzer, 1975). Gephart's three categories including positivist, interpretivist, and critical traditions are based in the categorization of Guba and Lincoln (1994) who distinguish between, positivism, post-positivism, constructivism (which also includes interpretivism), and critical theory. The three categories are also in line with the traditions mentioned by Burrell and Morgan (1979), which include functionalism (based in sociological positivism), interpretivism (based in voluntarism and human agency), and radical structuralism and humanism (based in critique of social order and interest in social conflict). As a more recent framework, Gephart's categorization reflects

contemporary organization theory and risk studies and thus provides a better framework to organize the review of organizational risk research.

I first look into positivist organizational research including studies on business risk, risk management, and organizational disasters. Second, I review interpretivist organizational research on risk and socio-cultural theories of Peter Berger and Mary Douglas. Third, I examine critical organizational research and socio-cultural theories of Jurgen Habermas, Michel Foucault, and Ulrich Beck. I identify the limitations of organizational risk literature, discuss the usefulness of socio-cultural theories in addressing the limitations and extending organizational research and theory, and propose research questions that are based in the review and used to guide the study. I conclude the chapter with a summary of what is achieved in the chapter.

Positivist Organization Research

Positivism assumes there is an objective reality that can be understood and discovered by scientific methods (Gephart, 2004a). The goal is to “discover truth” (Gephart, 2004a: 456). The researcher develops hypotheses, identifies variables, and tests relations between variables by verifying or falsifying hypotheses. S/he controls certain variables, which might distort the test. Socio-cultural frameworks are considered to bias measurement and interpretation in positivist tradition. This section looks into positivist streams in organizational research and examines techno-scientific risk theories with a focus on psychometric research to exemplify positivist tradition in social science. The goal is to provide an overview of positivist organizational literature and highlight its gaps.

Organizational research. In positivist organization research, risk is considered as an objective phenomenon. Socio-cultural process of giving meaning to risk is not an issue. The major themes discussed are business risk, risk management, and organizational disasters.

Business risk research. Business risk refers to the potential threat to the existence and success of an organization or firm (Shrivastava, 1995). It mainly involves market risk, which is objective and measurable through general industry information (e.g. Goodrick and Salancik, 1996; Greve, 1998; Miller, 2009; Miller and Bromiley, 1990). This risk is assumed to exist independent of social actors' construction. Consequently, the meaning construction process of risk by social actors is not a concern.

For business risk research, risk refers to a possibility of organizational failure as described most clearly in the school of population ecology (Barnett and Freeman, 2001; Bruderl and Schussler, 1990; Hannan and Freeman, 1977, 1984; Ingram and Lifschitz, 2006; Thornhill and Amit, 2003, Wezel, Cattani, and Pennings, 2006; Yu, Sengul, and Lester, 2008). This is also one of the two main conceptualizations of risk in other mainstream organization theories including institutional theory (Alessandri and Khan, 2006), resource dependency (Katila, Rosenberger, and Eisenhardt, 2008), structural contingency (Stuart, 1992), behavioural theory (Matta and McGuire, 2008), transaction cost economics (Mayer, 2006), social network theory (Meuleman et al., 2010), resource-based view (Yang, Lin, and Lin, 2010), and stakeholder theory (Schwarzkopf, 2008). To give an example from population ecology, Miner et al. (1990) study 1,000 Finnish

newspapers over a 200-year period. Their findings indicate inter-organizational linkages alleviate the difficulty in organizational transformation and decrease the risk of failure.

Risk is also a matter of risk taking by organizational actors that may cause organizational failure (Bansal and Clelland, 2004; Bromiley, 1991; Desai, 2008; Devers et al., 2008; Gomez-Mejia et al., 2007; Sine, Haveman, and Tolbert, 2005; Wiseman and Bromiley, 1996). This is also the second major theme in institutional theory (Kondra and Hinings, 1998), resource dependency (Katila, Rosenberger, and Eisenhardt, 2008), structural contingency (Lewin and Stephens, 1994), behavioural theory (Chen, 2008), transaction cost economics (Brouthers and Brouthers, 2003), and resource-based view (Steensma and Corley, 2001). To exemplify this theme, Gomez-Mejia et al. (2007) analyze the risk-averseness of 1,237 family-owned olive oil mills in Southern Spain. They conclude family-owned firms are risk-seeking as long as this risk does not endanger their socio-emotional wealth, which includes family identity and influence.

Business risk research seems to address the problem of how organizational actors, especially managers, respond to objective business risks or fail to do so. It mainly focuses on the analysis of risks to the existence or performance of business firms (Beard and Edwards, 1995; Greenhalgh, 1984). Business risk is a measure that can be calculated through quantitative firm or industry data (Amburgey et al., 1993; Baum et al., 2005; Bromiley, 1991; Miller, 2009; Miner et al., 1990; Wiseman and Bromiley, 1996). How it is given meaning by organizational actors is not a concern (for a notable exception, see McNamara and

Bromiley, 1999). Business risk research takes risk as an objective reality. Consequently, it lacks an understanding of socio-cultural processes in and through which organizational actors experience and give meaning to risk.

Risk management research. This research focuses on how organizational actors, especially managers, can rationally manage and respond to risks, crises, and disasters (Bowman and Kunreuther, 1988; Holt, 2004). How risks, crises, and disasters are understood and given meaning by managers is not a concern. Managers are expected to recognize these “objective” events and respond rationally to them. Risk management research provides “rational” techniques for managers (Turner, 1994; Roberts and Bea, 2001; Bierly and Spender, 1995; Leveson et al., 2009; Mitroff, Shrivastava, and Udwadia, 1987). For example, Choo (2005) argues the signs of an organizational disaster are often clear enough to see. Problems occur when the signs are in line with the current belief system of managers, when organizational actors do not act upon the signs even though they notice them, and when no organizational actor has an understanding of the big picture that the signs indicate. To deal with these problems, Choo (2005) offers three strategies, which include controls on groupthink and group polarization, development of an information culture, and sustained communication about safety and risk.

Some studies within this research stream focus explicitly on what managers should do to deal with post-crisis conditions (Busenberg, 2000; Garaudel, Noel, and Schmidt, 2008; Ketola, 2006; Seeger et al., 2005; Shaw et al., 2007; Stopford and Baden-Fuller, 1990). For example, Busenberg (2000)

examines post-disaster learning processes within a network of organizations. Establishing a new organization within the network (an advisory council), developing new procedures (collaborative reviews of safety technologies), and shifting to a common learning culture (partnerships oriented to learning) can be effectively used as learning mechanisms and to improve safety standards within the network of organizations.

Risk management research is about how organizational actors, mostly managers, can rationally respond to organizational risk (Holt, 2004; Shrivastava 1995). Organizational risk refers to an ascertainable and controllable phenomenon through rational management (e.g. Bazerman and Chugh, 2006; Choo, 2005). It has an objective meaning common for all social actors (Miller, 2009). The objectivity assumption is indicated by “rational” suggestions of this research for every manager to follow (e.g. Roberts and Bea, 2001). Every manager should find out this objective meaning and manage risks accordingly. Thus, there is no need to understand the process of how this meaning is developed and experienced. There is also no need to consider how established social institutions and practices shape risk management, which seems to be the job of managers in individual organizations (Shrivastava et al., 1988; Shrivastava, 1995; Vaughan, 1999). Therefore, risk management research overlooks socio-cultural processes of risk construction by organizational members.

Disaster research. Organizational disasters are realized risks. Disaster research examines the sources of disasters as identified by the researcher from a perspective that assumes the existence of an objective risk, which social actors

failed to assess accurately (Turner, 1976). The researcher retrospectively reconstructs risk as an objective risk (Gephart, 1984).

This research identifies socio-cultural and organizational factors that cause disasters. First, disasters result from the accumulation of several small events and accidents over time (Rudolph and Repenning, 2002; Starbuck and Milliken, 1988; Turner, 1976). Turner (1976), for example, states no disaster has a single cause. Disasters develop through the accumulation of structural and interactional factors involving organizational members and outsiders within a complex interrelationship.

Second, organizational culture is a potential source of disasters (Feldman, 2004; Hynes and Prasad, 1997; Osborn and Jackson, 1988; Wicks, 2001). Feldman (2004) studies Challenger and Columbia disasters and the role of quantitative measures in evaluating risk in NASA. Feldman claims that the disasters were rooted in NASA's culture of objectivity, which privileges quantitative risk measures, disregards biases inherent in quantitative data, and overlooks problems in qualitative aspects such as social interactions between managers and engineers.

Third, organizational structure might lead to disasters (Neal and Younis, 2006; Vaughan, 1990; Wrigley and Dreby, 2005). For instance, Vaughan (1990) analyzes the Challenger disaster and claims that the flaws could not be detected by regulatory organizations before the disaster because regulatory and regulated organizations within NASA were autonomous as well as interdependent. The autonomy of the regulated decreases the effectiveness of the regulator to gather

information on the operations. Interdependence leads to similarity in problem perceptions and creates opportunities for the regulated to distort information.

Fourth, disasters are embedded within broad social and political structures (Vaughan, 1999). Vaughan (1999) asks the question of how things go wrong in socially organized settings. She argues that political, competitive, regulatory, and cultural environments systematically interact with organizations and organizational members to cause disasters. Disaster management should go beyond the concept of human error and pay attention to institutional environments.

Lastly, disasters are caused by group dynamics (Kayes, 2004; Tempest, Starkey, and Ennew, 2007). For example, Kayes (2004) looks at the 1996 Mt Everest disaster that claimed the lives of eight climbers and identifies three problems: narrowly-defined purpose, directive leadership, and failure to sense an ill-defined problem. The team members overlooked the value of other goals including surviving Mt Everest and focused on reaching the summit. Constrained by a directive leadership, they failed to identify and respond to their disastrous situation.

Like business risk and risk management research, disaster research assumes the existence of an objective risk (Gephart, 1984). This objectivity is based on the fact that the disaster took place. Disaster research asks why and how organizational actors could not foresee the upcoming disaster and recognize a “real risk”. Disaster research also examines how organizational actors interpret and understand potential sources of disasters (e.g. Feldman, 2004; Turner, 1976;

Wicks, 2001). Yet, according to disaster research, organizational actors' interpretation is inaccurate, incomplete, or at best partial (e.g. Kayes, 2004; Tempest et al., 2007). Otherwise, the disaster would not have occurred. Hence, rather than taking the perspective of organizational actors to analyze their understanding of organizational events, disaster research adopts a "higher" perspective that seems to lead to an "objective" analysis of disasters.

While this analysis has some merits in understanding disasters, especially their technical aspects, it generally presents a narrow picture (Perrow, 1984). Disaster research provides a limited number of studies that analyze the effect of broad social structures in disasters (e.g. Shrivastava et al., 1988). It also tends to blame human actors rather than established institutions and practices (Perrow, 1983). Further, organizations are not simply technical systems (Scott, 2004). They are also meaning systems (Bartunek, 1984; Weick, 1993). Organizational actors experience and give meaning to organizational processes that might lead to disasters. Hence, it is important to analyze these meanings and experiences. The imposition of a rational perspective onto the meaning of organizational actors is likely to provide a partial analysis and limited suggestions with regard to disaster and risk management (Baccus, 1986; Elliot and Smith, 2006).

Techno-scientific theories of risk. Techno-scientific risk studies in social science define risk as the product of the probability and consequence of an adverse event (Lupton, 1999a). It is assumed that risks preexist and can be identified and controlled through scientific means (Bradburry, 1989). How risks are constructed as social facts is not a relevant question (Lupton, 1999a). Rather,

the main question is how accurately a risk is calculated; hence, related questions are how serious a risk is and how accurate and inclusive scientific calculative models are.

Psychometric research (Slovic, 1986, 1987) is an example of this approach. It examines “the general mechanisms of people to process risk information” and “analyzes the cognitive structure of risk judgments” (Rohrman and Renn, 2000: 17). It develops and uses psychological models to identify how lay people respond to risk cognitively and behaviorally (Lupton, 1999a). Multivariate statistical procedures are employed in analyses (Rohrman and Renn, 2000). Expert knowledge (objective facts) and lay response (subjective perceptions) are differentiated, the latter being portrayed as unscientific and unsophisticated (Slovic, 1986). Familiarity, control, equity, catastrophic potential, and level of knowledge are claimed to influence how risks are perceived by lay people (Slovic, 1987). These are mental heuristics that result in usually biased judgments about risk. Over- or under-estimation of risk is likely because actual probabilities are not used.

Lupton (1999a) argues psychometric risk research isolates individuals from their socio-cultural environments. The cultural mediation of individual perception is ignored. This research portrays individuals “as free actors who are constrained only by their ignorance” (Lupton, 1999a: 23). Psychometric risk research idealizes the rational individual capable of evaluating risks free from cultural biases. It proposes to educate lay people to rationally process risk information and evaluate risks (Slovic, 1986).

Summary and research questions. In general, positivist organization research provides a relatively narrow basis to understand socio-cultural processes of risk construction. This is a rational basis, which assumes organizational risk preexists as a reality. It is to be objectively discovered by researchers and practitioners. Taking organizational risk for granted, positivist research neglects socio-cultural processes of experiencing and understanding the risk by social actors. Rather, it is interested in isolated individuals such as experts and lay people (Slovic, 1986, 1987) or managers and employees (Perrow, 1983, 1984). Analyzed from a predetermined technical and rational perspective, local rationalities and meanings appear as anomalies, which produce a biased and incorrect risk assessment, and eventually a disaster.

Positivist organizational research does not provide any theoretical framework for this study as it does not address the question of how social actors give meaning to an organizational project as an organizational risk. The review indicates that most organization studies that utilize mainstream theories do not ask this question, which seems to be still relevant and should be explored. Also, as discussed below, the question is only partly addressed in interpretivist and critical traditions of organizational research. Thus, I propose the following research questions:

1. How do different social actors from business, government, and public give meaning to or construct organizational risk?
2. What are the key themes related to organizational risk that emerge in the discourse of social actors?

Interpretivist Organization Research

Interpretivism assumes the existence of a “local reality composed from subjective and objective meanings” held by the members of a group or society (Gephart, 2004a: 456). Members create and sustain a sense of social order that seems factual (Gephart, 2007). This sense of reality is reproduced by members in an ongoing manner through intersubjectively shared meanings and experiences (Gephart, 2004a). The goal of interpretivism is to understand and describe members’ meanings and local contexts by using members’ concepts. In interpretivism, the researcher analyzes verbal and nonverbal actions with a focus on systematic divergences in meanings. This section reviews interpretivist organization research on risk and socio-cultural theories of Peter Berger and Mary Douglas within the same tradition. The goal is to provide an overview of interpretivist organization literature and highlight its gaps, and to show the usefulness of socio-cultural theories and concepts to address those gaps and extend organizational research on risk.

Organizational research. Organizational research in interpretivist tradition focuses on the process of how social actors experience and give meaning to risks produced by organizations. It develops a situated understanding of organizational risk. The major themes explored in this tradition include disruptions in and maintenance of risk sensemaking, risk sensemaking practices and resources, role of interests in risk sensemaking, socio-cultural rationalities of risk, media influence on risk meanings, and use of organizational plans in risk construction.

Risk sensemaking. Risk sensemaking research provides important examples of the interpretivist approach (Baccus, 1986; Gephart, 1984, 1993, 1997; Gephart, Van Maanen, and Oberlechner, 2009; Roberts, Madsen, and Desai, 2007; Weick, 1988, 1993). The research asks the question of how social actors interpret and explain organizational events that seem risky to them. The concern is how social actors make meaningful an organizational event as risk.

One of the themes explored by risk sensemaking research is disruptions in sensemaking during crises and ways of sustaining sensemaking (Gephart et al., 2009). A high-risk situation might result in a breakdown in common meanings, which no longer make sense (Weick, 1988, 1990, 1993, 1995, 2010; Boudes and Laroche, 2009; Pearson and Clair, 1998; Powley, 2009). In examining the Bhopal disaster in which more than 3000 people were killed due to a release of toxic gases from a chemical factory, Weick (1988) argues low-probability and high-consequence events challenge existing meanings of social actors and paralyze their sensemaking. The actors try to make sense of those events by enactment or by acting on the events to produce information for sensemaking. Weick suggests enactment might bring some understanding and help rebuild the sense; but it might also worsen the crisis situation and further limit sensemaking. As the sensemaking directed at the situation is lost, the situation might get out of control. In a later study, Weick (1993) analyzes the Mann Gulch fire disaster as an interrelated collapse of sensemaking and role structure, which refers to a sudden loss of the meaning of organizational world and of interrelations between organizational actors. The collapse occurs because of the low probability that a

crisis event (fire in this case) could occur. This collapse of sensemaking and meaning is called “cosmology episode”, in which organizational actors lose the sense of order and the means to rebuild that sense (Weick, 1993: 633). In Mann Gulch, the collapse turned the crisis event into a disaster in which 13 firefighters were killed by the fire. Weick suggests developing skills of improvisation and attitude of wisdom, and forming virtual role systems and respectful interaction to sustain the sense of organization during crises.

In contrast to Weick’s rather psychological perspective of sensemaking, Gephart (1988, 1993, 1997) develops a sociological understanding that is based in intersubjective processes. Gephart looks into sensemaking practices and resources used to give meaning to an organizational event as risk (see also, Dunbar and Garud, 2009; Roberts et al., 2007; Sullivan-Taylor and Wilson, 2009; Turner and Tennant, 2010). Gephart (1993) examines how organizational actors in a public inquiry use the themes of risk and blame to make sense of an organizational disaster (a pipeline explosion) and to construct related risks. A number of sensemaking resources (organization, self, leadership) are utilized in the construction process. Contradictory accounts emerge at the end of the inquiry as the actors use the themes and resources in different ways. In another study, Gephart (1997) analyzes the role of quantitative sensemaking in social actors’ (governmental agency and oil and gas company) retrospective construction of risks in a public inquiry. The quantification of hazards is integral to constructing risks as controllable technical issues. It objectifies risks and establishes plausibility, obscuring diverse rationalities in developing risk definitions.

The politics of sensemaking is another theme (Clarke and Short, 1993; Gephart, 1984; Scott and Walsham, 2005). Gephart (1984) provides a political sensemaking model and highlights the role of divergent interests (of government, industry, and public) in competition with one another to produce the dominant interpretation of a disaster event. Hence, the process of risk construction does not simply involve interpretation and negotiation but also contention and conflict. The process produces a dominant interpretation that serves particular interests and, as a result, disaster-triggering events might be constructed as not risky.

Socio-cultural rationalities. Another theme examined within interpretivist research is social and cultural rationalities used by social actors to interpret organizational risks and crises (Beamish, 2001, 2002; Gephart, Steier, and Lawrence, 1990; Lane and Quack, 1999). Lane and Quack (1999), for example, use the model of Douglas and Wildavsky (1982) to examine and compare the British and German banking industries. They provide an analysis of how decision-makers in those banking industries are influenced by established risk conceptions associated with “market” in Britain and “hierarchy” in Germany. When financing small and medium sized businesses, the British decision-makers follow market logic and focus on gains whereas the German decision-makers focus on losses as a result of hierarchical logic.

Media influence. Mass media can affect how social actors interpret and experience risk (Gamson and Modigliani, 1989; Nelkin, 1988; O’Connell and Mills, 2003; Stallings, 1990). Nelkin (1988), for example, demonstrates the media is selective and ideological in presenting and covering the news. It conveys

certain values and world views, which can affect policy decisions regarding risk situations. It brings particular risks into the attention of the general public, making them a common problem and policy matter.

Organizational plans. Interpretivist research also addresses how organizational actors construct future events as controllable and acceptable risks through plans (Clarke 1999; Clarke and Perrow, 1996). Clarke (1999) distinguishes between functional and symbolic plans. The former are based on a meaningful history that allows organizational actors to make reasonable predictions about future events. Clarke calls the latter fantasy documents, which are “rhetorical instruments that have political utility in reducing uncertainty for organizations and experts” (1999, 13) as well as for general public (Clarke and Perrow, 1996). Under conditions of high uncertainty when there is no meaningful history to draw upon and when important aspects of future are unknown, plans mainly take on symbolic functions. They create a sense of control over future events by transforming them into risks with known probabilities.

Contributions and limitations. Interpretivist organization research on risk examines specifically socio-cultural processes of risk construction. It looks into how social actors experience and give meaning to organizational activities that seem risky to them. It overcomes narrow objectivity-based perspective of positivist research by analyzing local meanings and experiences, which constitute a situated rationality (Baccus, 1986; Gephart, 2004a). It points out different ways sensemaking is disrupted and can be sustained during high-risk situations and crises (Weick, 1988, 1990, 1993), sensemaking practices and resources used to

construct risk (Gephart, 1993, 1997), role of interests in risk construction (Gephart, 1984; Scott and Walsham, 2005), cultural rationalities that frame social actors' understanding of risk (Gephart et al., 1990; Lane and Quack, 1999), effect of the media on risk interpretations (Nelkin, 1988), and use of organizational plans to give meaning to risk (Clarke, 1999). Yet, it has three limitations.

First, the research is conducted mostly at the micro level of social interactions. While it includes some studies that examine the role of socio-cultural rationalities (Gephart et al., 1990) or institutions (Nelkin, 1988) in risk construction, the macro level of social institutions is not a concern in general. Second, the research provides limited insights into the role of political processes in risk construction (e.g. Gephart, 1984). It gives little attention to possible risk inequalities between social actors (Checker, 2007; Dean, 1999; Kemshall, 2006; Laufer, 2007). Lastly, the research fails to address complex and multi-faceted nature of the risk construction process. It focuses on particular processes such as sensemaking (Gephart, 1993) and planning (Clarke, 1999) and does not develop a framework that helps analyze the role of different socio-cultural processes and institutions.

Socio-cultural theories. The limitations of interpretivist organizational research on risk can be addressed partly by socio-cultural theories of Peter Berger and Mary Douglas, who are in the same tradition (Clarke and Short, 1993; Crook, 1999; Harrington, 2005; Lupton, 1999a; Wuthnow et al., 1984). Berger's theories are foundational in social constructionist and interpretivist approaches to understanding risk (e.g. Baccus, 1986; Brown, 2000; Clarke and Short, 1993;

Gephart, 1993; Stallings, 1990). Douglas' approach is one of the major approaches used in socio-cultural risk studies (Fox, 1999; Gephart, Van Maanen, and Oberlechner, 2009; Lupton, 1999a, 1999b, 2006; Rayner, 1992; Zinn and Taylor-Gooby, 2006a).

Peter Berger: institution and social stock of knowledge. Peter Berger is an Austrian-born sociologist (Harrington, 2005). His work focuses on sociology of knowledge, religion, theology, modernization, sociological theory, and public policy (Wuthnow et al., 1984). Berger's theories are influential in organizational research, especially in institutional theory (Meyer and Rowan, 1977; Tolbert and Zucker, 1983; Zucker, 1977), although they have not been directly used before to understand organizational risk. The concepts derived from Berger, which might help understand the process of risk construction, are institution and social stock of knowledge.

Institution. An institution is a social relation, practice, or setting, to which social actors in a group or society attach a common meaning (Berger and Luckmann, 1966). This meaning is taken for granted by social actors. For example, a public hearing where social actors discuss organizational risks can be considered as an institution if it has a common meaning shared and taken for granted by social actors. Thus, an institution refers to a particular commonsense or an intersubjective understanding; its nature is not questioned by social actors (Berger and Luckmann, 1966). An institution makes sense to social actors as an everyday reality.

An institution is constituted and maintained by social actors through their reciprocal relations (Berger and Luckmann, 1966). Social actors reproduce the common meaning of an institution in their everyday relations, roles, routines, and conversations. This is the only way an institution continues to exist as a social reality. Thus, an institution emerges and is maintained as a reality when social actors reciprocally recognize, experience, and reproduce its common meaning in an ongoing manner (Berger and Luckmann, 1966). For example, a public hearing is reproduced as an institution when social actors recognize and participate in its routines.

Social stock of knowledge. The sum total of shared meanings constitutes common social stock of knowledge for a group of social actors (Berger and Luckmann, 1966). Social stock of knowledge stores institutional meanings regarding relations, roles, and identities of social actors, and accumulates new experiences to be institutionalized. It provides explanations and justifications for those meanings (Berger and Luckmann, 1966), represents group interests, and ensures group functionality in line with those interests (Wuthnow et al., 1984).

As different institutions are associated with different social groups, particular stocks of knowledge are shared by particular groups in a society. This differentiation is related to social division of labor between groups (Berger and Luckmann, 1966). Experts and professionals, for example, control and reproduce scientific institutions and monopolize scientific knowledge stocks; they selectively share this knowledge with other social actors. Lay public actors, in contrast, share local knowledge stocks representing ordinary local experiences

and relations; they have only partial knowledge of professions and almost no control over scientific institutions.

Mary Douglas: boundary and ritual. Mary Douglas is a British anthropologist (Harrington, 2005). Her work focuses on cultural classification systems, symbolic boundaries, rituals, cosmologies, and risk (Wuthnow et al., 1984). Douglas's theories are rarely used in organizational research (e.g. Gephart, 1993; Gephart et al., 1990) although they are highly related to the domain of organizations (e.g. Douglas, 1986). The concepts derived from Douglas, which might help understand the process of risk construction, are boundary and ritual.

Boundary. A boundary is a cultural signifier that distinguishes a particular culture from other cultures (Douglas, 1966, 1973; Douglas and Wildavsky, 1982). Douglas (1966) analyzes everyday objects and symbols, specifically pollution, to understand cultural boundaries. She argues the meaning of pollution derives from a particular culture or group and associated social relations. Thus, pollution is associated with cultural boundaries, which determine what relations and practices are acceptable or unacceptable within the group (Douglas, 1966).

The concept of risk, which refers to potential pollution, is also related to group boundaries (Douglas and Wildavsky, 1982). Risk represents cultural classification schemes and patterns. It shows the proper and improper location of objects and activities, indicating and deriving from cultural boundaries (Wuthnow et al., 1984). Risk represents a society's or group's choices of dangers worth attention (Douglas, 1992; Douglas and Wildavsky, 1982). For example, an

industrial project might be considered risky when constructed near a residential area and not risky when constructed in an industrial area. There is a symbolic cultural boundary between residential and industrial areas, which is generally reflected in urban development plans.

Ritual. When cultural boundaries are crossed over or when there are attempts to cross over, a possibility of pollution emerges and thus cultural order is threatened (Wuthnow et al., 1984). This is a threat to the existence and reproduction of the group. Everyday rituals around pollution like cleaning reestablish and reaffirm the boundaries and order of the group (Douglas, 1975). Rituals are social actions that put social objects, practices, and relations in place, and reconfirm their proper locations. They communicate the knowledge of cultural boundaries. They defend and restore collective reality (Douglas, 1966). For example, risk management practices and plans associated with an industrial project in a residential area can be considered as rituals, which indicate that the project does not pose a risk to residents and that the boundary between the project and residences is not crossed over. It is also implied that these practices and plans are available to restore the boundary and cultural order in the case of a hazardous situation.

Summary and research questions. Interpretivist organization research focuses on and provides valuable insights into the meaning construction process of organizational risk. The research has three limitations. It has a limited understanding of the role of macro-level social institutions in risk construction, its insights into political processes of risk construction is also limited, and it does not

develop a framework that can address the complexity and multiplicity of risk construction process. Socio-cultural theories of Berger and Douglas provide four concepts including institution, social stock of knowledge, boundary, and ritual. These concepts are hardly useful to analyze political processes of risk construction because they generally refer to non-oppositional relations and institutions oriented to social order. However, they can help address the other two limitations of organizational research and extend organizational theory on risk.

First, the concepts of institution, social stock of knowledge, and boundary refer both to micro-level social relations and to macro-level social institutions and can be used in a macro-level analysis. Hence, “institution” can help examine risk construction settings such as public hearings, which are a societal institution and in which social actors participate to evaluate risks produced by organizations. “Social stock of knowledge” can help analyze different socio-cultural rationalities, which are based in institutionalized experiences of communities, professions, business and government organizations, and which social actors refer to in their attempts to understand risk. “Boundary” can help understand boundaries between hazardous organizational projects and residential areas, which social actors develop and utilize to give meaning to projects as risk and which they try to breach or defend.

Second, the concepts can be used to develop additional insights into how social actors give meaning to organizational risk and thus a more complete framework of the process of risk construction. They refer to different relations and institutions that have a role in the process. For example, “ritual” can help

study the role of risk management plans and practices in terms of social actors' attempts to reconfirm or restore boundaries between industrial and residential areas. The concepts are also helpful as they provide more general and abstract frameworks than existing insights in organizational literature. Thus, they can be used to look for commonalities between existing insights and bring them together within a more general understanding of the meaning construction process of organizational risk. In order to utilize the concepts for the purpose of developing additional insights into the process of risk construction and addressing the limitations of organizational literature, I propose the following research questions:

3. What social institutions and stocks of knowledge do social actors use to give meaning to an organizational project as an organizational risk?
4. How do social actors use cultural boundaries and rituals to give meaning to an organizational project as an organizational risk?

Critical Organization Research

Critical research focuses on hidden interests, contradictions, and inequalities in socio-cultural practices and relations (Gephart, 2004a). The critique of existing inequalities and social order aims at social transformation and emancipation. The researcher tries to develop a structural and historical understanding of inequalities, social signs and symbols that represent and support inequalities, and social and economic contradictions on which society is based. S/he tries to give voice to "silenced voices" (Gephart, 2004a: 456). Critical research is rarely used to analyze risk in organizational research (e.g. Ehrenfeld, 1996; Gephart, 1992). This section reviews critical organization risk research and

socio-cultural theories of Jurgen Habermas, Michel Foucault, and Ulrich Beck within the same tradition. The goal is to provide an overview of critical organization literature and highlight its gaps, and to show the utility of socio-cultural theories and concepts to address those gaps and extend organizational research on risk.

Organizational research. Organizational research in critical tradition has a focus on socio-cultural and political contexts in which social actors give meaning to risks produced by organizations. It provides insights into the role of unequal relations within those risk construction contexts. The major themes explored in this tradition include power of elites and role of social class structure in risk construction and imposition, capitalist economy as a risk producer, social institutions' legitimacy need because of proliferating risks to the public, and exploitation of environment and environmental risks.

Power of elites and social class structure. Perrow (1972, 1984) is a pioneer in bringing a critical perspective to the organizational risk analysis, which is still influential (Gephart, 2004b; Gephart, Van Maanen, and Oberlechner, 2009), although he follows a positivist methodology in his research. Perrow (1984, 1999) argues that modern organizational systems such as nuclear power plants are complex systems whose parts are tightly coupled and thus do not behave in linear ways. Multiple and unexpected interactions occur between parts. Hence, small errors in the system also interact in unexpected ways and are likely to result in a catastrophe. Perrow (1984) calls this a normal accident because it results from the inherent complexity of the organizational system. Despite this

catastrophic potential, similar systems are kept in operation due to the power of business and government elites.

Perrow highlights the power of elites in public and private sectors in defining risk and imposing it over the general public (1983, 1984, 2006). Perrow (1984, 1999) mentions the unequal distribution of risks among social classes. He criticizes the quantification of social values in risk analysis. Social benefits and costs are measured in monetary terms. Risk experts work as both advisors to the elites and legitimizers for existing inequalities and class structure. They reinforce the unequal distribution of risks between social classes. Risk assessment is basically a political rather than scientific process, excluding the participation of general public as much as possible and absolutizing expert rationality. It conceals the imposition of risks by business and government elites for profit and revenue. Perrow (2006) suggests power structure in society should change before establishing a fair and effective risk management system.

Capitalist economy. A related concern is the role of capitalist economy in producing risks imposed on society (Cable, Shriver, and Mix, 2008; Jasanoff, 1988; Gephart and Pitter, 1993; Richardson and Curwen, 1995). Gephart and Pitter (1993) argue that industrial accidents and hazards are the outcomes of the organizing principle of advanced capitalism. Capitalist institutions including business and government engage in productive and exploitative activity, which creates risks imposed upon other sectors of society including individual citizens and natural environment. Profit from this activity is retained for hierarchical elites. The imposition of risks, on the other hand, is legitimated through ideology

and social legitimation mechanisms. Gephart and Pitter (1993) explain that this hidden aspect of capitalism, the decoupling of profit and risk, can be made visible through critical reflection and deconstructive analysis.

Legitimacy need. Another related concern is the construction of legitimacy for social institutions (Gephart, 1992; Brown, 2000, 2003; Power et al., 2009; Topal, 2009). Topal (2009) explores the components of legitimation in his analysis of a public hearing into a hazardous oil and gas project in Alberta. He claims that public hearings are essentially an institution that normalizes risks produced by economic actors and legitimates government and business institutions. Legitimation occurs through the demonstration of citizen participation, general interest, and rational evaluation in the hearings. Topal (2009) argues that participation is not equally informed, general interest disguises particular interests, and rational evaluation refers to an implicit normative position. Thus, the legitimacy of business and government institutions is unsubstantiated and illusory; yet, the process is effective to enact the power of these institutions.

Exploitation of environment. A fourth research stream within critical tradition highlights the intense exploitation of environment by private business companies (Marshall and Goldstein, 2006; Shrivastava, 1995). Shrivastava (1995) proposes an ecocentric management approach to risk. He criticizes traditional management approach because of its narrow focus on production and a purely rational view of human and environment. Traditional approach overlooks the fact that natural environment is an integral part of human society. It is obsessed with

financial risk, which is basically a risk to a firm's commercial existence. In contrast, ecocentric management is oriented to sustainability and quality of life rather than economic growth and company profit. Shrivastava (1995) suggests a paradigmatic shift based in natural environment to manage and minimize risks mostly produced by private business organizations.

Contributions and limitations. Critical organization research on risk looks into socio-cultural and political contexts in which organizational risk is constructed by social actors. It examines relations of inequality and power between social actors within those contexts and the effect of those inequalities on social actors' meanings and experiences of organizational risk. It overcomes the micro perspective of interpretivist research by analyzing socio-cultural and political macro structures. It emphasizes power of elites in imposing risks (Perrow, 1983, 1984, 2006), role of social class structure in risk distribution (Perrow, 1984, 1999), capitalist economy as a system of risk production and imposition (Gephart and Pitter, 1993), legitimacy need of social institutions in the face of increasing risks (Brown, 2000, 2003), and business firms' environmental exploitation and ecocentric management of risks (Shrivastava, 1995). Despite these contributions, critical organizational research has three limitations.

First, the research is mostly at the macro level. It includes some studies looking at individual-level processes (Brown, 2003; Topal, 2009); but the research generally neglects interactional processes, in and through which social actors experience the effect of macro level institutions on their risk meanings. Second, critical research is rarely attentive to social actors' attempts to develop

and reproduce risk meanings through a communicative rather than a power relationship (e.g. Ehrenfeld, 1996). Yet, there might be communicative mechanisms, which lead to common risk understandings in some contexts (Baccus, 1986; Roberts et al., 2007). Lastly, critical organizational research, like interpretivist research, fails to analyze the meaning construction process of risk in its complexity and multiplicity. It addresses the role of particular institutions such as social class structure (Perrow, 1984) and capitalist economy (Gephart and Pitter, 1993) and does not provide a multi-faceted perspective that facilitates analysis of different socio-cultural processes and institutions.

Socio-cultural theories. The limitations of critical organization research on risk can be addressed partly by socio-cultural theories of Jurgen Habermas, Michel Foucault, and Ulrich Beck, who are in the same tradition (Fox, 1999; Harrington, 2005; Lupton, 1999a; Wuthnow et al., 1984). Foucault and Beck provide two of the major approaches used in socio-cultural risk studies (Dean, 1999; Ericson and Haggerty, 1997; Fox, 1999; Gephart, Van Maanen, and Oberlechner, 2009; Lupton, 1999a, 1999b; Tulloch, 1999; Zinn and Taylor-Gooby, 2006a). Habermas' theory is increasingly applied to organizational risk (Ehrenfeld, 1996; Gephart, 1992, 2007; Gephart and Pitter, 1993).

Jurgen Habermas: legitimacy, rational-purposive action, and communicative action. Jurgen Habermas is a German philosopher and social theorist (Harrington, 2005). Communication, democracy, universal political values, and public sphere are the main subjects of his work (Wuthnow et al., 1984). Habermas's theories are increasingly applied to the domain of

organizations (Crossley, 2003; Samra-Fredericks, 2005; Scherer and Palazzo, 2007) and organizational risk (Gephart, 1992, 2007; Topal, 2009). The concepts derived from Habermas, which might help understand the process of risk construction, are legitimacy, rational-purposive action, and communicative action.

Legitimacy. “Legitimacy means that there are good arguments for a political order’s claim to be recognized as right and just” (Habermas, 1979: 178). This recognition results in a mass loyalty from individual citizens and provides a society with stability and adaptability (Wuthnow et al., 1984). For Habermas, legitimacy is a claim that can be made only by the state, not corporations for example (Wuthnow et al., 1984).

Legitimacy is an ongoing problem for the state in capitalism. The problem of legitimacy is based in the fundamental contradiction of capitalist economic system that creates a tendency for profit rates to decrease (Habermas, 1975; Gephart and Pitter, 1993). Capitalism depends on exploitation of human and natural resources to create profit. Yet, it also has to create a capacity for the same human beings to reproduce and consume so that production can continue and be transformed into profit. This contradiction leads to economic crises when the exploitation is intense and creates an overproduction that cannot be consumed and turned into profit (Habermas, 1975). At this point, the state, which is supposed to be neutral, intervenes in the economy for the sake of business profits. Rationality crises arise when the state is unable to reconcile the interests of capitalist and labor classes because of fiscal and ideological constraints and it is revealed that the state mainly serves capitalist class in its intervention (Habermas, 1975). For

example, the state allows hazardous projects to proceed while it does not provide adequate safety standards, which might reduce business profits, and exposes both workers and ordinary citizens to health risks.

Economic and rationality crises are turned into motivation crises (Habermas, 1975). This is because the economic system does not provide adequate rewards or standards while the political system no longer seems to be neutral. Therefore, people lose their motivation to participate in familial and vocational life and to perform their civic duties (Gephart and Pitter, 1993). For example, people might avoid working in those hazardous projects. They might be unconcerned about general elections, which seem to give them no power over the business and its risky projects. Motivation crises in the socio-cultural system combined with rationality crises in the political system lead to legitimization crisis in which the state loses citizens' mass loyalty (Habermas 1975). Exploitative class relationship disguised behind supposedly neutral economic system is revealed and the state loses its position that seems independent of any social class.

Therefore, the problem of legitimacy arises from the state's contradictory roles to steer capitalist economy and business and to support and protect citizens against economic, health, and environmental risks created by the business (Wuthnow et al., 1984). The state depends on tax revenues from the business to realize its social functions for citizens, and on citizens' continuing recognition and loyalty to realize its steering functions for the business (Habermas, 1975).

To survive this contradiction and address the problem of legitimacy, the state separates its legitimization function from administrative function and tries to

reconstruct the sense of independence from particular interests (Habermas, 1975). The state provides mechanisms such as public hearings for citizens to participate in its decision-making process (Habermas, 1989, 1996); however, it avoids substantive participation of individual citizens and makes decisions in the name of an abstract mass of citizens (Habermas, 1975). Hence, existing forums are basically a context of justification for rather than deliberation on risks produced by capitalist business (Habermas, 1996).

Rational-purposive action. Habermas (1979, 1984) differentiates between two types of action including rational purposive and communicative actions. Rational-purposive action is goal oriented. It seeks to achieve particular individual goals by using, manipulating, and controlling material objects, resources, and other people (Wuthnow et al., 1984). Its two subtypes are instrumental and strategic actions (Habermas, 1984). The former is purely nonsocial; other people are considered as objects for certain ends. The latter is social; other people are considered as rational actors whose behaviors and decisions should be manipulated. Rational-purposive action is evaluated on efficiency of and consistency among means to accomplish goals. Knowledge is true if it works in manipulating the material world and controlling people for certain goals. For example, risk management practices can be considered as rational-purposive actions when they are based on efficient organization and manipulation of human (e.g. safety personnel) and material (e.g. monitoring devices) resources to address risks. Social actors might also develop a common

understanding on those risk management practices as well as risks through communicative action, which is the second type of action.

Communicative action. Communicative action is oriented to mutual dependence and consensus (Wuthnow et al., 1984). It seeks to convey meanings, expectations, and intentions and to develop an agreement on or a common definition of issues in question. It is a purely social action with the purpose of understanding. Communicative action is culturally shaped. Its validity depends on whether individuals are able to truthfully and sincerely express their thoughts by recognizing the background consensus on communication norms and engaging in critical reflection. Effective communicative action occurs when social actors are able to use four types of speech acts without being constrained (Gephart, 2007; Habermas, 1979; Wuthnow et al., 1984). First, constative speech acts claim to be true or factual; they refer to the world of external nature. Second, regulatives claim to be legitimate; they refer to the world of society and culture. Third, representatives claim to be sincere or truthful; they refer to the internal world of individual. Lastly, communicatives claim to be comprehensible; they refer to the domain of language.

Michel Foucault: power, discourse, and subject position. Michel Foucault is a French philosopher and historian (Harrington, 2005). He worked extensively on the role of power, knowledge, and discourse in the Western civilization. He analyzed the functions of social institutions, natural and social sciences, and language in defining and disciplining individuals (Wuthnow et al., 1984). In organizational research, an increasing number of studies apply the

theories of Foucault (Brocklehurst, 2001; Clegg et al., 2002; Townley, 2003), which have not been applied to organizational risk yet. The concepts derived from Foucault, which might help understand the process of risk construction, are power, discourse, and subject position.

Power. Power is a central concept in Foucault (1980, 1988b, 1990, 1995, 2003c). In its simplest form, power is “a relationship in which one person tries to control the conduct of the other” (Foucault, 2003b: 34). In a power relation, social actors try to control the way other actors think and behave so that certain ends can be met (Foucault, 2003a). Yet, power relations do not refer to a simple imposition of a social actor’s will on others. The control occurs through certain systems of knowledge or discourses and associated subject positions formulated in those discourses. Power relations are embedded within the systematized knowledge about individuals with respect to a certain phenomenon such as risk and dominant or subordinate subject positions, to which social actors are assigned on the basis of that systematized knowledge. For example, risk regulations are a system of knowledge or discourse through which some actors are constructed as legitimate risk producers and regulators and some other actors are constructed as being exposed to fair amount of risk. Thus, based on the regulatory knowledge, a power relation occurs between those who produce and regulate risks and those who are exposed to and resist risks.

Social actors do not try to repress what others think and behave but to render them productive in terms of thoughts and behaviours in line with certain goals. However, this non-repressive aspect of power relations opens up

possibilities for social actors to develop actions in opposition to those goals (Castel, 1991; Foucault, 1980, 1988a, 1988c, 1990). While power relations impose a particular set of actions on social actors, there are other actions, responses, reactions, or inventions available for the actors who have more or less freedom to deviate from the norm (Foucault, 2003c). Hence, the existence of power indicates also the existence of resistance, which is to oppose the attempts of control by using relative freedom of action available in a power relation (Foucault, 1988a, 1988c, 1990).

Discourse. Power relations are based on particular discourses on individuals and their actions (Foucault, 1980, 1990, 1995; Lupton, 1999a, 2006). A discourse is a particular construction and objectification of individuals and their relations with respect to a phenomenon such as participation in public hearings (Foucault, 1980). For example, a discourse on public hearings defines which actors may participate and what actions are proper in the hearing. A discourse also outlines the grounds of knowledge production, showing which techniques or procedures must be used to produce valid knowledge (Lupton 1999b). It provides an organized way of understanding and evaluating a phenomenon (Lupton, 2006). A regulatory discourse implies that evidence in a public hearing must be produced in line with regulatory procedures. Evidence should be first evaluated in terms of whether those procedures are actually followed.

Discourses are a source of control. Expert-based discourses including government regulations and scientific disciplines are a source of power especially for regulatory and scientific experts. Experts set norms and develop practices and

institutions by collecting, examining, and systematizing knowledge about a certain phenomenon such as risks produced by organizations (Lupton, 1999a). This knowledge is objectified in discourses as in regulatory discourse on organizational risks. Regulations turn out to be an objective source of knowledge institutionalized, monopolized, and used by regulators to evaluate risks, justify their decisions on hazardous organizational projects, and intervene in the relations of social actors involved in or affected by those projects. Regulatory discourse thus leads to the domination of regulations over lay knowledge and discourses as a risk assessment framework and of regulators over ordinary citizens as a risk assessor although other actors including citizens develop alternative discourses to resist these control attempts.

Subject position. Social actors occupy particular subject positions when engaging in a power relation (Foucault, 1980; Foucault, 2003c). A subject position is a category of individuals with respect to a norm, which experts set and formulate in related discourses on a phenomenon (Castel, 1991; Foucault, 2003d). It refers to a dominant or a subordinate position depending on the nature of the relation. Experts evaluate individuals, and assign different subject positions to them according to the norm (Castel, 1991; Lupton, 1999a, 2006). For example, regulators of risky organizational projects distinguish between organizations and other actors, the former as an actor producing risks and the latter as an actor concerned about risks. They assign the applicant position to the former and the intervener position to the latter in public hearings into risks. Social actors are expected to participate in public hearings and act in line with their positions as

formulated in the regulatory discourse. They make themselves subject to the power of regulators (Lupton, 1999a) although they develop alternative discourses on their positions in opposition to that power as well as to the power of other social actors involved in the relation.

Ulrich Beck: risk society, techno-scientific rationality, and individualization. Ulrich Beck is a German sociologist. He is a theorist of risk, risk society, reflexive modernization, individualization, and globalization (Harrington, 2005). Beck's theories are increasingly used in organizational research (e.g. Cooper, 2008; Hoogenboom and Ossewaarde, 2005; Malenfant, 2009; Shrivastava, 1995). The concepts derived from Beck, which might help understand the process of risk construction are risk society, techno-scientific rationality, and individualization.

Risk society. Beck defines risk society as “a developmental phase in which social, political, economic, and individual risks increasingly tend to escape institutions for monitoring and protection in industrial society” (1994, 5). The attempts to prevent or minimize risks lead to more risks (Beck, 1992). Beck suggests “industrial society systematically produces its own endangerment and a questioning of itself through multiplication and economic exploitation of hazards” (1992, 57). Risk becomes the main characteristic of industrial society (Beck, 1992; Beck and Holzer, 2007) and the main product of economic activity (Beck, 1992, 1999). In fact, industrial and economic activities of business organizations are considered one of the main risk sources (Beck, 1992, 1994). Competitive pressures and ineffective government regulations further facilitate the emergence

of new unpredictable risks (Beck, 1992). Safety becomes the new ideal as individuals live with a variety of global and personal risks (Beck, 1994).

Economic activity was automatically legitimated in the past by the belief in economic and technological progress, which is rooted in science. This belief no longer holds since resulting risks are increasingly revealed (Beck, 1992). Rather, social actors develop a critical attitude towards economic activity and associated risks. They question and counter adverse consequences of modern institutions including private business, parliamentary democracy, technology, and science, and their inability to prevent or mitigate those consequences. In fact, risk society is characterized by social actors' systematic critical evaluation of these institutions with analytical tools provided by the same institutions (Beck, 1992, 1994, 1999). For example, scientific skepticism is now directed to the very foundations of science (Beck, 1992). With the critical attitude of social actors, there arises a public demand for forums of consensus-building and co-operation among the actors of industry, government, science, and public with respect to economic activities and associated risks, which now need to be legitimated through those public forums (Beck, 1992, 1994, 1999; Beck and Holzer, 2007).

Techno-scientific rationality. The critical attitude of public towards economic activity and development of public forums result in the emergence of a variety of risk meanings, which represent different values and interests including those of the lay public. Consequently, the monopoly of science and of techno-scientific experts in defining risk is weakened (Beck, 1992, 1999). However, the dominance of techno-scientific rationality does not disappear.

Techno-scientific rationality refers to the analytical perspective based on institutionalized scientific methods as used by scientific experts. Risks deepen dependency on scientific experts and professionals for solutions to risks (Beck, 1992). In fact, risks are less likely to be recognized if they are not established through techno-scientific rationality. Thus, different groups within business, government, and public utilize the service of techno-scientific experts to support their risk definitions. A market emerges to sell scientific expertise to these groups (Beck, 1992). The experts produce alternative explanations, which are claimed to be scientific and compete with one another and which represent the interests of the patrons (Beck, 1994). Nevertheless, they all utilize and reproduce techno-scientific rationality as the main instrument. In fact, “the risks emerging today are distinguished by their particular scientific constitution” (Beck, 1992: 154).

Individualization. Beck argues that one of the main characteristics of risk society is individualization (Beck, 1992, 1994, 1999). Individualization is defined as a way of life in which “the individuals must produce, stage, and cobble together their biographies themselves” (Beck, 1994: 13). In the process of individualization, individuals are considered as responsible for managing risks including those they are exposed to due to economic activities of business organizations. Systemic problems and risks are transformed into personal responsibility and failure. Unequal and unfair distribution of risks becomes an individual problem (Beck, 1992). With the disintegration of certainties and protections of the welfare state, individuals have to confront the risks of industrial society mostly on their own and try to develop their own solutions. Individuals

exposed to the same risks form political and social alliances that are temporary and localized to address those risks and protect their self-interests (Beck, 1994).

Summary and research questions. Critical organization research focuses on and provides valuable insights into socio-cultural and political contexts of the construction process of risk meanings. The research has three limitations. It has a partial understanding of micro-level social interactions in and through which social actors construct their risk meanings, its insights into communicative processes of risk construction is limited, and it does not provide a framework that can analyze the complexity and multiplicity of risk construction process. Socio-cultural theories of Habermas, Foucault, and Beck provide nine concepts including legitimacy, rational-purposive action, communicative action, power, discourse, subject position, risk society, techno-scientific rationality, and individualization. These concepts can help address the limitations of organizational research and extend organizational theory on risk.

First, the concepts of communicative action, power, discourse, and subject position refer to micro-level social relations and can be used in a micro-level analysis. Hence, “communicative action” can help analyze communicative interactions, through which social actors try to develop a common understanding of organizational risks. “Power” can help understand the role of confrontational interactions between social actors in risk construction. “Discourse” can help look into how social actors develop and utilize certain understandings of roles and procedures in risk construction settings to support their risk meanings and oppose others. Similarly, “subject position” can help examine how social actors take on

and utilize certain roles in risk construction settings to promote their risk meanings and oppose other meanings.

Second, the concepts of communicative action and risk society refer to the role of communication processes and can be used in analyzing them.

“Communicative action” and the related framework of speech acts can help look at how risk meanings can be constructed and reproduced in a communicative rather than confrontational way. The analysis might highlight how social actors use four types of speech act to develop common risk meanings. “Risk society” can help understand the role of societal context in the increasing importance of communication processes as the concept indicates that decisions on economic activities and related risks are now subject to negotiations between business, government, and public actors in public forums.

Third, the concepts can be useful in producing additional insights into how social actors give meaning to organizational risk and thus a more inclusive framework of the process of risk construction. They refer to different relations and institutions that are important in the process. For example, “legitimacy” can help study why government actors are involved in the meaning construction process of organizational risk and how they make use of the process to justify their decisions on economic activities and risks. “Rational-purposive action” can help understand how social actors give meaning to and utilize risk management plans and practices as rational actions that can address risks. “Techno-scientific rationality” can help analyze the role of technical and scientific frameworks that are still important for some actors in risk evaluations. Lastly, “individualization”

can help look at the process of how individual social actors are constructed as responsible even for risks produced by organizations. The concepts are also useful because they refer to more general and abstract frameworks than existing insights in organizational literature. Thus, they can be used to look for similarities between existing insights and bring them together within a more general perspective on the construction process of organizational risk. In order to utilize the concepts in developing additional insights into the process of risk construction and in addressing the limitations of organizational literature, I propose the following questions:

5. How do government actors legitimate their decisions on organizational projects and risks?

6. How do social actors use rational-purposive and communicative actions to give meaning to an organizational project as an organizational risk?

7. How do social actors engage in power relations and utilize different discourses and subject positions in those relations in the process of giving meaning to organizational risk?

8. How do social actors experience and reflect the context of risk society and related phenomena of techno-scientific rationality and individualization in the meaning construction process of risk?

Summary

The section provides a summary of the review. The goal is to reemphasize the limitations of organizational literature on risk and the utility of socio-cultural theories in addressing the limitations and extending organizational theory on risk.

Positivist organization research on risk assumes risk preexists as a reality. It neglects socio-cultural processes of risk construction. In contrast, interpretivist organization research focuses on socio-cultural processes. Yet, it has three limitations. First, it is conducted mostly at the micro level of interactions, ignoring the macro level of institutions. Second, political processes and power relations are given limited attention. Third, it fails to address the complexity of the process of risk construction. Unlike interpretivist research, critical organization research partly looks into the role of macro level institutions and political processes in risk construction. Yet, it has also three weaknesses. First, it mostly ignores micro level interactions, through which social actors experience the effect of macro level institutions. Second, critical research is rarely attentive to communicative relations used to construct organizational risk. Third, like interpretivist research, it fails to develop a general perspective that addresses the complexity of the process.

The limitations of organizational research can be addressed through socio-cultural theories and concepts. First, the concepts refer to both micro level interactions and macro level institutions and processes. Therefore, they can be used to analyze both the effect of societal institutions on interactional processes of risk construction and the role of social interactions in realizing the effect of social institutions. Second, the concepts also refer to both power relations and relations of communication. Hence, they can help analyze both the political process of risk construction in which social actors try to control one another's risk meanings and communicative processes in which social actors try to develop common risk

meanings. Third, the concepts can also be used to address the complexity and multiplicity of the meaning construction process of organizational risk as they refer to different relations and institutions that have an important role in the process. Thus, they can extend organizational research and theory on risk. The research questions help utilize the concepts in addressing the limitations of organizational literature and extending organizational research and theory. The next chapter develops a research methodology to address the questions and produce insights into the construction process of organizational risk.

Chapter 3

Methodology

This chapter describes the methodology used in this study. I explain the rationale for the methodology, the methods used, the general qualitative approach employed, the research setting and data, and the specific procedures used in the analysis.

Research Design

This study used a qualitative research design. This design is an appropriate choice to the research focus of the study - the meaning construction process related to organizational risk. First, the goal of this study is to understand how meaning is given to organizational projects that produce organizational risk and to understand how key stakeholders experience organizational risks (Gephart and Pitter, 1993; Habermas, 1975). Qualitative research is appropriate because it focuses on social processes and meanings as they emerge or occur in their natural settings (Denzin and Lincoln, 2000; Gephart, 2004a; Silverman, 2000), examines social actors' experiences and views of the world, and explores how social actors give meaning to social phenomena (Denzin and Lincoln, 2000). Experiences, statements, and actions of social actors are difficult to capture and describe without using qualitative data.

Second, the study seeks to develop a theory of the construction process of organizational risk. Qualitative design is suitable for this objective as it allows the researcher to analyze social actors' meanings of social phenomena as a basis to explain and construct a theory of their experiences. In qualitative research,

situational meanings are related to theoretical concepts, which are shown to operate in particular empirical worlds of social actors (Gephart and Pitter, 1995). Qualitative research “builds social science constructs from members concepts” (Gephart, 2004a: 455) as they emerge in natural settings.

Third, understanding a social process and actors’ meanings requires a flexible and evolving research design - an emergent process that develops and evolves with the analysis of the data. Qualitative research provides flexibility to accommodate the changes (Glaser and Strauss, 1967; Van Maanen, 1998) since it “is often designed at the same time it is being done” (Gephart, 2004a: 455). Thus, a qualitative design is open to new possibilities in the analysis and allows their integration into the results, leading to rich descriptions and insights.

Lastly, the study’s theoretical framework discussed in Chapter 2 reflects the assumptions of interpretivist and critical research traditions, which generally employ qualitative research methods (Gephart, 2004a). Interpretivist research emphasizes situated meanings, is oriented to understanding and describing social actors’ meanings, and focuses on systematic divergences in meanings (Gephart, 2004a). It is a core paradigm for qualitative research with its central focus on meanings and their construction processes. Critical research analyzes socio-political conditions and ideologies and associated interests, focuses on social inequalities and contradictions, and has a practical goal of social transformation (Gephart, 2004a). Qualitative research is in line with the focus of critical studies on ideologies, hidden interests, and social conditions of inequality, all of which refer to collective meanings and/or social construction processes of meanings.

Research Site

The study focused on the public hearing into the Petrofund Corporation's application to the Alberta Energy and Utilities Board for a license to drill an oil well, which contains sour gas, in a residential area in Edmonton, Alberta (AEUB, 2005a, 2005b). The hearing was held on May 3-4, 2005. In this section, I describe how this hearing is suitable as a site to explore the issues addressed in this study.

Public hearings in general. Public hearings and inquiries are “a ceremonial event organized by a government agency that assembles persons’ knowledge” on an organizational project or accident with “the goal of producing native accounts” (Gephart, 1993: 1474). They are held in a city or town near the contested development site and are conducted within a specified time period. The hearing process is administered by a governmental board. Social actors’ participation and statements are guided and facilitated by legal counsels. Social actors give their testimony as witness through direct and cross examinations. Public hearings and inquiries generally produce two major documents: 1) an official government report and 2) a proceedings document including social actors’ testimonies (Gephart, 2007).

Public hearings are an important source of empirical data about organizational risks (Brown 2000, 2003; Gephart 2007; Hynes and Prasad, 1997; Turner 1976; Vaughan 1990; Wicks, 2001). They provide rich and in-depth information about how social actors understand social and economic issues including organizational projects and associated risks (Gephart, 2007). Social actors produce detailed native accounts of their understanding of key issues

within hearings (Gephart, 1993, 1997). Thus, public hearings are an important source of insights into social actors' meanings of organizational risks (Gephart, 2007), which are the focus of this study.

Specific hearing analyzed. The hearing into the Petrofund's project has three additional features, which make it suitable for this study's research focus.

Sour gas project. The hearing is about an oil well that contains sour gas. Sour gas is a highly hazardous substance (Evans, 2005; Gephart, 1997; Nikiforuk, 2002). It is as poisonous as cyanide (Nikiforuk, 2002). Low level exposure to sour gas (1-10 parts per million) for a long time can result in nausea, eye irritation, headaches, and loss of sleep (ERCB, 2010a). There are studies proposing that the long-term exposure to low-level sour gas might be related to abortions and birthing problems, and other health problems in livestock, respiratory infections, pneumonia, stillbirth, endometriosis, asthma, and neurological problems in humans, problems in soil fertility, and contamination of water reserves (Evans, 2005; Keeling, 2001; Nikiforuk, 2002). Higher level exposures (150 and more parts per million) can result in unconsciousness, memory failures, pulmonary edema, loss of smell and blindness, heart failures, and death (ERCB, 2010a; Evans, 2005; Milby and Baselt, 1999; Nikiforuk, 2002).

The proposed well in this project is estimated to contain sour gas at a concentration of 11000 parts per million (AEUB, 2005c), which is significantly higher than the fatal level, 750 parts per million (ERCB, 2010a). Therefore, the hearing deals with a proposed development that could put lives at risk. The company employees working for the project and the residents living close to the

project are at risk in the event of a sour gas release from the well. Thus, social actors' awareness of and sensitivity to the organizational risks of the proposed project are expected to be higher in the hearing than in other hearings into a low-risk project where human lives are not in danger (Keeling, 2001; Nikiforuk, 2002). As a result, the hearing can provide rich and detailed data about social actors' understanding of risks.

Project location. The proposed well is to be placed in a residential area in Edmonton (AEUB, 2005a, 2005b). There are several residences close to the well. A group of residents live within 0.8 km distance and a second group live within 1.5 km distance from the well. There is another sour oil well in the area operated by the same company and it is 0.5 km away from the second group of residents who consider this existing well part of the proposed project and a source of concern. Also, the project is within the corporate limits of Edmonton, which is the second largest city of Alberta with a population of over 900,000. Given the existence of several nearby residences and closeness to a major urban center, the consequences of a sour gas release from the wells might be dangerous if not disastrous. This again indicates that the risk is significant and the hearing is likely to be insightful in terms of social actors' meanings of organizational risk.

Project stakeholders. The hearing involves different stakeholders that represent key social institutions and groups including business, government, and public (Gephart, 1993; Gephart and Pitter, 1993, 1995; Habermas, 1975). The applicant is Petrofund Corporation, a private corporation. The public is represented by two resident groups and a non-resident landowner. The hearing is

organized by the Alberta Energy and Utilities Board, a provincial government agency. The representatives of the City of Edmonton, the municipal government organization, are also in attendance. Thus, the hearing allows exploring and understanding risk meanings of these groups who, as argued in past research, hold different rationalities (Gephart 1984; Gephart, Steier, and Lawrence, 1990; Tsoukas, 1999). Table 3.1 identifies the stakeholders in the project and public hearing. Identities of witnesses and officials are also noted.

Table 3.1 Stakeholders in the Project and Public Hearing		
Organization or actor	Abbreviation	Key members in the hearing
Petrofund Corporation	Petrofund	<i>Witnesses</i> Mr. Cronin (vice president, production), Mr. Strong (vice president, geosciences), Mr. Lemermeyer (manager, production operations), Mr. Tidmarsh (manager, environmental health and safety), Mr. Van Tetering (manager, production engineering), Mr. Gibson (management consultant), Mr. Hemstock (management consultant), and Mr. Morrison (vice president, operations, Tristar Resource Management Limited) <i>Legal counsel</i> Mr. Miller
City of Edmonton	City	<i>Witnesses</i> Ms. Ainsley and Mr. Black
West Edmonton Landowners Group	WELG	<i>Witnesses</i> Mr. and Mrs. Gotaas, and Mr. Sulyma <i>Legal counsel</i> Mr. Bodnar
River Heights Group	RHG	<i>Witness</i> Ms. Hazlett
Dr. S. P. Singh	Dr. Singh	<i>Witness</i> Dr. Singh <i>Legal counsel</i> Mr. Engelking
Alberta Energy and Utilities Board	AEUB or the Board	<i>Hearing Board</i> Mr. McGee (chairman), Mr. Sharp, and Mr. Boyler <i>Legal counsel</i> Mr. Perkins

Provincial government. The Alberta Energy and Utilities Board¹ (AEUB or EUB or the Board) was the agency that represented the provincial government in the hearing. The Board regulates oil and gas developments in Alberta and holds public hearings (ERCB, 2010b) as an independent agency delegated authority by the provincial government. Its mission is “to ensure that the discovery, development and delivery of Alberta’s energy resources take place in a manner that is fair, responsible and in the public interest” (ERCB, 2010b).

Municipal government. The City of Edmonton is the capital city of Alberta with over 900,000 residents. Both Alberta and Edmonton have an oil-based economy (Keeling, 2001; Nikiforuk, 2002). Their economies were booming in recent years due to the oil and gas industry until the recent global economic crisis. The City intervened in the application process because the proposed well would be located within its corporate limits and the City examines oil and gas applications within its limits to ensure operators have proper emergency plans. The City also sought to limit the duration of the operations in the area of the well that might affect future residential development.

Company. Petrofund Corporation, a Calgary-based oil and gas company founded in 1988 (Petrofund, 2005), was the project applicant. At the time of the hearing, Petrofund was an independent business entity with operations in Western Canada, mainly in Alberta and Saskatchewan². Petrofund had a

¹This agency was then replaced by the Energy Resources Conservation Board (ERCB), which has the same functions, in 2007 after the reorganization of regulatory institutions.

²The company produced oil, natural gas, and natural gas liquids with a total production of 11.5 million barrels of oil equivalent in 2004 (Petrofund, 2005). Petrofund’s revenue for the same period was about \$517 million with a profit of \$74 million. Its total proved plus probable reserves were 141.6 million barrels of oil equivalent at the end of 2004.

strategy of growth and had recently acquired Ultima Energy trust for \$563 million in 2004. Petrofund was acquired by Penn West Petroleum Limited, another Calgary-based operator, in June 2006 (Penn West, 2010). Petrofund was represented by its legal counsel, K. F. Miller, in the hearing.

Residents' groups and Dr. Singh. West Edmonton Landowners Group (WELG) was the first intervener group with residents living in the area. The group consisted of the following individuals: B. Sulyma, the Sabulkas, A. Owczarek, J. Traxler, the McFadyens, the Gotaases, and the Novaks. The residences of most WELG members were more than 1.5 km away from the proposed well (AEUB, 2005a: 394). River Heights Group (RHG) was the second intervener group of residents; the group later withdrew its objection to the application. It included the Hazletts, D. Rowand, the D'Alquens, K. Okrainetz, B. Karesa, H. Flewwelling, L. Poulette, and D. Motz, who all were formerly members of WELG. The RHG residents were closest to the proposed well (AEUB, 2005a: 72). Their residences were about 0.8 km away from the well site. Dr. S. P. Singh, a non-resident intervener, is a landowner with plans to build residences on his land to live and possibly sell (AEUB, 2005a: 418). His land was closest to the well and less than 200 meters away (AEUB, 2005a: 183).

Data Sources

This section discusses the data used in the study. The data come from the public hearing into the Petrofund's application to the AEUB for an oil well project in Edmonton, Alberta (AEUB, 2005a, 2005b). I attended and observed the hearing for two days, undertook short informal interviews with the people in

attendance, and made notes about my observations in the hearing. Later, I obtained the transcripts of the proceedings and the decision from the AEUB.

There are four sources of documentary data as described in Table 3.2.

Table 3.2 Data Sources	
Type of data	Description
Hearing proceedings	564 pages Involves minute-by-minute statements of the stakeholders in the hearing into the Petrofund's application Recorded on May 3-4, 2005
Hearing decision	21 pages Involves the discussion and decision of the AEUB on the application Released on July 28, 2005
Application registry	2 pages Involves the timeline of events from the registration to the approval of the application Accessed in January 2010
Hearing notice	1 page Announces the hearing to the public, explains the nature of the application, and invites the interveners and concerned parties Issued on January 4, 2005
News release for decision	1 page Announces the approval decision of the AEUB to the public Released on July 28, 2005
AEUB's action plan	1 page Explains the status of emergency response plan exercise, which was the condition of the Board's approval Completed on September 20, 2005
AEUB's cost order	8 pages Involves the AEUB's discussion of and decision on the interveners' cost claims for participating in the hearing Issued on April 19, 2006
Field notes	6 pages Involves the notes about the researcher's observation of the hearing and informal talks with the stakeholders Recorded on May 3-4, 2005

The main source is the 564-page official proceedings of the public hearing (AEUB, 2005a) that provides a complete official record of the testimony at the hearing. The second document is the 21-page official decision of the Board (AEUB, 2005b) that includes the Board's evaluation of the company's application and its conclusion. The third source includes a range of supplemental documents.

It includes application registry showing the dates of major events such as objections (ERCB, 2010c), hearing notice to potential interveners (AEUB, 2005c), the AEUB's news release about its decision (AEUB, 2005d), the Board's action plan after the approval (AEUB, 2005e), and the Board's cost order for the company to pay for participation costs of the interveners (AEUB, 2006). These documents are important to understand the history of the public hearing event. The fourth source includes field notes about my observations of the hearing and short informal talks with the stakeholders during the hearing. These observations, notes, and informal statements help understand and familiarize with the actual hearing setting. These documents and notes provide detailed interpretations on the proposed project from the perspective of all stakeholders involved in the hearing.

Data Analysis

This section describes how I used specific qualitative methods in the analysis. The methods, based on grounded theory approaches (Charmaz, 2001; Glaser, 1978; Glaser and Strauss, 1967; Strauss, 1987; Strauss and Corbin, 1990) and the textual approach (Gephart, 1993, 1997; Gephart and Pitter, 1995), are used to recover stakeholder meanings from the data and to develop a theory based on those meanings (Gephart and Pitter, 1995; Glaser and Strauss, 1967). The unit of analysis is the stakeholders' statements reproduced in the hearing documents. I use two qualitative analysis programs, Ethnograph 6.0 (Ethnograph, 2010) and TACT 2.1.4 (TACT, 2010), to facilitate the analysis. An overview of these programs is provided in appendix 1.

Before starting the analysis, I familiarized myself with the hearing data since this is important to determining whether the data is information-rich in terms of the study's research focus (Patton, 2002; Stake, 2000) and whether diverse views of different societal groups are represented (Gephart and Pitter, 1995). Below, I describe how the analytical process unfolded after I developed an initial understanding of the data.

Step 1: Developing substantive codes. The first phase of the analysis is open coding of the complete hearing proceedings and decision to develop substantive codes (Glaser, 1978; Strauss, 1987; Strauss and Corbin, 1990). A code is a first-order label used to represent the issues in the data (Charmaz, 2001; Glaser, 1978). A code is substantive in that it is generally one of the actual words used by stakeholders. Open coding is a process of breaking down and categorizing the data (Strauss and Corbin, 1990). It is used “to generate an emergent set of categories and their properties which fit, work, and are relevant for integrating into a theory” (Glaser, 1978: 56). Open coding is an unrestricted coding (Strauss, 1987). It produces a wide range of codes related to various issues in the data (Charmaz, 2001). At its early stages, the process produces several different codes. Then, the proliferation of codes slows down as the researcher begins to check whether existing codes can be used for new data (Glaser, 1978). The researcher modifies existing codes for a better fit with emerging data (Glaser, 1978; Pidgeon, Turner, and Blockley, 1991).

Open coding is conducted line by line (Charmaz, 2001; Glaser, 1978; Strauss, 1987). The researcher produces as many codes as possible to cover every

line of the data (Glaser, 1978; Glaser and Strauss, 1967). The researcher asks the question of what code can represent the phenomena in the data (Pidgeon et al, 1991). Codes should fit the data, to which they are assigned (Glaser, 1978; Pidgeon et al, 1991). They should reflect the content of the data. Yet, codes should not be highly specific (Pidgeon et al, 1991). While they should be substantive, they should also be general enough to allow comparisons between different parts of the data.

As suggested by Charmaz (2001), Glaser (1978), and Strauss (1987), I did line-by-line coding. I selected each segment of the data that addressed a particular issue and coded the segment with a word referring to that issue. A data segment here thus refers to a passage of data in which stakeholders discuss a particular issue and to which I assigned a code in line with that issue. A segment is similar to what Glaser and Strauss refer to an “incident” (1967, 105). For example, the segment of “Good morning ladies and gentleman” was selected and coded as “greetings”. Another example is “Let me just ask first off whether or not everybody can hear me. Can you hear me at the back”. The code word in this case is “audibility”. This coding process continued until all the lines of the documents were covered.

I developed several different codes to cover the issues in the data. This involved a process where new codes emerged and were used to extend or supplement the existing codes (Glaser, 1978: 56). Eventually, I moved from a comparison of different segments to a comparison of emerging segments and existing codes (Glaser and Strauss, 1967).

Open coding continued in parallel with the process of writing definitions for emerging codes (Pidgeon et al, 1991). I wrote a code definition for each code term by considering the particular issue discussed in a data segment. The definition sought to clarify the meaning of the code and explain why the code was assigned to that segment. For example, for the code “acceleration”, I wrote the definition “increase in the speed of recovery of oil reserves” because the issue discussed in the segment is how fast oil reserves in the area would be recovered. Code definitions were used to identify similarities between different codes, refine codes, and improve the fit between codes and data segments (Pidgeon et al, 1991). At the end of the process, 442 codes emerged. Code names and definitions can be found in appendix 3.

Step 2: Developing categories. A category is a conceptual element that stands by itself (Glaser and Strauss, 1967) and is a higher level code that includes several substantive codes (Charmaz, 2001). To develop categories, I looked at similarities between substantive codes and sought ways that the codes could be grouped (Glaser, 1978; Glaser and Strauss, 1967; Strauss and Corbin, 1990). Through similarities, the researcher can redefine a code to increase its generality and raise it to the status of category (Charmaz, 2001; Pidgeon et al, 1991). Second, stakeholders explicitly bring forward some issues as important (Gephart, 1997). In this hearing, the government decision explicitly stated four topics discussed in relation to the company’s application and in the analysis each of those topics was considered a category. Third, I examined common and frequent codes since the frequency of occurrence of a code offers potential clues about its

importance (Gephart, 1997; Pidgeon et al, 1991). An extensively thematized issue is more likely to be an important issue and can be designated as a category (Gephart, 1997).

Initially, I identified the codes that emerged as a separate code. These codes refer to the specific issues stakeholders discuss as independent topics of concern. For example, emergency response plan is a major concern stakeholders focus on and discuss as a separate issue. There were 65 such codes. Then, I looked at their frequencies (Gephart, 1997; Pidgeon et al, 1991) and stakeholders' explicit statements about their focus and concerns (Gephart, 1997). I then searched for and compared similar codes to develop higher level categories (Glaser, 1978; Glaser and Strauss, 1967; Strauss and Corbin, 1990). At the end of the process, I refined 65 codes into 33 general categories either by redefining existing codes or developing more general new codes. In addition to these 33 categories, I developed the category of "hearing setting" for the codes related to the public hearing setting. These codes refer to interactions within the hearing (e.g. request), hearing procedures (e.g. registration), and discussions on the hearing process (e.g. board's job). The names and definitions of these 34 categories are provided in appendix 4.

Step 3: Developing properties of categories. Next, the properties of categories were developed. A property is one of several attributes of a category (Glaser and Strauss, 1967; Strauss and Corbin, 1990) that refers to an issue raised by stakeholders in relation to that category. Properties begin to emerge along with categories (Glaser and Strauss, 1967). Similar substantive codes, which are

grouped to form a category, can later be conceptualized as a property of that category. Similarly, a category can later be conceptualized as a property of another category. The purpose of developing properties is to recover all the issues raised by stakeholders in a given category (Glaser and Strauss, 1967). The researcher compares and refines emerging properties (Charmaz, 2001). The refinement continues until categories are saturated; this is the point where no new property emerges and data segments begin to refer to existing properties for a given category (Glaser and Strauss, 1967; Glaser, 1978; Pidgeon et al., 1991). At this point “the category and its properties exhaust the data” (Glaser, 1978: 64).

Ethnograph was used to produce textual tables that include all the segments for each category (Gephart and Pitter, 1995). I reviewed each segment and noted emerging issues as well as former substantive codes regardless of repetition. These issues were considered as the properties of the category. Emerging properties were refined and integrated as the repeated and similar properties were combined (Glaser and Strauss, 1967). I wrote definitions for the properties to clarify the issues they refer to. The goal of this analysis was to develop as many distinct properties of the category as the data allowed (Glaser and Strauss, 1967).

Step 4: Developing key issues. The next step in the analysis was to refine categories to surface and understand key issues in the hearing (Glaser and Strauss, 1967). The purpose of developing key issues is to identify a smaller set of categories that are essential to understand the hearing and that can form the basis of a theory. A key issue is a higher-order category (Glaser and Strauss, 1967) that

refers to topics emphasized in stakeholder discussions (Gephart, 1993). Since it refers to key themes for stakeholders, a key issue is a basic element of the emerging model (Glaser and Strauss, 1967). A key issue is developed through comparisons that uncover “underlying uniformities in the original set of categories or their properties” (Glaser and Strauss, 1967: 110) and lead to “a reduction in the original list of categories” (Glaser and Strauss, 1967: 111).

To refine categories, I looked for similarities across categories and their properties (Glaser and Strauss, 1967). I also returned to the definitions of categories (Pidgeon et al, 1991). For example, the category “application” refers to the well development proposal of the company while “existing facilities” refers to the oil and gas facilities currently operated by the company in the same area. So, the stakeholders discuss whether the proposed project involves only the new well or also the existing facilities in the area. They try to define the project. Therefore, the categories of “application” and “existing facilities” were merged into the key issue of “project”.

Based on similarities between categories and properties, I reduced the number of categories and combined them into six key issues (Glaser and Strauss, 1967). These include Project, Concerns, Measures or Plans, Consultations, Actor Approaches and Ways, and Hearing Setting. Project refers to the proposed or existing activities of the company. It is the source of organizational risks and the core issue in the hearing. Concerns refer to potential adverse effects of the project on the health, environment, and wealth of the stakeholders. Measures or Plans refer to plans, strategies, actions, and steps, which the stakeholders propose to

address the concerns. Consultations refer to the stakeholders' attempts to communicate and resolve the issues of concern regarding the project and to develop an agreement on those issues if possible. Actor Approaches and Ways refer to the stakeholders' descriptions about their own or others' approach to the project and associated issues and about personal or group characteristics. Lastly, Hearing Setting refers to organizational context or setting, in and through which the stakeholders discuss the project and related issues. Among these issues, I considered project the central or core issue (Glaser 1978; Strauss and Corbin, 1990). It is the "main concern or problem for the people in the setting" (Glaser, 1978: 94) and "the central phenomenon around which all the other categories are integrated" (Strauss and Corbin, 1990: 116). Project is the reason why the hearing is held and the focus of the stakeholders. All other issues are related to project.

Step 5: Construction and analysis of data tables. Once the key issues were developed through grounded theory processes, I returned to these issues in an effort to understand their meaning and to show how the grounded analysis reflected patterns in the data. The complexity of the analysis that surfaced the key issues and the fact the analysis had become analytically distant from actual data led to the need to link the grounded analysis with the meanings of members in a more explicit manner. To accommodate this emergent need, I decided to return to the coded data segments and combine an interpretation of the coded segments with the data segments that actually used the key words of members that reflect the key issues analytically surfaced from the data. Thus I undertook an interpretive analysis of tables of data segments coded in grounded theory analysis

and combined them with an interpretive analysis of data segments that used members' key words.

Tables of data segments coded in grounded theory analysis. I

constructed textual tables that include the stakeholders' statements previously coded in the grounded theory analysis and then conducted a detailed interpretation of the statements (Gephart 1993, 1997; Gephart and Pitter, 1995). I used Ethnograph to retrieve and review all the data segments for each issue and stakeholder (Gephart, 1993; Gephart and Pitter, 1995). To represent and exemplify all the properties of a given issue for each stakeholder, I selected the segments that include rich and coherent discussions of the properties (Gephart, 1993). Thus, segment tables were constructed to help illustrate the link between the data and the properties, which emerged from and were used to represent the data. The segments in the tables were refined to include coherent statements of the stakeholders (Gephart and Pitter, 1995). The interpretation of these tables is described below. The tables can be found in appendix 5.

Key word tables. Next, I developed key word tables. A key word is a word, which is actually used by a stakeholder and which represents one of the six key issues (Gephart, 1993, 1997; Gephart and Pitter, 1995). It facilitates theoretically sampling stakeholder statements (Gephart and Pitter, 1995). "Theoretical sampling is a way to develop and elaborate a theoretically meaningful subset, or sample, of textual data for detailed analysis" (Gephart, 1993: 1468). It is conducted "on the basis of concepts that have proven theoretical relevance to the evolving theory" or of emerging key issues (Strauss and Corbin,

1990: 176). Thus, I used key words, which represent the key issues in the hearing to theoretically select the stakeholders' statements for a detailed analysis (Gephart, 1993; Gephart and Pitter, 1995; Glaser and Strauss, 1967).

Key words were used to better understand and represent the meanings of the issues from the insider point of view (Evered and Louis, 1981; Louis and Bartunek, 1992). The properties developed in grounded theory analysis provide a somewhat distant display of key issues in so far as they were developed from an outsider analysis: I was an outsider to the organizational setting and the properties were uncovered from this outsider point of view (Evered and Louis, 1981; Louis and Bartunek, 1992). As the researcher, I did not "become immersed in the stream of events and activities", which were out of my reach and yet formed the basis of the stakeholders' meanings (Evered and Louis, 1981: 389). I was not a member of any of the stakeholder groups and thus "an actor in real situations" (Evered and Louis, 1981: 389). I was detached from the actual context of the stakeholders' past experiences, which I tried to understand by attending the hearing, listening to the stakeholders' detailed testimonies, and reading various hearing documents. Thus my analysis was sensitive to surfacing general themes but was driven by a tacit concern to search for theoretically important properties that resonated with the prior theory and literature in the area.

The analysis of the statements, in which the stakeholders use key words that directly refer to the key issues, can result in an improved understanding of "the organization member's definition of the situation" (Evered and Louis, 1981:

390). Thus, I used key words to develop a key word table for each key issue and stakeholder (Gephart, 1997; Gephart and Pitter, 1995).

I developed a preliminary list of keywords by examining the data segments for each key issue, which I retrieved by using Ethnograph. This list included the words reflected in issues like “project” and related words that logically might be used by the stakeholders to describe the issue. Based on a detailed process³ I selected one or two keywords (and their plural forms) per issue and retrieved all the statements containing the keywords for a detailed analysis. I generally tried to utilize the issue names (e.g. project) as keywords. The resulting tables are in appendix 5.

Expansion analysis. The material in the tables was analyzed, following Gephart (1993, 1997) and Gephart and Pitter (1995), using an expansion analysis in which the researcher produces a written interpretation of data segments and stakeholder statements, and shows the relation between properties and key words, and the data. This analysis establishes the meaning of key issues (represented by properties and keywords) for stakeholders and highlights implicit background knowledge participants use to make sense of their interactions (Gephart, 1997).

In the analysis of data segment tables, I wrote an interpretation of how the stakeholders’ statements refer to the properties of a given key issue. I gave line numbers to refer to the segments and closely reflected the data in the analysis. I

³I added the plural form of the words to the list (e.g. project and projects) (Gephart and Pitter, 1995). I looked at their frequency of occurrence in the data by using the TACT word list and excluded those that occur rarely (Gephart, 1993). Through the TACT speaker-keyword displays, I examined whether a word is used by all the stakeholders in the hearing and excluded those that are used by one or two stakeholders (Gephart, 1993).

related the properties to the content of the segments to demonstrate how the properties are based in the data. I provided contextual information to clarify the relation. This analysis provided a means by which the key issues and their properties are grounded in the data.

In the analysis of keyword tables, I wrote an interpretation of meanings the stakeholders give to a given key word (Gephart, 1993, 1997). Again, I gave line numbers to refer to the statements and closely reflected the data in my interpretation for justification. I related the keyword to emerging themes in the statements to show what the stakeholders discuss in relation to the key issue represented by the keyword. Where the relation is not clear, I gave contextual information from the data (Gephart, 1993, 1997). The analysis developed a number of additional insights that complement and extend the coding analysis, which resulted in six key issues and their associated properties. It also substantiated the coding results as similar themes emerged in the analysis. In general, the analysis of the two tables established the meanings of the key issues for different stakeholders by highlighting the themes they discuss in the hearing (Gephart and Pitter, 1995).

Comparative analysis. Once each stakeholder's meanings of key issues were described through expansion analysis, I compared those meanings across stakeholders for a given issue (Gephart and Pitter, 1995). In order to understand on which bases the stakeholders' meanings can be compared, I looked for common themes the stakeholders emphasize in relation to the key issues in the hearing. I tried to understand what dimensions or aspects of the key issues the

stakeholders' different or similar meanings and interpretations refer to. For example, in the issue of "project", business and government stakeholders claim that the project includes the proposed well only. In contrast, a public stakeholder argues that the project includes or refers to both the proposed well and existing facilities of the company. Although these views are different, they refer to the same theme, the operational scope of the project. Therefore, operational scope emerges as a dimension, through which the stakeholders seem to develop their meanings of project, and similarities or differences between those meanings can be compared. Using these emerging dimensions in each issue, I returned to the results of the analysis of segment and keyword tables and compared the meanings held by different stakeholders. I highlighted similarities and differences between the stakeholders' understandings of the key issues and summarized my interpretations in comparative tables.

Step 6: Theoretical interpretation. Glaser and Strauss (1967) propose looking for and establishing similarities and convergences with existing theory once a model has emerged around key issues and properties. Similarly, other grounded theory researchers suggest weaving related literature together after the researcher has developed an empirical model based on the data (Charmaz, 2001; Glaser, 1978) and encourage the researcher to compare the emergent model with the literature. Gephart and Pitter (1995) define the process as theoretical grounding, in which the researcher links abstract scientific concepts to stakeholder meanings (Gephart and Pitter, 1995). Theoretical concepts that attempt to capture and analyze members' meanings are valid only if they can be

linked to everyday understandings and meanings of stakeholders (Gephart and Pitter, 1995). The concepts have dubious explanatory value when the linkages are not demonstrated to exist. It is those linkages that make a theoretical model emergent and grounded (Glaser and Strauss, 1967).

The empirical analysis pointed out an emergent model, which is based on six key issues the stakeholders in the hearing discuss and give meaning to. Thus, I looked into the possibility of whether and how I could relate the theoretical concepts developed in the literature review to the stakeholders' meanings of those key issues (Gephart, 1997; Gephart and Pitter, 1995). I returned back to the review and concepts, which I suggested can help understand the construction process of organizational risk. I reread the discussions on and definitions of the concepts thoroughly. I moved back and forth between the concepts and the results, noted relevant concepts, and wrote my interpretations. I tried to demonstrate whether and how the concepts are operative in the data or in the key issues (Gephart, 1997; Gephart and Pitter, 1995). In other words, my focus was to show whether and how the theoretical concepts are represented or reflected in the data (Gephart, 1993; Gephart and Pitter, 1995). By using the theoretical concepts, I developed propositions to express the relation between the data and the concepts when I was able to establish it. In those propositions I reconceptualized specific stakeholders as business, government, and public stakeholders because these refer to three key societal institutions or groups emphasized and explored in past research (Gephart and Pitter, 1993; Gephart et al., 1990; Habermas, 1975; Topal, 2009).

Overview of the Application Process and Public Hearing

The major event in the process was the hearing held on May 3-4, 2005. This section briefly describes the events before, during, and after the hearing. The purpose is to highlight the empirical context and give background knowledge for the analysis in the following six chapters. Table 3.3 provides a timeline of the events in the history of the application.

Events before the hearing. Petrofund applied to the AEUB for a license to drill an oil well, which contains sour gas, in the Armisic area within the city limits of Edmonton, Alberta on May 21, 2004. The proposed well was expected to contain hydrogen sulfide (H₂S) known as “sour gas” at the concentration of 1.1 % (AEUB, 2005a: 4). The emergency planning zone for the well would be 500 meters as determined by the AEUB regulations (AEUB, 2005b: 1).

The application triggered a number of interventions. The residents in the area formed WELG and applied to the AEUB to be an intervener on August 23, 2004 (AEUB, 2005b: 1). With the encouragement and supervision of the Board, the company (Petrofund) met with the residents a number of times between July and November, 2004 to resolve the issues regarding the application (AEUB, 2005b: 2). This process was called “appropriate dispute resolution” (AEUB, 2005b: 2), in which the stakeholders tried to resolve their disagreements so that the application would not be brought to a public hearing. In this period, the parties could not reach an agreement. Eventually, a split occurred among the residents and some residents formed RHG. RHG made a separate submission to the AEUB on April 8, 2005 (AEUB, 2005b: 1). Because of the split, WELG also had to

submit another application to the AEUB on April 8, 2005 (AEUB, 2005b: 1).

Also, the correspondences between Petrofund and Dr. Singh, a non-resident landowner in the area, did not result in an agreement. Dr. Singh made his submission to be an intervener on April 8, 2005 (AEUB, 2005b: 2).

Date	Event	Explanation
May 21 2004	Application of Petrofund	Petrofund Corporation applies to the AEUB for a license to drill an oil well in the Armisic Area in West Edmonton with the application number 1365474 (formerly 1346789).
July- November 2004	Appropriate Dispute Resolution	Petrofund and area residents meet a number of times to resolve their issues regarding the application.
August 23 2004	Submission of West Edmonton Landowners Group	West Edmonton Landowners Group applies to the AEUB to be an intervener in the application process.
January 4 2005	Hearing notice	The AEUB issues a notice about a public hearing into the application.
March 31 2005	City of Edmonton's letter to the Board	The City of Edmonton submits a letter to the AEUB and explains its support for the application.
April 8 2005	Second submission of West Edmonton Landowners Group	West Edmonton Landowners Group submits a new application to the AEUB to be an intervener after some of its members split and form the Riverside Heights Group.
April 8 2005	Submission of Riverside Heights Group	Riverside Heights Group applies to the AEUB to be an intervener in the application process.
April 8 2005	Submission of Dr. S. P. Singh	Dr. Singh, a non-resident landowner, applies to the AEUB to be an intervener in the application process.
April 29 2005	Withdrawal of RHG	Riverside Heights Group withdraws its submission due to an agreement with Petrofund.
May 2-3 2005	Site visit of the AEUB	The members of the AEUB visit and examine the area where the proposed well would be located.
May 3-4 2005	Public hearing	A public hearing is held to listen to the applicant and interveners, examine the issues and concerns they raise, and decide on the application.
July 28 2005	Hearing decision	The Board issues its decision and approves the application with the condition of the exercise of the emergency response plan.
September 20 2005	Emergency response plan exercise	The company conducts an exercise of the emergency response plan with the participation of the City, Capital Health, and the Board.
April 19 2006	Cost orders	The Board issues its decision about the cost claims of the interveners regarding their participation in the hearing and orders Petrofund to pay for the costs determined by the Board.

Meanwhile, Petrofund had started consultations with the City on emergency response plans in September 2004 (AEUB, 2005a: 277). The consultations accelerated in January, 2005 after a well blowout incident on the Acclaim Energy's site in December, 2004 (AEUB, 2005a: 274, 283). As a result, Petrofund accepted the City's conditions regarding the application and emergency response plan (AEUB, 2005a: 271). The City submitted a letter to the Board on March 31, 2005, expressing its support for the application (AEUB, 2005b: 2). Later, Petrofund was also able to reach an agreement with RHG, which withdrew its submission on April 29, 2005, days before the commencement of the hearing (AEUB, 2005a: 72). A last attempt by WELG on April 26, 2005 to propose a number of conditions for non-objection was unsuccessful (AEUB, 2005b: 370). Petrofund found the conditions excessive and rejected them.

Events during the hearing. The hearing was initiated by a public notice issued by the Board on January 4, 2005 (AEUB, 2005c). The notice explained the nature of the application and invited the interveners and concerned parties to the hearing. It was sent to all interested and potentially affected parties described by the regulations and to provincial government authorities including Alberta Environment and Alberta Energy (AEUB, 2005a: 6). It was also advertised in local newspapers, the Edmonton Journal and the Edmonton Sun, on January 6, 2005. The Board conducted a site visit on May 2-3, 2005 just before the hearing to examine the area of the well (AEUB, 2005a: 5). The hearing was held on May 3-4, 2005 at the Coast Terrace Inn in Edmonton. A ballroom was arranged as a court room. The hearing started at 9 in the morning on May 3. It continued until

about 10 in the evening with a lunch break at noon. It resumed at 9 in the morning the following day and was completed at about 2 in the afternoon.

The hearing commenced with the introduction by the Board chair (AEUB, 2005a: 4-5). The chairman gave a brief summary of the application and introduced the members and support staff of the Board. After one of the staff members read the hearing notice, the Board registered the stakeholders that wanted to participate in the hearing (AEUB, 2005a: 6-8) and explained the hearing procedures (AEUB, 2005a: 8-9). In line with the regulations, all witnesses gave their evidence under oath. They were first examined by their own legal counsel and subsequently cross-examined by other legal counsels and the Board. Then, there was a redirect exam from their counsel again. Lastly, the counsels of the company and interveners presented their final arguments. The company's counsel responded to the arguments of the interveners and the hearing was closed.

Events after the hearing. The Board issued its decision twelve weeks after the hearing on July 28, 2005. In its decision, the Board discussed the issues of need for the well, emergency response planning, field development plan, and operational matters (AEUB, 2005b: 2). The Board summarized the views of the applicant and interveners, explained its views on those issues, and concluded that: "Having carefully considered all of the evidence, the Alberta Energy and Utilities Board (EUB/Board) finds that the proposed well can be drilled, completed, and operated safely. The Board hereby approves Application No. 1365474 (formerly Application No. 1346789) and will issue the appropriate well license in due course" (AEUB, 2005b: 1).

The Board granted the license for the well subject to the company's meeting a number of conditions on the exercise of the emergency response plan.

The conditions were fulfilled by the company on September 20, 2005 (AEUB, 2005e). On September 30, 2005 the Board confirmed the exercise demonstrated the effectiveness of the plan and it was satisfied with the emergency preparedness of the company (AEUB, 2005e). On April 19, 2006 the Board approved most of the cost claims of the interveners including legal costs and ordered Petrofund to pay an approximate total of \$44,000 to the interveners for participation expenses (AEUB, 2006). The whole process took almost two years.

Summary

This chapter has argued a qualitative research design is appropriate to examine the construction process of organizational risk. This is because the goal is to understand and develop a theory of a socio-cultural process, the study is descriptive and analyzes textual data, the research process is not clear-cut, and the theoretical framework reflects interpretivist and critical traditions' assumptions.

Second, the chapter justifies the focus on an application of an oil and gas company to drill an oil well, which contains sour gas and is located in a residential area, as the research site. Public hearings are an important source of empirical data because they are a setting where different stakeholders discuss and provide detailed accounts on organizational risks. The specific hearing is also appropriate for analysis. Sour gas, a highly hazardous substance, is identified as a major risk issue in the hearing and the project is located in residential area within the second largest city of Alberta. Thus, this is a situation in which stakeholders' awareness of risks is likely to be elevated and thus rich and detailed accounts on organizational risks are likely to emerge. The hearing is also relevant because all

key social institutions and groups including business, government, and public are represented. The stakeholders include a provincial government agency (AEUB), a municipal government authority (City of Edmonton), a business company (Petrofund), and three public stakeholders including two resident groups (WELG and RHG) and a non-resident landowner (Dr. Singh).

Third, the chapter describes the data sources of the study. Four sources of data are identified. The proceedings and decision of the public hearing are the main sources, which include the stakeholders' detailed discussions on the project and associated risks. Various supplementary documents including application registry, hearing notice, news release about hearing decision, action plan after approval, and participation cost orders for the company are used to understand the history of the hearing. Lastly, field notes about observations and short informal interviews with the participants in the hearing help understand the setting.

Fourth, the chapter explains the methods and procedures used in the analysis of the data. The methods are based on grounded theory and textual approaches. The first step in the analysis is to develop substantive codes through a line-by-line open coding process. Substantive codes are a first-order label used to represent the issues in the data. The second step is to compare and refine substantive codes to develop categories, which are a higher level code that subsumes several substantive codes. The third step is to develop properties of categories by examining textual tables that includes all data segments for a given category and noting emerging issues. Properties are an attribute of a category that refers to one of its several aspects. The fourth step is a further refinement of

categories and properties to develop key issues, on which stakeholders focus in their discussions and thus which are the basic elements of the emerging model. The issues in the hearing include project, concerns, measures or plans, consultations, actor approaches and ways, and hearing setting. The fifth step is to construct segment and keyword tables and to do a detailed analysis of stakeholder statements so that the results of the coding analysis are grounded and complemented with additional insights. Segment tables include data segments for each key issue and stakeholder while keyword tables include all statements that contain keywords representing a given issue for each stakeholder. The tables are subject to expansion and comparative analyses to recover stakeholder meanings of key issues. The last step in the analysis is to theoretically interpret the results of expansion and comparative analyses by using theoretical concepts based in socio-cultural theories. The analysis results in propositions that express the relation between the concepts and the data and key issues for business, government, and public stakeholders, three key societal institutions or groups.

Lastly, the chapter provides an overview of the events involved in the application process of the company. The hearing is the major event. The events before, during, and after the hearing are briefly described so that the reader can develop an understanding of the empirical context and have background knowledge for the detailed analysis in the following six chapters. The next chapter is the first of those analysis chapters and explores the first key issue, project.

Chapter 4

Interpreting Stakeholders' Discussion on Project

This chapter and subsequent five analysis chapters present the results of the analysis of key word tables. The first goal of these chapters is to understand the meanings the stakeholders hold for the key issues. The second goal is to develop theoretical insights into the discursive construction of the key issues in relation to organizational risk, which reflect aspects of the socio-cultural theories discussed in Chapter 2.

As discussed in Chapter 3, key word tables were constructed and analyzed to complement and extend the results of the coding process, through which six key issues and their properties emerged. Segment tables, in contrast, were constructed and analyzed to illustrate and ground those properties and not to develop new insights. Both tables together helped establish the meanings of the key issues for the stakeholders in the hearing.

Rather than presenting the details of the analysis of segment tables, which is mainly illustrative of the properties already developed in previous stages of the coding process, I provide the detailed analysis of key word tables, which led to additional insights as well as substantiated the results of the coding. The reader can examine segment tables, which include data segments and specific properties those segments refer to, in appendix 5-A.

The first key issue analyzed is “Project”. “Project” refers to the proposed or existing activities of the company. It is the source of organizational risks and thus the core issue in the hearing, to which all other issues are related. Selected

key words for the issue are “project” and “projects”. I used expansion analysis to interpret and describe the meanings of the statements, which include these keywords, in relation to the issue of project. I referred to each statement using line numbers. Then, I compared the stakeholders’ meanings for project across the dimensions that emerged from those meanings and integrated the results of segment and key word tables, developing a more complete understanding of the meanings. Lastly, I used the theoretical concepts derived from the socio-cultural theories as sensitizing frameworks to conceptually interpret the findings and develop theoretical insights.

Descriptive Analysis

The stakeholders try to understand the scope of the project, whether it involves both the current application and the existing facilities of the company. The original application involves drilling an oil well in a field where the company has already another oil well and associated facilities. They recognize that the project is a source of concerns; they propose some strategies to address those concerns. They also try to understand whether it is possible to build and operate the project in a residential area and how long the project will be in the area side-by-side with the residences.

Petrofund Corporation. Petrofund Corporation’s discussion of the project is described in keyword statements in Table 4.1.

Table 4.1 **Petrofund Corporation’s Discussion on Project** *Keyword table*

(303 MR.MILLER) To Mr. Cronin's right is Mr. Don Van Tetering, manager, production engineering for Petrofund. He has been the **project** manager for this application, and he will address questions related to the application generally, the conceptual Armisie development plan and reservoir engineering.

(669 MR.MILLER) There's been quite a bit that's happened since the time that Petrofund started its initial consultation for this **project** and so on.

(1175 MR.MORRISON) Slide 28 shows a plan view of our **project**. We are setting our surface -- or, sorry, setting our drilling rig up on 7 of 4, drilling our stratagraphic test down into 16 of 33, evaluating the Ostracod zone and then electing to, if favorable, drill a horizontal well from kick-off point around here, down into a bottom hole location in a horizontal of 9 of 33.

(1717 MR.VAN TETERING) Petrofund recognized that this would be a potentially complex **project** and, therefore, established a multi-disciplinary team, which included senior management, production and operations, environment, health and safety, geology, drilling and completions, surface land through Land Solutions Incorporated, emergency planning and public consultation through Gecko Management Consultants.

(1806 MR.VAN TETERING) We expanded the consultation to include others who we thought might be interested in the **project**.

(1978 MR.VAN TETERING) During the open house we provided as much information as possible about our **project** and long-term objectives.

(2439 MR.CRONIN) This fund [our asset retirement fund] will only be used to finance our extraordinary reclamation and abandonment **projects**; as an example, the de-commissioning of a large processing facility.

(2457 MR.CRONIN) I would also like to advise that Petrofund spent 4.6 million dollars from our cash flow on abandonment and reclamation **projects** in 2004.

(2460 MR.CRONIN) We spent 4.7 million from our cash flow in 2003, and we spent 2.2 million from our cash flow in 2002 on our ongoing abandonment reclamation **projects**.

(2463 MR.CRONIN) In addition, we have budgeted, we are budgeted to spend a further 4 to 52 million dollars on reclamation and abandonment **projects** in the current year.

(8288 MR.GIBSON) One point that I would make, compared to other **projects** we worked on or other hearings I've been involved in, I think it would be pretty clear when you look at the participation of the consultants, that the people like Mr. Tidmarsh and Mr. Van Tetering and others are, have been very hands-on here.

(8295 MR.GIBSON) This is not a case where the consultants are managing the **project**.

(15547 MR.MILLER) I have been involved in this **project** for more than a year, and I can tell you that I have never encountered a company more willing to go the extra mile, and then the next extra mile, and the next extra mile, even though it knew it would continue to encounter an ongoing barrage of criticism, innuendo, accusation, generalization and inflammatory statements.

(15592 MR.MILLER) Notwithstanding the comments of Dr. Gotaas, I have to say to you that, in my experience, the individuals behind this **project** are honest and honourable individuals who operate with the highest degree of integrity.

(15626 MR.MILLER) It was one that was selected, that would minimize impact to area residents at least at this, at this particular juncture for the initial well, which may be one of up to eight wells in the area, depending on the results of this **project** and the ongoing assessment of the conceptual development plan.

(15745 MR.MILLER) Again under this banner, Mr. Tidmarsh explained the emergency readiness that will be employed prior to and during the drilling phase of this **project**.

(17831 MR.MILLER) And that would apply to not just well sites, but I could imagine only that it would apply to some very large **projects**, and affect in a very economically inefficient manner pre-fund abandonment and reclamation liabilities many years in advance of when they incur, when they would like likely be incurred.

The keyword statements show that a project is described by the company as a proposed development that is the subject of an application to the AEUB (303). A project requires a manager who is a production engineer. The drilling operation is part of the project, described in highly technical terms (1175). The company refers also to the site of the project, which was especially selected to minimize the impact to the residents in the area (15626). A total of eight wells might be drilled according to the results of the project.

A project involves a consultation plan (669). The company has been consulting with other stakeholders for some time on the project, “expanded the consultation to include” interested parties (1806), and “provided as much information as possible” to the stakeholders involved in the consultations (1978). The company tried its best to consult with other stakeholders despite their “ongoing barrage of criticism, innuendo, accusation, generalization and inflammatory statements” (15547).

A project is also defined by the company witnesses as a “potentially complex” activity with several dimensions (1717). Examples are production and operational issues, and environmental issues. Further, a project is understood in relation to “long-term objectives” (1978). It is managed by the company not consultants although their suggestions are considered (8288, 8295). Planning for the project addresses “the emergency readiness” of the company (15745). The

company also defines the project in terms of the personal qualities of the company members. The company people are “honest and honorable individuals who operate with the highest degree of integrity” (15592).

The company highlights the existence of a reclamation and abandonment fund for extraordinary circumstances that might occur at the end of the project (2439). This is a company-owned fund; it is an extra measure that exceeds the reclamation and abandonment requirements. Usually, the company uses its cash flows for “ongoing abandonment reclamation projects” (2457, 2460). Hence, the project is understood in terms of a means to meet those requirements.

The company compares the project to other very large projects (17831). The company opposes the request for a separate reclamation and abandonment fund that is financed but not controlled by the company because “it would apply to some very large projects, and affect in a very economically inefficient manner pre-fund abandonment and reclamation liabilities” (17831). It might set a bad example that might damage the industry.

City of Edmonton. The City of Edmonton’s discussion of the project is described in keyword statements in Table 4.2.

Table 4.2
City of Edmonton’s Discussion on Project
Keyword table

(8909 MR. BLACK) We have been working with them for about, as I say, until -- from September/October of last year, working with them on the plan for this particular **project**; but prior to that we had their general emergency plan, yes.

The City addresses the project explicitly at only one point where it explains its involvement in the project as shown in Table 5.2. This involvement

refers to the City's role in the development and possible implementation of the company's emergency response plan (8909).

West Edmonton Landowners Group (WELG). The WELG's discussion of the project is described in keyword statements in Table 4.3.

Table 4.3

West Edmonton Landowners Group's Discussion on Project

Keyword table

(16782 MR. BODNAR) And everything went from eight wells to one well. Well, if you read between the lines, this is about an eight well **project**. Okay?

(16783 MR. BODNAR) An eight well **project** where all the wells, I believe, will have some sort of an H2S factor to be considered.

(16805 MR. BODNAR) One of the things in those recommendations is, that the operator is encouraged to apply for all wells together, in a **project** together if they are going to do something so the proper plans can be in place.

These keyword statements demonstrate the WELG residents think "this is about an eight well project" not a one-well project (16782). The residents assume that all wells will contain toxic sour gas (16783). They also refer to a recommendation of the Board, which is not part of the current regulations, to show that the company should have applied to the Board "for all wells together" in one application (16805).

Dr. S. P. Singh. Dr. Singh does not provide any statements including the key words. Hence, I use the segment table for Dr. Singh, in Table 4.4, to illustrate his views on the project.

Table 4.4

Dr. S. P. Singh's Discussion on Project

Segment table

(1857 MR. ENGELKING P-115-217) I understand that, but I guess -- I guess my question is this: Based upon the wells that are already drilled, and based upon the information we have been provided with in slide number , how long would it take to get the other roughly million -- , barrels of oil that the EUB estimated could be recovered from this pool?

(3595 MR. ENGELKING P-440-565) I tell you, if I lived on the property that Dr. Singh owns, in the southeast quarter of Section , and I was far enough from the top of the bank and I knew that

that well had , parts per million H₂S gas in what was being produced. And if I knew that a thousand parts per million could be fatal to me, I might take the goats.

(4113 DR. SINGH P-317-439) My immediate concerns are that my land will not be developed; the price of the land, if I want to dispose it off, would be much lower than what would have been the case. I'm quite concerned about the pollution of, in terms of noise, in terms of the quality of air. The safety in case I build a house. And for the information of the board, I had started a goat farm there, and very briefly I lost about to \$, because we were losing goats every day in number that was almost about to percent of the total herd.

(4528 MR. ENGELKING P-317-439) And has Petrofund ever provided to you any assurances that the proposed activity at 7 of 4 is different somehow than the Acheson site and that you need not to be concerned about the possibility of a blowout on 7 of 4?

The segments point out that Dr. Singh is interested in the drilling operation and information, and wants to know when the company is likely to complete recovering the oil in the area (1857). Dr. Singh's plans to commercially and residentially develop his land, which is adjacent to the project, depend on the duration of the project. Dr. Singh understands the project in terms of many of his concerns (4113). His "land will not be developed"; the price of the land would be much lower than what would have been the case" (4113). The land will be exposed to pollution, "in terms of noise, in terms of the quality of air" (4113). He mentions that he lost a goat herd in the area due to the pollution created by the company operations in the past. He does not think a residence can safely coexist with the project.

Dr. Singh describes the project as the well on 7 of 4 location and compares it to the well of another company, which blew out recently (4528). The difference between the two is unknown. The project is also compared to the goat herd of Dr. Singh (3595). The latter is preferable because it does not produce fatal sour gas.

Alberta Energy and Utilities Board (AEUB). The Board's discussion of the project is described in keyword statements in Table 4.5.

Table 4.5

Alberta Energy and Utilities Board's Discussion on Project

Keyword table

(329 DECISION) It is the Board's view that when a company makes commitments of this nature, it has satisfied itself that these activities will benefit both the **project** and the public, and the Board takes these commitments into account when arriving at its decision.

(6955 MR. PERKINS) So given that, the first question I have is, have all the residents that are within the awareness zone been contacted by Petrofund with respect this **project**?

(7438 MR. PERKINS) I'm trying to get a handle on what consultation occurred for what **project** at what time.

(7887 MR. SHARP) You are going to conduct periodic air quality -- blah, blah -- and then establish some kind of a process. So this is going to go on for the life of the **project** then, or life of these leases?

These keyword statements show that the Board describes the project in terms of an "awareness zone" that places boundaries around the area residents with whom the company is required to consult on the project (6955). In every project, a company is required to consult with the concerned stakeholders (7438). The Board mentions that project activities such as air quality monitoring are not short-term activities and the company has certain commitments that must be honored during "the life of the project" (7887). It relates the project to the commitments made by the company (329). "The Board takes these commitments into account when arriving at its decision" on the project (329).

Comparative Analysis

This section compares the stakeholders' meanings of the project that emerged from the analysis of key word and segment tables to highlight their similarities and differences. Table 4.6 provides the stakeholders' views of the project, which are compared in eight dimensions the stakeholders address in their discussions.

Table 4.6 Stakeholders' Meanings of the Project					
Stakeholder Dimension	Petrofund	City of Edmonton	WELG	Dr. Singh	AEUB
Operational scope of the project	<ul style="list-style-type: none"> *Involves the current application only *Possible to change and include a total of eight wells in the future *Distinct from Petrofund's existing facilities in the area 		<ul style="list-style-type: none"> *Involves both the current application and Petrofund's ongoing operations because they affect the same residential area *Involves a total of eight wells not just one well 	<ul style="list-style-type: none"> *Involves the application of the company for a new well 	<ul style="list-style-type: none"> *Involves the proposed well in the company application and possible future wells *Distinct from Petrofund's existing facilities in the Armisic area
Temporal scope of the project	<ul style="list-style-type: none"> *Project considered as a long-term activity *Project having no specific timeline 			<ul style="list-style-type: none"> *Project's duration necessary to be specified so that its adverse effects can be minimized 	<ul style="list-style-type: none"> *Project considered as an ongoing activity *Project having no specific timeline
Concerns due to the project	<ul style="list-style-type: none"> *Possibility of release of toxic sour gas during the drilling of the well for a period of 18 to 25 days 		<ul style="list-style-type: none"> *Toxic sour gas content of the wells 	<ul style="list-style-type: none"> *Possibility of toxic sour gas release due to a well blowout, which occurred at the well of another company *Possibility of toxic sour gas release in contrast to a goat farm that does not produce sour gas *Uncertainty about when to develop the land commercially and residentially *Pollution in terms of noise and air quality 	<ul style="list-style-type: none"> *Toxic hydrogen sulphide content of the proposed well (1.1 %) *Possible release rate of toxic sour gas during the drilling operation (0.0916 cubic meters per second)

Stakeholder Dimension	Petrofund	City of Edmonton	WELG	Dr. Singh	AEUB
Strategies to address the concerns that result from the project	<ul style="list-style-type: none"> *Developing emergency plans *Selecting a project site with minimal impact to the residents *Maintaining a reclamation and abandonment fund for extraordinary restoration circumstances 	<ul style="list-style-type: none"> *Participating in the development and possible implementation of Petrofund's emergency response plan 			<ul style="list-style-type: none"> *Developing commitments *Developing an emergency planning zone (500 meters)
Location of the project in relation to a residential area	<ul style="list-style-type: none"> *Project possible to be constructed and operated safely in a residential area 		<ul style="list-style-type: none"> *Project and other oil wells not to be constructed in a residential area because they contrast with the natural environment and beauty of the area 	<ul style="list-style-type: none"> *Project not safe to exist in the vicinity of a residence because of the pollution it will create 	<ul style="list-style-type: none"> *Project safe to operate in an urban residential area although it is questionable when the residential development is dense
Understanding frameworks to give meaning to the project	<ul style="list-style-type: none"> *Official rules of the Board *Expert knowledge of consultants 		<ul style="list-style-type: none"> *Official rules of the Board *Unofficial recommendations of the Board 		

Stakeholder Dimension	Petrofund	City of Edmonton	WELG	Dr. Singh	AEUB
Portrayal of the company and/or its members in the project	<ul style="list-style-type: none"> *Company members characterized with honesty and integrity *Petrofund as recognizing its responsibility although getting help from consultants *Petrofund as willing to continue consultations with other stakeholders 		<ul style="list-style-type: none"> *Petrofund characterized with greed and profit-orientation 		
Content of the project	<ul style="list-style-type: none"> *Production operations of the project *Drilling operations of the project (described in technical terms) *Project as a complex activity with technical and nontechnical aspects *Industrial activity similar to some very large oil projects *Consultations with interested stakeholders 				<ul style="list-style-type: none"> *Technical aspects of the project including site selection *Consultations with the area residents within the awareness zone

First, the stakeholders try to understand the operational scope of the project and whether the project includes the future as well as the existing facilities. Petrofund, Dr. Singh, and the Board share the view that the project refers to Petrofund's current application. In addition, Petrofund and the Board emphasize that the project is distinct from Petrofund's existing facilities in the area. They recognize that the scope of the project might change eventually to include more (a total of eight) wells. In contrast, the WELG residents claim that the project should be described as involving both the current application and existing facilities of Petrofund. Both affect the area where the residents live and cause concerns. Furthermore, the residents think this project includes eight wells from the very beginning.

Second, the stakeholders discuss the temporal scope of the project. Petrofund and the Board describe the project as an ongoing or long-term activity and do not specify a timeline for the project. In contrast, Dr. Singh asks for a specific timeline with a certain duration so that effects on the land can be minimized.

Third, the stakeholders highlight possible concerns that result from the project. Petrofund, WELG, Dr. Singh, and the Board discuss the possibility of a release of toxic sour gas from the proposed well and future wells. Furthermore, Petrofund and the Board describe the sour gas concern in terms of calculated numbers. For example, Petrofund states that the risk of a release is higher for 18 to 25 days during the drilling operation. The Board mentions that the hydrogen sulphide content of the proposed well is 1.1 % and the drilling release rate is

0.0916 cubic meters per second. Dr. Singh also talks about his other concerns including the uncertainty about future commercial and residential development of his land due to the unknown timeline and possible pollution from the project.

Fourth, the stakeholders propose a number of strategies to address the concerns resulting from the project. Petrofund, the City, and the Board all point out the existence of an emergency response plan as a primary strategy. The City highlights its involvement in the development and implementation of the plan while the Board points to the emergency planning zone. In addition to the plan, Petrofund mentions other strategies that include selecting a project site with minimal impact to the residents and maintaining a reclamation and abandonment fund. The Board mentions the company's commitments as a way to address concerns as another strategy. Thus, Petrofund, the City, and the Board emphasize that resident and landowner concerns can be addressed through certain strategies. WELG and Dr. Singh do not talk about any strategy under the issue of project.

Fifth, the stakeholders discuss the location of the project in relation to the residential area. Petrofund and the Board believe that a project can be constructed and operated safely in a residential area and the Board also states that a project is safe to operate in an urban area such as the City of Edmonton. It notes some operations are questionable when conducted in a densely populated residential development. In contrast, WELG and Dr. Singh oppose a project in a residential area. WELG contrasts the area where the proposed project will be located with oil wells in general. The natural environment of the area will be adversely affected by the project. Like WELG, Dr. Singh opposes the idea of a nearby project and

highlights possible pollution that will affect the residences. According to Dr. Singh, it is not safe to operate a project in the area.

Sixth, the stakeholders use a number of frameworks to understand the meaning of the project. Petrofund seems to follow the official rules of the Board in its project application. WELG also recognizes the official rules of the Board, to which the application is directed; however, it argues the company should also follow the recommendations of the Board including those not yet mandated. Petrofund uses the expert knowledge of its consultants as another interpretive device although this viewpoint is not recognized by WELG.

Seventh, Petrofund and WELG portray the company and/or its members in terms of the approach to the project. Petrofund characterizes its members with honesty and integrity, and notes it has accepted its responsibility in the project and does so using help from consultant firms. The company is also willing to consult with the residents and stakeholders. In contrast to this positive portrayal, WELG characterizes the company as motivated by greed in search for more profit.

Lastly, Petrofund and the Board describe the content of the project. Both the company and the Board address non-technical aspects of the project, for example the fact the project involves consultations with the residents and other interested stakeholders about their concerns. The company and the Board also recognize the project's technical aspects such as the technical reasons for the site selection. Petrofund highlights technical aspects and describes production and drilling operations in highly technical terms. It notes that the project is a complex business undertaking, which is similar to other very large projects in oil industry.

Conceptual Analysis

This section provides a conceptual interpretation of the stakeholders' meanings of the project described and compared above. The section relates the meanings to the theoretical concepts discussed in Chapter 2. I develop conceptual generalizations or propositions that address the meaning construction process related to organizational risk and different views of business, public, and government stakeholders, which are the three key societal institutions or groups in this setting (Gephart and Pitter, 1993; Gephart et al., 1990; Habermas, 1975).

Project as an organizational risk and the context of risk society. A risk is a human activity, for example an industrial project, which can potentially inflict a significant harm on the wellbeing of a person or a group (Lupton, 1999a; Macnaghten, 2006; Tulloch, 2006). People select certain phenomena as risky and other phenomena as non-risky (Lupton, 1999a). Accordingly, organizational risk is an activity of organizations, which people think potentially harmful for their wellbeing.

The stakeholders in the hearing all construct the project as an organizational risk. First, the project is described as a source of concerns, most important of which is the possibility of a release of toxic sour gas from the existing and proposed wells. Such a release might be very harmful for the people living in the area. This risk is recognized by all stakeholders. Second, business and government stakeholders mention strategies to address or minimize the harmful effects of the project in general such as an emergency response plan, which is developed to protect the area residents in case of a sour gas release.

Third, the risk is emphasized in the discussion of the project location when public stakeholders express their safety concern about the project that is close to a residential area and business and government stakeholders recognize the concern but argue the project can be safely located in the area. Thus, for all stakeholders, the project refers to an organizational risk that can create harmful effects for the residents and should be addressed by business and government stakeholders.

The construction of the project as an organizational risk by all stakeholders implies a social context that reflects risk society where an economic activity (oil production) is considered to produce risk as well as products or services (Beck, 1992). In risk society, people develop a critical attitude towards economic activity and resulting risks. Economic activity, which was automatically legitimated in the past by the belief in economic progress, is now subject to people's constant questioning (Beck, 1992). People demand public forums through which they try to shape economic activities (Beck, 1992, 1994, 1999). A variety of values and interests including those of the lay public are represented in those forums. However, risks deepen the dependency on scientific experts and professionals for solutions even though the lay public seems to be given some opportunity to shape economic activity and raise related concerns (Beck, 1992).

In this case, all the stakeholders question the project and recognize associated risks. Neither public and government stakeholders nor the company simply accept the project as a productive economic activity. The stakeholders question and discuss the project within the setting of the hearing, the public forum provided by the Board. While public actors have the opportunity to highlight the

risks due to the project such as sour gas release, business and government actors propose measures such as emergency plans to demonstrate that risks are addressable and thus acceptable. Further, public stakeholders bring their own lay perspectives into the understanding of risks. For example, WELG considers the unofficial recommendations of the Board a primary framework to describe the project and associated risks. Nevertheless, the dominance of administrative and scientific experts is also indicated in the case. The Board's official regulations, which are the main reference for the Board's experts, are still recognized by WELG as well as by the company. Moreover, the company states that it makes use of expert knowledge of consultants in the project. Thus, the construction process of the project by the stakeholders refers to the context of risk society, in which the risk from a project is highly pronounced and is significant in relationship to the value of the product of a project. Accordingly, this discussion leads to my first proposition:

Proposition 1: In risk society, business, public, and government stakeholders construct an organizational project as an organizational risk that must be managed. Different stakeholders conceive different risks and offer differing responses to mitigate risks.

Project within the boundaries of a residential area. A boundary is a cultural signifier that draws lines between something polluted and something clean for a particular social group (Douglas, 1973). It shows which practices and activities are included as safe or excluded as dangerous and risky (Douglas and Wildavsky, 1982). A boundary represents a group's choices of dangers and risks worthy of attention (Douglas, 1992; Douglas and Wildavsky, 1982). It shows the proper and improper location of objects and activities (Wuthnow et al., 1984).

In the hearing, public stakeholders set clear risk boundaries between the residential area and the project, and highlight boundary breaches. These are socio-cultural boundaries, which distinguish between residential life and industrial activity and which refer also to physical demarcations. For example, WELG claims a residential area is no place for sour oil wells that adversely affect the environment and natural beauty of the area. WELG considers the operational scope of the project to involve both the current application and existing facilities, which both create risks for the residents. There are already risks associated with the existing operations and the boundaries of the residential area are already disrupted. WELG tries to prevent additional operations from being sited in the residential boundaries. Similarly, Dr. Singh thinks that it is not safe to operate an oil well that is close to a residence for an unspecified period. So, public stakeholders try to clearly mark spatial and temporal risk boundaries between the project which they consider unsafe and risky and the area where they live.

In contrast, business and government stakeholders do not set clear risk boundaries and believe that a project can be constructed and operated safely in a residential area within the municipal boundaries of a large city such as Edmonton. The existing facilities in the residential area are not considered to be dangerous. Even though they are within the boundaries of a residential area, they pre-exist hence they are not out of place. Furthermore, the temporal scope is not specified; hence, the project can be considered to exist in a residential area for an unknown period of time without creating significant risks. Thus business and government

stakeholders do not clearly mark the spatial and temporal risk boundaries between the project and the residential area. Based on this, my second proposition is:

Proposition 2: Public stakeholders construct an organizational project as an organizational risk through clear spatial and temporal risk boundaries between the project and the residential area whereas business and government stakeholders do not set clear spatial and temporal risk boundaries.

Focus on risk versus on rational-purposive action and ritual. All stakeholders in the hearing talk about a particular risk, which is a risk of a sour gas release. Such a release might affect the health of the residents in the area and even result in fatalities. Public stakeholders put more emphasis on this risk than business and government stakeholders. For example, WELG is concerned that the project involves eight wells, all of which contain sour gas. Dr. Singh is concerned about a possible well blowout that might result in a sour gas release.

In contrast, business and government stakeholders define the risk of sour gas in terms of some calculated numbers. Their focus is on the strategies used to address the risk. Their strategies can be conceptualized as a rational-purposive action because they are goal- and not consensus-oriented (Habermas, 1979, 1984). They transform and manipulate human actions and the environment so that the risk of pollution can be addressed (Wuthnow et al., 1984). For example, an emergency response plan, which is mentioned by both business and government stakeholders, organizes the company employees and resources into an action to address emergency situations. The strategies can also be considered as a ritual because they refer to the actions to restore or reestablish the order of the area where the operations are located (Douglas, 1966). They are actions that reconfirm

the location of the operations as proper and safe. One part of the emergency plan is to restore an unsafe residential area to its previous safe conditions. The reclamation and abandonment fund of the company is used for the restoration of the area after the operations. The company commitments highlighted by the Board reconfirms that the project will be safely operated. The selection of a project site with minimal impact to the residents also reconfirm that it is a safe project. All these actions and rituals are proposed by business and government stakeholders. The City, for example, describes the project in terms only of the emergency response plan. Public stakeholders do not propose any action or ritual in this issue. Therefore, my third proposition is:

Proposition 3: Public stakeholders construct an organizational project as an organizational risk with a focus on risks from the project whereas business and government stakeholders with a focus on rational-purposive actions and rituals that prevent or mitigate those risks.

Social stock of knowledge used to describe the project. Social stock of knowledge refers to the sum total of shared meanings regarding the identities, roles, and activities of social actors within a group (Berger and Luckmann, 1966). It also represents the interests of social groups and ensures their functionality in line with those interests (Wuthnow et al., 1984). There might be different social stocks of knowledge shared by particular groups such as scientists and clerics. Business stakeholders seem to derive from a technical stock of knowledge to construct the project as an organizational risk. For example, they follow the techniques of calculation to describe the risk of sour gas and state that there is a possibility of sour gas release for 18 to 25 days during the drilling operation. The company highlights that the project involves technical activities such as

production and drilling and utilizes technical expert knowledge of consultants in project planning. The company also refers to the official rules of the Board, which refer to a regulatory stock of knowledge explicitly formulated in written documents. It is implied that the project is in compliance with technical and regulatory norms and practices. WELG as a public stakeholder also refers to formal regulatory stock of knowledge to describe the project as a risk. Yet, WELG goes beyond it and proposes that the unofficial recommendations of the Board, which have not been mandated yet, should also be used to construct and guide the project. It considers the unofficial recommendations an updated knowledge base that can better address the concerns. In this sense, public stakeholders have a substantive not formal understanding of the rules. Thus, I propose the following as my fourth proposition:

Proposition 4: Business stakeholders refer to technical and regulatory stocks of knowledge to construct an organizational project as an organizational risk; they focus on compliance with technical norms and regulatory framework. Public stakeholders also refer to regulatory stock of knowledge; but they focus on substantive purposes of the regulatory framework rather than formal compliance with it.

Summary

This chapter provided a descriptive, comparative, and conceptual analysis of the first key issue, “Project”. The descriptive and comparative analyses indicated that the project draws the attention of the stakeholders from business, public and government who try to understand its different dimensions. The stakeholders describe the project in terms of its operational and temporal scope. They also describe it in terms of a number of concerns, especially a possible release of toxic sour gas. The company and the Board express the concern of sour

gas in calculated numbers. Dr. Singh especially highlights many of his concerns, which he thinks result from the project. In contrast, the company and government stakeholders including the City and the Board relate the project to the strategies that are claimed to address the concerns. In addition, the stakeholders consider the location of the project relative to the residential areas a dimension of the project. Furthermore, the company and WELG refer to some understanding frameworks to describe the project and portray the approach of the company and its members in the project. The company and the Board describe the project in terms of both technical and non-technical aspects while the company especially mentions the technical side.

The conceptual analysis showed that the context of risk society affects all stakeholders' meanings and results in the construction of the project as an organizational risk. The project is not simply accepted as a productive economic activity. The analysis also pointed out public stakeholders construct clear spatial and temporal risk boundaries between the project and the residential area. They try to reproduce their social and cultural area as distinct from the project. Public stakeholders focus on the risks from the project. They construct the risks as the main feature of the project. Further, public stakeholders' risk meanings are affected by regulatory stock of knowledge; public stakeholders emphasize substantive purpose of that knowledge base.

In contrast to public stakeholders, business and government stakeholders do not set clear risk boundaries when constructing the project as an organizational risk. They try to construct the project as acceptable within the residential area.

Unlike public stakeholders, they focus on rational-purposive actions and rituals to prevent and mitigate the risks. They construct the risks as addressable and the project as acceptable. Business stakeholders' risk meanings are also affected by regulatory and technical stocks of knowledge; business stakeholders focus on formal compliance with those knowledge bases.

The project as an organizational risk leads to a number of concerns for the stakeholders. The following chapter explores the second key issue, "Concerns", and its construction process in relation to organizational risk.

Chapter 5

Interpreting Stakeholders' Discussion on Concerns

This chapter presents the second key issue, “Concerns”, surfaced from the data during stage 4 of the analysis process when key themes were identified.

Concerns refer to possible harms or adverse effects of the project on the health, environment, and wealth of the stakeholders. Key words indexing concerns were “concern” and “concerns”. As in prior and subsequent chapters, I seek to understand the meanings the stakeholders hold for key words and next to develop theoretical insights into how concerns relate to organizational risk that are informed by and informative of the socio-cultural theories discussed in Chapter 2.

Descriptive Analysis

The stakeholders thematize concerns raised primarily by the residents and landowners. Company operations and the project are the major sources of concerns that are mainly related to the health and safety of individuals, preservation of social and natural environment, and economic well-being. The stakeholders propose strategies to address those concerns. Their understanding of concerns and strategies is shaped by consultations.

Petrofund Corporation. Petrofund Corporation’s discussion of concerns is described in keyword statements in Table 5.1. Here, I provide the first five statements for each stakeholder due to space limitations; the reader can examine the tables as a whole in appendix 5-B.

Table 5.1

Petrofund Corporation’s Discussion on Concerns

Keyword table

(312 MR.MILLER) He will address questions related to production operations and steps Petrofund has taken to address operational **concerns** regarding Petrofund’s facilities in the Armisie area.

(1256 MR. MORRISON) An on-site safety advisor will listen to public feedback and be available to promptly address community issues or **concerns**.

(1361 MR. TIDMARSH) The residents on 17th Avenue, down in the southern area here, were originally included in the EPZ because of their **concerns** about egress through the normal -- through the original expanded emergency planning zone.

(1426 MR. TIDMARSH) Petrofund will team with the city and Capital Health to address any public safety **concerns** and coordinate communications with the public and the media.

(1669 MR. TIDMARSH) This **concern** [egress] has been raised by residents primarily on 1717th Avenue.

For Petrofund, a concern is a potentially problematic issue, which “various stakeholders” (2242) such as the area residents and landowners notice and discuss in relation to Petrofund’s activities (1728, 11481, 16102, 17478). Issues include “operational” issues (312), “future Petrofund wells” (2529), past “wellhead incident” (2132), “historical incidents” of previous operators in the area (2135), “egress” issue (1669, 1671, 3437, 7340, 7342), “quality” and “timeliness” of sour gas data (4266), “monitoring” (2294, 4026, 6159), “noise” (16091), “odors, noisy pump jacks, and emissions” (2248, 6148), “future development of land” (16102), and surface owners’ issues (16122). A concern may only exist as a future “potential” concern (1699, 1728, 3437, 6689, 7340, 7342). “Societal concerns” which are different from individual concerns (16125) are not necessarily more important than business profit (16132).

The company “responds to” concerns (1982, 1984, 1967) with certain “steps” in the case of operational and egress concerns (312, 4098) and with “plans” for monitoring (2297), “operational measures” for existing facilities (2253), “air monitoring” for sour gas (1699), “advance notice” in emergencies (3437), “an on-site safety advisor” (1256), safety personnel and equipment (6689), emergency response plan (1982, 7270), and “emergency planning zone”

(1361, 7413). Concerns can also be addressed and mitigated through cooperation with local government agencies like “the City and Capital Health” (1426) and through consultations with other stakeholders as well (1770, 1772). The company does not simply react to a concern; it also initiates revisions to the emergency response plan, for example (15942).

Concerns include issues raised by government agencies about “how the emergency response should be provided” (6229, 6243, 6247, 6689, 6978). For example, it would be a concern if the emergency response personnel of the City lacked “specific alive H₂S training” (6689), could not handle the “potentially sensitive individuals” to honor Capital Health requests (6978), or could not ensure there are “consistent communications to the public, to the media, and to other government agencies” during an emergency response (6909).

A concern can be better known through open (1982, 1984) and timely communication (4397). It must be identified (16091) through information exchange (2095) and communicated (15726, 15729) personally by those concerned (16153, 16157). It can be known through consultations (1728, 1770, 1772, 2242, 2248, 2426, 6148, 16091) and discussions (6247, 7270, 17906), and through regular meetings that “keep [people] abreast of issues and concerns” (2582). A concern must be specifically defined; generalizations are not helpful (16091, 17906).

City of Edmonton. The City of Edmonton’s discussion of concerns is described in keyword statements in Table 5.2.

Table 5.2
City of Edmonton’s Discussion on Concerns

Keyword table

(8711 MS. AINSLEY) We have had contact with a number of stakeholders, other departments, utilities agencies, Capital Health and some of the affected residents; and in having that contact, we have attempted to draw up conditions that we think would satisfy their **concerns**.

(9399 MS. AINSLEY) They didn't given us a time-line, but they did want AEUB and the applicant to know that that was of **concern** to us.

(9631 MS. AINSLEY) They can, if they are -- you know, and I have made myself available to them if they have any **concerns**.

(9811 MR. BLACK) Their [Capital Health] **concern**, as I understand it, is that outside of the emergency planning zone there may be people who could suffer adverse effects from a lesser level of release that is below the danger zone or who had, could have an increased anxiety, just by knowing that something was going on.

A concern is an issue related to potentially problematic activities of the company in the residential area such as the “timeline” of the activities (9399, 8711). It also refers to the concern of Capital Health that “outside of emergency planning zone there may be people who could suffer adverse effects from a lesser level of release” (9811). A concern can be better understood through “contact with a number of stakeholders” (8711) and the City (9631). It can be addressed with certain “conditions” developed through consultations with different stakeholders (8711).

West Edmonton Landowners Group (WELG). The WELG’s discussion of concerns is described in keyword statements in Table 5.3.

Table 5.3

West Edmonton Landowners Group’s Discussion on Concerns

Keyword table

(3045 MR. BODNAR) And is it fair to say that the involvement of the city and the development of the present plan, if you will, was spawned primarily by the **concerns** the landowners were raising?

(3169 MR. BODNAR) It's a **concern** about the operations of 7 of 4, too, isn't it?

(3200 MR. BODNAR) But wouldn't you think that that would be important, because people in the area, the well group, for example, have **concerns** about operations and emergency issues?

(3597 MR. BODNAR) That was with the original group that got together to raise **concerns**, that we called the original West Edmonton Landowners Group.

(4104 MR. BODNAR) And I understand Ms., Mr. and Mr. Novak have provided you with some of their **concerns** as well, specific concerns?

A concern is an issue related to the problematic activities of the company in the residential area such as “the operations of 7 of 4” (the proposed well) (3169, 12450), the operations of the existing well 13 of 33 (10413, 10435, 11916), operational “expansion on the site” (10466), “operational standards” (11437, 11439), “operations and emergency issues” (3200), potential health impacts (12752), past incidents and leaks (11701), H₂S and safety issue (4186, 4330, 11253, 12760, 12761, 12405, 15351), limited emergency “access and egress” (8940, 11677, 11679, 11972, 12823, 12510), “esthetic” issues (12753, 12412), “noise” (11308), “water, air, noise, environmental” issues (11169, 11170), “technical” issues (10581), “licensing” issues (10582, 10583), and decreasing home values (13206). Neighbors “are similarly affected” by the activities and have “common concerns” (12456, 15295, 15296) as well as “specific” individual concerns as in the case of the Novak family (4104, 4105, 11619, 12490, 12510). Concerns emerge from “lived” experience of individuals (15303).

People get “together to raise” their concerns (3597, 11285), which could be raised by different individuals in the neighborhood (15295, 15296). Neighbors not attending the public hearing are themselves a concern (11437, 11439). Another concern is “what would be involved with opposing this development” such as “finances” of opposing (10724, 10726, 10734, 11289).

The company must address (10647, 11172, 16538, 16540, 16541, 16911) and respond to (11152) concerns through extensive “inquiries” (4330). It should actively try to understand concerns (3045, 16538, 16540, 16541). WELG is also

concerned about how the company deals with the residents' concerns such as the company's response to egress issue (11677, 11679, 12405, 12823), actions or measures related to existing operations (10426), "monitoring of H₂S" (12405), periodical "water quality" assessment (12410), "steps to be able to identify when they have" an incident (11716), and the company's ability "to effectively carry out an emergency response plan" (11788, 12405, 12514). The group is concerned about the City's response to "particular concerns with that access" (8942), which have resulted in "the involvement of the City and the development of the present [emergency] plan" (3045).

Stakeholders discuss concerns (11972, 10647). They communicate their concerns to the company (4104, 4105, 11307, 11308) through putting them into a pattern (11842), writing (11852), and meeting with the company (12490) several times (11853, 11855). The company must provide "answers" about concerns (10426, 10435, 11253) and not "deny that there is any problem or any validity to the issue" after it acknowledges a concern (16442). WELG notes the company produces "obvious misrepresentation" about the group's concerns (11310, 11314, 15333, 16531, 16533) and wants the group to be "specific" (11169, 11170). The group thinks concerns can be better expressed through a pre-hearing conference (11963). There must be some "reasonable terms and conditions" about how to address concerns (10647, 11861, 12183) and also some "concession", "compromise", or "agreement" from the company (11194, 16538, 16540, 16541).

River Heights Group (RHG). The RHG's discussion of concerns is described in keyword statements in Table 5.4.

Table 5.4
River Heights Group’s Discussion on Concerns

Keyword table

(17652 MS. HAZLETT) They could continue to badger and harass Petrofund, as they have seen fit to do; and I would cooperate with Petrofund and, in this way, address the **concerns** of the group from both angles.

(17677 MS. HAZLETT) There was a comparison to the Compton **concerns**, which I thought were not valid because the levels of H₂S are much reduced in the Arm -- in the Armisic field.

A concern is an issue related to the problematic activities of the company in the area such as H₂S (17677). Yet, sour gas concern is “much reduced” in this area as compared to another area (17677). The ways to address concerns are “to badger and harass” (17652) or “to cooperate with” the company (17652). The area residents should cooperate and act as a group to address concerns “from both angles” (17652).

Dr. S. P. Singh. Dr. Singh’s discussion of concerns is described in keyword statements in Table 5.5.

Table 5.5
Dr. S. P. Singh’s Discussion on Concerns

Keyword table

(9535 MR. ENGELKING) What do we now ask the board to do to satisfy the city's **concerns** that this pool be exhausted as quickly as possible?

(13493 MR. ENGELKING) What are your **concerns** about the application that Petrofund has made to drill a well at surface location 7 of 4?

(13496 DR. SINGH) I have a lot of **concerns**.

(13507 DR. SINGH) My immediate **concerns** are that my land will not be developed; the price of the land, if I want to dispose it off, would be much lower than what would have been the case.

(13528 MR. ENGELKING) Why do you have that **concern** [your land might not be developable], Dr. Singh?

For Dr. Singh, a concern refers to an issue related to Petrofund’s activities on or near his land (13493, 13496) such as being unable to develop the land (13528, 14662, 13507) or “build a home” to live (14660) and “enjoy investment in the land” (14662), loss in the value of the land (13507), uncertain duration of

the operations (13702), the proposed “well at surface location 7 of 4” (13493), oil and gas facilities and “fear of gas leaks” (17180), and “sour gas” (17080).

Concerns emanate from “the citizen landowners” (13928, 13980) and area residents (14655, 14659, 14682) who have common issues (14655, 14659, 14682), the company (13903, 13904, 13918), and the City, which is concerned about the duration of the operations in the area (9535).

Dr. Singh is concerned about how the company deals with concerns such as cleaning up the area at the end of the operations (13746), the company’s “future [financial] capability”, and its “control” of the cleanup fund (14625).

Concerns can be addressed through the involvement of “the Board” (9535, 17155), certain measures (13844, 13928) such as “a reasonable period of time” for the operations (13928), and working together with the company (13903, 13904, 13918). The company should “take into account” (13770, 13771, 13772, 13980) and provide answers about concerns (13844).

Alberta Energy and Utilities Board (AEUB). The Board’s discussion of concerns is described in keyword statements in Table 5.6.

Table 5.6

Alberta Energy and Utilities Board’s Discussion on Concerns

Keyword table

(130 MR. McGEE) The other point I want to raise this morning is the board and staff have been on the site and have been in the area and reviewed and looked at the area of **concern**.

(384 DECISION) The Board acknowledges the **concerns** expressed by WELG members with respect to the issue of egress through the expanded EPZ.

(390 DECISION) The Board also notes that the City has not expressed any **concerns** about the ability of 17th Avenue residents to safely exit the area in the event of an emergency.

(542 DECISION) The Board appreciates the interveners’ **concerns** with regard to maintaining a separate, segregated trust to manage Petrofund’s asset retirement fund.

(691 DECISION) The interveners' **concerns** go beyond that proposed well and include operational matters in the entire Armisic Field.

The statements indicate a concern is an issue raised by the area residents and landowners about Petrofund's activities such as "egress and access" out of the area in the case of a sour gas release (384, 12650, 12638), monitoring of sour gas (14678), emergency situations (10123), "esthetic" issues (6143), "the proposed well and the existing facilities in the area" (691, 707, 722, 6991, 12441, 13065, 13073), the duration of the operations (14460), and past operational incidents (701). The residential location of the project is the main source of concerns (130). The Board also notes the City and the residents are concerned about how to address concerns (390) such as maintaining a segregated "asset retirement fund" (542).

Concerns can be resolved by the company (701, 6143) through "mitigative measures" (707), emergency response plan (12653, 14678), and "the working group program" that will bring the company and the residents together (724, 722). The City's personnel and resources can be used (10123) and "the terms and conditions" of those concerned can provide a framework to address concerns (13073, 14645). The residents and the company should "communicate openly" on concerns (724) and the company should respond to emerging issues (6991).

Comparative Analysis

The stakeholders' meanings of concerns that emerged from the descriptive analysis of key word and segment tables could be grouped and compared in terms of the seven dimensions they address in their discussion. Table 5.7 shows similarities and differences in their meanings.

Table 5.7 Stakeholders' Meanings of Concerns						
Stakeholder Dimension	Petrofund	City of Edmonton	WELG	RHG	Dr. Singh	AEUB
Stakeholders that raise concerns	*Area residents and landowners *Government agencies	*The City and other government agencies *Residents	*Residents	*Residents	*Landowners and residents *The City *Petrofund	*Residents and landowners *The City
Sources of concerns	*Past, ongoing and planned activities *A well not a significant source as compared to a goat farm *Location of the proposed well in relation to the egress route of the residences; not a source in this case because of the long distance and emergency measures *Another company's past incidents not a source because Petrofund's well is different from that project *Individual risk taking *Duration as not a source because timelines for urban development are already uncertain	*Proposed well *Location of the proposed well in relation to the egress route of the residences; not a source in this case because of the distance and the City's emergency capabilities *Duration of the operations because it affects the City's urban development plans *Another company's past incident	*Past, ongoing and planned activities *Another company's past incident *Petrofund's past incidents *Petrofund's response to past incidents *Location of the residences in relation to the egress route and the company operations	*Petrofund's operations in the area *Another field not a source because of dissimilarity between oil and gas reserves	*Existing and planned activities *Location of the land in relation to the proposed well *Externalities *Another company's past incident *Duration of the operations because it affects Dr. Singh's land development plans *Uncertainty about the future availability of clean-up fund for the area	*Existing and planned activities *Location of the project in a residential area *Duration of the operations *Individual risk taking *Petrofund's past incidents not a source because Petrofund resolves related issues

Stakeholder Dimension	Petrofund	City of Edmonton	WELG	RHG	Dr. Singh	AEUB
Types of concerns	<ul style="list-style-type: none"> *Health (e.g. quality and timeliness of sour gas data), environment (e.g. odors, noisy pump jacks, and emissions), and economic (e.g. future development of land) concerns *Societal vs. individual concerns *Potential vs. actual concerns 	<ul style="list-style-type: none"> *Health (e.g. risk of sour gas release and emergency egress) concerns 	<ul style="list-style-type: none"> *Health (e.g. potential health impacts), environment (e.g. esthetic issues), and economic (e.g. decreasing home values) concerns *Individual and common concerns 	<ul style="list-style-type: none"> *Health (e.g. sour oil wells) concerns 	<ul style="list-style-type: none"> *Health (e.g. fear of gas leaks), environment (e.g. air pollution), and economic (e.g. loss in the value of the land) concerns *Common and individual concerns 	<ul style="list-style-type: none"> *Health (e.g. risk of sour gas release and emergency egress), environment (e.g. esthetic issues), and economic (e.g. loss of goat herd) concerns
Strategies to address concerns	<ul style="list-style-type: none"> *Petrofund and government agencies are responsible to develop strategies *Developing certain steps and plans *Cooperating with local government agencies including the City and Capital Health *Engaging in consultations with the stakeholders *Utilizing financial capability 	<ul style="list-style-type: none"> *Developing certain conditions and steps 	<ul style="list-style-type: none"> *Petrofund and the City are responsible to develop strategies *Forming a group with neighbors *Developing certain terms and conditions *Directly opposing Petrofund *Raising concerns to push Petrofund and the City 	<ul style="list-style-type: none"> *Cooperating with the area residents *Badgering Petrofund *Cooperating with Petrofund 	<ul style="list-style-type: none"> *Petrofund and the Board are responsible to develop strategies *Working together with Petrofund 	<ul style="list-style-type: none"> *Petrofund and the City are responsible to develop strategies *Developing and implementing certain plans and steps *Stakeholders working together *Residents and landowners developing certain terms and conditions

Stakeholder Dimension	Petrofund	City of Edmonton	WELG	RHG	Dr. Singh	AEUB
Company approach in responding to concerns	*Proactive or not simply reacting to concerns when they are arisen *Evolving or developing with new information	*Satisfactory	*Reactive or pushed by the residents' concerns		*Self-oriented or oriented to its own benefit to the detriment of society at large	
Process to understand concerns	*Consultations, discussions, and meetings with stakeholders *Specifying concerns *Learning from past incidents	*Reciprocal contact between the stakeholders and the City	*Genuine discussions and communications between Petrofund and the residents *Petrofund acknowledging and responding to questions *Holding a pre-hearing conference			*Open communication between Petrofund and the stakeholders
Understanding frameworks to give meaning to and/or address concerns	*Governmental standards *Company ethos of environmental health and safety *Business profit		*Lived experience		*Professional knowledge	

First, the stakeholders point out people and groups who raise concerns. Petrofund mentions the area residents and landowners, and government agencies. The City also says concerns are raised by government agencies and the residents. WELG and RHG point to the area residents including their members. Like Petrofund, Dr. Singh and the Board point out the landowners and the residents, and the City. Dr. Singh also mentions the company having some concerns.

Second, the stakeholders discuss the sources of concerns. Petrofund, WELG, Dr. Singh, and the Board mention the company's existing and planned activities are considered a source of concerns. Similarly, RHG is concerned in general about the company operations in the area. The City mentions the proposed well only. Petrofund deemphasizes the proposed well as a source of concern through a comparison to a goat farm, which is claimed to result in more problems.

Petrofund and the City conceive of the location of the well in relation to the egress route of the residences as a concern although this is not the case in this well because of the distance between the well and the egress, and emergency egress measures. WELG highlights the location of the residences and the company operations in general. Similarly, Dr. Singh mentions the location of his land in relation to the well as a concern while the Board points to the location of the project in the residential area.

The recent incident in a different site is considered as a concern by the City, WELG, and Dr. Singh. A similar incident might occur in the case of Petrofund as well. Petrofund claims the two projects are not comparable because the parameters are different. In this regard, RHG also rejects a comparison

between the area and another field because the area contains oil not gas wells.

WELG is also concerned about Petrofund's past incidents and response.

Petrofund and the Board reject that Petrofund's past incidents can be a concern.

Petrofund explains the incidents created no danger for the area and the Board thinks Petrofund resolves the issues.

Another source of concern emphasized by the City, Dr. Singh, and the Board is the duration of the operations. The City is concerned because it has urban development plans for the area; similarly, Dr. Singh has commercial and residential development plans. Yet, the City does not ask for a specific timeline whereas Dr. Singh does. The Board mentions the duration of the drilling in the sour gas zone; it is a limited period of 18-25 days. Petrofund claims the duration of the operations cannot be a basis of concerns because the City's timeline for urban development, on which Dr. Singh's plans depend, is uncertain; this uncertainty is not related to the project.

Both Petrofund and the Board mention the risk taking of the landowner. They consider Dr. Singh responsible for some of his concerns because he was aware of the oil and gas operations when he purchased the land. In response, Dr. Singh claims some externalities or events beyond his control, not individual decisions, are the source of his concerns. Dr. Singh also points to uncertainty about the future availability of the clean-up fund for his land.

Third, the stakeholders point out different types of concerns that can be grouped under health, environment, and economic concerns. All stakeholders raise concerns related to the issue of health while Petrofund, WELG, Dr. Singh,

and the Board discuss also environmental and economic issues. In addition, Petrofund distinguishes between societal and individual concerns to indicate that Dr. Singh's concerns are self-oriented, and between potential and actual concerns to emphasize that some concerns do not really exist. Similar to Petrofund, WELG and Dr. Singh talk about individual and common concerns. Unlike Petrofund who does not include individual concerns in societal concerns, they consider individual concerns part of neighbors' common concerns.

Fourth, the stakeholders propose strategies to address concerns. Petrofund, WELG, Dr. Singh, and the Board point to the company's responsibility to develop strategies. Petrofund, WELG, and the Board also mention the responsibility of the City and other government agencies while Dr. Singh mentions that of the Board. For Petrofund, the City, and the Board, concerns can be addressed through certain steps and plans. Similarly, the City, WELG, and the Board think certain terms and conditions including those of the City, and the residents and landowners can help address the concerns. Another strategy is cooperation between the company and other stakeholders mentioned by Dr. Singh, RHG, and the Board. Petrofund states it cooperates with local government agencies and engages in consultations with other stakeholders. WELG and RHG emphasize cooperation between the residents as a way to raise and address their concerns.

Some strategies are proposed by one stakeholder. Petrofund refers to its financial capability to address the concern of reclamation and abandonment. WELG proposes directly opposing the company and describes raising concerns in itself as a strategy to involve the City and to develop the emergency plan. RHG

proposes badgering the company as another strategy.

Fifth, the stakeholders describe the company's approach in responding to concerns. Petrofund portrays its approach as proactive and evolving. The City finds Petrofund's approach as satisfactory. In contrast, WELG claims Petrofund is reactive, responding only when concerns are raised and pushed. Dr. Singh also has a negative opinion of the company, describing its approach oriented only to its own benefit.

Sixth, the stakeholders discuss the process of how to learn about concerns. Petrofund, the City, WELG, and the Board consider consultations between the stakeholders a primary process. WELG also emphasizes the acknowledgement and response from the company and the pre-hearing conference, which would help express the concerns. Petrofund thinks concerns should be described specifically to facilitate understanding. Different from other stakeholders, Petrofund points out learning from past incidents.

Lastly, the stakeholders indicate a number of interpretive frameworks used to give meaning to and address concerns. Petrofund mentions governmental standards and company ethos of environmental health and safety in addressing concerns. It also considers business profit a framework. In contrast, WELG highlights the value of lived experience. Similar to WELG, Dr. Singh points to a personal framework, his professional knowledge in economics.

Conceptual Analysis

In this section, I develop a conceptual analysis of the stakeholders' meanings related to the key topics in concerns described in the previous sections.

The project as a source of risk in the context of risk society. In the context of risk society, an economic activity is considered to produce risks as well as products or services (Beck, 1992). People develop a critical attitude towards economic activity and resulting risks (Beck, 1992). People demand public forums (Beck, 1992, 1994, 1999) in which a variety of values and interests including those of the lay public are represented. However, risks deepen the dependency on scientific experts and professionals for solutions (Beck, 1992).

Concerns due to the project commonly refer to risks because they signify the possibility that the project, if approved and constructed, will produce adverse effects on the physical, environmental, and economic wellbeing of the stakeholders. The stakeholders' discussion of concerns indicates that their discussion is embedded within the context of risk society (Beck, 1992). First, all the stakeholders are concerned that the project is a source of concerns and consider the company responsible to develop strategies against risks. The risks discussed by the stakeholders refer to the project-related activities that are potentially harmful to the stakeholders' health, environment, and economic wellbeing. Thus, the project is not accepted simply as a source of some product (oil and energy) (Beck, 1992). It is subject to questioning especially from public stakeholders including the residents and landowners, and the City who are the main groups using the hearing forum to raise their concerns (Beck, 1992, 1994).

Second, the City and public stakeholders including WELG and Dr. Singh consider the similarity between this project and other projects and accept that oil and gas operations are risky. The company claims any economic activity is risky

whether it is a sour oil well or a goat farm. Thus, the stakeholders accept that economic activity in general, not only this particular project, produces risks and problems (Beck, 1992).

Third, public stakeholders use individual experience and knowledge not related to the project to understand risks. For example, WELG mentions the past experience with the company and Dr. Singh highlights his professional experience as a professor of economics. The company, in contrast, refers to expert frameworks including governmental regulations and company policies based on administrative and technical knowledge of experts evaluating past experiences to address the concerns related to the project and to understand future risks. So, expert frameworks are still important while public stakeholders can propose their non-expert or lay frameworks as a reference to understand risks (Beck, 1992).

Therefore, my first proposition is:

Proposition 1: In risk society, business, public, and government stakeholders construct an organizational project as a source of risk. Business stakeholders construct risk through expert frameworks that differ from lay frameworks of members of the public.

Risk and spatial and temporal boundaries. A boundary is a cultural signifier that draws lines between something polluted and something clean for a social group (Douglas, 1973). It shows which practices and activities are included as safe or excluded as dangerous (Douglas and Wildavsky, 1982). A cultural boundary represents a group's choices of dangers and risks (Douglas, 1992; Douglas and Wildavsky, 1982). It shows the proper location of objects.

Public stakeholders indicate there is a spatial and temporal risk boundary between the project and the residential area. WELG is concerned that the

member's residences and the emergency egress route are not safe due to the closeness to the company operations. Dr. Singh mentions the unsafe location of his land very close to the well. Dr. Singh also expresses his concern about the extended duration of the operations and explicitly demands a time limit of 10 years; otherwise, his commercial and residential development plans are at risk. So, public stakeholders think the project is out of place in the area and should be temporally limited.

Business and government stakeholders are relatively less specific in understanding spatial and temporal risk boundaries. Petrofund and the City accept the well location might be a source of risk in theory but not in this case. The distance between the well and the egress route is considered long; it is the same distance perceived by WELG as short. Petrofund and the City claim that an emergency egress situation can be addressed through certain plans and capabilities. Hence, the risk is acceptable if there is any. The Board also points to the location of the project in a residential area; but it does not specify the distance. In terms of temporal boundaries, the City considers the duration a source of risk because it might delay urban development. However, the City does not ask for a time limit whereas Dr. Singh does. Petrofund disputes Dr. Singh and states the timeline for the City's development plans, on which Dr. Singh's plans depend, is already uncertain. The Board represents the risk from the project as limited since the duration of the drilling in the sour gas zone will be limited to 18-25 days. So, for business and government stakeholders, the project is already distant and there is no need to temporally limit the project. Risks are acceptable and addressable.

Accordingly, my second proposition is:

Proposition 2: Public stakeholders construct the risk from an organizational project through relatively specific spatial and temporal boundaries between the project and the residential area whereas business and government stakeholders define the boundaries relatively less specifically.

Non-repressive power relation and communicative action as a strategy of power. Power is ‘a relationship in which one person tries to control the conduct of the other’ (Foucault, 2003b: 34). Power is to control the way individuals think and behave so that certain ends can be met (Foucault, 2003a). Resistance is to oppose the attempts of control by using the relative freedom of action available in a power relation (Foucault 2003b, 2003c). Power relations occur within and through certain discourses and associated subject positions.

Some of the strategies used by public stakeholders indicate that there is a power relation between public stakeholders and the company. For example, WELG emphasizes forming a group and directly opposing the company. The group explicitly considers raising concerns a way to push the company and the City to address the risks. Similarly, RHG mentions cooperation between the area residents against the company and badgering the company as a strategy. This confrontational approach implies that the company is unwilling to address the risk unless it is forced to do so. In fact, this unwillingness is expressed by WELG when the group describes the company’s approach in responding to concerns. Dr. Singh similarly highlights that the company is interested only in its own benefit. Therefore, public stakeholders seem to resist the attempts of the company, who tries to make the people in the area accept the risks from the project by constructing the risks as acceptable and manageable. Public and business

stakeholders engage in a relation of power by coming to the hearing and occupying the subject positions of intervener and applicant, respectively, which are defined and controlled through the regulatory discourse of the hearing. This power relation between business and public stakeholders is not characterized by repression (Foucault, 1980, 1990). On the contrary, public stakeholders are able to produce and communicate knowledge about the risk in the hearing. In fact, the residents and landowners are the main group to raise concerns.

This non-repressive character is also indicated by communicative strategies the stakeholders use though in restricted ways due to the regulated nature of the public hearing and power relations. Communicative strategies can be defined as communicative action because of their orientation to consensus and mutual dependence (Habermas, 1979, 1984). Communicative action is used to convey meanings, intentions, and expectations and to develop an agreement (Wuthnow et al., 1984). It is not oriented to repressing information exchange. All the stakeholders in the hearing seem to promote cooperation. WELG suggests developing certain terms and conditions with the company. RHG and Dr. Singh suggest cooperating with the company. The company mentions consultations with the stakeholders as a strategy to address concerns. Communicative action thus seems to be an instrument of a non-repressive power relation between business and public stakeholders. It is in fact a way of raising concerns, which itself is considered by public stakeholders as a strategy of resistance. Consequently, my third proposition is:

Proposition 3: There is a non-repressive relation of power between business and public stakeholders in terms of the acceptance of the risk from an

organizational project; business and public stakeholders utilize communicative action as a strategy of power in this relation.

Individualization vs. externalization of risk. Individualization is defined as a way of life in which “the individuals must produce, stage, and cobble together their biographies themselves” (Beck, 1994: 13). In the process of individualization, individuals are constructed as responsible for managing risks, to which they are exposed (Beck, 1992). The individuals exposed to the same risks form temporary and localized political and social alliances.

In the hearing, business and government stakeholders propose that individual risk taking of Dr. Singh should be blamed for his concerns. The company and the Board state that Dr. Singh was aware of the oil and gas operations when he purchased the land in the area. Thus, it was Dr. Singh’s responsibility to manage his risks and it was his failure not to do so. In response, Dr. Singh emphasizes the role of externalities including technology and price of oil in making the project profitable and thus resulting in a number of risks for him. Externalities are not controllable by individuals. Dr. Singh constructs the company as exploiting the context and as responsible for the risks.

Individualization is also indicated by the Board’s expectation from the area residents and landowners to become an intervener in the application process and raise their concerns. Otherwise, the project is subject to the Board’s evaluation only and may proceed with the Board’s approval. In fact, the residents of WELG and RHG consider forming a group or cooperating with their neighbors to address concerns. In other words, they suggest a temporary local alliance to address the common risk for the area. In fact, WELG and Dr. Singh think that

individual concerns are part of common concerns and the residents' alliance was indeed temporary as the group that included all the residents in the area was then divided into WELG and RHG. Accepting their responsibility to become an intervener, public stakeholders still conceive of the company's existing and planned operations as the primary source of risk, and the company as responsible for addressing the risk. Furthermore, public stakeholders hold government stakeholders including the City and the Board responsible. WELG criticizes the Board for not holding a pre-hearing conference to facilitate communicating stakeholder concerns. Thus, public stakeholders externalize the risk by constructing business and government stakeholders as responsible for addressing the risk. So, I propose the following as my fourth proposition:

Proposition 4: Business and government stakeholders individualize the risk from an organizational project whereas public stakeholders externalize it.

Communicative action and understanding risk. The stakeholders including the company, the City, WELG, and the Board consider the process of communication a primary means to understand concerns even though this process is restricted and indeed highly regulated. The emphasis on consultations between the stakeholders indicates the stakeholders engage in communicative actions to express their views and learn the views of others about the risk from the project. They demand comprehensible communication as indicated by the requests of the company for specific descriptions and of WELG for a prehearing conference to better articulate the resident concerns. The stakeholders also demand truthful or sincere communication as indicated by the requests of WELG for genuineness and responsiveness and of the Board for openness. Hence, all the stakeholders try

to develop a reciprocal understanding on the risk through communicative actions, which are actually consensus-oriented and restricted through the regulations of the hearing setting. Business stakeholders also use past incidents to learn about the risk. In contrast to communicative action, learning from past incidents involves the evaluation of the company or other oil and gas companies. Public input is not mentioned. The technical expert members of oil and gas companies evaluate those industrial incidents to understand the risk of incidents. Hence, business stakeholders seem to follow a techno-scientific rationality as well as engage in communicative actions to learn about the risk. My fifth proposition follows:

Proposition 5: Business, public, and government stakeholders engage in communicative actions to understand the risk from an organizational project; business stakeholders also follow techno-scientific rationality to learn about the risk.

Summary

This chapter provided a descriptive, comparative, and conceptual analysis of the second key issue, “Concerns”. The descriptive and comparative analyses indicated the stakeholders give meaning to organizational risk by constructing concerns and trying to understand their different dimensions. The residents and landowners are the main group with concerns. The stakeholders describe concerns in terms of the source of concerns; the primary source is the company’s planned and existing operations near local residences. Business and government stakeholders highlight individual risk taking as well. The stakeholders discuss different types of concerns that are mainly related to health, environmental, and economic issues. Business and public stakeholders including WELG and Dr. Singh also distinguish between individual and common/societal concerns. The

company and the City are considered as responsible for developing and implementing the strategies to address concerns. Cooperation between the company and other stakeholders is emphasized in developing strategies. Consultations are considered to be the major means to understand concerns. Business stakeholders also emphasize learning from past incidents as a means of understanding. The stakeholders also portray the company approach in responding to concerns. Business and government stakeholders have a positive view of the approach whereas public stakeholders including WELG and Dr. Singh are mostly critical. Lastly, business and public stakeholders propose interpretive frameworks such as government standards, lived experience, and professional knowledge to give meaning to and/or address concerns.

The conceptual analysis demonstrated that the context of risk society affects the meanings of all stakeholders and results in the construction of the project as a source of risk. The project is not simply accepted as a productive economic activity. Also related to the risk society context, risk is individualized by business and government stakeholders who construct public stakeholders as responsible for the risk. In response, public stakeholders externalize the risk by holding business and government stakeholders responsible.

Public stakeholders construct relatively specific spatial and temporal risk boundaries between the project and the residential area; they try to construct the risk from the project as unacceptable in the area. Business and government stakeholders, in contrast, construct relatively less specific spatial and temporal risk boundaries. They try to construct the risk from the project as acceptable

within the residential area.

The conceptual analysis also pointed out that business and public stakeholders engage in a relation of power in terms of the acceptance of the risk from the project; business stakeholders try to make public stakeholders accept the risk within the residential area whereas public stakeholders resist the risk. This is a non-repressive power relation, in which business and public stakeholders utilize communicative action as a strategy of power. Business, public, and government stakeholders also engage in communicative actions to understand the risk from the project. Communication is the primary process to develop an idea about the risk. Business stakeholders also follow techno-scientific rationality to learn about the risk.

The stakeholders discuss and develop a number of measures or plans to address concerns. The following chapter explores the third key issue, “Measures or Plans”, and its construction process in relation to organizational risk.

Chapter 6

Interpreting Stakeholders' Discussion on Measures or Plans

This chapter presents the third key issue, “Measures or Plans”, surfaced from the data in the coding process. Measures or plans refer to the actions, steps, and strategies the stakeholders propose to address the concerns resulting from the project. My goal is to understand the stakeholders’ meanings of measures or plans and to develop theoretical insights into whether and how those meanings relate to the construction of organizational risk by using the socio-cultural theories discussed in Chapter 2. The key words that represent the issue are “plan” and “plans”.

Descriptive Analysis of Textual Data

The plans discussed by the stakeholders are directed to addressing various concerns and emergencies. They involve preventive and corrective plans. They are developed for a particular emergency area. The organization of plans is based on certain roles and responsibilities shared by the company and the City as the main responders. These plans are developed mainly through consultations. Government regulations are the major framework to evaluate the plans.

Petrofund Corporation. Petrofund Corporation’s discussion of plans is described in keyword statements in Table 6.1. Due to space limitations, I provide the first five statements for each stakeholder; complete tables are available in appendix 5-C for the reader to examine.

Table 6.1 **Petrofund Corporation’s Discussion on Plans**

Keyword table

(345 MR. MILLER) He will address questions related to compliance with the revised Emergency Response **Plan**.

(379 MR. MILLER) Mr. Chairman, as Exhibit No. 3 I would propose filing the revised Emergency Response **Plan** of Petrofund for this particular well.

(410 MR. MILLER) I would propose marking a letter from Burnet Duckworth & Palmer to the board dated April 5th, 2004 updating the board regarding various matters, including consultation, and which also included 10 attachments, one of which was a letter also to Ms. Pane regarding the amended emergency, or the revised Emergency Response **Plan**.

(1292 MR. MORRISON) We will have a site specific Emergency Response **Plan**.

(1346 MR. TIDMARSH) On slide 30 we have a map of the emergency planning zone from the revised **plan**.

For Petrofund, a plan is developed to address emergency situations due to the company's proposed well (345, 379, 410) such as "a potential sour gas release at the 7 of 4 well site" (1511, 1596, 1675, 2305), "operational emergencies" (2410), and medical "sensitivities that would prevent ready evacuation" in an emergency (4092). Plans "mitigate" the residents' concerns such as monitoring the wells in the area (2297, 1985) and ensure their safety (2337, 1472). A plan does not address "cumulative effects" (3255).

Plans include "public safety measures" (1472, 1476), "specific [drilling] measures" in case of a sour gas release (1596, 1601), sour gas measures including "air monitoring" (1697), enclosing wellheads, and installing sour gas detectors (2305). They also formulate "notification steps" for the residents at different levels of emergency (1382, 3216, 1448, 7084, 7088) and "evacuation" measures (1675, 4092, 4617, 7264). (1697). A plan might refer to "operations" phase (3231, 3233, 3235, 6566, 8270) or "the drilling and completion phase" (5449, 6562).

Plans are "site-specific" (1292, 3109) and prepared for a 500-meter "emergency planning zone" (1346, 1557, 15698). They can address both rural and urban areas (3093, 3109). Plans include the people in a certain area (1366) such as the residents in the area (3209, 7007), "the people on the west side of the river"

(4617), the people present in the area for “recreational use” (4630), and those that might not be “directly familiar with the area” (7416).

The company informs the stakeholders and residents about plans (2102, 3794, 5566, 7356). It consults and “discusses” with the residents and stakeholders (3023, 4778, 7358, 7348, 3548, 3559, 3748, 3765, 3766, 7267). The company sends “a letter” to the residents (3559) and interveners (4785) and tries “to ensure the stakeholders understood” its plans (1767) to make it “acceptable to all parties” (3139). The company also consults with government agencies including “Alberta Energy, the EUB both in Calgary and St. Albert, Capital Health, the City of Edmonton” (1783, 3070, 6905, 6562) and tries to develop “an understanding” (4723).

A plan has certain “procedures and processes” (1392, 6566, 6835, 6871, 1401, 1412) and an “organization” (4739, 1399, 1405, 1448). It is based on “the company’s organization” (6813, 6815) and carried out through a single command (6263). The roles are “assigned to specific Petrofund personnel” (1442, 1454, 6871) and include “offsite command post team” (1476) and “public safety advisor” (1491). A plan is developed by a person “directly responsible” (3384).

A plan is developed with the involvement (8312, 8328) and lead (8306) of the company. It is a “corporate organizational plan” (1397). A plan is also “cooperatively developed” (6588, 6846, 1834, 4665, 4669, 2585, 1588, 1590) with “the Capital Health Authority and the City of Edmonton” (1405, 1472, 1476, 1588, 1590, 6710, 15669, 6581, 3125). The implementation of a plan is assisted by “the municipal operations center” (1476) and “the emergency planning people

and the resources of Edmonton” (4674). The company’s specific plan (6484, 6803, 6809, 6813, 6815, 6849) is different from the City’s “municipal plan” (4630, 6448, 6497) and is integrated to (6500, 6826, 6835, 6846, 6859) and made “consistent” with the latter (6448, 6495, 6826). “The regional emergency operations centre” of the Board (1567), consultant firms (8270), and “commercial emergency services providers” (1626) are also involved in a plan.

Plans are “reviewed” (1366, 1557, 1675, 3067, 4113, 6437) and “revised” (345, 1509, 2585, 3013, 3014, 3080, 2585, 3080, 4665, 4669, 6537). They are “a work-in-progress” (6930). “Changes” are likely in plans (4739, 6518, 6905, 7353, 3172) although the “essence” is preserved (3134, 3231). Plans are subject to a “test” (3127, 6566, 1442) or an “exercise” (6518, 6527, 6540, 6572) with the cooperation of government agencies (2585, 3129). They reflect the “learnings” from an exercise (6518, 6537, 6540, 6572) and “the recent Acclaim incident” (1511).

Plans are submitted to the Board for evaluation (379, 410, 5461, 6540) and approval (3136, 3193, 4113, 5466). They are developed in line with “the guide regulations” (6585), “Alberta’s Upstream Petroleum Incident Support Plan” (1567), past experiences on similar plans (6585), and “conventional learnings and wisdom from the experience of ourselves [Petrofund] and the industry over the years” (3125). Plans are “proactively” developed (3067) through “extensive considerations” (15648) and based on a “conservative” rate of sour gas (15698).

City of Edmonton. The City of Edmonton’s discussion of plans is described in keyword statements in Table 6.2.

Table 6.2
City of Edmonton's Discussion on Plans
Keyword table

(8727 MS. AINSLEY) Bob Black is the expert in the Emergency Response **Plan**.

(8832 MR. BLACK) We do these fairly routinely, with all the petrochemical companies, reviewing their emergency response **plans**.

(8893 MR. BLACK) We get copies of all updated emergency response **plans** from all operators on a regular basis.

(8908 MR. BLACK) We have been working with them for about, as I say, until -- from September/October of last year, working with them on the **plan** for this particular project.

(8910 MR. BLACK) We had their general emergency **plan**.

For the City, plans address potential emergencies (8727, 9347) due to “this particular project” (8908). They are developed by “petrochemical companies” (8832), “fairly routinely” reviewed by the City (8832, 8893, 8910, 9707, 9710) through its experts (8727), and updated “on a regular basis” (8893). A plan is not “finished until it’s been validated” (9036) with an “exercise” (9021, 9036, 9670) in which both the City and the company are involved (9036).

The City works “with Petrofund and with the residents” to develop a plan (9628, 8908, 9007) “with a lot of dialogue” (9014, 9015) in “one of the most rigorous processes” as compared to other projects (9007). It has its own “municipal emergency plan” (9011, 9013, 9691, 9692, 9839, 9847) different from the company’s plan (9691, 9692), which is “compared” and “adjusted” to the City’s plan (9011, 9013, 9014, 9015, 9714, 9719, 9744, 9839, 9847). The City also distinguishes between “an all-hazards plan” (9691, 9692, 9703, 9705), “contingency plans” (9700, 9701, 9707, 9710), “supporting plans” (9700, 9701), general or specific plans (9700, 9701, 9853) such as “a petrochemical event plan”

(9704) or “a gas well plan” (9705). The City’s plan addresses command and control, communications, and department responsibilities (9700).

West Edmonton Landowners Group (WELG). The WELG’s discussion of plans is described in keyword statements in Table 6.3.

Table 6.3

West Edmonton Landowners Group’s Discussion on Plans

Keyword table

(3044 MR. BODNAR) Is it fair to say that the involvement of the city and the development of the present **plan**, if you will, was spawned primarily by the concerns the landowners were raising?

(3131 MR. BODNAR) So you believe you have the correct **plan** now?

(3142 MR. BODNAR) That **plan**, Mr. Tidmarsh, as I understand, is a drilling and completions plan?

(3143 MR. BODNAR) That plan, Mr. Tidmarsh, as I understand, is a drilling and completions **plan**?

(3148 MR. BODNAR) Does Petrofund have an operations Emergency Response **Plan**?

For WELG, Petrofund develops plans (3131, 11110) to address emergencies due to its project (3229, 3302, 12405, 16338) because “the landowners were raising” their concerns (3044). In plans, the company should consider “the peculiar circumstances of this [urban] area” (3244) such as population density (4591, 4609) and the “factors that affect that access” such as the degree of traffic on the road (3302, 8946, 16655). Plans should address general issues about the oil wells at “7 of 4 or 13 of 33” locations (11110, 11113) and specific medical circumstances (4095). They include people “within emergency planning zone” (12239, 12577, 12579).

Plans include measures “specific to his [individual] circumstances” (4095, 4108), evacuation measures (8946, 9057), and H₂S monitoring measures not hinging “on somebody saying there’s a leak” (11718), and measures for “drilling

and completions” (3142, 3143, 3179, 3229, 8997, 12239, 16864) and “operations” phases (3148, 3158, 3179, 3221, 3223, 3229, 16626, 16864). The responsibilities of the company and the City should be clear in plans (16453), which should be “fully operational” (9033, 9003, 11790, 11795, 16744), “effective” (12405), and “proper” (16862). A plan is tested in a real-life emergency as in “the incident at 13 of 33” (11795, 16744). “The Board will have to review a plan” (3239) and the company should consider the Board’s unofficial “recommendations” to develop a plan (16806).

The company should “present” its plans to every family in the area (3762, 3776, 3780, 3796, 3187) and “consult with” the residents (3542, 3732, 11113, 11117, 11731, 12502, 12514, 12816, 16626) and their legal counsels (3790). “There is no” plan unless it is developed through consultations (16659). The City examines oil and gas companies’ plans (8882) and generally participates in developing and implementing them (9003, 9057, 16338) with its resources (9057).

Dr. S. P. Singh. Dr. Singh’s discussion of plans is described in keyword statements in Table 6.4.

Table 6.4

Dr. S. P. Singh’s Discussion on Plans

Keyword table

(5444 MR. ENGELKING) The emergency **plan** that we have seen so far, that deals with the drilling phase.

(5464 MR. ENGELKING) I take it we don’t have an Emergency Response **Plan** for the production phase?

(5535 MR. ENGELKING) What’s the **plan** for reclamation?

(5558 MR. ENGELKING) And is this **plan** reduced to writing anywhere?

(5560 MR. ENGELKING) Have you made a commitment to the residents that you will reduce this **plan** to writing and provide it to them?

The statements indicate that plans are developed by the company to address potential emergencies due to its operations (5444, 17026). Plans should address “the reclamation and abandonment of this facility” (5535, 17107, 17119) and include measures for “the drilling” (5444) and “the production” phases (5464, 17055, 17060, 17070), “the maintenance of our [Petrofund’s] pipeline and our [Petrofund’s] facility” (17077). The landowner and residents should be informed about plans (5558, 5560, 5577, 17070) and able to “have had some input” into them (17107, 17119). The City is also involved in a plan (17039), which should be put into a “test” (17039, 17052) to make sure that it “works” (17026, 17052).

Alberta Energy and Utilities Board (AEUB). The Board’s discussion of plans is described in keyword statements in Table 6.5.

Table 6.5

Alberta Energy and Utilities Board’s Discussion on Plans

Keyword table

(348 DECISION) The Board expects that the final updates and revisions to the **plan** will accurately reflect the procedures and site-specific information required by responders in order to implement an effective response in the event of a release of sour gas.

(365 DECISION) The Board requires that the applicant consult with these local agencies during the initial stages of developing its ERP in order to confirm the availability of resources needed to ensure the effectiveness of the **plan** and the various parties’ acceptance of their respective roles and responsibilities.

(712 DECISION) The Board has also taken note of Petrofund’s commitment to put a written **plan** into place to inform area landowners of the steps it intends to take to properly abandon the wells in the area, remove all surface facilities, and remove all pipelines upon Petrofund’s or its successor’s exit from the Armisic Field.

(726 DECISION) The Board suggests that the parties work with the City to develop a **plan** on how to implement the recommendations resulting from the 1983 Board inquiry into oil and gas development in west Edmonton.

(6167 MR. PERKINS) Have you got any **plans** to build berms, plant trees, disguise, for a better word, oil field facilities as some other structure, whether give it the appearance of a residence or a barn or something like that?

For the Board, plans address “the event of a release of sour gas” (348), concerns about “safety and monitoring” related to sour gas (14643, 14648), and potential emergencies due to the project (8261, 9659, 9660). They include “abandonment and reclamation” measures (712, 14502) such as a “segregated fund” (14567), landscaping measures “to build berms, plant trees, disguise, for a better word, oil field facilities” (6167), evacuation measures (7261) such as “an access to 17th Avenue to the west” (13033), commitments to address individual sensitivities (9842), general safety and gas monitoring measures (14643, 14648). Plans include certain “procedures”, “scripts”, and “policies” (348, 6866, 9830), and “roles and responsibilities” (365). They are implemented through “unified action” of emergency responders (6292). Plans reflect “site-specific information” about the area (348).

A plan is developed with the involvement of the company and consultant firms (8261), and the City (726, 10139). It employs “city personnel responding to an incident” (6866) and “resources” (365). The City’s plan (6781) is different from Petrofund’s plan (6781, 6866), which should be “compatible with the City of Edmonton’s municipal emergency plan” (6423, 6424, 6428, 9682, 9659, 9660, 9830, 9842). The two should be able to “work together” (9686, 9687).

For plans, the company should “consult with these local agencies” (365) and “inform area landowners” (712) who provide “some input” (14502). “The recommendations resulting from the 1983 Board inquiry” should be reflected in plans (726). A plan should be tested (9659, 9660) before the drilling (9674). There might be “updates and revisions to the plan” (348, 6423, 6424).

Comparative Analysis

In order to understand similarities and differences between the stakeholders' meanings of measures or plans that emerged from the analysis of key word and segment tables, this section groups and compares the meanings in terms of the eight dimensions addressed by the stakeholders. Table 6.6 provides the views of the stakeholders, grouping them through those dimensions.

First, the stakeholders discuss their concerns to be addressed by plans and measures. Emergency situations are the main concern for all. Petrofund mentions several other concerns including operational emergencies, potential sour gas release, medical sensitivities and problems during emergency situations, monitoring issues regarding existing and proposed wells, safety and protection of residents, and resident concerns in general, implying there is a plan for every concern. Yet, the company ignores the cumulative impacts of its operations on the area. The Board focuses on sour gas among stakeholder concerns. WELG and Dr. Singh emphasize their specific concerns to be addressed by plans: a safe emergency access out of the area and an effective reclamation and abandonment of the land.

Second, the stakeholders point out different types of plans. They all talk about preventive plans to prevent or minimize the impacts of a potential hazardous event and corrective plans to respond to an already unfolding hazardous event. Further, Petrofund, the City, and the Board distinguish between company and municipal plans. The City describes the former as contingency and the latter as all-hazards plans.

Table 6.6 Stakeholders' Meanings of Measures or Plans					
Stakeholder Dimension	Petrofund	City of Edmonton	WELG	Dr. Singh	AEUB
Concerns to be addressed by plans	<ul style="list-style-type: none"> *Emergency situations due to the proposed well *Operational emergencies *Potential sour gas release *Concerns regarding medical sensitivities and problems during emergency situations *Monitoring issues regarding existing and proposed wells *Safety and protection of residents *Resident concerns in general *Cumulative effects not considered as a concern 	<ul style="list-style-type: none"> *Emergency situations due to the project of the company 	<ul style="list-style-type: none"> *Emergency situations and concerns due to Petrofund's proposed and existing wells *Emergency access or exit out of the area 	<ul style="list-style-type: none"> *Emergency situations due to the company operations *Reclamation and abandonment concerns 	<ul style="list-style-type: none"> *Emergency situations due to the project *Sour gas emergencies *Safety and monitoring issues related to sour gas

Stakeholder Dimension	Petrofund	City of Edmonton	WELG	Dr. Singh	AEUB
Types of plans	<p>*Plans to be implemented before a hazardous event (sour gas plans against potential release, drilling and completion plan, operations plan)</p> <p>*Plans to be implemented after a hazardous event (safety plans to be implemented during emergency situations, monitoring plans during emergencies of sour gas release, notification plan, evacuation plan, communication plan)</p> <p>*Preventive (e.g. controlling truck traffic to minimize noise and accidents) vs. corrective plans (e.g. reducing current sound levels of the operations)</p> <p>*Municipal vs. company plan</p>	<p>*Preventive (e.g. emergency response plan to prevent further impacts in an unfolding emergency) vs. corrective plans (e.g. emergency response plan to minimize the impacts of an unfolding emergency)</p> <p>*Municipal vs. company plan</p> <p>*All-hazards or general plans vs. contingency or specific plans</p>	<p>*Plans to be implemented before a hazardous event (operations plan, drilling and completion plan, sour gas monitoring plan that does not rely only on individuals)</p> <p>*Plans to be implemented after a hazardous event (specific plans for individual circumstances, evacuation plan)</p> <p>*Preventive (e.g. monitoring for early detection of possible sour gas leaks) vs. corrective plans (e.g. landscaping)</p>	<p>*Plans to be implemented before a hazardous event (drilling and completion plan, operations plan, maintenance plan for pipelines and facilities)</p> <p>*Plans to be implemented after a hazardous event (reclamation and abandonment plan)</p> <p>*Preventive (e.g. asset retirement fund against Petrofund's possible failure to restore the area) vs. corrective plans (e.g. reclamation and abandonment plan to restore the area)</p>	<p>*Plans to be implemented before a hazardous event (safety and monitoring plans)</p> <p>*Plans to be implemented after a hazardous event (plans for individual sensitivities, reclamation and abandonment plan, landscaping plans, evacuation plan)</p> <p>*Preventive (e.g. automatic sour gas detectors to minimize the impacts of a gas leak) vs. corrective plans (e.g. landscaping)</p> <p>*Municipal vs. company plan</p>

Stakeholder Dimension	Petrofund	City of Edmonton	WELG	Dr. Singh	AEUB
Parameters, on which plans are based	<ul style="list-style-type: none"> *Calculated emergency zone of 500 meters *Not differentiating between urban and rural regions *Focus on the people who are potentially directly and adversely affected *Calculated sour gas rate at .09 meters cubed per second 	<ul style="list-style-type: none"> *Emergency planning zone 	<ul style="list-style-type: none"> *Emergency planning zone *Urban area with unique circumstances *Factors that affect emergency exit *Individual residents' specific medical circumstances 	<ul style="list-style-type: none"> *Calculated emergency protection zone *Approximate estimate of the proposed well's operational life as 10 years *Future availability of financial resources for the implementation of the plan 	<ul style="list-style-type: none"> *500 meter emergency planning zone *Calculated sour gas concentration and flow rate *Site-specific circumstances *Proximity to a major urban center
Organization, through which plans are implemented	<ul style="list-style-type: none"> *Clear roles and responsibilities of the company personnel including positions of offsite command post and public safety advisor *Single command structure *Involving certain procedures and processes *Based on Petrofund's organization and personnel 	<ul style="list-style-type: none"> *Clear roles and responsibilities of the City's departments *Command and control, and communication structure 	<ul style="list-style-type: none"> *Clear roles and responsibilities of the City and the company *Required to be fully operational and work 		<ul style="list-style-type: none"> *Clear roles and responsibilities of the responders *Unified action and command *Certain procedures, scripts, and policies

Stakeholder Dimension	Petrofund	City of Edmonton	WELG	Dr. Singh	AEUB
Process to develop plans	<ul style="list-style-type: none"> *Consultations with the stakeholders, residents and landowners *Consultations with government agencies including Alberta Energy, the EUB, Capital Health, the City *Learnings from the exercise of the plan and from the incident in the Acclaim Energy's well site *Ongoing process with revisions and updates 	<ul style="list-style-type: none"> *Dialogue and consultations with mainly Petrofund *Working together with the residents *Validation of the plan with exercise *Continuous process 	<ul style="list-style-type: none"> *Consultations with individual residents and their legal counsel 	<ul style="list-style-type: none"> *Consultations with the landowners for their input into the plan *Testing the plan to ensure that it works 	<ul style="list-style-type: none"> *Consultations with local government agencies and area landowners *Testing the plan for validation *Work-in-progress with updates and revisions
Approach in developing plans	<ul style="list-style-type: none"> *Petrofund's approach as proactive, thorough with extensive considerations, and cautious with conservative calculation of sour gas rate 	<ul style="list-style-type: none"> *Petrofund's approach as rigorous 			

Stakeholder Dimension	Petrofund	City of Edmonton	WELG	Dr. Singh	AEUB
Responders involved in the implementation of plans	<ul style="list-style-type: none"> *Petrofund *The City and Capital Health Authority with the integration of the City's plan and resources into the company's plan *The Board's regional operations center *Consultant firms *Commercial service providers 	<ul style="list-style-type: none"> *Petrofund as a petrochemical company *The City reviews the plan and integrates it into its municipal plan 	<ul style="list-style-type: none"> *Petrofund *The City examines the plan and makes its resources available in implementation *The City's involvement might be ineffective because the City is not aware of the area circumstances 	<ul style="list-style-type: none"> *Petrofund *The City 	<ul style="list-style-type: none"> *Petrofund *The City, Capital Health, and local government agencies with their plans, personnel, and resources integrated into Petrofund's plan *Consultant firms
Reference guides to understand or evaluate plans	<ul style="list-style-type: none"> *The Board's guides and regulations *Petrofund's past experience on similar plans *Industry's common experience over years *Special expertise of consultants 	<ul style="list-style-type: none"> *Professional expertise of the City's employees 	<ul style="list-style-type: none"> *The Board's regulations and unofficial recommendations *Experience of the residents with Petrofund in past incidents *Petrofund's inexperience in urban areas 		<ul style="list-style-type: none"> *The Board's regulations and official recommendations

WELG, Dr. Singh, and the Board emphasize the plans that address specific concerns (e.g. plans for individual sensitivities) as well as general plans (e.g. safety and monitoring plans). In contrast, the plans indicated by Petrofund do not refer to specific concerns but seem to cover every aspect of the project, implying all concerns are addressed.

Third, the stakeholders point out parameters a plan should be based on. A pre-defined emergency area is a common parameter for all. Petrofund, Dr. Singh, and the Board state this is a calculated zone, the area extending 500 meters from the well. Petrofund and the Board points also to the calculated release rate of sour gas used to determine the size of the emergency zone.

WELG and the Board think the area circumstances and urban location should be taken into account. WELG also emphasizes the factors that affect the emergency exit out of the area. In contrast, Petrofund does not clearly distinguish between rural and urban areas and suggests also plans are based on the concept of direct and adverse effect. Against this general concept, WELG states that some residents have specific medical situations, which should be factored into plans.

Different from others, Dr. Singh emphasizes the future availability of financial resources and an approximate time limit (10 years) as a parameter. Both WELG and Dr. Singh propose parameters in line with their specific concerns whereas Petrofund, the City, and the Board have general parameters.

Fourth, the stakeholders consider plan organization and emphasize a clear division of labor. Petrofund and the City refer to intra-organizational whereas WELG and the Board refer to inter-organizational roles and responsibilities

between the company and the City. Petrofund highlights that plans are based on its own organization and personnel. Petrofund, the City, and the Board emphasize also a single command and control structure. Petrofund and the Board share the view that there must be certain procedures, processes, and policies to implement plans. As a different point, WELG mentions the importance of a fully operational organization.

Fifth, the stakeholders talk about plan development process. For all, the process involves consultations with the others. Petrofund, the City, and the Board indicate the necessity of the company's consultations with both area residents and landowners, and government agencies whereas WELG and Dr. Singh emphasize the consultations between the company and the residents and landowners. WELG does not even consider plans to exist if consultations are not satisfactory. All the stakeholders except WELG express the need for an exercise of plans. Petrofund, the City, and the Board indicate there might be revisions in plans as a result of an exercise. Petrofund also mentions learning from other projects and incidents to contribute to plans.

Sixth, Petrofund describes its approach in developing plans; it is proactive, thorough with extensive considerations, and cautious with a conservative calculation of the sour gas release rate. The City also has a positive view of Petrofund's approach, describing it as rigorous.

Seventh, the stakeholders identify Petrofund and the City as principal responders in emergencies. The integration of the City's plans and resources into the company's plans is emphasized by Petrofund, the Board, and the City itself.

Other government agencies such as Capital Health and consultant firms are mentioned by Petrofund and the Board. Petrofund also indicates the participation of the Board's regional center and commercial service providers in plan implementation. Unlike others, WELG expresses some doubts about the effectiveness of the City's involvement because the City does not have enough knowledge about the area.

Lastly, the stakeholders point to reference guides used to evaluate plans. The Board's official guides and regulations are mentioned by Petrofund, WELG, and the Board itself. WELG adds the Board's recent unofficial recommendations should also be considered. The company emphasizes its experience as well as general industry experience over the years in developing similar plans and WELG mentions the group members' experience with the company and the company's inexperience in urban areas. The last reference is professional expertise. Petrofund uses special expertise of consultant firms while the City has expert employees to review plans.

Conceptual Analysis

This section provides a conceptual interpretation of the stakeholders' meanings of measures or plans relating them to the theoretical concepts discussed in Chapter 2.

Organizational risk as universally or locally manageable through rational-purposive actions and rituals. Plans can be conceptualized as a rational-purposive action (Habermas, 1979, 1984) because they seek to transform and control human action and material environment in a way to manage

organizational risks and address concerns. Plans are not oriented to reaching consensus on some issues (Wuthnow et al., 1984). They are used to organize and deploy the company's and government agencies' human and material resources to manage risks. Plans can be understood also as a ritual because they reestablish or reproduce safety in the area where the company intends to build its project (Douglas, 1975). Plans construct that risky organizational operations are acceptable within the residential area because the risks are manageable.

Petrofund as a business stakeholder constructs organizational risks as addressable and manageable. The company mentions several concerns to be addressed by some rational-purposive actions and rituals. There seems to be an action or ritual for every kind of risk. Petrofund indicates there are preventive and corrective actions and rituals that organize and deploy company personnel and resources to ensure the controllability and mitigation of risks and to reestablish or reconfirm the safety of the residents. Actions and rituals do not refer to specific stakeholder concerns, which seem to be one of many risks that are manageable in general. The company, interestingly, does not comment on the cumulative effects of its operations, which are unlikely to be managed with its resources and thus to be constructed as manageable. It also states that the development of actions and rituals is ongoing; the risks that seem not to be addressed will be addressed eventually as the process results in complete and updated plans.

Like business stakeholders, government stakeholders construct organizational risks as manageable through rational-purposive actions and rituals that organize and utilize the resources of the company and the City. Government

stakeholders recognize that the project might lead to emergency situations especially related to sour gas. Yet, there are preventive and corrective actions and rituals to prevent or mitigate related risks such as emergency response plan and reclamation and abandonment plan. Further, the Board states that specific actions and rituals can be developed for specific concerns such as the plans that address medical sensitivities. There are also municipal plans to address potential risks including those due to the current project. Like Petrofund, government stakeholders consider the development of actions and rituals as ongoing. Hence, they imply all risks will be addressed eventually.

Public stakeholders specify the risks to be addressed. For example, WELG is concerned about a safe exit out of the area during an emergency. Public stakeholders ask for specific plans for individual circumstances and concerns such as a reclamation and abandonment plan. Thus, organizational risks are manageable to the extent that they are specifically and locally addressed. Public stakeholders have a locally situated understanding of risks, and actions and rituals. This is also indicated by the WELG's request for clear roles and responsibilities between the company and the local governmental authority (the City) in the implementation of plans. WELG is concerned about the ineffective and poorly-organized involvement of the City, which is not aware of the local circumstances. Therefore, public stakeholders request locally situated nature of risks should be taken into account in rational-purposive actions and rituals. They construct organizational risks in this case as manageable if local situations were considered. Yet, risks are not manageable in every case because local

circumstances might indicate otherwise. Therefore, I propose the following as my first proposition:

Proposition 1: Business and government stakeholders construct organizational risk as universally manageable through rational-purposive actions and rituals whereas public stakeholders construct it as locally manageable.

Social stock of knowledge used to develop and evaluate rational-purposive actions and rituals. Social stock of knowledge refers to the sum total of shared meanings regarding the identities, roles, and activities of social actors within a group (Berger and Luckmann, 1966). It also represents the interests of social groups (Wuthnow et al., 1984). Business stakeholders seem to utilize technical stock of knowledge to develop and evaluate plans or rational-purposive actions and rituals to prevent and mitigate risks. For example, they base plans on technical calculations and utilize the experience of technical experts and consultants who developed plans in the past. Government stakeholders also refer to technical stock of knowledge, referring to a calculated planning zone and sour gas release rate and utilizing technical-professional experts to evaluate plans.

Business and government stakeholders also point to legal stock of knowledge. They consider the Board's official guides and regulations a primary reference to evaluate plans. Technical and legal stocks of knowledge are institutionally based; they are accumulated and located in the experiences and official documents of certain institutions and organizations including oil and gas industry, the Board, the City, and the company. The Board also refers to local knowledge when it mentions site-specific circumstances as a parameter. Yet, the Board relates this consideration to meeting or exceeding the regulations.

Public stakeholders recognize plans are based on a calculated emergency zone. Yet, they focus on local area circumstances and individual concerns, emphasizing local and individual stocks of knowledge. For example, WELG thinks that the area's unique urban nature, the factors that might affect safe exit out of the area, and medical sensitivities of individual residents should be taken into account when developing plans. WELG also highlights its members' experience with Petrofund. Because of their concerns orientation, public stakeholders go beyond strict formal frameworks of technical or legal stocks of knowledge when they refer to those frameworks. For example, WELG accepts the official regulations as an important stock of knowledge; however, the group emphasizes the Board's unofficial recommendations, which are considered to be an up-to-date reference to better address the sour gas risk. Thus, formal technical and legal stocks are at most a secondary framework for public stakeholders. Individual concerns and associated local knowledge are the main reference. Then, my second proposition is:

Proposition 2: Business and government stakeholders refer to institution-based technical and legal stocks of knowledge to develop and evaluate rational-purposive actions and rituals to prevent and mitigate organizational risks whereas public stakeholders refer to individual-based local stock of knowledge.

Communicative action to develop rational-purposive actions and rituals. Communicative action is not oriented to transforming human action and material environment through efficient means but to developing consensus or common understanding between social actors (Habermas, 1979, 1984). It is used to convey meanings, intentions, and expectations in order to reach an agreement

(Wuthnow et al., 1984). For all stakeholder groups, communicative action seems to be a primary means of formulating rational-purposive actions and rituals.

Business and government stakeholders mention the company's consultations with the area residents and landowners, and local government agencies while public stakeholders emphasize the consultations between the company and the residents and landowners. WELG does not consider actions and rituals acceptable at all if they are not developed through consultations. Dr. Singh wants to have his thoughts and suggestions included in actions and rituals. Thus, all stakeholders accept that rational-purposive actions and rituals have a communicative basis. Public stakeholders are especially concerned about having their voice heard.

In addition to communicative action, all stakeholders except WELG point out the test or exercise of plans provides further learning in the development process. They refer to a technical process carried out by the experts of the company and the Board, which also evaluate the results of the exercise. Business stakeholders especially promote this techno-scientific rationality, which is an analytical perspective based in scientific methods and models as used by scientific experts (Beck, 1992). The company mentions the possibility of learning from another company's project and incident. This again involves the evaluation of the incident by technical experts, which is integrated into the company's plans; public input is not part of the process. Hence, the stakeholders, particularly business stakeholders, seem to utilize a techno-scientific rationality as well as communicative actions to develop actions and rituals against organizational risk. Then, my third proposition is:

Proposition 3: Business, public, and government stakeholders utilize communicative actions and techno-scientific rationality to develop rational-purposive actions and rituals to prevent and mitigate organizational risks; public stakeholders especially emphasize the communicative basis of rational-purposive actions and rituals whereas business stakeholders emphasize the techno-scientific basis.

Summary

This chapter provided a descriptive, comparative, and conceptual analysis of the third key issue, “Measures or Plans”. The descriptive and comparative analyses pointed out that the stakeholders give meaning to organizational risk by constructing measures or plans and their different dimensions. Plans are developed to address the concerns and possible emergencies resulting from the company’s project. Petrofund and the Board talk about general concerns while WELG and Dr. Singh highlight their particular concerns to be addressed by plans. Two main types of plans include preventive and corrective plans. Public stakeholders including WELG and Dr. Singh, and the Board emphasize specific plans whereas Petrofund is not specific in describing plans. For all stakeholders, a pre-defined emergency area is a major parameter in developing plans. Calculation is especially important as a method for the company and the Board to determine parameters. Public stakeholders propose parameters in line with their specific concerns. The stakeholders emphasize clear roles and responsibilities in the organization of plans.

Consultations are a main process, through which plans are developed. The other process involves learning from the test of plans, which is especially supported by business and government stakeholders. These stakeholders also think the development is an ongoing process. The company and the City describe

the company's approach in developing plans in positive terms such as thorough and rigorous. The stakeholders consider the company and the City the main responders in emergencies; yet, WELG expresses concerns about the effectiveness of the City's involvement. Official government regulations are the major reference for all stakeholders while WELG also indicates the importance of the Board's unofficial recommendations.

The conceptual analysis showed that business and government stakeholders construct rational-purposive actions and rituals as universally applicable and organizational risks as universally manageable through those actions and rituals. They refer to institution-based technical and legal stocks of knowledge to develop and evaluate rational-purposive actions and rituals to prevent and mitigate organizational risks. In contrast, public stakeholders construct actions and rituals as locally applicable and organizational risks as locally manageable. They refer to individual-based local stock of knowledge. All stakeholders engage in communicative actions and follow techno-scientific rationality to develop actions and rituals; but public stakeholders focus especially on the communicative basis of actions and rituals whereas business stakeholders' focus is their techno-scientific basis.

Measures or plans, concerns, and the project in general are explored and discussed by the stakeholders through the process of consultations. The following chapter looks into the fourth key issue, "Consultations", and its construction process in relation to organizational risk.

Chapter 7

Interpreting Stakeholders' Discussion on Consultations

This chapter presents the fourth key issue, “Consultations”. Consultations refer to the attempts of the stakeholders to communicate and resolve the issues of concern regarding the project and to develop a common understanding on those issues if possible. The goal of this chapter is to describe and compare the stakeholders' meanings of consultations and develop theoretical insights into the construction of consultations in relation to organizational risk through a conceptual interpretation by using the socio-cultural theories discussed in Chapter 2. The key words used in the analysis are “consultation” and “consultations”.

Descriptive Analysis

Consultations refer to the main process used to understand the project, concerns resulting from the project, and measures or plans developed to address those concerns. The company and the residents are the main parties engaging in consultations. The stakeholders emphasize the results of consultations such as agreements and commitments and participate in consultations in person or through representatives. They also discuss their approach in consultations and refer to a number of guides including government regulations used to evaluate consultation attempts.

Petrofund Corporation. Petrofund Corporation's discussion of consultations is described in keyword statements in Table 7.1. The first five statements for each stakeholder are presented here; complete tables can be found in appendix 5-D.

Table 7.1
Petrofund Corporation's Discussion on Consultations
Keyword table

(318 MR.MILLER) He will address questions related to the public **consultation** efforts undertaken by Gecko on behalf of Petrofund.

(406 MR.MILLER) I would propose marking a letter from Burnet Duckworth & Palmer to the board dated April 5th, 2004 updating the board regarding various matters, including **consultation**.

(668 MR.MILLER) There's been quite a bit that's happened since the time that Petrofund started its initial **consultation** for this project and so on.

(1714 MR.MILLER) Can you explain how Petrofund went about designing its **consultation** plan for this well license process?

(1723 MR.VAN TETERING) Petrofund established a multi-disciplinary team, which included senior management, production and operations, environment, health and safety, geology, drilling and completions, surface land through Land Solutions Incorporated, emergency planning and public **consultation** through Gecko Management Consultants.

The statements show that consultations are “undertaken by Gecko [consultant firm] on behalf of Petrofund” (318, 1723, 15541, 15544) although the company is primarily responsible for them (1714, 1799, 8310, 15541, 15544). The company consults with “the city area residents” (3016, 7363, 15885, 15888, 4586, 5695), “their authorized legal representatives” (15888), “close landowners” (4586, 5695), “community leaders” (16069), the City (4661), people living or working in the emergency protection zone (1734, 1741) and nearby neighborhood (1808, 1729), and “interveners” in general (4786). Consultations involve “public meeting” and “individual meetings” (1944) as well as “personal visits” and “the mail-out” (4786).

Consultations are carried out for “this project” (668), “the 7 of 4 well” (1714, 1725, 2234, 15885), or an oil and gas “facility application” in general (2542). They address “drilling” and “production” phases of the project (7443), “potential concerns or objections” (1761, 1729, 2241, 2427, 3429) including “odors from the 6 ever 4 battery, unacceptably noisy pump jacks from the various

pads and general concerns about emissions” (2245, 6149) and medical sensitivities (4088), and plans for addressing concerns such as “emergency response plan” (4778, 4786).

Consultations inform government agencies such as “Alberta Energy, the EUB both in Calgary and St. Albert, Capital Health, the City of Edmonton”, and the residents (4049) about the company’s operations and emergency plans (1784, 2234, 7357, 7363) “to ensure the stakeholders understood Petrofund’s plans” (1761). They provide the company with “the community feedback” (1761) and “[government agencies’] advice” (1784, 1787, 2749, 15642) about the project and related concerns and help meet “the needs of the residents, the EUB, public stakeholders, the City of Edmonton, the Capital Health Authority and Petrofund” in designing emergency plans (1761, 7443). Consultations do not always lead to commitments or agreements; for example, “the company couldn’t commit to not drilling at 3 of 4” location (5695, 16069).

Petrofund designs a consultation “plan” (1714, 1799) as part of the project (1723). This plan identifies “stakeholders and approaches” (1757) and utilizes “information [from government agencies] that would be important to know for an effective consultation” (1784, 1787). Particular personnel carry out consultations (318, 3031, 7357), which can be “formal” or informal (3039).

The company changes the area of consultations, “generally expanding it” (1729) “over what they’d normally do” (4584) “to include others who we [Petrofund] thought might be interested in the project” (1804). Consultations are “efficient” (1944), “proactive” (2197), “extensive” (2427, 2749), “thorough”

(4786), and “comprehensive” (15541, 15544). Petrofund has “the best approach” (8310) and “a strong commitment” to consultations (15788, 16221). This is “an ongoing process” (2571, 1725, 15788, 16221). The residents’ unproductive approach “makes consultation very difficult” (17882) and “high-centered” to narrowly focus on certain issues (17895, 17898) and prevent “meaningful consultation” (17885). Consultations are evaluated by the Board that “will judge the efforts of” the company (17870, 406, 4778, 15607). They are carried out by “consultation experts” (15541, 15544) in line with “EUB requirements for public consultation” (1777, 1801, 2542), the industry’s “CAPP guidelines for public involvement” (1801, 2197), and “a company-wide public consultation policy” (1790, 4049).

City of Edmonton. The City does not provide any statements including the key words. Hence, I use the segment table for the City, in Table 7.2, to illustrate its views on consultations.

Table 7.2
City of Edmonton’s Discussion on Consultations
Segment table

(2371 MS. AINSLEY P-218-316) We have had contact with a number of stakeholders, other departments, utilities agencies, Capital Health and some of the affected residents; and in having that contact, we have attempted to draw up conditions that we think would satisfy their concerns, and we have put those in a letter to you. And I guess that Petrofund has supported our conditions.

(2778 MR. BLACK P-218-316) We started off with them presenting us with their plan, which we then examined and, carefully, and compared it to our municipal emergency plan.

(3646 MS. AINSLEY P-218-316) The residents all have my number now. They can, if they are -- you know, and I have made myself available to them if they have any concerns.

Consultations address the concerns about the project (2371) and the plans for addressing those concerns such as emergency plans (2778). They are ongoing (3646) and result in an agreement with the company as “Petrofund has supported

our [the City's] conditions" (2371).

West Edmonton Landowners Group (WELG). The WELG's discussion of consultations is described in keyword statements in Table 7.3.

Table 7.3

West Edmonton Landowners Group's Discussion on Consultations

Keyword table

(3007 MR. BODNAR) I understand that there's been a lot of **consultation** that's taken place here.

(3020 MR. BODNAR) How long prior to that time, Mr. Tidmarsh, was there this **consultation** going on with residents in the area?

(3653 MR. BODNAR) Your **consultation** process is flawed then.

(3728 MR. BODNAR) He is trying to skirt around the **consultation** process here.

(3933 MR. BODNAR) Is it fair to say that basically all that was resolved with River Heights was a commitment to do more **consultation** on future applications?

For WELG, the company is responsible for consultations (3653, 3728, 12468, 16898). The contribution of "all these consultation experts" working for the company is questionable (16518). Consultations occur with "residents in the area" (3020), the residents' legal counsel (15356, 12899, 15356), and "the affected people" in general (16660). Consultations should be based "land holding interests" and titles in the area (4551, 4566, 4745, 4750). They address Petrofund's current project and existing operations (15341, 3007), and oil and gas "applications" in general (3933). They are about the stakeholders' concerns (12468, 15332, 15334, 16536) such as "possible concerns we [they] could have with H₂S" (15349) and the plans for addressing those concerns (16536) such as "an emergency response plan" (12500, 16660, 15352).

Consultations should provide "pertinent information" and "updates" to the residents about the company's operations (15341, 15332, 15334, 15338). They do not refer to simple information exchange between the residents and the company

(12493, 12496, 12520, 16520, 16535). They should allow the residents to put “any input they want into” the company’s plans (16660). Consultations may lead to a “fracture [in] what had been a fairly cohesive group” into WELG and RHG (11426, 16467), “a commitment [by the company] to do more consultation” (3933, 15352), and “some compromise [from the company] to address those concerns” (16536).

“The demeanor of Petrofund” is a problem in consultations (11149, 16440). Petrofund follows “their [own] definition of consultation” (16884, 16885) and is insincere (16440, 16520). Thus, consultations are “flawed” (3653), “misleading” (11426, 11327, 12468), and divisive, fracturing the area community (11426). Petrofund should “respect the landowner interests” in consultations (16887) and clearly communicate “the purpose of the meeting” (12500, 12511). Consultations should be “proper” (12468, 15314, 16898), “adequate” (12878), timely (3020), and not rhetorical (16515, 16516, 16517, 16519). Petrofund should not involve only “a select few” (15331) and “misrepresent neighbors’ comments and concerns in their public consultation” (15332, 15334, 15338). “Consultation experts” should not be the only reference (16518).

River Heights Group (RHG). RHG provides only one statement where the key word is used and which is shown in Table 7.4. For RHG, consultations involve the area residents (17707). They are a means “to come to some terms with” the company (17707).

Table 7.4
River Heights Group’s Discussion on Consultations
Keyword table

(17707 MS. HAZLETT) It took until April 30th, or last Friday, for the River Heights Group to come to some terms with, through **consultation** with Petrofund.

Dr. S. P. Singh. Dr. Singh's discussion of consultations is described in keyword statements in Table 7.5.

Table 7.5

Dr. S. P. Singh's Discussion on Consultations

Keyword table

(5686 MR. ENGELKING) At some part of the **consultation** process you were asked to commit never to drill anymore wells from 3 of 4.

(14146 DR. SINGH) Say, for example, all your **consultations** with the River Heights people.

(14147 DR. SINGH) All your **consultations** simply with other people.

Consultations address Petrofund's future operations in the area and might result in commitments to other stakeholders about those operations (5686).

Petrofund should consult with all concerned stakeholders including Dr. Singh, not "simply with other people" (14146, 14147).

Alberta Energy and Utilities Board (AEUB). The Board's discussion of consultations is described in keyword statements in Table 7.6.

Table 7.6

Alberta Energy and Utilities Board's Discussion on Consultations

Keyword table

(393 DECISION) Petrofund conducted its public **consultation** programs (as set out in Guides 56 and 71) for both the current production ERP for the existing sour facilities and the drilling and completions ERP for the proposed well simultaneously with the same residents.

(401 DECISION) An applicant will ensure that its public **consultation** program affords residents enough information to be able to distinguish between two separate ERPs: one for existing operations and one for proposed operations.

(7437 MR. PERKINS) I'm trying to get a handle on what **consultation** occurred for what project at what time.

(12498 MR. PERKINS) So what would you consider a **consultation**?

(12853 MR. PERKINS) Let me ask you what your expectations are with respect to **consultation** for the purpose of developing an ERP.

For the Board, the main responsibility for consultations is of the company (393, 401, 12894). Consultations involve the "residents" in the area of the

company's operations (393, 401). They address the company's "existing operations", "proposed operations" (393, 401), and any oil and gas "project" (7437). They are about the plans for addressing stakeholder concerns such as "ERP [emergency response plan]" (393, 401, 12853, 12894). In consultations, the "expectations" of the residents and the company might differ (12498, 12853, 12894). Consultations should afford "residents enough information" about the operations (401) and be conducted in line with the Board's guidelines "as set out in Guides 56 and 71" (393).

Comparative Analysis

In this section, I develop a comparative analysis of the stakeholders' meanings of consultations that emerged from the analysis of key word and segment tables so that similarities and differences in the meanings are revealed. I group and compare the meanings in terms of the seven dimensions the stakeholders address in their discussions as summarized in Table 7.7.

First, all the stakeholders identify the company and the residents and/or landowners as principal participants in consultations. Petrofund specifies the residents and landowners as the people living or having land within the calculated emergency zone or close to the proposed well whereas WELG specifies them as the people living or having land close to any facility in the area. Petrofund and WELG also mention the residents' legal representatives and the company's consultation experts. Yet, WELG questions the experts' contribution to the process. Unlike others, Petrofund refers to its consultations with the City. The company consults with any stakeholder recognized by the Board as intervener.

Table 7.7 Stakeholders' Meanings of Consultations						
Stakeholder Dimension	Petrofund	City of Edmonton	WELG	RHG	Dr. Singh	AEUB
Participants in consultations	<ul style="list-style-type: none"> *Petrofund *Consultant firms *Area residents and landowners within the calculated emergency protection zone and/or close to the proposed well *Legal representatives of the residents and landowners *Community leaders *The City *Intervenors in general 		<ul style="list-style-type: none"> *Petrofund *Consultation experts with questionable contribution *Area residents close to the company's operations and with land titles *Legal representatives of the residents *Affected people 	<ul style="list-style-type: none"> *Petrofund *Area residents 	<ul style="list-style-type: none"> *Petrofund *Area residents and landowners 	<ul style="list-style-type: none"> *Petrofund *Area residents
Issues discussed in consultations	<ul style="list-style-type: none"> *Petrofund's well application as the main topic *Oil and gas facilities and projects in general *Community and stakeholder concerns about and objections to the company's project and operations *Plans for addressing concerns 	<ul style="list-style-type: none"> *Stakeholder concerns regarding the company's project *Plans for addressing concerns 	<ul style="list-style-type: none"> *Petrofund's current application and other operations both as the main topic *Oil and gas applications in general *Stakeholder concerns about the company's new and existing operations *Plans for addressing concerns 		<ul style="list-style-type: none"> *Petrofund's future operations *Stakeholder concerns about the company's project *Plans for addressing concerns 	<ul style="list-style-type: none"> *Petrofund's existing and proposed facilities *Projects in general *Stakeholder concerns regarding the proposed well and existing facilities *Plans for addressing concerns

Stakeholder	Petrofund	City of Edmonton	WELG	RHG	Dr. Singh	AEUB
Dimension						
Purpose of consultations	<ul style="list-style-type: none"> *Informing government agencies and other stakeholders about the company's project and existing operations *Responding to the concerns and needs of the residents and government agencies *Getting feedback from the area community and advice from government agencies 		<ul style="list-style-type: none"> *Informing and updating the residents about the company operations *Not simply exchanging or passing or summarizing information *Allowing the residents to put their inputs or ideas into the company's plans 			
Result of consultations	<ul style="list-style-type: none"> *Commitments and concessions from the company *Learnings for the company about the stakeholder concerns *Disagreements or agreements with the stakeholders 	*Agreements with the company	<ul style="list-style-type: none"> *Commitments, compromises, and concessions from the company *Disagreements or agreements with the company *Fractures between the residents 	*Agreements with the company	<ul style="list-style-type: none"> *Commitments from the company *Agreements with the company 	*Disagreements or agreements between the company and the stakeholders
Means of consultations	<ul style="list-style-type: none"> *Public and individual meetings *Mail-outs *Phone calls 		*Official representation by legal counsels		*Unofficial representation by relatives involved in consultations	

Stakeholder Dimension	Petrofund	City of Edmonton	WELG	RHG	Dr. Singh	AEUB
Approach of the stakeholders in consultations	<p>*Petrofund's approach as inclusionary (several stakeholders included), efficient, proactive, comprehensive (several topics covered), specific (issues clearly described), accurate (not based on misperceptions), transparent, long-term and committed, possibly best</p> <p>*The WELG's approach as unproductive (not moving forward or resulting in any agreement), high centered (focusing consultations narrowly on certain issues and refusing discussions on other issues before the former are addressed)</p>	<p>*The City's approach as long-term</p>	<p>*Petrofund's approach as insincere, self described, untruthful or misleading, divisive (dividing area residents), disrespectful, obscure or not transparent (hiding intentions), improper, inadequate, not substantive (full of rhetoric), selective (fewer stakeholders included), untimely</p> <p>*The WELG's approach as long-term</p>	<p>*The RHG's approach as long-term</p>	<p>*Petrofund's approach as unspecific (vague response), not transparent (withholding information), untimely, unresponsive</p> <p>*Dr. Singh's approach as long term</p>	<p>*Residents' approach different from the company's approach</p> <p>*Acceptable approach as sufficient (providing the residents with enough information about Petrofund's operations), transparent (open communication), long-term</p>

Stakeholder Dimension	Petrofund	City of Edmonton	WELG	RHG	Dr. Singh	AEUB
Reference guides to understand and evaluate consultations	<ul style="list-style-type: none"> *EUB requirements and guides *Industry guidelines *Formal company policy *Formal plan or program developed by the company *Expert knowledge of consultants 		<ul style="list-style-type: none"> *Expert knowledge of consultants questionable 			<ul style="list-style-type: none"> *EUB guidelines

Second, all the stakeholders highlight the concerns regarding the project and the plans for addressing those concerns as the main issues to discuss. Petrofund, WELG, and the Board indicate any project is subject to consultations. For Petrofund and Dr. Singh, the main issue in this case is the current well application. In contrast, WELG and the Board state both the proposed well and existing facilities should be discussed.

Third, Petrofund and WELG discuss the purpose of consultations. Petrofund emphasizes informing government agencies and other stakeholders about its project and existing operations, responding to their concerns and needs, and getting feedback from the area community and advice from local government agencies. For WELG, consultations are not for information exchange only and should facilitate the residents' contribution into the company's plans.

Fourth, the stakeholders highlight the results of consultations. Petrofund recognizes that consultations might result in commitments to and concessions for other stakeholders, disagreements or agreements with them, and learning about their concerns. WELG emphasizes its disagreement with the company and recognizes the RHG's agreement. The group adds there are no commitments, compromises or concessions from the company about the members' concerns. Further, consultations result in a fracture between the area residents, leading to the formation of RHG. Like WELG, Dr. Singh demands some commitments from the company and hopes for an agreement. The City and RHG mention their already achieved agreement with Petrofund. Lastly, the Board points to disagreements and agreements between the company and other stakeholders.

Fifth, the means of consultations become a focus of attention. Petrofund emphasizes three direct means including public or personal meetings, mail-outs, and phone calls. In contrast, WELG and Dr. Singh highlight consultations are possible through official (e.g. legal counsels) or unofficial representatives (e.g. relatives involved in the process).

Sixth, the stakeholders describe their own and others' approaches in consultations. All the stakeholders describe their approach as long-term and committed. This is the general approach supported by the Board as well. Petrofund describes its approach as inclusionary (involving as many stakeholders as possible), efficient, proactive, comprehensive (discussing all relevant issues), specific (defining issues specifically), accurate (not based on misperceptions), and transparent (sharing all available information) and claims to have the best approach. Further, Petrofund describes the WELG's approach as unproductive (not allowing the process to move forward) and high-centered (focusing on a particular issue and refusing discussions on other issues). In contrast, WELG describes the company's approach as insincere and not substantive (full of rhetoric), self-described (inconsiderate of others' different approaches), untruthful (misrepresenting the residents' comments to other stakeholders), divisive (dividing the residents into two separate groups), not transparent (hiding intentions about the area), disrespectful, improper and inadequate, selective (involving as few stakeholders as possible), and untimely (starting very late in the application process). Like WELG, Dr. Singh is also critical about the company's approach, which is described as unspecific (giving vague response), not

transparent (withholding relevant information), untimely (involving Dr. Singh in the process very late), and unresponsive. The Board generally describes what approach should be followed in consultations and states that the residents should be provided with enough information about the company's operations and there should be open communication between the stakeholders.

Lastly, the stakeholders emphasize a number of reference guides used to understand and evaluate consultations. Petrofund and the Board recognize the EUB requirements and guidelines as the main reference. Petrofund also mentions oil and gas industry's guidelines, its own formal policy and consultation plan, and expert knowledge of its consultants. Unlike Petrofund, WELG is critical about consultation experts and does not accept their expertise as a reference.

Conceptual Analysis

In this section, I conceptually interpret the stakeholders' meanings of consultations by relating them to the theoretical concepts discussed in Chapter 2.

Risk society and communicative basis of techno-economic activity.

Organizational risk is an activity of organizations, which people think potentially harmful for their well-being (Lupton, 1999a). The stakeholders' extensive discussion on consultations indicates the role of communicative action (Habermas, 1984) to construct organizational risk. Communicative action is a social action oriented to consensus and mutual dependence (Wuthnow et al., 1984). It is used to convey meanings, intentions, and expectations and to develop a common understanding on the issues discussed. The stakeholders' discussion also implies the social context within which the stakeholders engage in

communicative actions refers to risk society. In this context, an economic activity such as Petrofund's project is considered to produce risks as well as products or services (Beck, 1992). People develop a critical attitude towards this activity and resulting risks, questioning the activity (Beck, 1992). They demand and use public forums such as public hearings to discuss, oppose, and shape the economic activity (Beck, 1992, 1994, 1999). A variety of values and interests including those of the lay public are represented in those forums.

The stakeholders' involvement in and use of consultations or communicative actions on the company's project denotes that they use the application and hearing process as a public forum to question the project, which is not readily accepted as a productive activity. All the stakeholders state that oil and gas projects including Petrofund's are subject to questioning through consultations. Potential concerns or risks and plans or actions and rituals to address those risks are major topics, to which the stakeholders' communicative actions are directed. The stakeholders try to develop a common understanding on those topics through exchange of information, feedback, advice, and ideas. All the stakeholders mention that they try to reach an agreement even though the result of communicative actions might be a disagreement. Business and public stakeholders indicate that commitments and concessions from the company can facilitate reaching a common understanding on the project and risks. Thus, communicative action emerges as a major means to give meaning to the project and associated risks in risk society.

Further, all the stakeholders recognize the area residents and landowners,

and their legal representatives are legitimate participants in consultations, through which they can discuss the proposed economic activity and associated risks. Thus, the lay public is part of the application process to question and shape the project through communicative action. In fact, WELG is explicit to demand its input to be included in the company's plans. Thus, economic activity is no longer a specialized technical area of business independent of public intervention.

Although legal and technical frameworks including the EUB regulations, industry guidelines, company policies, and expert knowledge are emphasized by business and government stakeholders as primary references, they are now questioned by public stakeholders. Thus, in risk society, the project has to have a communicative basis even though it is an economic activity. So, my first proposition is:

Proposition 1: In risk society, business, public, and government stakeholders use communicative action to give meaning to an organizational project and associated risks even though the project is an economic activity.

Dimensions of effective communication. Effective communicative action occurs when the stakeholders are able to use four types of speech act without being constrained (Gephart, 2007; Habermas, 1979). First, constative speech acts refer to the factuality of statements on the project and associated risks. In terms of constatives, business stakeholders emphasize the accuracy of arguments and claims, which should not be based on misperceptions. WELG indicates the company's statements during consultations are misleading. Second, communicative acts refer to the proper use of language, which makes a statement about the project and risks understandable. This aspect is mentioned by the company, which requires that the issues subject to communicative action should

be clearly and specifically described, and by Dr. Singh who criticizes the company for giving vague responses to his questions and asks for specificity.

Third, representative acts refer to the sincerity of statements about the company's project and relevant risks, whether a statement represents a stakeholder's sincere opinion and full knowledge. In terms of representatives, all the stakeholders emphasize transparent consultations and open communication. Public stakeholders are especially concerned; WELG argues Petrofund is not sincere in consultations and pretends to consult, hiding its intentions about the area and providing inadequate information to the residents and landowners. Similarly, Dr. Singh mentions Petrofund withholds relevant information. The Board does not criticize the company; but it requires sufficient information about the operations be provided to the residents in general.

Fourth, regulative acts refer to the norms, according to which the stakeholders engage in communicative actions directed to the project and risks. In terms of regulatives, the stakeholders state that they are committed to continuous consultations. Business stakeholders argue that consultations should include as many stakeholders as possible and cover as many relevant topics as possible; they should be efficient and continuous. A stakeholder should be proactive. All available means of communication including public and individual meetings, mail-outs, and phone calls should be used. The WELG's approach is criticized as unproductive and narrowly focused. WELG, in turn, criticizes the company's approach as self-described. Consultations should not divide other stakeholders to provide advantage to another stakeholder, be based on respectful and timely

interaction, and include as many concerned stakeholders as possible. Dr. Singh, another public stakeholder, adds the company should be responsive to concerns. WELG and Dr. Singh also imply that the company ignores indirect means of communication through representatives.

In general, constative and communicative acts are mentioned by business and public stakeholders briefly while representative and regulative acts are an issue for all the stakeholders. Representative acts are especially emphasized by public stakeholders who demand complete and truthful information about the project and associated risks. Regulative acts are the main focus of the stakeholders. Both business and public stakeholders propose several regulative aspects for an effective communicative action to occur. These regulative aspects might result in an unofficial self-described framework, according to which the stakeholders' communicative efforts on the project and risks are evaluated especially by the Board as the arbitrator. In fact, WELG explicitly criticizes Petrofund for following a self-described approach in consultations. Both business and public stakeholders claim that they comply with the supposedly ideal aspects they identify while the other party does not. They blame the other party for failures in the communicative process. Their disagreement on regulatives as well as other types of speech act indicates the presence of several distortions in communication and thus absence of ideal or unrestricted communication. Government stakeholders mention only continuity as a regulative aspect. The Board recognizes that business and public stakeholders have different approaches; as an arbitrator, it seems to consider official guidelines a sufficient framework.

Thus, my second proposition is:

Proposition 2: Business and public stakeholders mention all four speech acts including constatives, communicatives, representatives, and regulatives necessary for an effective communication on and understanding of an organizational project and associated risks; they focus their attention on regulatives, which might construct an unofficial framework favorable for themselves. Public stakeholders also emphasize representatives and demand business stakeholders provide them with complete and truthful information about the project and risks. Government stakeholders mention only representatives and regulatives; they consider official regulations the main framework.

Summary

This chapter provided a descriptive, comparative, and conceptual analysis of the fourth key issue, “consultations”. The descriptive and comparative analyses showed that the stakeholders give meaning to organizational risk by trying to understand consultations on the project and associated risks. Consultations are a main process used to understand the project and its different features. The company and the residents and landowners are the principal participants in consultations. The participation of technical and legal experts is also mentioned by business and public stakeholders. The main issues discussed in consultations are the concerns about the project and the plans for addressing those concerns. In general, oil and gas projects are subject to consultations. An important goal of consultations is information exchange. Public stakeholders also try to shape the company’s plans through consultations. The stakeholders are result-oriented in consultations. Possible results are agreement, disagreement, concessions, compromises, commitments, and learning. WELG also mentions consultations lead to a division between the residents. Business stakeholders emphasize direct means while public stakeholders emphasize indirect means of consultations

through representatives. All the stakeholders adopt a long-term approach to consultations. Business and public stakeholders describe the company's approach in consultations in opposite terms, the latter being highly critical about the company. The Board points to a general acceptable approach. Government regulations emerge as the main reference for business and government stakeholders to understand and evaluate consultations.

The conceptual analysis indicated the context of risk society affects all the stakeholders' construction of the project and associated risks. In this context, the communicative basis of economic activities is emphasized and the stakeholders use communicative actions to understand an economic activity including the current project and associated risks. The stakeholders mention all the types of speech acts including constatives, communicatives, representatives, and regulatives as necessary components for effective communication on the project and risks. Yet, business and public stakeholders focus on regulatives, which might construct an unofficial framework favorable for their arguments and statements. Public stakeholders also emphasize representatives and demand that business stakeholders provide them with complete and truthful information about the project and risks. Government stakeholders briefly mention representatives and regulatives and consider official regulations the main framework.

As discussed above, one of the topics in consultations and in previous three key issues is the stakeholders' approach in the project. The following chapter looks into the fifth key issue, "Actor Approaches and Ways", and its construction process in relation to organizational risk.

Chapter 8

Interpreting Stakeholders' Discussion on Actor Approaches and Ways

This chapter presents the fifth key issue, “Actor Approaches and Ways”. Actor approaches and ways refer to the stakeholders’ descriptions of their own or others’ approach to or attitude towards the project and associated issues and of personal or group characteristics. The goal of the chapter is first to understand the stakeholders’ meanings of actor approaches and ways and second to develop theoretical insights into whether and how this issue is related to organizational risk by using the socio-cultural theories discussed in Chapter 2. The key words that represent the issue are “approach”, “approaches”, “way”, and “ways”.

Descriptive Analysis

The stakeholders discuss the approach to oil and gas operations, in addressing concerns, and consultations. The company promotes its own approach, which is supported by government agencies as well whereas the residents and landowners are highly critical about it. The location of residences and the land in relation to the project is also mentioned by the stakeholders.

Petrofund Corporation. Petrofund Corporation’s discussion of actor approaches and ways is described in keyword statements in Table 8.1. As in previous chapters, for each stakeholder I provide the first five statements here and complete tables in appendix 5-E.

Table 8.1

Petrofund Corporation’s Discussion on Actor Approaches and Ways

Keyword table

(1759 MR.VAN TETERING) A draft public consultation plan was prepared to identify stakeholders and **approaches**.

(1815 MR.VAN TETERING) Where possible, our **approach** was to meet people face-to-face, recognizing that this was the most effective way to provide information and receive feedback.

(1817 MR.VAN TETERING) Our approach was to meet people face-to-face, recognizing that this was the most effective **way** to provide information and receive feedback.

(2692 MR. MORRISON) Most of the information you are seeing on the submission is older data and would lean you towards more of a conservative **approach** to the calculation about flow rates and H₂S.

(3416 MR.HEMSTOCK) I'm going to go through the process to sort of explain the **approach** that we took.

Petrofund's approach in operations is to accelerate the development of oil reserves for a sooner exit from the area (5143, 5204, 17855). This is "strongly endorsed by the City in its condition" and thus in line with the City's terms (15923). Petrofund operates in a way that the operations and residences can safely "coexist" in the area (6070). Petrofund recognizes that WELG and RHG have "their separate ways" in the company's application (17391, 17487).

Petrofund addresses stakeholders concerns through "a conservative approach to the calculation of flow rates and H₂S" (2692, 4318) based on the EUB regulations; "the calculations were given and agreed to with the board" (4347). The company considers the area circumstances when dealing with emergency egress (3416) and develops "a team approach to the emergency response", indicating its cooperation with government agencies and cooperative approach (3870, 8087). The company is consistent in the use of the asset retirement fund, which is applied for the purpose it was designed (5629). Petrofund has a planned approach to public consultation (1759) involving "face-to-face" meetings (1815) that are "effective" (1817) and seeking "a good neighbor relationship" (15565, 15566). The WELG's approach in consultations is described as "carpet bombing" or generalizing and totally opposing to the company (15556).

The company considers “standard” industry approach to involve emergency personnel in the implementation of plans (6674). During an emergency, people are notified “in a timely manner” (7051). The company tries to follow “the best approach” to the emergency response (8309). Petrofund describes the City’s approach to emergency situations as a standard “incident command system” (6805) that incorporates the learning from the Acclaim incident (15949).

City of Edmonton. The City of Edmonton’s discussion of actor approaches and ways is described in keyword statements in Table 8.2.

Table 8.2

City of Edmonton’s Discussion on Actor Approaches and Ways

Keyword table

(9018 MR. BLACK) That’s probably the only **way** that you can command and control an operation like this.

(9714 MR. BLACK) What we wanted to make sure was that the **way** their contingency plan was laid out matched how we would deal with any particular disaster or emergency within the city.

(9729 MR. BLACK) The **way** we would manage an event within the city matched the way Petrofund would do it.

(9730 MR. BLACK) The way we would manage an event within the city matched the **way** Petrofund would do it.

(9908 MS. AINSLEY) There would be this automatic monitoring system; and we thought that that was a reasonable **way** to deal with it.

The City describes Petrofund’s approach to the emergency response plan as “probably the only way” (9018). This approach is compatible with the City’s terms (9714, 9729, 9730). The company has a “reasonable” approach to the monitoring issue (9908), which is “better” than what the City suggests (9910).

West Edmonton Landowners Group (WELG). The WELG’s discussion of actor approaches and ways is described in keyword statements in Table 8.3.

Table 8.3

West Edmonton Landowners Group’s Discussion on Actor Approaches and Ways

Keyword table

(10883 DR. GOTAAS) I know, if it's going to be like my experience, what they are going to do is they're going to sit at a meeting and say, we're doing this, this **way**.

(11141 DR. GOTAAS) I don't know who I could have found who would have stuck to this the **way** he has.

(11794 MR. SULYMA) December would have been an excellent **way** for them to run through their Emergency Response Plan.

(11843 DR. GOTAAS) We have from the beginning patterned our concerns a particular **way**, covering the various issues.

(16537 MR. BODNAR) The proper **way** to do it would be to consider what the concerns of the people are, to make some compromise to address those concerns, and to come up with a creative solution.

The company has its own way of addressing concerns, which is inconsiderate of the residents' opinions; the company people "sit at a meeting and say, we're doing this, this way" (10883, 16736, 16876). Petrofund is not proactive in addressing concerns; "the only way they will raise that bar is if they are pushed" (16878, 16879). Its approach in the emergency response was observed to be ineffective in past incidents (11794). Its approach to drilling is unrealistic (16703). The company's attitude in consultations is uncompromising and uncreative (16537). It is also ineffective as it leads the residents to "come full circle" (16890).

The WELG residents are fully committed to consultations with the company. They "have stuck to this" (11141) after WELG and RHG have their "separate ways" in the process (17427). WELG has an approach to pattern and comprehensively cover "the various issues" (11843).

River Heights Group (RHG). The RHG's discussion of actor approaches and ways is described in keyword statements in Table 8.4.

**Table 8.4
River Heights Group's Discussion on Actor Approaches and Ways**

Keyword table

(17645 MS. HAZLETT) I do this because I think I'm keeping abreast of the changes that they are considering; and in that **way**, I think that I can make it a safer field.

(17647 MS. HAZLETT) The **approaches** of the two resident groups could work to the benefit of the entire neighborhood.

(17652 MS. HAZLETT) They could continue to badger and harass Petrofund, as they have seen fit to do; and I would cooperate with Petrofund and, in this **way**, address the concerns of the group from both angles.

The RHG's approach is to consult and cooperate with the company for "keeping abreast of the changes" in the operations and making "it a safer field" (17645, 17652). It is based on "the benefit of the entire neighborhood" (17647, 17645, 17652). RHG accepts that "the approaches of the two resident groups" to the application process are different (17647, 17652). The WELG's approach is "to badger and harass Petrofund" to address the concerns (17652).

Dr. S. P. Singh. Dr. Singh's discussion of actor approaches and ways is described in keyword statements in Table 8.5.

Table 8.5

Dr. S. P. Singh's Discussion on Actor Approaches and Ways

Keyword table

(13683 DR. SINGH) Either **way**, that profit is normal; and it's not abnormal, is not excessive.

(13864 DR. SINGH) It's simply not playing the game in a fair **way**.

(13903 DR. SINGH) Let's try to work together in a **way** that your concerns and our concerns are taken care of.

(13907 DR. SINGH) It was just taken in a totally unconcerned **way**.

(13953 DR. SINGH) It seems that Petrofund is not sincere and is just trying to find **ways** to run away from that.

Dr. Singh describes Petrofund's approach to the project as profit oriented (13683). The company is "not sincere" in addressing concerns (13953, 15101). Its approach to the reclamation and abandonment is unsatisfactory and unlikely to meet Dr. Singh's expectations (14522). Petrofund is unresponsive to the concerns,

“trying to avoid” the issues (15096). Its approach in consultations is “totally unconcerned” (13907) and unfair; the company is “simply not playing the game in a fair way” (13864). Dr. Singh has a cooperative approach in consultations, trying to “work together” (13903). His approach to Petrofund’s application is to use “the right of appeal” to the Board as the industry regulator (14078).

Alberta Energy and Utilities Board (AEUB). The Board’s discussion of actor approaches and ways is described in keyword statements in Table 8.6.

Table 8.6

Alberta Energy and Utilities Board’s Discussion on Actor Approaches and Ways

Keyword table

(370 DECISION) The Board appreciates the significant efforts between Petrofund, the City, and Capital Health in developing an ERP that uses a collaborative command and control **approach** to public safety response.

(377 DECISION) The Board continues to encourage applicants to work closely with local government agencies in developing and coordinating **approaches** to emergency response that incorporate innovative concepts and protocols, accounting for unique situations and exceeding the minimum requirements in EUB Guide 71.

(718 DECISION) The Board encourages the parties to develop a **way** to work together to address any future operational issues that may occur at the existing or the proposed 7-4 well and within the Armisic Field in general in a timely manner.

(6103 MR. PERKINS) Does that **approach** seem feasible to Petrofund?

(6107 MR. PERKINS) Petrofund intends a more stepped or incremental **approach**.

The Board describes the company’s approach to the development of the reserves as “incremental”; the development will evolve as the company gets the results of new wells (6107, 6121, 6123). It describes Petrofund’s approach to the emergency response as “collaborative”, highlighting “the significant efforts between Petrofund, the City, and Capital Health” (370, 377). Petrofund is considered a profit-seeking investor; it might lose its investment and “just continue on the way [it is]” (8111). The Board thinks the City develops a “whole

approach to the oil and gas development” (10024). The Board supports a “feasible” approach to oil production (6103), an emergency approach that incorporates “innovative concepts and protocols, accounting for unique situations and exceeding the minimum requirements in EUB Guide 71” (377), and a collaborative approach between the parties that “work together” and address concerns (718).

Comparative Analysis

This section groups and compares the stakeholders’ meanings of actor approaches and ways, which emerged from the analysis of key word and segment tables, in terms of the four dimensions addressed by the stakeholders. The goal is to highlight similarities and differences in the meanings, which are summarized in table 8.7.

First, the stakeholders describe their own and others’ approach to Petrofund’s operations and oil and gas industry in general. Petrofund claims its approach in oil and gas development is accelerated, safe, environmentally responsible, neighborly, and in line with the City’s terms and good corporate practice. In contrast, WELG describes Petrofund’s approach as unrealistic. Dr. Singh is also critical and portrays the company’s approach as profit- and self-oriented, abusive, and not in line with societal interest. The Board first neutrally describes the company’s approach as incremental and then supports it because it exceeds industry standards.

Table 8.7 Stakeholders' Meanings of Actor Approaches and Ways						
Stakeholder Dimension	Petrofund	City of Edmonton	WELG	RHG	Dr. Singh	AEUB
Approach to operations	<p>*Petrofund's approach as accelerated, safe, environmentally responsible, neighborly, and in line with the City's terms and good corporate practice</p> <p>*The WELG's approach in line with its extreme conditions or terms</p> <p>*WELG and RHG having different approaches</p>		<p>*Petrofund's approach as unrealistic</p> <p>*The WELG's approach as tenacious, not against oil and gas industry, and in line with community interest</p> <p>*WELG and RHG having different approaches</p>	<p>*The RHG's approach as cooperative and in line with community interest</p> <p>*WELG and RHG having different approaches</p>	<p>*Petrofund's approach as profit-oriented, self-oriented, abusive, and not in line with societal interest</p> <p>*Dr. Singh's approach as not against oil industry or Petrofund, and in recognition with the Board's regulative authority</p>	<p>*Petrofund's approach as incremental and in excess of industry standards</p> <p>*The City developing a general approach</p> <p>*The Board supporting an approach that is feasible</p>
Approach in addressing concerns	<p>*Petrofund's approach as conservative, considerate of area circumstances, cooperative, consistent timely, responsive, proactive, sincere, committed, caring, possibly best, and in line with EUB regulations and company policies and in excess of industry standards</p> <p>*The City's approach based on its own standardized system and learnings from past incidents</p> <p>*The WELG's approach based on naysaying, skepticism</p>	<p>*Petrofund's approach as reasonable, satisfactory, possibly best, and in line with the City's terms</p>	<p>*Petrofund's approach as inconsiderate of the residents' opinions, not proactive, ineffective, unresponsive, dangerous, inconsistent, and based on minimum EUB requirements</p>	<p>*The WELG's approach as harassing Petrofund</p>	<p>*Petrofund's approach as insincere, unsatisfactory, unresponsive</p>	<p>*Petrofund's approach as collaborative</p> <p>*The Board supporting an approach that is innovative, considerate of unique situations, collaborative, and in line with or excess of EUB requirements</p>

Stakeholder Dimension	Petrofund	City of Edmonton	WELG	RHG	Dr. Singh	AEUB
Approach in consultations	<p>*Petrofund's approach as face-to-face, effective, neighborly, committed, and in line with the company plans</p> <p>*The WELG's approach as uncommunicative and based on generalization, total opposition, constant criticism, accusation, provocation</p>		<p>*Petrofund's approach as validating its own perspective, uncompromising, uncreative, ineffective, insincere, uncommunicative, untruthful, divisive, not neighborly</p> <p>*The WELG's approach as committed and willing, comprehensive (various issues covered)</p>		<p>*Petrofund's approach as unfair, inconsiderate</p> <p>*Dr. Singh's approach as cooperative and willing</p>	<p>*The Board supporting an approach that is cooperative and open to dialogue</p>
Actor or group characteristics			<p>*Location of the WELG residences in relation to the proposed well</p> <p>*Number of member residents</p> <p>*Professions of the members</p>		<p>*Petrofund as not evil, competent</p> <p>*Location of Dr. Singh's land in relation to the well site</p> <p>*Dr. Singh's profession</p>	<p>*Petrofund as profit-seeker</p> <p>*Intervener group members</p> <p>*Location of the members' residences in relation to the well</p>

Petrofund responds to WELG by criticizing the WELG's approach as extreme and unacceptable. WELG defends its approach as tenacious to keep the issues alive. WELG is not against oil and gas industry; the group promotes the community interest. Petrofund differentiates the approach of WELG from that of RHG. Both WELG and RHG accept they have different approaches. Like WELG, RHG emphasizes neighborhood interest and supports a cooperative attitude towards the company and its operations. Dr. Singh also mentions he is not against oil industry or Petrofund and points out his legalistic approach as he appeals to the Board to oppose the operations. The Board recognizes the City develops a general approach to oil and gas applications. The Board supports a feasible approach in the development of resources and the operation of oil and gas facilities.

Second, the stakeholders discuss the approach in addressing concerns. The company describes its approach as conservative, considerate of area circumstances, cooperative, consistent, timely, responsive, proactive, sincere, committed, and caring. It is in line with the regulations of the EUB, Petrofund's own policies, and industry standards. Petrofund claims it is the best approach. The City also positively portrays Petrofund's approach as reasonable, satisfactory, and in line with the City's terms. It is the best approach possible. The Board highlights the approach is collaborative. In a stark contrast, WELG describes Petrofund's approach as inconsiderate of the residents' opinions, not proactive, ineffective, unresponsive, dangerous, and inconsistent. Petrofund seeks to meet minimum EUB requirements. Similarly, Dr. Singh characterizes the company's approach as insincere, unsatisfactory, and unresponsive.

Petrofund characterizes the WELG members as naysayers and skeptics and the City's approach as a standard learning-based emergency response. RHG also negatively portrays WELG as harassing Petrofund. The Board supports an approach that is innovative, considerate of unique situations, collaborative, and in line with or exceeding the EUB requirements.

Third, the stakeholders talk about the approach in consultations. Petrofund represents its approach as face-to-face, effective, neighborly, committed, and in line with the company plans. In contrast, WELG claims the company attempts only to validate its own perspective through consultations with an approach that is uncompromising, uncreative, ineffective, insincere, uncommunicative, untruthful, divisive, and not neighborly. Dr. Singh adds unfairness and inconsiderateness to these negative aspects. In response, Petrofund argues the WELG's approach is uncommunicative and based on generalization, total opposition, constant criticism, accusation, and provocation. WELG refuses that characterization and highlights its willingness to consult; its approach is comprehensive to cover various issues. Dr. Singh also mentions his willingness to consult. The Board simply supports a general approach that is cooperative and open to dialogue.

Fourth, the stakeholders mention certain characteristics not directly related to the project to portray themselves or others. WELG, Dr. Singh, and the Board highlight the location of the residences or the land in relation to the proposed well. The WELG members and Dr. Singh also identify their professions. Further, WELG mentions the number of its members while the Board lists individual members in the two resident groups. Dr. Singh also characterizes Petrofund as

competent and not evil and the Board emphasizes the profit-seeking character of the company.

Conceptual Analysis

This section provides a conceptual interpretation of the results of the descriptive and comparative analyses by relating them to the theoretical concepts discussed in Chapter 2.

Subject positions, power, and organizational risk. In the public hearing, the process of giving meaning to organizational risk is accompanied by the stakeholders' description of their own or others' approaches to the project. Conceptually, the stakeholders construct subject positions in relation to organizational risk. A subject position refers to a position in a power relation (Foucault, 2003c). It is a category of individuals with respect to a norm, which experts set and formulate in related discourses on a phenomenon (Castel, 1991; Foucault, 2003d). For example, regulators of risky organizational projects distinguish between organizations and other stakeholders, the former as an actor producing risks and the latter as an actor concerned about risks. They assign the applicant position to the former and the intervener position to the latter in public hearings into risks. In fact, the discussion of the stakeholders points to these two positions. The discussion on the approach to operations indicates the applicant is a stakeholder that applies to the Board to develop and operate an oil and gas project. The discussion on the approach in addressing concerns and consultations indicates the intervener is a stakeholder that is potentially affected by the project and thus has the right to negotiate the project with the applicant.

Petrofund idealizes itself as an applicant. For example, it describes its approach in addressing concerns as conservative, considerate of area circumstances, cooperative, consistent, timely, responsive, proactive, sincere, committed, caring and in line with EUB regulations and company policies and industry standards. It is implied that these are the characteristics expected from an applicant organization and that Petrofund is an ideal applicant. This view is supported by the City that considers Petrofund's approach reasonable, satisfactory, and in line with the City's terms. Given the company's approach, the project seems to be acceptable as the associated organizational risk manageable. The company's approach seems to focus on addressing the risk. In contrast, public stakeholders have a negative view of Petrofund and thus construct a subject position of applicant, in which the company does not fit. For example, WELG describes Petrofund's approach in addressing concerns as inconsiderate of the residents' opinions, not proactive, ineffective, unresponsive, dangerous, inconsistent, and based on minimum EUB requirements. Dr. Singh portrays it as insincere, unsatisfactory, and unresponsive. Thus, the company appears to deviate from the typical conduct of an applicant. Given the company's approach, neither the project nor the risk is acceptable. The approach itself is a source of risk.

Business and public stakeholders' contradictory constructions of the subject position of applicant signify that there is a power relation between them despite the existence of agreement attempts through consultations; in fact, the public stakeholder (RHG) who has an agreement with the company still supports another public stakeholder (WELG) to harass the company to address common

concerns. This power relation can also be observed in the opposite constructions of the subject position of intervener. For example, Petrofund claims WELG has a consultation approach based on generalization, total opposition, constant criticism, accusation, and provocation. Thus, it is implied that WELG deviates from the conduct of a typical intervener. WELG's approach does not help identify and address the risks. In response, public stakeholders in general state they are committed to consultations to comprehensively discuss issues of concern. They are also respectful professionals such as medical doctors, lawyers, and university professors. Thus, their conduct complies with what is expected from an intervener even though Petrofund implies the opposite. Their committed approach helps identify and address the risks.

The stakeholders' attempts to construct or define the positions of applicant and intervener show that they try to control or shape the conduct of the actors occupying these positions so that the project and associated organizational risks are given meaning as acceptable or unacceptable. In fact, in a power relation, social actors try to control the way other actors think and behave so that certain ends can be met (Foucault, 2003a) and other actors resist the attempts of control in opposition to those ends (Foucault, 1988a, 1988c, 1990). Above, I discuss business stakeholders idealize their conduct as an applicant and criticize the conduct of public stakeholders as an intervener. Hence, they resist the attempts of control on their conduct (which is already ideal for an applicant) while trying to control the conduct of public stakeholders (which should be changed in line with the construction of the company). These attempts facilitate the acceptance of the

project and associated risk. Conversely, public stakeholders construct the actual conduct of business stakeholders as a negative ideal and their own conduct as typical. Hence, they try to shape the conduct of business stakeholders (which is supposed to change in line with their own construction) while resisting the control attempts on their conduct (which is in compliance with the conduct of a typical intervener). These attempts facilitate the rejection of the project and risk.

In the hearing, the dominant position resides in the Board as the decision-maker on the project. Business and public stakeholders try to affect the decision through their particular construction of subject positions and organizational risk. The Board seems to construct the positions of applicant and intervener neutrally. For example, without referring to Petrofund, the Board suggests in addressing concerns an applicant should be innovative, considerate of unique situations, collaborative, and act in line with or exceeding the EUB requirements. It simply recognizes that the City as an intervener develops a general approach to oil and gas operations. This neutral construction confirms the Board's seemingly independent position and the positions of applicant and intervener seem to have an equal status under the dominant position of the Board.

Yet, a closer look into the discussion of the stakeholders indicates that the applicant has a dominant position relative to the intervener. On the one hand, the Board and the company explicitly emphasize the EUB regulations and industry standards as primary references in operations and/or addressing concerns. The Board encourages business stakeholders to exceed EUB regulations in addressing concerns; but it does not force them to do so. On the other hand, public

stakeholders recognize the regulatory authority of the Board as stated by Dr. Singh; but meeting the minimum EUB requirements is not enough for the public as indicated by WELG. Public stakeholders mainly emphasize community or societal interest as a primary reference.

Further, the Board describes Petrofund as a profit-seeker; the proposed project is constructed as a legitimate activity of the applicant in search for profit. In fact, WELG and Dr. Singh concede that they are not against oil industry in general. Dr. Singh even states Petrofund is not an evil company and has competent people. Thus, the oil industry seems to be a central economic activity, which public stakeholders have to take into account. The centrality of the industry is also implied when the stakeholders describe the intervener in terms of the location of residences in relation to the applicant's project. This relative location makes some public stakeholders an intervener; but it does not directly make the project risky. This is for the Board to decide. Therefore, an applicant has a relative power over an intervener first because of sharing with the hearing authority the same frames of reference, on which the decision is based, and second because of the centrality of oil and gas industry, to which the decision refers. Accordingly, I propose that:

Proposition 1: A) There is a power relation between business and public stakeholders who occupy and construct the subject positions of applicant and intervener in opposite terms; these constructions help control the conduct of one another or resist the attempts of control thus facilitate the construction of an organizational project and associated organizational risk as acceptable or unacceptable. B) Business stakeholders as the applicant have a relative power over public stakeholders as the intervener because they share with the governmental authority of the public hearing the same frames of reference, on which the decision on the project is based, and because they engage in a central economic activity for their province, to which the decision refers.

Summary

This chapter provided a descriptive, comparative, and conceptual analysis of the fifth key issue, “Actor Approaches and Ways”. The descriptive and comparative analyses showed that the stakeholder give meaning to organizational risk by constructing actor approaches and ways. The stakeholders discuss their own and others’ approach and characteristics in relation to the project. They describe the general approach to oil and gas operations. Petrofund and the Board support the company’s approach whereas public stakeholders including WELG and Dr. Singh are highly critical. WELG and Dr. Singh emphasize they are not against oil and gas industry. They are also highly critical about Petrofund’s approach in addressing concerns. Government stakeholders and Petrofund itself defend the approach again. Further, public stakeholders disapprove Petrofund’s approach in consultations and claim they are committed to consult. The Board expresses its support for a general cooperative approach in consultations. The location of the residences and the land in relation to the proposed well is also mentioned to portray the interveners.

The conceptual analysis indicated business and public stakeholders engage in a relation of power by occupying and constructing the subject positions of applicant and intervener in the public hearing. Their opposite constructions help control the conduct of one another or resist the control attempts, and thus give meaning to an organizational project and associated risks as acceptable or unacceptable. Although business and public stakeholders seem to have an equal status in the hearing, business stakeholders as the applicant have a relative power

over public stakeholders as the intervener because they share the same frames of reference with the hearing governmental board as the decision-making authority and because they engage in an economic activity that is essential for their province.

Actor approaches and ways address two official subject positions, applicant and intervener, in a public hearing and suggest that the setting of public hearing is important for the construction of organizational risk. The following chapter explores the sixth key issue, “Hearing Setting”, and its construction process in relation to organizational risk.

Chapter 9

Interpreting Stakeholders' Discussion on Hearing Setting

This chapter presents the sixth key issue, “hearing setting”. Hearing setting refers to the organizational context or setting in and through which the stakeholders discuss the project and related issues. The first goal of the chapter is to understand the stakeholders’ meanings of the hearing setting through descriptive and comparative analyses. The second goal is to develop theoretical insights into the construction of the hearing setting in relation to organizational risk through a conceptual analysis that uses the socio-cultural theories discussed in Chapter 2. The key words utilized in the analysis are “hearing” and “hearings”.

Descriptive Analysis

The stakeholders discuss six issues in relation to the hearing setting. They talk about the topics that may be discussed, the reasons for and conditions of participation in the hearing, the process of giving evidence, the responsibilities of the hearing board, the criteria of the hearing decision, and the routine procedures of the hearing.

Petrofund Corporation. Petrofund Corporation’s discussion of the hearing is described in keyword statements in Table 9.1. Here I provide the first five statements for each stakeholder; the reader can examine the whole tables in appendix 5-F.

Table 9.1 **Petrofund Corporation’s Discussion on Hearing Setting**

Keyword table

(299 MR.MILLER) He will address questions concerning Petrofund's position and policy in this hearing.

(1219 MR.MILLER) Sir, for the benefit of **hearing** participants, can you explain how directional drilling works and whether it is more difficult and more expensive?

(1958 MR.VAN TETERING) The EUB staff was also asked to participate and set up a display table manned by the EUB, providing information on the board's regulatory dispute resolution and public **hearing** processes.

(3074 MR.TIDMARSH) As a result of the experience of our consultants during the Compton (phonetic) **hearings**, had learned a lot about the, some of the questions surrounding the involvement of the Health Authorities and the city in responding to potential emergencies in or near urban areas.

(6513 MR.HEMSTOCK) It was my hope that we would actually have, run an exercise prior to this **hearing** with the City of Edmonton so that we could present something that would say, we've run an exercise and these are the learnings, and these are the changes that we would like to see made to the emergency plan.

For Petrofund, the issues discussed in the hearing include oil and gas “projects” (8289), “directional drilling” (1219), “emergency plan” (6513, 6528), and “the involvement of the Health Authorities and the City in responding to potential emergencies” (3074). “A broader policy issue” such as the development of oil and gas facilities within municipal boundaries “is not something for this particular hearing” (16178). The concerns about the company’s existing facilities are not the focus (16090). In the hearing, the stakeholders express their concerns (17473), “differing opinions” (17871), and objections about the project (8039). Petrofund participates in the hearing to support a particular “position and policy” (299).

The evidence presented in the hearing is related to the issues raised by the stakeholders before the hearing (15731). “The results” produced through “independent and separate steps” and evaluated by the Board before the hearing are not presented as evidence (15709). Personal or professional commitments are not an excuse for not attending the hearing “where you have a date scheduled since January” (8632).

The Board provides the landowners and residents with the “information on the Board’s regulatory dispute resolution and public hearing processes” (1958). It is expected “to make your [its] own assessment of that evidence” presented in the hearing (15612). In its decision, the Board can consider the commitments of the company to address the concerns (15897, 16249).

City of Edmonton. The City of Edmonton’s discussion of the hearing is described in keyword statements in Table 9.2.

Table 9.2

City of Edmonton’s Discussion on Hearing Setting

Keyword table

(9620 MS. AINSLEY) I guess the fact that we are at this **hearing** and are asking the board to sort of give some added weight to our conditions.

(9985 MS. AINSLEY) Then when the **hearing** went ahead, we thought there is, there is an opportunity perhaps for the board to impose some of these as conditions.

(9989 MS. AINSLEY) Perhaps, even if the **hearing** hadn't gone ahead, I'm not sure how the board would have dealt with it.

In the hearing, the City communicates its conditions regarding the company’s project to the Board (9620, 9985). The City asks “the Board to sort of give some added weight to our [the City’s] conditions” or to officially impose them on the company (9620, 9985, 9989).

West Edmonton Landowners Group (WELG). The WELG’s discussion of the hearing is described in keyword statements in Table 9.3.

Table 9.3

West Edmonton Landowners Group’s Discussion on Hearing Setting

Keyword table

(2644 MR. BODNAR) Is it not part of this **hearing** then?

(10841 DR. GOTAAS) We have heard them tell at public **hearings** that, or at public information sessions that they do inspect twice a day.

(11318 DR. GOTAAS) As the **hearing** approached, we were meeting, and I don't think anybody really wanted to come to a hearing.

(11319 DR. GOTAAS) As the hearing approached, we were meeting, and I don't think anybody really wanted to come to a **hearing**.

(11439 MR. BODNAR) I think our concern is that, you know, the people that should be at this **hearing** are not here.

For WELG, in the hearing “the inaccuracies, uncertainties, contradictions” regarding the company’s project (16421, 16438, 16366, 16848, 16853, 16859), its existing operations (10841), “the issue of proper consultation” (15315), and Petrofund’s general approach to the project (16435, 16438, 16573, 16479) are discussed. The people affected by the project are supposed to participate in the hearing (11439, 16404, 11318, 11319) to support their “position” (11845) and communicate their concerns although the company members “have heard it [them] again through this hearing” (15451). The residents should be informed about “who could come to this hearing and be considered an intervener” or participant (11956). A presentation by the Board before the hearing gives “a bit of a better idea of how the hearing might proceed” (15404). The stakeholders should be able to participate effectively and thus “take proper notice and comfort in coming to this hearing” (16931). In the hearing, a party can represent other parties not in attendance as WELG “carried the ball” for RHG (16421). WELG also argues that the data used to formulate the application but not presented in the company’s evidence is “part of this hearing” (2644).

One of the responsibilities of the Board is to hold a “pre-hearing conference” to explain the hearing process to the residents (16848). WELG also asks the Board to decide to adjourn the hearing until “affected people should be given an opportunity to respond to or to at least be consulted” (16859),

“outstanding issues are addressed”, and concerned stakeholders “take proper notice” to prepare for and participate in the hearing (16927, 16931).

River Heights Group (RHG). The RHG’s discussion of the hearing is described in keyword statements in Table 9.4.

Table 9.4

River Heights Group’s Discussion on Hearing Setting

Keyword table

(17624 MS. HAZLETT) Although Petrofund had agreed to keep these issues out of the **hearings**, they were not all together successful.

The issues, on which there is an agreement between the stakeholders, are not to be discussed in the hearing (17624).

Dr. S. P. Singh. Dr. Singh’s discussion of the hearing is described in keyword statements in Table 9.5.

Table 9.5

Dr. S. P. Singh’s Discussion on Hearing Setting

Keyword table

(5390 MR. ENGELKING) One of the reasons that I suspect this **hearing** is rather topical has to do with the Acclaim Energy situation.

(5699 MR. ENGELKING) My question is today, before this **hearing**, does that accurately set out Petrofund's position, they will never commit to not drilling from 3 of 4?

(14081 DR. SINGH) When the residents of River Heights appealed in the **hearing**, not the city. We did not go there and we did not appeal.

(17163 MR. ENGELKING) If it is adequate for Petrofund to say, we'll comply with the regulations, we are good boys and we won't breach those regulations, if you can't help us why are we having a **hearing**?

Dr. Singh describes the hearing as a setting where company’s project and drilling plan (5699), other projects with past incidents such as “the Acclaim Energy situation” (5390), and the concerns not addressed by the EUB regulations are discussed (17163). The hearing is a means to appeal to a governmental authority about the concerns regarding the company’s project (14081).

Alberta Energy and Utilities Board (AEUB). The Board's discussion of the hearing is described in keyword statements in Table 9.6.

Table 9.6

Alberta Energy and Utilities Board's Discussion on Hearing Setting

Keyword table

(85 DECISION) The RHG, a group of adjacent landowners and residents, filed its submission on April 8, 2005, and subsequently withdrew it on April 29, 2004, prior to the **hearing**.

(87 DECISION) Ms. Anne Hazlett appeared at the **hearing** and presented a brief statement.

(90 DECISION) At the time of the **hearing**, the members of WELG included B. Sulyma, the Sabulkas, A. Owczarek, J. Traxler, the McFadyens, the Gotaases, and the Novaks.

(93 DECISION) The Gotaases and Mr. Sulyma appeared at the **hearing** to represent the WELG.

(98 DECISION) Paula Ainslie and Bob Black, employees of the City, appeared at the **hearing** to speak to any questions raised at the proceeding.

“The proposed 7-4 well is the subject of the hearing” (690). Other issues discussed are the interveners' concerns regarding Petrofund's other area operations (690), regional operators such as “the West Edmonton Operators Group” (10032), and “the City's role in the ERP [emergency response plan]” (373).

The hearing is a setting where interested the parties “participate” (226). The parties can present statements about the project (87, 4463, 17555), support their “interests” (179), and “speak to any questions” about their involvement in the project (98). Individual residents can “represent” their resident group (87, 90, 93). Before the hearing, the Board sends a “notice of hearing” to potential participants (137, 143, 155). “Those parties who wish to participate in this hearing” make an official “submission” (85) to and are registered by the Board (169). Their participation is officially acknowledged (103). The hearing and

associated “site visit” (103) provide the material for the Board to evaluate the project (4463).

The hearing is “scheduled”, “held”, and closed by the Board as its responsibility (100, 15393, 104, 17946). The Board staff explain the process “to the people that may be” in the hearing (15393). A hearing notice is “issued from the Board’s offices” before the hearing (143). In the hearing, the issues are “heard by the Board” (15465) trying to resolve the issues and “be a catalyst in putting, you know, the neighborhood back together again” (15465). “The Board has a duty to consider the interests of all Albertans” (179) and “issue a decision” accordingly (6548).

The hearing is held in a particular place and at a particular date and time (100, 108). The hearing notice is entered as an “exhibit” to the proceedings (155). In the hearing, the registration of the participants is an “order of business” (169). The participants follow certain “procedures” (229). After the hearing, a decision is issued within a certain period of time (6548).

Comparative Analysis

This section compares the stakeholders’ meanings of the hearing setting that emerged from the analysis of key word and segment tables. As shown in Table 9.7, the meanings are grouped in terms of the six dimensions that the stakeholders address in their discussion of the hearing so that similarities and differences in the meanings are revealed.

Table 9.7 Stakeholders' Meanings of Hearing Setting						
Stakeholder Dimension	Petrofund	City of Edmonton	WELG	RHG	Dr. Singh	AEUB
Hearing subject	<ul style="list-style-type: none"> *Application for the proposed well as the focus *Concerns regarding the company's existing facilities not as the main focus *Directional drilling operation *Emergency response plan *The involvement of the health authorities and the City in emergency plans *Oil and gas projects in general *Broader policy issues such as allowing oil and gas developments within municipal boundaries not a subject 		<ul style="list-style-type: none"> *Armisic field as a whole including both current application and existing facilities *Petrofund's general uncompromising attitude towards the residents in the project *Issue of proper consultation 	<ul style="list-style-type: none"> *Issues that parties agree to keep out of the hearing not a subject 	<ul style="list-style-type: none"> *Petrofund's project *Drilling plan *Other projects with incidents in the past *Concerns about the project that are not addressed by the EUB regulations 	<ul style="list-style-type: none"> *Petrofund's proposed well application as the focus *Other operations of the company and concerns of the residents about them *Regional operator groups and their activities *City of Edmonton's role in emergency response

Stakeholder Dimension	Petrofund	City of Edmonton	WELG	RHG	Dr. Singh	AEUB
Hearing participation	<ul style="list-style-type: none"> *For raising issues of concern and differing opinions *For objecting to or supporting oil and gas projects *For supporting the company's position *Personal participation is expected if a party is concerned about the project 	<ul style="list-style-type: none"> *For demonstrating interest in the company's project *For representing and supporting the City's conditions and asking for the official recognition of those conditions by the Board *For responding to other parties' questions 	<ul style="list-style-type: none"> *People affected by the company's project participate *For supporting WELG's position *For communicating and raising concerns *For representing RHG not in attendance as a group to communicate common problems *Participation is restricted by Petrofund's misleading consultations *Effective participation should be ensured by explaining the positions of intervener and participant and by giving proper notice and time to potential participants for preparation 	<ul style="list-style-type: none"> *For raising concerns about the company's operations *For representing group interests *Participation must be approved by the Board *Legal experience and help is needed for participation *Participation is costly because of legal services 	<ul style="list-style-type: none"> *For appealing to the Board for concerns about the project *For representing his son who is not in attendance because of professional commitments *Participation is restricted by the company's unconcerned attitude towards his son's objection to the project 	<ul style="list-style-type: none"> *For presenting and discussing statements about the project *For representing and supporting interests *For responding to the questions of other participants regarding the stakeholder's role in the project *Groups participate through their individual members *Representation by other stakeholders is possible *Stakeholders participate by registering in the hearing *Residents and landowners can participate through an official submission to the Board *Participation of the stakeholders is officially acknowledged by the Board

Stakeholder Dimension	Petrofund	City of Edmonton	WELG	RHG	Dr. Singh	AEUB
Hearing participation (continued)						<p>*Participants are described in terms of the location of their lands in relation to the proposed project</p> <p>*Personal participation is emphasized</p> <p>*Notice of hearing is sent to potential participants and general public</p> <p>*Participation of different stakeholders are supported</p> <p>*Learnings occur about the participation process itself with the participation of different stakeholders</p>

Stakeholder Dimension	Petrofund	City of Edmonton	WELG	RHG	Dr. Singh	AEUB
Evidence construction during hearing	<ul style="list-style-type: none"> *Evidence is related to the issues raised before not during the hearing *Results that are already presented to the Board before the hearing are not part of evidence *Personal or professional commitments are not an excuse for rescheduling evidence *Cross examination and final argument refer to different stages and thus no argumentative statement can be allowed in cross examination *Evidence is normal business hours *There might be flexibility in terms of evidence schedules if the Board decides so *Evidence without being subject to cross examination is acceptable 		<ul style="list-style-type: none"> *Data and calculations used to formulate the application are considered as evidence even if presented to the Board before *Cross examination and final arguments refer to different stages but exceptions are possible to make argumentative statements in cross examination *Opportunity for at least one woman to give evidence is a condition of fairness *Evidence can be rescheduled due to professional and personal commitments of witnesses *Excuse of late notice about the withdrawal of RHG is a reason for rescheduling evidence *Evidence should be arranged according to the time of witnesses *Representation status should be clear *Evidence of a party already having withdrawn its objection and lost its intervener status is questionable *Evidence without cross examination is not acceptable 	<ul style="list-style-type: none"> *Evidence without cross examination is possible if legal counsel is not in attendance *Representation status of a witness should be clear 	<ul style="list-style-type: none"> *Evidence without cross examination is not acceptable 	<ul style="list-style-type: none"> *Hearing provides material evidence for the Board to evaluate the project *Site visit provides evidence for the Board *Representation status of a witness must be clear *Repeating the same evidence is not proper as efficient use of evidence time is required *Professional commitments are not a good reason for rescheduling evidence *There is flexibility in terms of schedules to accommodate the witnesses of WELG *Evidence not subject to cross examination is acceptable *Weight is only what can be given to evidence without cross-examination *The staff members of the Board are not witnesses and do not give evidence

Stakeholder Dimension	Petrofund	City of Edmonton	WELG	RHG	Dr. Singh	AEUB
Responsibilities of the hearing board	<ul style="list-style-type: none"> *Explaining the hearing process to the residents and landowners *Making its own independent assessment of the evidence *Restricted to a certain jurisdiction and thus the effect of the project on property values not part of the job 	<ul style="list-style-type: none"> *Regulating oil and gas industry and current application process *Restricted to a certain jurisdiction and thus possibility of not imposing the City's conditions on the company 	<ul style="list-style-type: none"> *Explaining the hearing process through a pre-hearing conference *Ensuring the effectiveness of the City's involvement in emergency response *Ensuring the integration of the residents' input into emergency plans 		<ul style="list-style-type: none"> *Ensuring the compliance of the company with the regulations *Considering the interests of the stakeholders outside of the regulations *Protecting the interest of the society at large as opposed to the particular interest of the company 	<ul style="list-style-type: none"> *Scheduling and holding the hearing *Closing the hearing *Issuing a hearing notice *Issuing a decision after the hearing *Hearing the evidence given by the participants *Explaining the hearing process to potential participants *Resolving the issues between the participants *Considering the interests of all Albertans as well as applicants and interveners *Considering the general public interest *Changing and updating the regulations regarding sour gas based on scientific research *Restricted to a certain jurisdiction and thus the Board has no authority to regulate the voluntarily held private fund of the company

Stakeholder Dimension	Petrofund	City of Edmonton	WELG	RHG	Dr. Singh	AEUB
Hearing decision	<ul style="list-style-type: none"> *Regulatory requirements are the main reference *Petrofund's neighborly approach based on safety, environmental protection, and ongoing consultation should be considered *The commitments made by the company to address concerns should be taken into account 		<ul style="list-style-type: none"> *Whether the residents' input are integrated into the project *Whether there is a proper emergency response plan for both drilling and production *Whether the City's terms of reference, which are under review, are considered by the company *Whether new EUB sour gas procedures are considered by the company *Whether all individual concerns are addressed *Whether an effective involvement of the City and Capital Health in the hearing process is ensured *Petrofund's approach of denying concerns should be taken into account *Risk for the area community should be evaluated 		<ul style="list-style-type: none"> *The company's approach in the project is irrelevant *The well license is a privilege that should come with responsibility and thus with reasonable conditions for addressing the concerns of Dr. Singh 	<ul style="list-style-type: none"> *Decision is based on a careful review of the evidence and the criterion of safety *Decision is based on a comparison of local impacts of the proposed well and related facilities, various actions and plans used to mitigate the impacts, and benefits to the Crown and to the City *The commitments made by the company to the interveners are considered

Stakeholder Dimension	Petrofund	City of Edmonton	WELG	RHG	Dr. Singh	AEUB
Hearing rules						*Hearing is held in a particular place within a particular time scheduled in advance *Hearing occurs on a particular date *Hearing notice is entered as an exhibit to the hearing proceedings *Hearing participants are registered by the Board at the start of the hearing *Certain procedures are followed by the participants in the hearing *Decision is issued within a certain period of time

First, Petrofund, WELG, Dr. Singh, and the Board agree that the company's project is the hearing subject. Petrofund further mentions the directional drilling operation, the emergency response plan, and the involvement of the health authorities and the City in emergency plans. The Board also points to the City's role in emergency response and Dr. Singh considers the drilling plan part of the discussion. Moreover, Petrofund and the Board think the hearing focus is the application for the proposed well while the concerns about other operations are considered as a side issue. In contrast, WELG claims the subject involves both current and future operations in the area.

The stakeholders also point out a number of different issues related to the hearing subject. Petrofund claims broader policy issues such as allowing oil and gas developments within a city cannot be a subject. WELG suggests Petrofund's general uncompromising attitude and the issue of proper consultation are part of the discussion. RHG states that the issues agreed on by the group and Petrofund should not be discussed. Dr. Singh claims another project with a past incident and the concerns about Petrofund's project not addressed by the regulations should be addressed in the hearing. Lastly, the Board considers the activities of the regional operator group (the West Edmonton Operators Group) part of the discussion. Thus, the Board and Dr. Singh seem to share the relatively broad focus of WELG that goes beyond the current application.

Second, all the stakeholders indicate that they participate in the hearing to communicate issues of concern about the project and represent their interests. The City and the Board mention a stakeholder can also participate to respond to other

stakeholders' questions. The City and Dr. Singh highlight the decision-making authority of the Board, which the City asks for the official recognition of its conditions and Dr. Singh appeals to for his concerns.

The residents and landowners highlight the restrictions on participation. RHG indicates a stakeholder needs costly legal help and an intervener status approved by the Board. Dr. Singh claims his son's participation is restricted by the company's unconcerned attitude and WELG accuses the company of misleading the members of RHG to prevent their full participation. WELG also requests information on the positions of intervener and participant, and proper notice and time for potential participants to ensure effective participation.

The Board emphasizes the official conditions of participation. The stakeholders have to make an official submission to the Board and register in the hearing. The Board acknowledges their participation officially. The Board also describes participants in terms of the location of their lands in relation to the project and indicates only close landowners may participate. Yet, the Board supports the participation of different stakeholders. For example, the hearing notice is sent to all potential participants and the general public. Further, the Board says the City's participation results in learnings about the participation process itself.

Petrofund and the Board emphasize personal participation, which shows the existence of a concern. Together with WELG and Dr. Singh, the Board also accepts participation through representation. In fact, the groups are represented by their individual members. WELG claims it also represents the members of RHG

not in attendance as they have common problems and Dr. Singh states that he also represents the interests of his son who has a piece of land in the area.

Third, the stakeholders discuss the evidence process. Petrofund, RHG, and the Board agree a stakeholder can give evidence without cross examination although the Board gives less weight to such evidence. WELG and Dr. Singh do not accept this kind of evidence. Petrofund distinguishes between final argument and cross examination, in which there should be no argumentative statements. WELG maintains there might be exceptions to make such statements.

For Petrofund and the Board, personal or professional commitments are not an excuse for rescheduling the evidence. Petrofund adds there might be flexibility in terms of schedules if the Board decides so. Similarly, the Board is flexible to accommodate the witnesses of WELG. In contrast, WELG thinks witnesses' professional and personal commitments as well as the late notice about the RHG's withdrawal are a valid reason for rescheduling. WELG also argues the evidence should be scheduled according to witnesses' schedules not business hours as Petrofund suggests. Related to the time issue, the Board states repeating the same evidence is not proper.

Petrofund argues the evidence should be related to the issues raised before the hearing. The data and calculations already presented to the Board are not part of the evidence, with which WELG disagrees. The Board simply highlights the hearing process provides evidence gathered before (for example, with a site visit) or during the hearing and used to evaluate the project.

On the issue of who can give evidence, WELG, RHG, and the Board accept a witness should have a clear representation status to give evidence. WELG questions the RHG's evidence because the group already withdrew its objection and lost its intervener status. WELG claims also that at least one woman from the group should be able to give evidence for fairness. The Board simply states that the Board staff are not witnesses and do not give evidence.

Fourth, on the responsibilities of the hearing board, Petrofund, the City, and the Board indicate the Board's authority is restricted to a certain legislated jurisdiction. For example, Petrofund states the impact of the project on property values is not part of the Board's job. Due to this jurisdiction issue, the City is not sure whether the Board can impose the City's conditions on the company although it recognizes the Board's authority as the regulator of the oil industry. The Board itself acknowledges it has no authority to regulate the company's private fund. Petrofund, WELG, and the Board mention the Board is supposed to explain the hearing process to potential participants. WELG also argues there should be a pre-hearing for the residents and landowners to understand the process. The Board and Dr. Singh both emphasize the Board's role to protect the public or societal interest. The Board considers the interests of the company and of the residents and landowners part of the public interest while Dr. Singh includes only the interests of the latter.

The stakeholders have also some different views. Petrofund mentions the Board should make an independent assessment of the evidence. WELG considers the Board responsible for ensuring the effectiveness of the City's involvement in

emergency response and the integration of the residents' input into emergency plans. Dr. Singh describes the Board's job as ensuring the company's compliance with the regulations and considering the stakeholders' interests outside of the regulations. WELG and Dr. Singh do not limit the Board's responsibilities to the regulatory framework and imply that the Board should help address their concerns.

The Board indicates that it is its job to resolve the issues between the participants. The Board changes and updates the regulations regarding sour gas based on scientific research. The Board also points out some of its routine tasks related to the hearing such as scheduling and holding the hearing, issuing a hearing notice, listening to the evidence, closing the hearing, and issuing a decision.

Fifth, the stakeholders talk about the decision criteria. Petrofund, WELG, and Dr. Singh mention Petrofund's approach in the project. Petrofund requires its neighborly approach based on safety, environmental protection, and ongoing consultation be considered in the decision. For WELG, what should be considered is Petrofund's approach of denying concerns. Dr. Singh says that Petrofund's approach is irrelevant. Petrofund and the Board emphasize the commitments made by the company to address the concerns. Petrofund also thinks that the current regulations are the main reference for the decision whereas WELG points to new sour gas procedures, which are not mandated by the Board yet, and the City's terms of reference, which are currently under review.

WELG suggests several other criteria for the decision. Among them are whether the residents' input are integrated into the project, whether there is a proper emergency response plan for both drilling and production, whether all individual concerns are addressed by the company, whether an effective involvement of the City and Capital Health in the hearing process is ensured, and whether the risk for the area community is evaluated. Dr. Singh explains the well license is a privilege that should come with reasonable conditions for addressing his concerns. WELG and Dr. Singh emphasize addressing concerns as a decision criterion.

The Board indicates its decision is based on a careful review of the evidence and the criterion of safety. The Board compares the local impacts of the project, various actions and plans used to mitigate those impacts, and the benefits from the project to the Province and to the City. The concerns of the stakeholders including WELG and Dr. Singh and the ways to address them are evaluated in this comparison. The Board is explicit when it mentions potential benefits such as royalties; but it is not specific when it mentions the impacts and plans to address them. It considers a project safe if there are plans mitigating impacts and benefits exceeding impacts.

Sixth, the Board describes the hearing rules and procedures, indicating that the hearing is an institutional setting. The hearing is held in a particular place and at a particular date and time. The hearing notice is entered as an exhibit to the hearing proceedings. The participants are registered by the Board and follow certain procedures. The Board issues its decision within a certain period of time.

Conceptual Analysis

This section provides a conceptual analysis of the stakeholders' meanings by using the theoretical concepts discussed in Chapter 2.

Public hearing as a risk society institution. The stakeholders give meaning to the project as an organizational risk in a public hearing, which is the institutional setting of risk construction in this case. An institution is a social relation, practice, or setting, to which social actors in a group or society attach a common meaning (Berger and Luckmann, 1966). This meaning is taken for granted and not questioned by social actors. An institution is constituted and maintained by social actors through their reciprocal relations (Berger and Luckmann, 1966). In the case, even though the stakeholders have different views on the dimensions of the hearing, they all accept a public hearing is a setting where they can participate to produce evidence on an oil and gas project and where the Board is the responsible authority and decision-maker. Hence, the stakeholders have a common meaning for the hearing, recognizing it as a social institution. Further, they reciprocally reproduce the hearing as an institution through their acceptance and practice of the hearing rules stated by the Board. The Board explains the hearing is held in a particular place and at a particular date and time. The hearing notice is entered as an exhibit to the proceedings. The Board registers the participants who follow certain procedures. The decision is issued within a certain period of time. No stakeholder questions these rules.

The stakeholders' discussion also implies public hearings are an institution of risk society. In the context of risk society, an economic activity is considered as

producing risks in addition to products or services (Beck, 1992). People develop a critical attitude towards economic activity and resulting risks and demand public forums, in which they try to shape economic activities and promote a variety of interests including that of the lay public (Beck, 1992, 1994, 1999).

The hearing can be considered as a public forum, in which various stakeholders have a chance to discuss and question the project as an economic activity and associated risks. All the stakeholders accept the hearing subject involves the company's project including future and existing operations although they do not agree on the focus. Business stakeholders even mention that oil and gas projects in general are subject to public hearings. Hence, the project is not readily accepted as a legitimate activity. On the contrary, public stakeholders use the hearing as a forum to raise their concerns, highlight potential risks, and represent their interests in the project. As affected people, they appeal to the Board and participate in the hearing to address the risks. The stakeholders generally consider the hearing a setting where they can represent their interests and affect the project in line with those interests. Thus, in the context of risk society, the hearing emerges as an institutional setting where the project and associated organizational risks are questioned and the lay public's interests are represented and partly integrated into the project. So, my first proposition is:

Proposition 1: Public hearings are a risk society institution where business, public, and government stakeholders construct an organizational project as an organizational risk.

Hearing discourse, power, and organizational risk. The stakeholders' descriptions of the dimensions of the hearing indicate the stakeholders develop

certain hearing discourses, through which they evaluate and shape the hearing process. A discourse refers to a particular construction of individuals and their relations with respect to a phenomenon such as public hearings (Foucault, 1980). A discourse on the hearing defines which actors may participate, what actions are proper, and which procedures produce valid knowledge in the hearing (Lupton 1999b). It provides an organized way of understanding and evaluating the hearing (Lupton, 2006). Since a discourse specifies which conduct is legitimate for which role or process, and what knowledge is considered valid, it is a means for the stakeholders to control and shape the way others think and act so that certain goals are achieved (Foucault, 1980, 1995; Lupton, 1999a) or to resist others' control attempts and goals (Foucault, 1988a, 1988c, 1990).

Business and public stakeholders develop certain hearing discourses to shape the process of knowledge or evidence production and decision making in the hearing. The hearing discourse provides the stakeholders with an indirect means to affect the conduct of other stakeholders, specifically their participation and evidence in the hearing. This effect could facilitate the acceptance or rejection of the project and associated risks in the residential area.

Business stakeholders develop an exclusionary discourse based in official rules and regulations to limit public stakeholders' control and resistance attempts, which could result in the rejection of the company's project and thus risks in the area. They try to restrict the scope of those attempts on the basis of official rules and regulations. First, business stakeholders develop a limited discussion framework to restrict knowledge production. They construct the hearing subject

as the official application for the proposed well and claim that broader issues such as allowing oil and gas developments within municipal boundaries are beyond the regulatory focus of the hearing. Second, business stakeholders restrict legitimate participation in the hearing to official participation in person. Third, they develop a generally restrictive framework of evidence construction. For example, public stakeholders' personal or professional commitments are not an excuse for rescheduling the evidence. Rescheduling is possible if the Board decides so by using its regulatory authority. The evidence should be produced during official business hours. Legal counsels cannot produce argumentative knowledge during cross examination. That is against the official hearing rules. Fourth, business stakeholders construct the Board's responsibilities as restricted to a certain official jurisdiction. Fifth, the regulations are considered as the main reference for the decision on the project. In general, business stakeholders develop a regulation-based hearing discourse that restricts public stakeholders' participation in the hearing and knowledge production on the project and risks, and the Board's decision framework, which could otherwise address more of the stakeholders' concerns. This regulation-based discourse could facilitate the acceptance of the project and associated risks by restricting the conduct of both public stakeholders and the Board.

In contrast, public stakeholders develop an inclusionary discourse based in their concerns to resist the control attempts of business stakeholders, which could result in the acceptance of the project and thus risks in the area. They try to broaden the scope of their control and resistance attempts on the basis of their

concerns. First, WELG constructs the hearing subject as the whole area including both existing and future operations. Dr. Singh thinks the stakeholder concerns not addressed by the regulations should be discussed as well. Second, public stakeholders highlight the conditions that restrict participation in the hearing and thus knowledge production on the project and risks. WELG requires, for example, the Board explain the intervener position and give proper notice and time to the stakeholders to prepare for and participate in the hearing effectively. RHG highlights a stakeholder needs the Board's approval to participate and also costly legal help. Third, public stakeholders try to facilitate the knowledge production on the risks through their evidence framework. WELG argues a stakeholder can make argumentative statements even during cross examination. Further, the evidence should be rescheduled due to public stakeholders' professional and personal commitments. In fact, the schedule should be rearranged according to the time of the stakeholders; business hours are not the only time to give evidence. Fourth, public stakeholders construct the Board's responsibilities as going beyond the hearing context. WELG expects the Board to inform the stakeholders about the hearing process through a pre-hearing conference and to ensure the effectiveness of the City's involvement in emergency plans. Dr. Singh states the Board should consider the stakeholder concerns outside of the regulations as well as the societal interest including those of the residents and landowners.

Lastly, public stakeholders construct a broad decision framework. For WELG, the criteria include whether the residents' concerns are integrated into the project, whether there is a proper emergency response plan for both drilling and

production, whether the City's new terms and new EUB sour gas procedures are considered by the company, whether all individual concerns are addressed, and whether an effective involvement of the City and Capital Health in the hearing process is ensured. Dr. Singh adds there should be reasonable conditions for addressing the concerns even if there is no regulation with respect to specific concerns. In general, public stakeholders develop a concern-based hearing discourse that helps participate in the hearing and produce knowledge on the project and risks, and that broadens the Board's decision framework, which could otherwise address less of the stakeholders' concerns. This concern-based discourse could facilitate the rejection of the project and associated risks by creating more space for the conduct of public stakeholders and the Board.

Therefore, my second proposition is:

Proposition 2: Business stakeholders develop a regulation-based exclusionary discourse on the hearing, which could restrict public stakeholders' participation in the hearing and knowledge production on an organizational project and associated organizational risk, and the decision framework of government stakeholders; this discourse could facilitate the acceptance of the project and the risk. Public stakeholders develop a concern-based inclusionary discourse on the hearing, which could help participate in the hearing and produce knowledge on the project and associated organizational risk, and broaden the decision framework of government stakeholders; this discourse could facilitate the rejection of the project and the risk.

Legitimacy and the hearing discourse of governmental board. The hearing discourse developed by the Board could help legitimate the Board as a state institution. Legitimacy is a claim made by state institutions that the political order is right and just (Habermas, 1975, 1979; Wuthnow et al., 1984). It is essential for the loyalty of citizens and the stability of the state. The problem of legitimacy arises from the states' contradictory roles to steer the capitalist

economy and to support its citizens against the effects of capitalism (Wuthnow et al., 1984). The state depends on tax revenues from the business to realize its social functions for citizens, and on the continuing loyalty of citizens to realize its steering functions for the business (Habermas, 1975). The problem intensifies during economic crises when the state intervenes in the economy to sustain profit levels and is unable to reconcile the interests of business and labor classes because of fiscal and ideological constraints. The state no longer appears to be an independent party but an agency of the business (Habermas, 1975). This problem is addressed through public forums for citizens to participate in the state's decision process (Habermas, 1989, 1996). Yet these forums avoid substantive participation of individual citizens and produce decisions in the name of an abstract mass of citizens (Habermas, 1975).

The Board develops a neutral hearing discourse, which supports the participation in the hearing and knowledge production on the project and associated risks within official regulatory limits and expert knowledge and thus could protect the Board's legitimacy with an emphasis on its supposedly independent status over business and public stakeholders. First, like the company, the Board constructs the official application as the focus of the hearing. Yet, like WELG, the Board considers the company's existing operations and related concerns part of the hearing subject. Thus, the Board seems to support the interest of business stakeholders by implying the concerns related to other operations are a secondary issue; but it also seems to protect the interest of public stakeholders by allowing them to raise and discuss those concerns.

Second, the Board supports the participation of different stakeholders in the hearing; the hearing emerges as a forum for public stakeholders to participate in the state's decision process (Habermas, 1989, 1996). Indeed, the Board accepts the stakeholders participate to support their interests and facilitates participation by allowing groups to participate through their individual members and representation by relatives. However, the Board highlights the official conditions of participation and specifies only the stakeholders close to the project as participants in line with the regulations. This neutral approach again could contribute to the Board's legitimacy by allowing participation and knowledge production on risks restricted only by official regulations.

Third, the Board constructs a neutral evidence framework. It states that professional commitments are not a reason for rescheduling the evidence, which should be given during official business hours; but the Board is flexible to accommodate the witnesses of public stakeholders. The Board also accepts the evidence without cross examination; but it gives less weight to such evidence, which does not exactly comply with the official practice. The Board again restricts the evidence process through official rules of the hearing while supporting knowledge production.

Fourth, the Board highlights its official regulatory responsibilities including scheduling and holding the hearing, issuing a hearing notice, closing the hearing, and issuing a decision, and mentions it has an official jurisdiction. Thus, the range of risks the Board can address is limited by its regulatory jurisdiction. Yet, the Board also supports the participation in the hearing and knowledge

production on the project and risks when it mentions its responsibility of explaining the hearing process to the stakeholders to facilitate their participation.

The Board also directly points to its neutral position to resolve the issues between business and public stakeholders and constructs itself as the protector of the interests of all Albertans as well as the stakeholders in the hearing. The Board refers to an abstract mass of citizens, on whose behalf it holds the hearing and decides on the project (Habermas, 1975). Business and public stakeholders are part of this mass. Their particular interests are a small part of the general public interest protected by the Board as a regulatory responsibility. In addition, the Board mentions its responsibility to update regulations by using scientific experts' findings and bases its neutrality on science. Thus, the Board emphasizes regulation- and expert-based neutrality oriented to the general public interest.

Fifth, the Board develops a decision framework based on expert evaluation and claims it carefully reviews and compares the local impacts of the proposed well and related facilities, various actions and plans used to mitigate those impacts, and the benefits from the project to the Province and to the City. The project is approved when actions and benefits outweigh impacts. The Board explicitly mentions royalties from the company, indicating the dependence of government on the business for revenue (Habermas, 1975). It also mentions the impacts on the local public and counter actions against those impacts, indicating the dependence of government on the public for stability (Wuthnow et al., 1984). The Board seems to assume impacts, counter actions, and benefits are measurable and comparable with the expert knowledge of its staff. Further, the Board refers to

the interest of the general public in the Province and the City. Expert evaluation seems to be the way to ensure the general public interest is served while individual interests are protected. Thus, the Board constructs its neutrality through an evaluation of and decision on the project based on objective expertise and general public interest independent of any particular interest. This construction could legitimate the Board as a state institution. In this evaluation, the company's individual interest appears to be a part of the general benefit as the company will provide royalties for the Province and the City; but the landowners' concerns appear to be a part of the local impacts that will not affect the public in general.

In sum, the Board develops a regulation- and expert-based discourse on the hearing to construct a knowledge production and decision framework, which is legally and scientifically constrained. This discourse could legitimate the Board through an emphasis on its neutral or independent position. Hence, for the Board, the hearing emerges as a context of justification of rather than deliberation on organizational risks (Habermas, 1996). So my third proposition is:

Proposition 3: The governmental authority of a public hearing develops a regulation- and expert-based neutral discourse on the hearing, which legally and scientifically constrains the framework of knowledge production and decision on an organizational project and associated organizational risk. This discourse could legitimate the governmental authority through an emphasis on its independent position.

Summary

This chapter provided a descriptive, comparative, and conceptual analysis of the sixth key issue, "Hearing Setting". The descriptive and comparative analyses pointed out the stakeholders give meaning to organizational risk by constructing the hearing setting. First, they describe the hearing subject. For

Petrofund and the Board, the focus of the hearing is the current application whereas for WELG the focus involves both the current application and existing facilities of the company. Second, the stakeholders talk about the participation process. They participate to communicate their concerns about the project and support their interests. Public stakeholders highlight some restrictions and ask for conditions to ensure effective participation. The Board emphasizes the official conditions of participation and expresses its support for participation. The company and the Board also emphasize personal participation while public stakeholders including WELG and Dr. Singh emphasize participation through representation. Third, the stakeholders discuss the evidence process. For Petrofund, RHG, and the Board, the evidence without cross examination is acceptable whereas it is unacceptable for WELG and Dr. Singh. Business and government stakeholders are flexible in terms of when the evidence may be given. WELG thinks the evidence should be scheduled according to the residents' schedules. Fourth, the stakeholders consider the hearing board's responsibilities. Business and government stakeholders mention the Board's authority is limited to a certain jurisdiction. Public stakeholders emphasize the Board's responsibility of addressing their concerns and imply the Board's job goes beyond the regulatory framework. The Board highlights its arbitrator position and speaks of some of its routine tasks related to the hearing. Fifth, the decision criteria are discussed. Business stakeholders consider the current regulations the main framework for the decision while public stakeholders promote up-to-date governmental frameworks even though they are not officially mandated yet. Public stakeholders also indicate

the decision should address their concerns. The Board emphasizes its comparative evaluation of the project's impacts and benefits, and the mitigative plans. Lastly, the Board describes the hearing procedures, indicating the formal institutional nature of the setting.

The conceptual analysis showed the context of risk society shapes the organizational setting where the stakeholders construct an organizational project and associated risk. Public hearings emerge as a risk society institution where the stakeholders give meaning to the project as an organizational risk. In the hearing, business and public stakeholders engage in a relation of power in terms of the acceptance or rejection of the project and the risk. Business stakeholders develop a regulation-based exclusionary discourse on the hearing, which could restrict public stakeholders' participation in the hearing and knowledge production on the project and the risk, and government stakeholders' decision framework. This discourse could facilitate the acceptance of the project and the risk. Public stakeholders develop a concern-based inclusionary discourse on the hearing, which could help participate in the hearing and produce knowledge on the project and the risk, and broaden government stakeholders' decision framework. This could facilitate the rejection of the project and the risk. Government stakeholders develop a regulation- and expert-based neutral discourse on the hearing, which leads to a legally and scientifically constrained framework of knowledge production and decision on the project and the risk. This discourse could legitimate government stakeholders as it emphasizes the position of government stakeholders independent of business and public stakeholders.

With the descriptive, comparative, and conceptual analyses of the issue of hearing setting, the analysis chapters are completed. The next chapter discusses the results of the study and develops a theoretical framework on the meaning construction process of organizational risk.

Chapter 10

Discussion

This chapter discusses the results of the study by answering the research questions. The first goal of the chapter is to integrate the results of the analysis chapters and develop further insights by extending the propositions. The second goal is to construct a theoretical framework of the meaning construction process of organizational risk.

Research Questions

The section integrates and extends the results of the study through the answers to the research questions.

1. How do different social actors from business, government, and public give meaning to or construct organizational risk? All stakeholders construct an organizational project as an organizational risk although with different meanings. Business, public, and government stakeholders give meaning to the project as manageable, unmanageable, and legitimate risk, respectively. Thus, they construct organizational risk by giving meaning to the project, which they think potentially harmful to their well-being, and the project's five key aspects including concerns, measures or plans, consultations, actor approaches and ways, and the hearing setting. First, the stakeholders try to understand the project, which is the source of potential risks. Second, they try to understand what concerns the project leads to. Third, the stakeholders look into the measures or plans that can be used to address the concerns. Fourth, they evaluate consultations with other stakeholders on the project. Fifth, they relate the project to the

approaches of the actors involved in or affected by the project. Lastly, the stakeholders make sense of the organizational setting (a public hearing in this case) where they construct the project as an organizational risk. Hence, the stakeholders do not simply focus on what concerns they have with respect to the project. Measures or plans, consultations, organizational actors, and organizational setting are key issues in developing an idea about organizational risks. Table 10.1 summarizes the stakeholders' meanings of the project constructed as an organizational risk.

Business stakeholders' meanings of organizational risk. Business stakeholders construct the project as a manageable organizational risk. They describe the risk of sour gas release from the proposed well in calculated numbers and indicates the risk is calculable. They conceptualize the project as the current application only; thus the risk is limited. They emphasize the project's technical aspects, indicating the project is an economic activity to produce oil not a risk. The project can be safely operated in a residential area for an unspecified period.

Business stakeholders deemphasize the project as a source of risk and highlight individual risk taking as an alternative source. They distinguish between potential and actual concerns, claiming there is no real danger. The risk is addressable through plans and actions prepared to address stakeholder concerns, cooperation with government stakeholders, and consultations with public stakeholders. In fact, business stakeholders construct the risk from the project by focusing on measures and plans to address the risk. Every concern of the stakeholders seems addressable with plans developed by business stakeholders.

Stakeholder Issue	Business	Public	Government
Project	Project is an economic activity that should be developed in line with official government regulations, expert knowledge, and company and industry standards, and a source of limited and calculable risk that is manageable	Project is a socio-economic activity that should be developed in line with both official and unofficial government guides and local knowledge of public stakeholders, and a source of risk that might be unmanageable	Project is a socio-economic activity that should be developed in line with official government regulations, expert knowledge, and local circumstances, and a source of risk that is manageable and thus legitimate
Concerns	Concerns are addressable by measures and plans developed by business stakeholders and implemented together with government stakeholders and there are other sources of concerns such as individual risk taking	Concerns are addressable only if there are individualized plans developed with the contribution of public stakeholders and implemented through effective cooperation with government stakeholders	Concerns are addressable by measures and plans developed by business stakeholders and there are other sources of concerns such as individual risk taking
Measures or plans	Measures and plans can be comprehensive to address all concerns	Measures and plans are unlikely to be effective if they do not address specific concerns and are not coordinated with government plans	Measures and plans can address concerns in cooperation with public and government stakeholders
Consultations	Consultations are important to understand and address the risk, and used together with the process of learning from past incidents, experiences, and exercises	Consultations are essential to understand and address the risk, and to integrate the contribution of the public into measures and plans	Consultations are necessary to understand and address the risk, and used together with the process of learning from tests
Approach of business	Approach of business might be an important source of risk manageability	Approach of business might be an important source of risk	Approach of business might be a source of risk manageability
Hearing setting	Scope of participation in and decision of the hearing is narrowly described through regulations, which could restrict the discussion on risk and facilitate the construction of risk as manageable	Scope of participation in and decision of the hearing is broadly described through concerns, which could facilitate the discussion on risk and the construction of risk as unmanageable	Scope of participation in and decision of the hearing is neutrally described through regulations and expert knowledge, which could neutrally restrict the discussion on risk and facilitate the construction of risk as legitimate

Business stakeholders emphasize their organizational capability and cooperation with provincial and municipal governments in implementing plans effectively. The process of developing plans is ongoing and evolving; every organizational risk is eventually addressed as plans are revised and improved.

Business stakeholders use official government regulations, expert knowledge of consultants, company policies and experiences, and common industry experience as reference guides to evaluate the project and associated risk and to develop measures and plans to address the risk. It is implied that the risk is manageable if the project is built and operated in line with governmental regulations, expert knowledge, and company and industry standards.

Business stakeholders point to consultations with other stakeholders and learning from past incidents, experiences, and exercises as a means to understand stakeholder concerns and thus the risk, and to develop measures and plans to address the risk. They prefer consultations with the stakeholders themselves to their legal representatives and consult with any stakeholder accepted by the government authority as an intervener. Consultations are carried out according to governmental and industry standards as well as company policies and expertise of private consultants. Business stakeholders argue consultations are successful in general and the risk is better understood and thus addressed. Further, business stakeholders' approach to the project, measures and plans, and consultations makes the risk more manageable and controllable.

Business stakeholders develop an interpretation of the hearing setting, which could restrict the scope of participation in the hearing and the hearing

board's decision and thus facilitate the construction of the risk as manageable because fewer of public stakeholders' concerns may be discussed. Business stakeholders consider the hearing subject the well application only. They emphasize the stakeholders' personal participation in the hearing and argue the stakeholders should give evidence within normal business hours and in line with the hearing procedures. Business stakeholders argue the board's job is restricted to a certain legislated jurisdiction and the decision should be based on governmental regulations.

Public stakeholders' meanings of organizational risk. Public stakeholders construct the project as an organizational risk that is manageable but not in this case. The risk seems to be the main feature of the project. Both planned and existing activities of business stakeholders are considered as a source of risk. It is not safe to place the project in a residential area for an unknown period of time. Public stakeholders emphasize their individual and common health, environment, and economic concerns regarding the project especially about the possibility of sour gas release. They mention their specific concerns and demand specific measures and plans, which business stakeholders seem to overlook. They argue business stakeholders and municipal government agencies should cooperate in implementing measures and plans. Yet, the roles between the two are not clear and municipal agencies do not have site-specific knowledge. Thus, currently the risk does not seem to be addressable or manageable.

Consultations on the project are essential to understand the risk and develop measures and plans to address the risk. Public stakeholders try to put their

input into plans through consultations, which they find unsatisfactory. In fact, consultations result in fractures among public stakeholders. Business stakeholders deny the stakeholders' concerns and try to validate their own perspective in consultations. Public stakeholders emphasize consultations through legal representatives, which are sometimes disregarded by business stakeholders whose approach in consultations hinders public stakeholders' contribution into measures and plans.

Public stakeholders think they need to push or cooperate with business stakeholders to address the risk. Business stakeholders' approach in addressing concerns is considered as a risk itself; business stakeholders focus only on their profit. Public stakeholders state that they are not against oil and gas projects; given the general approach of business stakeholders, the risk does not seem to be controllable and acceptable.

Public stakeholders' evaluation of the project and associated organizational risk is based on official government regulations and unofficial government recommendations, which provide a better protection against the risk as an up-to-date framework and yet are ignored by business stakeholders. Public stakeholders also refer to lived experience and individual professional knowledge as a framework to understand the risk.

Public stakeholders develop an interpretation of the hearing setting, which could broaden the scope of participation and decision framework and thus facilitate the construction of the risk as unmanageable and unacceptable as more of public stakeholders' concerns may be discussed. They consider both existing

and planned activities of business stakeholders and related concerns not addressed by the regulations part of the hearing subject. They highlight the restrictions on participation in the hearing such as the need for legal help and the approval of the hearing board, and ask for conditions for an effective participation. Public stakeholders demand flexibility in the evidence process. They emphasize the responsibilities of the Board in addressing their concerns and thus the risk, claiming that the Board's job goes beyond the regulations. As the decision criteria, public stakeholders promote recent unofficial governmental frameworks in addition to official guidelines and emphasize that the risk should be addressed.

Government stakeholders' meanings of organizational risk. The project is given meaning by government stakeholders as a manageable and thus legitimate organizational risk. Government stakeholders recognize both the risk and strategies to address the risk and highlight the calculability of the risk. The project is described as the current application; thus the risk is rather limited. It is safe to operate the project in an urban area although the risk would be higher in a densely populated area. Government stakeholders argue there is no need to limit the duration of the operations; yet, they consider the duration a source of risk. They mention the technical side of the project described as an economic activity. They also mention consultations with other stakeholders, implying the project is not purely a technical activity. Government stakeholders focus on health risks and claim individual risk taking of public stakeholders is a source of risk.

Government stakeholders emphasize measures and plans to address the risk; stakeholder concerns are addressable with the measures and plans of

business stakeholders in cooperation with municipal government agencies and in consultation with other stakeholders in general. There are all kinds of plans including municipal and company plans, and general and specific plans to effectively address potential concerns. The development process is continuous; there will be plans for every concern. Therefore, the risk is controllable and manageable. Government stakeholders refer to governmental regulations and professional expertise as the main reference to develop measures and plans. Local conditions should also be considered. Thus, government stakeholders support ongoing consultations between the stakeholders to better understand and integrate public stakeholders' local concerns into measures and plans, which should also be tested. The stakeholders should follow governmental guides and openly communicate in consultations.

Government stakeholders consider business stakeholders' approach to project satisfactory and collaborative. The approach exceeds industry standards and is generally effective in addressing the risk. Business stakeholders are also described as investors searching for profit; the project is a legitimate business undertaking that produces manageable organizational risks.

Government stakeholders' interpretation of the hearing setting is mainly based on official regulations and expert knowledge, which could help construct the risk as legitimate by neutrally restricting the scope of participation and decision framework and thus constructing government agencies as neutral stakeholders independent of individual business and public stakeholders. For government stakeholders, the focus of the hearing is the current well application

in line with the regulations. However, the existing facilities of business stakeholders are also considered as an issue to discuss. Government stakeholders emphasize official restrictions on participation in the hearing and yet support both personal and representative participation of different stakeholders. They facilitate the evidence of all the stakeholders through a less strict interpretation of the hearing procedures. It is stated that the responsibilities of the hearing board are restricted to a certain jurisdiction and the primary responsibility is to protect the general public interest. The hearing decision is based on a comparative expert evaluation of the project risks and benefits, and the plans developed to address those risks. Government stakeholders also highlight institutional nature of the setting by describing the hearing rules and procedures.

2. What are the key themes related to organizational risk that emerge in the discourse of social actors? The key themes the stakeholders discuss in relation organizational risk are the six key issues and their dimensions as shown in Table 10.2. The themes emerged in the stage 4 (developing key issues) and stage 5 (construction of data tables and comparative analysis) of the analysis process. The stakeholders explore and use certain dimensions to develop an understanding of the key issues, which then contributes to how they give meaning to risks produced by organizations. The six key issues and related dimensions provide an empirical framework that is grounded in risk meanings of the stakeholders in the case and that might help analyze the process of giving meaning to risk in similar cases and organizational settings.

Table 10.2 Key Issues and Themes Discussed by Stakeholders in relation to Organizational Risk					
Project	Concerns	Measures or Plans	Consultations	Approaches of Organizational Actors	Organizational Setting of Public Hearing
<ul style="list-style-type: none"> *Operational scope of the project *Temporal scope of the project *Concerns due to the project *Strategies to address the concerns *Location of the project in relation to a residential area *Understanding frameworks to give meaning to the project *Portrayal of the company and/or its members in the project *Content of the project 	<ul style="list-style-type: none"> *Stakeholders that raise concerns *Sources of concerns *Types of concerns *Strategies to address concerns *Company approach in responding to concerns *Process to understand concerns *Understanding frameworks to give meaning to and/or address concerns 	<ul style="list-style-type: none"> *Concerns to be addressed by measures and plans *Types of plans *Parameters of plans *Organization of plans *Process to develop plans *Approach in developing plans *Responders involved in the implementation of plans *Reference guides to understand and evaluate plans 	<ul style="list-style-type: none"> *Participants in consultations *Issues discussed in consultations *Purpose of consultations *Results of consultations *Means of consultations *Approach of the stakeholders in consultations *Reference guides to understand and evaluate consultations 	<ul style="list-style-type: none"> *Approach to operations *Approach in addressing concerns *Approach in consultations *Actor or group characteristics 	<ul style="list-style-type: none"> *Hearing subject *Hearing participation *Evidence construction during hearing *Responsibilities of the hearing board *Hearing decision *Hearing rules

Concerns, strategies or plans, organizational actors' approaches, understanding processes including consultations, and understanding frameworks or reference guides keep emerging as dimensions within different key issues. This indicates that these issues are important for the stakeholders to construct the project as an organizational risk. However, not every dimension of each issue is discussed by all stakeholders; the stakeholders emphasize different dimensions. For example, business stakeholders emphasize the strategies used to address concerns whereas public stakeholders highlight their concerns and do not mention any strategies in the issue of the project. Such differences show what different stakeholders focus on to give meaning to organizational risk. Thus, the dimensions help differentiate the stakeholders' constructions of risk.

3. What social institutions and stocks of knowledge do social actors use to give meaning to an organizational project as an organizational risk?

All the stakeholders take for granted that public hearings are an institution of risk construction. Public hearings are the setting where the stakeholders give meaning to an organizational project as a risk. The stakeholders do not question the hearing board's authority as the decision-maker on the project and associated risks. This is the only common meaning the stakeholders develop in the process of risk construction. Yet, this basic consensus does not prevent especially public stakeholders from developing their own meaning of public hearings by reconstructing the hearing dimensions and challenging established official meanings, which are held and supported by business and government stakeholders as discussed in Chapter 9.

The stakeholders also use different social stocks of knowledge to understand and address organizational risk. Business stakeholders use institution-based legal and technical stocks of knowledge and emphasize formal compliance with those knowledge bases. In contrast, public stakeholders use individual-based local stocks of knowledge that emerge from their experiences embedded in local community. They also refer to legal stocks of knowledge; but they emphasize substantive purpose of those stocks. Like business stakeholders, government stakeholders refer to legal and technical stocks of knowledge to understand and address the risk.

Business and government stakeholders have an abstract understanding of the risk and risk manageability. The risk is considered to be calculable through official legal-technical knowledge and manageable through the application of this knowledge in the project and rational-purposive actions and rituals. The formal compliance with legal-technical frameworks transforms the risk into a manageable and thus legitimate risk; the project is constructed to be acceptable. Hence, legal-technical frameworks represent the interests of business and government stakeholders by allowing them to make profit and cultivate legitimacy out of the risk, respectively.

Public stakeholders have a situated understanding of the risk, which should be addressed in a way that they feel safe in their local environment. Risk management instruments should address their local circumstances, in which the risk is experienced. When public stakeholders refer to legal frameworks, they focus on the substantive purpose of addressing the risk because even full

compliance may be insufficient. Hence, they go beyond and challenge official frameworks. Concern-based local knowledge supports the interest of public stakeholders because it allows them to highlight the risk for individuals and communities and the insufficiency of official legal frameworks to address the risk, and thus to construct the project as unacceptable.

In fact, public stakeholders try to integrate local into legal knowledge by requesting that their concerns be addressed regardless of being addressed by official regulations. They try to broaden the scope of compliance by emphasizing the purpose of compliance, which is to address the risk, whereas business and government stakeholders emphasize formal compliance in-itself, which is easier to achieve. Local knowledge is an important reference used to understand organizational risk; however, it is not as effective in the hearing authority's decision as institutional knowledge, which is the main reference for business stakeholders as the risk producer and government stakeholders as the risk regulator. Public stakeholders seem to be allowed to communicate local knowledge as a matter of legitimacy in the hearing and continue to be the main group being exposed to the risk. Yet, this legitimacy of government stakeholders is in question when public stakeholders implicitly question the effectiveness of full compliance with official regulations in terms of addressing the risk; a mismatch becomes evident between the substantive purpose of (emphasized in local knowledge) and formal compliance with (emphasized in institutional knowledge) the regulations.

4. How do social actors use cultural boundaries and rituals to give meaning to an organizational project as an organizational risk? Public stakeholders construct clear and specific spatial and temporal risk boundaries between the project and the residential area. They try to reproduce their social and cultural area as distinct from the project and construct the risk due to the project as unacceptable in the area. Public stakeholders consider the risk the main feature of the project. Through a clear and specific risk meaning in terms of boundaries, they resist the idea that organizational risk is an inherent feature of their everyday life.

In contrast, business and government stakeholders do not set clear and specific risk boundaries and try to construct the project as acceptable within the residential area although they describe the risk in specific calculated numbers. They highlight the rituals used to address the risk and thus reproduce safety in the area. Business and government stakeholders take into account the risk by constructing certain boundaries; but there is no need for clear and specific risk boundaries if the risk is manageable. The project does not threaten and can be a part of the residential life. In this case, rituals are not used to reconfirm and reestablish the boundaries between residential and industrial areas. Instead, they are used to obscure the boundaries and construct the residential area as a proper place for a risky organizational project. They normalize the risk by making it a part of the residential life together with the project.

5. How do government actors legitimate their decisions on organizational projects and risks? Government stakeholders develop a

regulation- and expert-based neutral discourse on public hearings, which results in a legally and scientifically constrained framework of knowledge production and decision on the project and associated organizational risk and thus which could legitimate government stakeholders by emphasizing their position independent of business and public stakeholders. The case refers to a context in which the risk is recognized by all the stakeholders including governmental hearing board whose approval decision on the project needs to be justified. The problem is an unequal distribution of risks and rewards. Public stakeholders mainly have to bear the risk while business and government stakeholders mainly reap the reward in terms of profits and royalties. This inequality has to be justified as government stakeholders are supposedly the independent party responsible for a fair distribution of risks and rewards and for providing public stakeholders with adequate protection while promoting risky yet profitable projects of business stakeholders. A discourse based in regulations and expert knowledge, which are supposed to be neutral and impersonal and represent the general public interest, is likely to provide government stakeholders with an opportunity to create a sense of independence and to reconstruct themselves as the arbitrator between business and public stakeholders. Business stakeholders' project and associated risk are legitimated while public stakeholders' participation in the project is facilitated within seemingly neutral constraints of regulations and expert knowledge that are not arbitrary. For government stakeholders, thus, public hearings emerge as an institution of risk legitimation rather than deliberation, which seems to allow ordinary citizens to participate in the state's decision process (Habermas, 1989,

1996). In fact, in risk society where economic activity constantly produces organizational risks and thus there is a constant threat to the legitimacy of government stakeholders, public hearings are a critical setting for the preservation of the state authority.

6. How do social actors use rational-purposive and communicative actions to give meaning to an organizational project as an organizational risk? Business and government stakeholders construct rational-purposive actions as universally applicable and organizational risks as universally manageable through those actions. They focus on rational-purposive actions to construct the risk as addressable and the project as acceptable. In contrast, public stakeholders construct the actions as locally applicable and organizational risks as locally manageable and focus on the risk not the actions. Further, all the stakeholders engage in communicative actions to understand the risk from the project and develop rational-purposive actions to address the risk. Public stakeholders especially emphasize the communicative basis of the actions while business stakeholders emphasize their techno-scientific basis.

Rational-purposive actions are a major means of business and government stakeholders to construct the risk (as manageable and legitimate). They indicate the risk becomes manageable through rational planning and action. Plans and actions are rational and universally applicable as they are based on abstract techno-scientific and legal rationalities that are instrumentally oriented. Business and government stakeholders engage in communicative actions as well with public stakeholders to understand and address the risk. They accept public

stakeholders are legitimate actors in the decision-making process on the project and risk. Yet, communicative action has a secondary place in the process. In fact, business stakeholders emphasize the techno-scientific basis of rational-purposive actions. Deliberation and consensus on the actions are not so critical for effective risk management. For business and government stakeholders, communicative action seems to be a matter of legitimacy.

In contrast, public stakeholders' focus is to develop rational-purposive actions through a communicative process so that the actions incorporate local knowledge and can be applicable locally. Without this communicative basis, the actions are considered as ineffective and claimed to reproduce the risk. There should be an agreement between the stakeholders on how to manage the risk, which is not considered as solely a technical question. Accordingly, rather than rational-purposive action, communicative action seems to be the basis of addressing the risk.

Nevertheless, communicative action is not simply an instrument of consensus; it is also used for confrontation between business and public stakeholders. Communicative and power relations are not mutually exclusive. Communicative action can be used as a strategy of power, through which the stakeholders try to control the way others think and behave in relation to the risk. Thus, public stakeholders emphasize the risk whereas business stakeholders emphasize the manageability of the risk throughout the hearing. As a means of power relations, communicative relations have a role in the reproduction of unequal risk relations between business stakeholders who generally benefit from

the risk and public stakeholders who generally suffer physically, environmentally, and economically from the risk. They obscure the relations of power and associated risk inequalities and thus make the risk seem more acceptable as they seem to give public stakeholders an equal opportunity to make their case against the project and risk.

The stakeholders mention all four speech acts including constatives, communicatives, representatives, and regulatives as necessary for an effective communication on the project and organizational risk. Business and public stakeholders focus on regulatives, which could help construct an unofficial framework favorable for their arguments and statements. Public stakeholders also emphasize representatives to demand business stakeholders to provide them with complete and truthful information about the project and risk. Government stakeholders briefly mention representatives and regulatives and consider official regulations the main framework.

The extensive use of regulative speech acts indicates it is a regulative communication environment (public hearings) and the stakeholders try to shape the acts of one another by developing a framework regulated in a way that is in line with their meanings of organizational risk, which could be a basis of governmental authority's evaluation of communicative efforts of the stakeholders. Public stakeholders emphasize representative acts and open communication as well. Business stakeholders' avoidance of sharing information indicates communication is in fact one-way or ineffective and thus public stakeholders are excluded from the process of developing the project and addressing the risk.

Communicative action does not produce the information that will help public stakeholders understand the project and risk and contribute to rational-purposive actions. Thus, the stakeholders do not even have a consensus on the nature of the communication environment as they have different understandings of what effective communication means; there seems to be several distortions to prevent ideal communication. Communicative action turns out to be an instrument of power to control the conduct of other stakeholders rather than a process that produces consensus among the stakeholders.

7. How do social actors engage in power relations and utilize different discourses and subject positions in those relations in the process of giving meaning to organizational risk? Business and public stakeholders engage in a relation of power in terms of the acceptance of the risk from the project; business stakeholders try to make public stakeholders accept the risk within the residential area whereas public stakeholders resist the risk. The stakeholders utilize communicative action as a strategy of power in this relation. Business and public stakeholders also use and construct the subject positions of applicant and intervener in the hearing. Their opposite constructions help control the conduct of one another or resist the control attempts, and thus give meaning to the project and risk as acceptable or unacceptable. Although business and public stakeholders seem to have an equal status in the hearing, business stakeholders as the applicant have a relative power over public stakeholders as the intervener because they share the same frames of reference with the hearing governmental board as the

decision-making authority and because they engage in an economic activity that is essential for the province.

Further, business stakeholders develop a regulation-based exclusionary discourse on the hearing, which could restrict public stakeholders' participation in the hearing and knowledge production on the project and the risk, and government stakeholders' decision framework. This discourse could facilitate the acceptance of the project and the risk. In turn, public stakeholders develop a concern-based inclusionary discourse on the hearing, which could help participate in the hearing and produce knowledge on the project and the risk, and broaden government stakeholders' decision framework. This could facilitate the rejection of the project and the risk.

The concept of power helps understand one of the main characteristics of the relation between business and public stakeholders. Business stakeholders try to impose the risk on public stakeholders who try to resist this imposition. Risk construction is not an unproblematic process; there are interests in conflict and opposition. Power is so central in the stakeholders' relation that the stakeholders use communicative action as a strategy of power.

Business and public stakeholders use and construct the subject positions of applicant and intervener in their attempts to impose or resist the risk of the project. Since the risk is constructed by a stakeholder who occupies a subject position in the hearing, the way the subject positions are constructed affects the construction of the risk itself. The constructions define how a stakeholder occupying a position should act or have acted in relation to the risk and can be

used to establish that a stakeholder did not act properly in line with the position s/he occupies. Thus, they are control attempts over the conduct of other stakeholders. In the hearing setting, the subject position of applicant gives more power to the stakeholder who occupies it than the position of intervener because the hearing decision is based on governmental regulations, which is the primary reference for an applicant but not necessarily for an intervener, and because the decision addresses the primary economic activity of the province, which is the activity of an applicant but not necessarily of an intervener. Hence, public stakeholders are in a less powerful position vis-à-vis business stakeholders and the unequal risk relation between them is reproduced in the hearing.

Business stakeholders' discourse on the hearing confirms this interpretation as it is based on official governmental regulations, which could restrict the scope of participation and decision, exclude several issues from the hearing, and thus facilitate the imposition of the risk. Public stakeholders refer to their concerns to include the issues not addressed by official regulations. Although government stakeholders develop a neutral discourse on the hearing, their reference to regulations as well as expert knowledge (another important reference for business stakeholders) puts public stakeholders in a relatively disadvantaged position. Public stakeholders challenge official frameworks. They try to shape the setting. Business stakeholders basically attempt to reproduce the established regulatory nature of the setting. Nevertheless, neither public nor business stakeholders are passive recipients and appliers of an external discourse on the hearing. They do not passively accept occupying official subject positions,

either. Instead, they develop their own definitions of the hearing and subject positions and actively try to shape or reproduce the rules and roles of the setting. By doing so, they try to shape the setting or conditions of risk construction and thus affect other stakeholders' risk meanings in line with their own meanings while they give meaning to the risk as well.

8. How do social actors experience and reflect the context of risk society and related phenomena of individualization and techno-scientific rationality in the meaning construction process of risk? Risk society context affects the meanings of all the stakeholders and results in the construction of the project as an organizational risk. The project is not simply accepted as a productive economic activity. The context shapes the organizational setting where the stakeholders construct an organizational project and associated risk. Public hearings emerge as a risk society institution where the stakeholders give meaning to the project as a risk. In this context, the communicative basis of economic activities is emphasized and the stakeholders use communicative actions to understand the project and the risk. This basis is especially emphasized by public stakeholders. Despite the increasing importance of the communicative construction of the risk, techno-scientific rationality is still an essential framework for the stakeholders to give meaning to the risk. It is especially emphasized by business stakeholders. Also related to risk society context is the individualization of the risk by business and government stakeholders who construct public stakeholders as responsible for the risk. In response, public stakeholders hold business and government stakeholders responsible by externalizing the risk.

Organizational risk is a general experience for all stakeholder groups. It is considered to be an inherent feature of an organizational project. By constructing an economic activity as an organizational risk, the stakeholders contribute to the construction and experience of a particular macro environment that can be theoretically termed as risk society although they differ in how they give meaning to the risk. Risk society is also experienced in the institutional risk construction setting of public hearings, through which public stakeholders participate in the decision-making of government and business stakeholders on the project and the risk. In the hearing, the project is questioned by the stakeholders and various lay rationalities are represented in addition to techno-scientific rationality. The context of risk society indicates there should be a communicative as well as a techno-scientific basis of an economic activity. The context also refers to possible individual as well as societal bases of the risk. Business and government stakeholders downplay their responsibility in producing and managing the risk and construct individual public stakeholders as an alternative source of the risk. Individuals are responsible for managing the risk they are exposed to even if the risk is produced by some external organization. In contrast, public stakeholders highlight the institutional bases of the risk and construct societal institutions as the source and responsible for risk management.

For business stakeholders, risk society is a society of risk management. Business stakeholders still emphasize the techno-scientific basis of organizational risk, which refers to a calculable and manageable construction of the risk. This is in line with business stakeholders' focus on rational purposive actions and rituals

to address the risk. The risk is even considered manageable by individual stakeholders.

For government stakeholders, risk society is a society of risk legitimation. The setting of public hearings legitimates government stakeholders' construction of the risk. This function of public hearings is critical in the context where risk emerges as a major experience for individuals and organizations that expect the state to address the risk. The individualization of the risk could also serve legitimation as it obscures the responsibility of government stakeholders.

For public stakeholders, risk society is a society of risk imposition and communication. Public stakeholders experience the risk produced and imposed by business and government stakeholders through the instruments of risk management and legitimation. They communicate their concerns regarding organizational projects through public hearings and emphasize the communicative basis of economic activities. Communicative action emerges as the major instrument to understand and address the risk. Communicative settings and actions allow public stakeholders to highlight the responsibility of societal institutions to manage the risk although they do not empower the stakeholders to effectively resist the imposition of the risk.

Theoretical Framework

The analysis and discussion show that the concepts of institution and social stock of knowledge (Berger and Luckmann, 1966; Berger, 1967), boundary and ritual (Douglas, 1966, 1973), legitimacy, rational-purposive action, and communicative action (Habermas, 1975, 1979, 1984, 1989), power, subject

position, and discourse (Foucault, 1980, 1988b, 1990, 1995, 2003c), risk society, techno-scientific rationality, and individualization (Beck, 1992, 1994, 1999) are useful in understanding how different stakeholders give meaning to organizational risk. Table 10.3 summarizes the theoretical discussion and provides a framework of risk construction.

First, stakeholders give meaning to organizational risk in an institutional setting taken for granted by all as the setting of risk construction. Second, they use social stocks of knowledge to understand the risk. These are general references and rationalities not limited to understanding organizational risk. Techno-scientific rationality is the dominant rationality in the hearing. Third, stakeholders identify organizational risk through risk boundaries. They try to distinguish between what is risky and what is not risky. Fourth, they identify risk management instruments, which might be ritualistic or rational-purposive. Fifth, stakeholders engage in a number of relations in understanding and addressing the risk. These include relations of legitimacy, communication, power, and individualization. Stakeholders describe four types of speech acts to shape the environment and relations of communication. They use communicative action, utilize the subject positions in the setting and develop discourses on the setting to engage in power relations. Lastly, the risk meanings of stakeholders are shaped by the macro context of risk society.

Table 10.3 Stakeholders' Construction of Organizational Risk			
Stakeholder Concept	Business stakeholders	Public stakeholders	Government stakeholders
	Social institution refers to the organizational context of risk construction where stakeholders give meaning to organizational risk		
Social Institution	The setting of public hearings is a recognized institution of risk construction	The setting of public hearings is a recognized institution of risk construction	The setting of public hearings is a recognized institution of risk construction
	Social stock of knowledge and techno-scientific rationality refer to frames of reference or worldviews and rationalities of risk construction stakeholders refer to		
Social stock of knowledge	Abstract institutional stocks of knowledge are used to construct risk as calculable and thus manageable and formal compliance with legal-technical stocks of knowledge ensures that risk is manageable	Situated local stocks of knowledge are used to construct risk as unmanageable and formal compliance with legal stock of knowledge may not ensure that substantive purpose of addressing risk is realized	Abstract institutional stocks of knowledge are used to construct risk as manageable and thus legitimate and formal compliance with legal-technical stocks of knowledge ensures that risk is legitimate
Techno-scientific rationality	Techno-scientific rationality is the main reference to understand and address risk	Techno-scientific rationality is a secondary reference to understand and address risk	Techno-scientific rationality is an important reference to understand and address risk
	Boundary refers to the attempts of stakeholders to differentiate what is risky from what is not risky		
Boundary	There are unclear and unspecific boundaries between industrial and residential areas and thus risk can be accepted as part of residential life	There are clear and specific boundaries between industrial and residential areas and thus risk cannot be accepted as part of residential life	There are unclear and unspecific boundaries between industrial and residential areas and thus government stakeholders' approval of risk can be considered as legitimate
	Ritual and rational-purposive action refer to risk management instruments developed and used to address organizational risk		
Ritual	Rituals construct and reproduce risk as manageable within residential boundaries	Rituals reproduce unacceptable risk within residential boundaries	Rituals construct and reproduce risk as legitimate within residential boundaries
Rational-purposive action	Rational purposive actions are universally applicable and make risk universally manageable	Rational-purposive actions are locally applicable and do not make risk manageable unless they are based in communicative action	Rational purposive actions are universally applicable and make risk manageable and thus legitimate

Stakeholder Concept	Business stakeholders	Public stakeholders	Government stakeholders
	Communicative action and legitimacy, power, discourse, and subject position, and individualization refer to social relations individual and institutional stakeholders engage in to construct organizational risk		
Communicative action	Communicative action is a way to understand and address risk Communicative action is a strategy of power and of imposition of risk Regulative speech acts are used to shape the setting of risk construction to facilitate the acceptance of risk	Communicative action is the primary way to understand and address risk Communicative action is a strategy of power and of resistance to risk Regulative and representative speech acts are used to shape the setting of risk construction to facilitate the rejection of risk	Communicative action is an important way to understand and address risk Communicative action is a strategy of legitimacy
Legitimacy	Benefiting from risk should be justified	Suffering from risk should be justified	Risk and government institutions are legitimated through a discourse on the setting of risk construction based in official regulations and expert knowledge that are supposedly neutral
Power	Risk is made acceptable to public stakeholders	Imposition of risk by business stakeholders is opposed	Government stakeholders are supposedly neutral to arbitrate relations of power
Subject position	Subject positions of applicant and intervener are constructed to affect the conduct of stakeholders occupying those positions and thus facilitate the imposition of risk	Subject positions of applicant and intervener are constructed to affect the conduct of stakeholders occupying those positions and thus facilitate the resistance to risk	The position of applicant is privileged over the position of intervener as governmental board's decision addresses official regulations and primary provincial industry
Discourse	Discourse on the setting of risk construction is based in official regulations, which could restrict scope of participation and hearing decision on risk and thus facilitate the imposition of risk	Discourse on the setting of risk construction is based in concerns, which could broaden scope of participation and hearing decision on risk and thus facilitate the resistance to risk	Discourse on the setting of risk construction indicates neutrality and independence from business and public stakeholders

Stakeholder Concept	Business stakeholders	Public stakeholders	Government stakeholders
Individualization	Risk is individualized as individual public stakeholders are held responsible for managing risk and their failure to do so does not undermine business stakeholders' ability to manage risk and make it acceptable	Risk is externalized as institutional business and government stakeholders are held responsible for managing risk and their failure to do so does undermine acceptability of risk and legitimacy of risk decision	Risk is individualized as individual public stakeholders are held responsible for managing risk and their failure to do so does not undermine legitimacy of government stakeholders' decision to approve risk
	Risk society refers to macro societal context of risk construction in which stakeholders give meaning to organizational risk		
Risk society	Risk society is a society of risk management and individual responsibility	Risk society is a society of risk imposition and communication and societal responsibility	Risk society is a society of risk legitimization and individual responsibility

Summary

This chapter has discussed and integrated the results of the study by addressing the research questions and provided a theoretical framework of risk construction. The chapter shows that stakeholders give meaning to organizational risk by constructing an organizational project as a source of risk, concerns related to the project, measures and plans used to address concerns, consultations on the project, organizational actors involved in or affected by the project, and organizational setting where the stakeholders construct the project as an organizational risk. The chapter indicates that stakeholders address these six key issues including project, concerns, measures and plans, consultations, organizational actors, and organizational setting, and related sub-themes in their discussion of organizational risk.

Stakeholders give meaning to organizational risk in the institutional setting of public hearings and use certain social stocks of knowledge to understand the risk. Techno-scientific rationality seems to be the dominant knowledge base. Stakeholders construct risk boundaries to identify organizational risk. They also identify several rituals and rational-purposive actions developed and used to address the risk. Further, stakeholders engage in the relations of legitimacy, communication, power, and individualization to understand and address the risk. They construct the four types of speech act in communicative relations and utilize subject positions and discourses in power relations. Stakeholders' risk construction is shaped by the macro context of risk society.

Chapter 11

Conclusion

This chapter concludes the study. The first goal is to highlight the study's theoretical, empirical, and practical contributions to understanding and managing organizational risk. The second goal is to suggest future research directions and discuss the limitations of the study.

Theoretical Contributions

This study provides a multi-faceted framework to analyze and understand the process of giving meaning to organizational risk, which complements and extends the existing insights in organizational literature. Risk scholars express the need for using different theories to develop a better understanding of risk (Dean, 1999; Lupton, 1999b; Rohrman and Renn, 2000) and there is no study that brings the insights of the five socio-cultural theories within a more inclusive framework to address socio-cultural processes of risk construction (Lupton, 1999a).

Positivist organization research assumes risk preexists as a reality and neglects socio-cultural processes of risk construction (Miner et al., 1990; Desai, 2008; Choo, 2005; Busenberg, 2000; Turner, 1976; Feldman, 2004; Vaughan, 1990, 1999; Kayes, 2004). It focuses on business risk, risk management, and organizational disasters, which are the focus of most studies within mainstream organization theories including structural contingency (Lewin and Stephens, 1994), resource dependency (Katila, Rosenberger, and Eisenhardt, 2008), behavioral theory (Chen, 2008), institutional theory (Kondra and Hinings, 1998),

transaction cost theory (Mayer, 2006), population ecology (Thornhill and Amit, 2003), social network theory (Batjargal and Liu, 2004), resource-based view (Steensma and Corley, 2001), and stakeholder theory (Schwarzkopf, 2008).

Interpretivist organization research examines socio-cultural processes of risk construction (Weick, 1988, 1993; Gephart, 1984, 1993, 1997; Lane and Quack, 1999; Nelkin, 1988; Clarke 1999). But, it has three limitations. First, it generally ignores the effect of macro level social institutions on risk meanings. Second, it provides limited insights into the role of political processes in risk construction. Third, it focuses on particular processes and fails to address complex and multi-faceted nature of risk construction process. Unlike interpretivist research, critical organization research partly looks into the role of macro level social institutions and political processes in risk construction (Perrow, 1984, 2006; Gephart and Pitter, 1993; Brown, 2000, 2003; Shrivastava, 1995). But, it has also three weaknesses. First, it generally neglects interactional processes, in and through which social actors experience the effect of macro level institutions on their risk meanings. Second, it is rarely attentive to social actors' attempts to develop and reproduce risk meanings through a communicative rather than a power relationship. Third, like interpretivist research, it addresses the role of particular institutions in risk construction and fails to analyze the process in its complexity and multiplicity.

To address these limitations and develop further insights, the study first provides an empirical framework of risk construction, which is based on the six key issues including project, concerns, measures or plans, consultations, actor

approaches and ways (organizational actors), and hearing setting (organizational setting), and related sub-themes that emerged from the analysis of the hearing data. This framework indicates that concerns and the project as the source of concerns are not the only focus of stakeholders who try to give meaning to organizational risk. Stakeholders also consider how to address concerns through certain measures or plans, what consultations occur on the project with other stakeholders, which organizational actors are involved in or affected by the project, and which organizational setting is used to construct the project and associated risk, and several sub-issues under each question.

The framework can help comparatively analyze and explore the risk constructions of different stakeholders in similar cases and organizational settings. The six key issues and their sub-themes can be used as sensitizing concepts to guide the analysis. For example, “location of the project in relation to a residential area” sensitizes the researcher to the significance of close distance of a potential risk source to individuals living or working in the same area. The theme “sources of concerns” points out that there might be alternative or complementary sources of risk mentioned by stakeholders. “Parameters of plans” indicates different stakeholders might support different parameters in developing measures or plans used to address organizational risk. The stakeholders might have different purposes in consultations on organizational risk as implied by the theme “purpose of consultations”. The key issue “organizational actors” highlights the importance of understanding the roles and approaches of the stakeholders involved in the project; an unconcerned approach of the regulatory agency might be considered as

a source of risk even though the agency is not the producer of risk. Finally, “organizational setting” sensitizes us to the characteristics of the setting that might affect risk construction; highly institutional official settings might restrict discussion on risk in line with certain rules and regulations.

Second, the study provides a theoretical framework of risk construction that is based in the conceptual interpretation of the empirical data. The framework addresses the questions of which social institutions stakeholders use to give meaning to organizational risk, what social stocks of knowledge they refer to when developing risk meanings, what role techno-scientific rationality as a dominant stock of knowledge has, how stakeholders define risk boundaries to differentiate risky from non-risky organizational projects, how they construct and utilize certain rituals and rational-purposive actions as risk management instruments, which stakeholders are involved in relations of communication, legitimacy, power, and individualization, how they utilize four types of speech acts in communicative relations, how they use and construct subject positions and discourses in power relations, and how and whether they experience and construct the effect of macro context of risk society in the process of risk construction.

Therefore, the framework addresses the limitations of organizational research on risk. It addresses both micro level social interactions and macro level social institutions. For example, at the micro level, stakeholders utilize and construct the speech acts to understand organizational risk and to shape the setting of risk construction. At the macro level, this institutional setting is shaped by the context of risk society, in which organizational projects are not readily legitimated

but questioned by all stakeholders. The framework also helps develop insights into the role and interdependence of communicative and power relations in the process of risk construction. For example, communicative action emerges as a legitimate means for all stakeholders to understand and address organizational risk and is especially emphasized by public stakeholders who try to shape the decision of business and government stakeholders on organizational projects. Power relations are also important and in fact characterize the relation between business and public stakeholders who construct and use certain subject positions and setting discourses, which could facilitate the imposition of or resistance to the project and associated risk. Lastly, the framework develops a more inclusive perspective of the meaning construction process of organizational risk, which helps understand the complexity and multiplicity of the process by addressing different aspects at both micro and macro levels and both communicative and power relations.

In sum, the study indicates stakeholders need an institutional setting which they all accept as legitimate and where they construct organizational risk. Stakeholders refer to different stocks of knowledge as a reference to evaluate the risk. Business and government stakeholders refer to abstract institutional stocks of knowledge mainly whereas public stakeholders use situated local knowledge. Business and government stakeholders emphasize formal compliance with legal-technical stocks while public stakeholders focus on the substantive purpose of those stocks. The study shows risk boundaries are essential only for public stakeholders; business and government stakeholders make the boundaries

obscure, unclear and unspecific, normalizing organizational risk as an everyday experience for public stakeholders within residential areas. Rituals and rational-purposive actions help construct the risk as manageable and acceptable as business and government stakeholders consider them universally applicable whereas public stakeholders consider them locally applicable. The study implies rituals, which are supposed to reproduce risk boundaries, are used by business and government stakeholders to obscure those boundaries.

The study also shows that rational-purposive and communicative actions are not mutually exclusive types; all stakeholders try to develop a communicative basis for and thus consensus on rational-purposive actions. Nevertheless, it is public stakeholders who emphasize communicative action to understand and address the risk so that local knowledge can be integrated into risk management instruments while business stakeholders still emphasize the techno-scientific basis of the risk. Among the four speech acts necessary for an effective communication environment, stakeholders focus on regulatives, which could construct an unofficial framework favorable for their positions. Public stakeholders also emphasize representatives to support more transparent communication.

The study also suggests communicative and power relations are not as distinct as they may seem. Communicative action might be a strategy of power for stakeholders to impose or resist the risk. In fact, power relations between business and public stakeholders characterize the process of risk construction. Power emerges as the power to impose or resist organizational risk. Business and public stakeholders utilize subject positions and setting discourses to shape the roles and

rules in public hearings in a way that could facilitate the imposition of or resistance to the risk. Thus, the study indicates stakeholders are not passive recipients and users of the roles and rules of the setting of risk construction as they are officially defined. Stakeholders construct the setting of risk construction itself while they construct the risk at the same time. They only take for granted that public hearings are an institutional setting where organizational risk is constructed. In this setting, government stakeholders' concern seems to ensure their legitimacy. Thus, government stakeholders develop a discourse on the setting, which refers to the neutrality of official regulations and expert knowledge and thus constructs themselves as independent from business and public stakeholders.

Public hearings seem to be characterized by relations of power and legitimacy rather than of communication. In fact, in the hearing business stakeholders have a privileged position over public stakeholders. Yet, power relations are disguised under communicative relations. Because of unequal relations between business and public stakeholders, and government stakeholders' legitimacy focus, communicative relations are largely restricted and do not lead to a consensus on organizational projects. Instead, the unequal relations and the legitimacy of government stakeholders are reproduced.

The study also points out business and government stakeholders construct and emphasize an alternative risk source, individual responsibility. Public stakeholders respond to this process of individualization of risk and construct the project as the only source and highlight societal responsibility of business and

government institutions.

Finally, the study indicates risk society is a general context that shapes the meanings of stakeholders although in different ways. All stakeholders construct organizational projects as a risk. Yet, for business stakeholders risk society is a society of risk management while for government stakeholders it is a society of risk legitimation. For public stakeholders, who are not the producer or regulator of the risk, it is a society of risk imposition and communication.

Empirical Contributions

Socio-cultural theories are generally formulated as grand narratives (Lupton, 1999b, 2006; Wilkinson, 2006). In social science and organizational research, the empirical application of these theories into risk settings is rare (e.g. Gephart and Pitter, 1995). This study shows the concepts derived from the theories of Berger (1966 with Luckmann, 1967), Douglas (1966, 1973), Habermas (1975, 1979, 1984), Foucault (1980, 1990, 1995, 2003c), and Beck (1992, 1994) are grounded in different stakeholders' experiences and meanings of risks produced by organizations and thus useful in analyzing and understanding how those stakeholders construct organizational risk. Further, the study points out different theories can be used in an integrative manner through the concepts derived from those theories so that a more complete and complex understanding of the risk is developed.

Therefore, the study points to the unrealized potential of socio-cultural theories for organizational research on risk. Theoretical concepts can be used as sensitizing frameworks to analyze and elaborate on organizational risk and to

ground grand theories in empirical settings. The study indicates risk is a fertile area of empirical research for organizational scholars, who can benefit from socio-cultural theories as well as the existing frameworks of organization studies to develop new insights or extend the existing insights into the issue. Socio-cultural theories can also benefit organization studies as they will guide organizational researchers to analyze socio-cultural processes of risk construction and thus go beyond the limited understanding of risk, which mainstream organization theories conceptualize as a measurable objective entity.

Practical Contributions

The study results in a number of practical implications for government regulators and business practitioners. The study shows public hearings in Alberta are not effective for public stakeholders to address their concerns regarding oil and gas projects. There are constraints on their participation and deliberation in public hearings. Government's approval of risky projects is a likely outcome since both government and business stakeholders follow government regulations and guidelines as the main reference to construct or evaluate the projects. Several concerns are not covered by the regulations. Further, public hearing boards are composed of members that generally come from the industry or that are technical professionals such as engineers. Local public stakeholders are not represented on the board.

Thus, the study indicates public hearings in Alberta should be radically transformed to allow as much participation of public stakeholders as possible, which is not the case currently. Local rationalities and knowledge of public

stakeholders should be recognized as a guide in addition government regulations and expert knowledge. This will substantiate the contribution of local public stakeholders to the project. The hearing should focus on how to address stakeholder concerns not covered by the regulations. The compliance with regulatory standards and expert knowledge should be the necessary but an insufficient requirement. Further, the composition of the board should reflect not only government (so-called general public) and business interests but also local public interests; there should be permanent members that specifically represent the interests of individual public stakeholders. Also, there should be local people sitting on the board only for a hearing into a project to be located within that local region. This composition again will ensure that local rationalities are given as much weight as institutional rationalities.

For business practitioners, this study confirms the need to develop ongoing relations and consultations with local public stakeholders for effective risk management. Active involvement of public stakeholders in the formulation and implementation of risk management practices is important for sustainable businesses and communities. Therefore, organizations should form unofficial mechanisms of participation without waiting for government intervention to ensure the contribution of local communities. Business stakeholders should try to understand and integrate local rationalities into risk management before justifying the project and associated risk with legal-technical frameworks.

A rather broader issue is how the concept of public interest is defined. The so-called general public interest seems to be an abstraction used by government

stakeholders to legitimate the distribution of mineral rights to business stakeholders while local public stakeholders have to endure related risks. Yet, given that those in the two big cities of Alberta are those benefiting most from oil and gas projects and constitute the majority of the population and rural residents are those generally exposed to related risks, this distribution in the name of the general public might partially be justified. In this sense, a new conception of public interest that is formulated in terms of local interests is needed. Local interests might be compensated for those risks.

Another broad issue is whether public hearings are a substantive embodiment of the institution of democracy. It is not democracy that is reproduced in public hearings, which do not provide an ideal deliberative democratic forum. Public hearings are formal mechanisms not much different from conventional parliamentary mechanisms; the participation of individual citizens is not substantive. Citizen involvement is largely restricted. The organized interests of business firms and government agencies with incompatible resources are much better represented in public hearings. Further, it seems to be incumbent on citizens to prove that an organizational project constitutes significant risk for their well-being. Although citizens are not always expected to base their arguments and proofs on legal-technical rationalities, they are expected to appreciate the dominance of those rationalities to evaluate the project in general. Thus, public hearings do not empower citizens; rather, they co-opt citizens into the attempts of business and government organizations to impose and/or legitimate risk.

It is also interesting that the hearing authority allows only those directly and adversely affected citizens to participate in public hearings while the decision is based on the general public interest. Further, the hearing authority evaluates benefit in terms of general benefits (e.g. royalties) while it evaluates cost in terms of individual costs (e.g. resident concerns). Societal costs (e.g. long-term environmental costs) and individual benefits (e.g. company profit) are not mentioned. In other words, societal benefits and individual costs are highlighted whereas societal costs and individual benefits are downplayed; this again indicates that the main concern in public hearings is to produce a formally legitimate decision rather than promote substantive democratic participation.

Therefore, public hearings institutionalize a very restricted deliberation. Even the mass media seem to be a more effective deliberative context without the constraints of some legal-technical frameworks. The mass media have also the potential to mobilize popular opposition against organizational risks because unlike hearings the media involve those not directly or adversely affected in the process of deliberation. If public hearings keep restricting deliberation and reproducing risks by approving risky projects, it is possible that citizens may stop using them. Paradoxically, they might turn out to be another source of legitimacy crisis because citizens might start to consider them mainly the instruments of business interests. To avoid this, the tension between formal compliance with legal-technical frameworks and substantive purpose of addressing risk should be addressed; commonsense rationalities should be accepted as equally legitimate and forceful frameworks for addressing risk.

Future Research

Several research directions for organizational researchers emerge from this study. The researchers can apply the empirical framework to organizational projects other than oil and gas projects. The role of different types of concerns, measures and plans, consultations, organizational actors, and organizational settings on stakeholders' risk construction can be investigated.

Different official and unofficial organizational settings are an important area of research. It might be interesting to look at non-institutional settings where communicative relations might be more important, for example, consumer groups and associations trying to create awareness for the risks of certain consumer products. The question of what kind of discourses stakeholders construct to shape those unofficial settings of risk construction might be of interest as well.

Another research direction is different social stocks of knowledge used by stakeholders in risk construction. One question is how stakeholders develop and use those stocks of knowledge and whether they are able to change or revise the stocks in line with their risk meanings. It might be interesting to look at the ways stakeholders integrate local knowledge to official knowledge stocks or the ways they resist such integration. This might lead to a better understanding of participative mechanisms in risk construction.

New insights into risk construction process might also be developed by studying the ways risk boundaries are defined in different organizational settings, for example, within an oil and gas company or industry. The concept of boundary might be applicable within organizations in which organizational actors enact

different roles and responsibilities in relation to risk. The ways rational-purposeful actions and rituals are developed and used to address the risk and reproduce risk boundaries are a related area. The actions and rituals might be used to preserve the existing boundaries between different tasks, for example, within an organization so that higher-level managers are not exposed to the same level of risk with lower-level employees.

The role of communicative action in risk construction and the ways stakeholders use it, as a strategy of consensus or confrontation, might be a further interest to researchers. This study indicates relations of communication and power are interdependent. Yet, there might be settings where communicative or power (e.g. public hearings in Alberta) relations might be dominant. The construction of subject positions and setting discourses might be used to shape the relations of communication and power in risk construction settings. What other subject positions and discourses stakeholders develop and use in different settings is a question to examine. In an organization or company, for example, what positions and discourses are used to impose task-related risks on employees and product-related risks on consumers might be examined.

The macro-societal context of organizational risk construction might be another issue. Developing countries and emerging economies might be interesting in this regard; whether or how different stakeholders experience risk society in those countries and economies might be examined. Also, researchers might search for different strategies individuals develop against the process of individualization of risk.

Limitations

The study has some limitations. First, this study assumed the risk meanings of different groups within business, government, and public stakeholders are more or less similar. Thus, I was able to aggregate the meanings of two different individuals from the same stakeholder category into a single meaning for that category. For example, the meanings of WELG, RHG, and Dr. Singh were aggregated into the meanings of public stakeholders. The study focused on similarities rather than differences in the meanings of individuals within a given stakeholder category. The differences might be a fertile area of research.

Second, related to the first, I looked at the risk meanings of stakeholders composed of different organizations or groups. Risk construction processes within individual organizations and groups rather than stakeholder groups, for example within Petrofund or within WELG, were not explored in this study. The dynamics of risk construction, which are likely to be oriented to consensus rather than confrontation, might be different within individual organizations or groups. In addition, managers and employees in the same company might have different risk meanings. Again, this might be an important research direction.

Third, this study analyzed a public hearing that took place in Alberta, Canada in 2005. Although the findings can help analyze similar cases, the study is limited by the particular socio-political and cultural contexts of Canada and Alberta. For example, Canadian context implies public hearings are institutions of democratic deliberation and public participation despite their deficiencies.

Further, Alberta is known for its oil and gas production and its continued support for conservative governments that promote the industry. Stakeholders' risk meanings might be affected by this democratically constituted as well as conservative political environment. This limitation implies an opportunity for research in different national and provincial contexts.

Fourth, I analyzed one public hearing as an organizational setting of risk construction to develop theoretical insights. This seems to be a limitation as the analysis of more than one case is likely to provide further insights into the risk construction process. In fact, the analysis of several cases might result in losing uniqueness and complexities because of the comparative focus on the data (Stake, 2000). Stake argues comparative description is the opposite of thick description (2000). Similarly, Silverman suggests limiting the data for an intensive analysis while treating the data comprehensively (2000, 2006). Silverman argues that the findings of a qualitative study should be based on the investigation of all data not a few well-chosen examples (2000). In fact, dealing with only one case allowed me to develop an in-depth analysis of the data so that a rich and differentiated account of the process could emerge. The case analyzed included all theoretically relevant stakeholder groups and the hearing proceedings and decision provided very detailed descriptions of those stakeholders regarding the proposed project and associated risk. Through a comprehensive treatment of all pieces of the data, I was able to develop a complex and well-grounded theoretical framework of the meaning construction process of organizational risk.

Lastly, the study applies a limited set of concepts from socio-cultural theories to an empirical case of risk construction. This might also seem to be a limitation because the main goal of the study was to develop a multi-faceted theoretical framework. But the goal was not to test the validity of socio-cultural theories, compare their relative strengths and weaknesses, and then integrate them in their entirety into a comprehensive model that is a single all-inclusive true socio-cultural or organizational theory of risk construction. As Suddaby suggests, it would be an overextension of the objective (2006). This was “not a quest for ultimate truth but for a plausible, authoritative, verisimilitudinous, and interesting analysis that enriches our understanding of social phenomena” of organizational risk (Brown, 2000: 50). I aimed at using concepts from those theories as sensitizing instruments to understand the process of risk construction and including them in the emerging framework only if they were operative in the data. Only those concepts that were grounded in the data became part of the theoretical framework. This is also important for parsimony and scope, which are “two major requirements of theory” composed of a limited number of relevant and general concepts (Glaser and Strauss, 1967: 110-111).

Last Word

Organizations are a major producer of health, environmental, and economic risks and affect the lives of various stakeholders by putting them at risk or by managing risks for them. Hence, risk should be a major area of research for organizational scholars. It is important to develop more inclusive frameworks to understand how different groups interpret organizational projects as a risk or non-

risk and what individual and societal implications this process has. This study indicates that socio-cultural theories are a major instrument for organizational researchers to establish risk as a major area of research in organization studies, elaborate on the meaning construction process of organizational risk, and to develop those more inclusive and complex frameworks, which can help improve organizational theory and research on risk, participation mechanisms in risk construction settings, and risk management instruments.

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Appendix 1

Qualitative Analysis Programs

I used two qualitative analysis programs, Ethnograph 6.0 (Ethnograph, 2010) and TACT 2.1.4 (TACT, 2010), to facilitate the analysis of the data. Ethnograph was mainly used to develop six key issues and their properties. TACT was used to develop the keyword textual tables for detailed analysis.

Ethnograph 6.0.

Ethnograph is a windows-based program. The researcher can create a document in the program or copy an existing document onto the program. Before or after copying, the document should be reformatted to work on. In coding, the researcher highlights a data segment and writes codes on a different window. It is possible to see all previous codes on that window and select from among them. The program allows several codes to be assigned to the same data segment. It is easy to change a code as the researcher clicks on the code and changes it on the window that appears. It is possible to write partially overlapping codes for two different overlapping data segments. The researcher can write and edit code definitions on the window open when clicked on the code. The definitions are automatically saved onto the code book, which can also be edited. The researcher can print the coded data and the code book or produce their pdf copies. The search function of Ethnograph allows searching for single or multiple codes. The researcher can also retrieve and print the data segments with a specific code for a specific actor. The outcome shows code frequencies and start-end lines of the data segments.

I used Ethnograph to code the data and develop substantive codes first. I also wrote code definitions on the program recorded on the code book. Code frequencies helped me refine the codes into more general categories. Using the search function, I retrieved the data segments of the categories for each actor and developed properties. Then, I used the search function again to retrieve and examine the data segments for each key issue and actor. The data segments were examined to help develop keywords and especially property-based textual tables. I kept record of emerging categories and properties, and their definitions on word documents. This made it easier to refine them and transfer the results to other documents as well as to work on the results later.

TACT 2.4.1.

TACT is a dos-based program. It is basically used to retrieve the occurrences of a word in the data or the data segments that contain a specified word. Before working on the data, the researcher needs to format the data by marking possible references used to retrieve the data such as speaker and organization names. The retrieved data can be transferred into txt files and printed. TACT provides the frequencies of all the words in the data. The researcher can retrieve data segments by a keyword, speaker name, speaker's role, speaker's organizational affiliation, line number, document page, and date. A selected word can be seen in its textual context; the researcher can determine the size of the adjacent text by specifying the number of lines before and after the word.

I used TACT to develop keyword-based textual tables for key issues in the hearing. TACT provided me with the frequencies of possible keywords that could represent the issues. Using select and display functions, I produced textual displays composed of the lines that contained those possible keywords and that showed me the speakers and organizations using them. I used those displays to determine keywords for the issues. Then, I produced textual displays that contained all the data segments with the keyword, the line number, speaker's name, and speaker's organization. Using modify function, I was able to determine the size of the data segment as twelve lines, six lines before and after the keyword. I transferred the data segments into txt files and then word files, and developed the textual tables that I analyzed in detail later.

Appendix 2

Reflection on the Effect of Personal Background

The analysis and the study in general were affected by my personal background and worldview. It was an interpretive process; even simple coding was a process of interpretation that was guided by socio-culturally and politically embedded individual experiences and views as well as methodological and theoretical concerns.

I started to work on risk and public hearings in my first year in the doctoral program. Risk was the primary research area of my supervisor. Over the years in the program, I found it interesting to work on the issue and got more involved. Studying risk also fit my critical worldview that is sensitive to social and political inequalities and associated implications. The process of risk construction provides several opportunities to understand those inequalities and implications because it is a process, through which business and government organizations distribute social good and bad across society and justify this distribution. Thus, risk is a highly consequential and contested issue, resulting in conflicts and polarized relations between different societal groups.

My critical worldview is a reason why I was more attentive to such relations of conflict and power. Without being judgmental, I tried to understand what relations result in an unequal distribution of the risks and benefits of an organizational project. The goal was to show that the approval decision that ignores concerns of public stakeholders is embedded in institutionalized socio-cultural relations and understandings. As a critical researcher, I focused on the big

picture rather than isolated individual actors. So, I tried to develop a critical theory of risk construction that is well-grounded in the data.

Another personal concern was to understand the Canadian context. Most students from Turkey (my home country) collect data in or related to Turkey. In my individual study, I wanted to reverse this migration of knowledge and studied the Canadian organizations. This was an opportunity for me to understand organizational relations in an industrialized country, inform the academic and business community in Turkey about those relations, and possibly develop some implications for Turkey. In fact, there are no public hearings in Turkey and yet the experience of public hearings might be useful to improve the fledgling democracy of the country.

Lastly, I wanted to use my background in sociology in this study. As having an MS degree in sociology, I did not want to pursue mainstream management-oriented organizational research. I think this is again related to my critical worldview. My sense is that mainstream organizational theory is critical about its subject only when it brings some sociological content into its understanding. So, that is what I did in this study.

Appendix 3

Names and Definitions of Substantive Codes

CODE NAME	CODE DEFINITION
ACCELERATION	increase in the speed of recovery of oil reserves
ACCEPTABILITY	condition of being acceptable; the condition of a phenomenon, thought, suggestion, or position being acceptable to a third party
ACCLAIM INCIDENT	a past operational incident which another oil company is involved in and responsible of
ACCURACY	condition of being true, correct, or exact; degree of correctness
ACQUISITION DATE	date the applicant acquired its existing facilities in the area of the applied well
ADJOURN NOTE	document note indicating adjournment of hearing
ADJOURNMENT	suspension of hearing to a future time
AESTHETIC CONCERNS	concerns of actors about visual effects of oil and gas activities
AESTHETIC MEASURES	measures related to the appearance of the area and the production facilities
AGREEMENT WITH RHG	agreement of company with RHG residents for their non-objection
AGREEMENT WITH WELG	agreement of company with WELG residents for their non-objection
ALBERTA ENERGY	provincial authority regulating energy issues
ALBERTA ENVIRONMENT	provincial authority regulating environment issues
ALBERTA HEALTH	provincial authority regulating public health issues
ALERT SYSTEM	warning system about possible dangers created by industrial activity within city
ALLHAZARD PLAN	emergency plan that is general and does not distinguish between hazard types clearly
ANSWER	act of giving an answer to a question
APOLOGY	expression of regret for possible hardship or inconvenience given to someone else
APPLICATION	well development proposal of applicant
APPLICATION NO	document note indicating application number
AREA CIRCUMSTANCES	conditions of area where proposed well will be located
AREA LOCATION	place where the area of the applied well is located in relation to city
AREA MAP	map of area where proposed well will be located
AREA OPERATOR	operator of the facilities of the company in the area of the proposed well
AREA PHOTO	photo image of area where proposed well will be located
ARGUMENT AREA	stage of public hearing when legal counsels present their final arguments
AUDIBILITY	condition where hearing participants can hear one another
AWARENESS ZONE	area in which residents should be notified about any possible danger though they are not included in emergency planning zone
BENEFIT BALANCE	even and fair distribution of benefits as well as costs of social or industrial activity
BIG PICTURE	description of events related to the application in question in their interrelationships so that they form a coherent whole
BOARD	Alberta Energy and Utilities Board
BOARD ADDRESS	document not indicating address of board

BOARD APPROACH	general attitude and thought of board with respect to evaluation of a particular issue
BOARD CONDITIONS	conditions attached by board to any approval of project application
BOARD HELP	help from board members or staff to participants about hearing process or hearing subjects
BOARD JOB	duties and responsibility of board
BOARD MEMBERS	document note listing the names of persons participating in public hearing as board members
BOARD REVIEW	evaluation of case material and evidence by board members
BOARD STAFF	document note listing the names of persons whose job is to assist the board members in public hearing
BOARD STAFF JOB	duties and responsibilities of board staff other than members
BREAK	brief adjournment of hearing for some rest
BUSINESS SUCCESS	success or failure in economic undertaking
CAPITAL HEALTH	government agency of health affairs in the City of Edmonton
CAPP GUIDE	any guide of Canadian association of petroleum producers regarding oil and gas activity
CELLPHONES ONVIBRATE	request of board chair from hearing participants to turn their cell phones on vibrate so that cell phones do not disrupt public hearing process
CITY	City of Edmonton
CITY APPROACH	general attitude and thought of city with respect to a particular issue; portrayal of city
CITY CAPABILITIES	capacities and abilities of city to be used during emergency
CITY CONDITIONS	terms of city to be accepted by company for city support to application
CITY GUIDE	general terms prepared by city to guide their approach to oil and gas applications within city limits
CITY INVOLVEMENT	participation of the City of Edmonton agencies in the development of industrial facilities and of emergency response plans
CITY LIMITS	official boundaries of the City of Edmonton
CITY NONOBJECTION	city approval and support for application
CITY PERSONNEL	persons employed by city for emergency situations
CITY PLAN	emergency response plan of city
CITY PLAN REVIEW	company review of emergency response plan prepared by city
CITY PRACTICE	city procedure generally applied in oil and gas applications
CLOSING ARGUE TITLE	document note indicating title of closing argument
CLOSING STATEMENT	final statements of legal counsels presented at the end of hearing
COEXISTENCE	mutual existence of industrial activities and residential life
COMMAND POST	place where heads of emergency response plan are located and direct plan
COMMAND SYSTEM	direction system of emergency response plan based on inclusion and cooperation of different parties
COMMON BENEFIT	condition of an activity being beneficial for all parties involved
COMMUNICATION	information or opinion exchange to develop understanding about a common concern
COMMUNITY FEEDBACK	thoughts and opinions of the residents and landowners of the area of the applied well on the plans and actions of the applicant in the area
COMPANY APPROACH	Descriptions about the attitudes and responses of company members and consultants in the issues related to the case
COMPANY COMMITMENTS	company promises regarding particular issues and concerns and problems to gain support of other parties for project

COMPANY COMPLIANCE	company fulfillment of its commitments and any possible approval conditions as well as compliance with regulations
COMPANY FINANCE	financial strength of company
COMPANY IN CITY PLAN	place and role of company in emergency response plan of city
COMPANY PERSONNEL	company staff involved in executing emergency response plan
COMPANY RIGHT	legally and morally acceptable claims of company
COMPANYWIDE POLICY	official firm policy of company adopted and applied by all company departments
CONCLUDE NOTE	document note indicating end of hearing
CONFIDENTIALITY	condition of a phenomenon, activity, speech being secret and private; disclosure not accepted
CONSERVATIVE RATE	sour gas rate calculated with consideration of worst possible case and with very high safety limits or margins
CONSISTENCY	coherence; condition of being harmonious and uniform; condition of retaining form
CONSULT BOUNDARIES	area in which company consults with stakeholders about application
CONSULT PERIOD	duration in which company consults with stakeholders
CONSULTATION	exchanging information and deliberating concerns by meeting or correspondence
CONTENTS	document note indicating title of contents
CONTINGENCY PLAN	emergency response plan prepared for specific purpose and area
COOPERATION	working together of two or more groups or organizations for a common purpose
CROSS EXAM	process of examination of witnesses by legal counsels of other parties and board members
CROSSEXAM TITLE	document note indicating title of cross examination
CUMULATIVE EFFECTS	total of adverse effects due to particular circumstances of area of proposed well
CUTOFF POINT	level of production at which company starts to make profit
CV ACCURACY	truthfulness of the content of the CV of a hearing participant
CV EVIDENCE	status of the CV of a hearing participant to be considered as evidence in public hearing
DAILY REPORTS	information about project development provided daily for stakeholders
DATA AGE	years when data for sour gas rate calculations were obtained from oil and gas wells
DATA SOURCE	oil and gas wells from which data were obtained for sour gas rate calculations
DECISION DATE	document note indicating decision date
DECISION NO	document note indicating decision number
DECISION TITLE	document note indicating decision title
DENIAL	refusing correctness of a claim or statement
DEVELOP PLAN	company development plan of area of proposed well through drilling more wells after proposed well
DIRECT EXAM	examination of applicant witnesses by applicant legal counsel
DIRECTIONAL DRILLING	some kind of drilling method in oil and gas industry
DISAGREEMENT	condition of two or more groups having different opinions on a particular issue
DISPUTE RESOLUTION	ways to address and solve future disagreements possible to raise though parties have an agreement at present
DISTANCE SCALE	measurement instrument to determine distance

DISTANCE TO WELL	space between a land or residence and proposed well
DIVERTER SYSTEM	technical system for drilling
DIVIDEND	share of profit distributed to company shareholders
DOCUMENT DATE	date of proceedings document appearing on the document
DOCUMENT NOTE	any note that is not a real word made by the participants of public hearing
DOCUMENT TITLE	document note indicating document title
DR. SINGH	DR Singh, non-resident landowner
DRILLING ERP	emergency response plan for drilling operation
DRILLING MEASURES	measures to address safety and other concerns during the drilling operation
DRILLING PLAN	future actions proposed to follow about drilling oil wells in the field of the applied well
DRILLING REVIEW	evaluation of drilling operation and results
DRILLING SOUR RATE	sour gas release rate during drilling operation
DRSINGH LAND	land of Dr Singh in area of proposed well
DRSINGH SON	son of Dr Singh who has land in area of proposed well
DRSINGH SUBMISSION	application document of Dr Singh to become intervener
DUST CONTROL	measures to control dust resulting from company operations
ECONOMIC ANALYSIS	analysis of cost and benefit of project
ECONOMIC VENTURE	project that makes profit not loss
EFFECTIVENESS	successful accomplishment of a task which creates the intended impact on the target
EFFICIENCY	accomplishment of a task with minimum expenditure and effort
EGRESS	access out of an unsafe area
EMERGENCY DOCUMENT	emergency instructions guide prepared by company for residents and landowners
EMERGENCY PLANS	schemes and outlines prepared in advance for actions and interventions in case of emergency
EMERGENCY SERVICES	commercial services to support implementation of emergency plans
END OF ARGUMENT	statement to conclude argument
END OF CROSS EXAM	statement to conclude cross examination
END OF DIRECT EXAM	statement to conclude direct examination
END OF HEARING	statement to conclude hearing
END OF PRESENTATION	statement to conclude presentation
END OF REDIRECT EXAM	statement to conclude redirect examination
END OF TESTIMONY	statement to conclude testimony
ENDORSEMENT	approval or support for statements and actions of other
ENTIRETY	completeness; parts understood within whole
ENVIRONMENT	natural and social surroundings of people
ENVIRONMENT MEASURES	actions and procedures to address concerns regarding environment
ENVIRONMENT POLICY	official company policy to address and integrate environmental and health concerns into business activities
ENVIRONMENT STAFF	company personnel responsible for implementing environment policies and procedures or measures

EPLC	East Parkland Liaison Committee which consists of oil companies, government agencies, and concerned stakeholders and which provides a platform for members to engage in information exchange regarding oil and gas activities
EPZ	emergency planning zone or the area which is the focus of emergency response plan and emergency actions as guided by board regulations
EPZ CALCULATION	determination of the boundaries of emergency planning zone using mathematical models and formulas
ERP	emergency response plan of applicant proposed to be implemented during emergency situations
ERP COMMAND POSTS	places where implementation of emergency response plan is directed
ERP COMMUNICATION	information exchange during preparation and implementation of emergency response plan
ERP INITIATION	start of implementation of emergency response plan
ERP ORGANIZATION	organizational structure and division of labour among the parties involved in the implementation of ERP
ERP PAGE	any page in document of emergency response plan
ERP PERIOD	preparation period of emergency response plan
ERP REVISIONS	changes and updates in ERP
ERP STRUCTURE	organization of responsibilities or division of labour in emergency response plan
EUB APPROVAL	official endorsement of board
EUB DATA	official data gathered by board staff and stored in board records
EUB DECISION	board decision about application
EUB DESIGNATION	name given to an area of oil and gas reserves by board
EUB ESTIMATE	any prediction made by board about oil and gas reserves
EUB GUIDE	any Alberta energy and utilities board guide regulating oil and gas applications and developments
EUB INVOLVEMENT	participation of board in the development and implementation of ERP and in the process of consultation
EUB LLR	licensee liability rating program of board; if company assets liabilities ratio is less than unity, company is required to contribute to government reclamation and abandonment fund in cash
EUB REGULATIONS	official rules of board governing oil and gas developments in Alberta
EVACUATION	removing or leaving of people from an unsafe area
EVIDENCE	ground for proof or belief; data to substantiate claims and allegations
EVOLVING CONSULT	condition of consultation and communication attempts being continuous and unfolding over time
EXAMPLE	action or instance or event that illustrates thought or point or argument or statement regarding a particular behaviour or understanding
EXERCISE	something done as a means of practice or training or learning; executing a implementation scenario of emergency response plan to learn whether it will work and how it will work better
EXERCISE DATE	days when exercise of emergency response plan will be done
EXHIBIT ACCURACY	truthfulness of the content of an exhibit
EXHIBIT CORRECTION	act of correcting errors in exhibit
EXHIBIT ENTERING	making a document part of general proceeding document so that it is evaluated by board members when deciding on the matter in question
EXHIBIT EVIDENCE	status of an exhibit to be considered as evidence in public hearing
EXHIBIT KNOWN	familiarity with the content of an exhibit

EXHIBIT NOTE	document note showing the name and date of an exhibit accepted as an attachment to proceedings document
EXHIBIT PREPARATION	act of preparing a document proposed to attach as exhibit to proceedings document
EXHIBITS LIST	document note listing the exhibits attached to proceeding document
EXISTING FACILITIES	oil and gas facilities currently operated by the applicant in the area of the applied well
EXPERTISE	expert skill or knowledge in a particular area
FACILITIES CHANGE	construction of additional oil production facilities
FACILITIES LOCATIONS	location of existing facilities operated by the applicant in the area
FAIRNESS	justice; consideration of opinions and conditions of all actors
FIELD GEOLOGY	geological characteristics of the field of the applied well
FIELD HISTORY	discovery and development of the oil field where the applied well is to be located
FIELD PRODUCTION	past and present amounts of oil production in the field of applied well
FIELD RESERVES	amount of oil in the field of the applied well
FINAL ARGUMENT NOTE	document note indicating final argument start
FOLLOWUP QUESTION	question to be asked after examinations of witnesses by counsels of other parties and board members are concluded
FORMATION INTEGRITY	geological feature of well area
FUTURE INCIDENTS	operational problems likely to occur in future and to affect stakeholders
GAS CONSERVATION	technical operation to ensure no gas is flared
GENERAL LITERATURE	body of written work on sour gas
GENERALITY	unspecific and not detailed; concerns and problems not well defined or specified
GEOLOGICAL INFO	information on geology of well area
GOAT FARM	business undertaking of landowner to raise and sell goats
GOVERNMENT AGENCIES	municipal and provincial governmental bodies concerned with application
GOVERNMENT STANDARDS	regulatory rules and principles set by municipal and provincial governments
GREETINGS	expression of respect and friendly manner
HARMFUL SOUR RATE	extent of sour gas release rate that is harmful to human beings
HAZARDOUS GOODS	material that might be dangerous for human beings if exposed to
HEARING DATE	date when public hearing is held
HEARING LOCATION	place where public hearing is held
HEARING NOTICE	document of notification about the upcoming public hearing sent to affected and concerned parties as well as advertised in public media
HEARING PARTICIPANTS	document note listing the names of hearing participants as applicant or intervener
HEARING PROCEDURES	rules and practices to be followed by public hearing participants and observed by board chair
HEARING PROCESS	all elements of public hearing including why and how and by whom it is held
HEARING PURPOSE	reason why public hearing is held
HEARING STEPS	ways and procedures to be followed in public hearing
HEARING SUBJECT	concerns of hearing participants to discuss in hearing

HEARING TITLE	the note of proceeding document referring to the title of public hearing
HELP ACCEPTED	statement indicating acceptance of help offer
HELP FIND	action to help participants find something related to evidence
HELP FIND INFO	action to help participants find information on particular issue
HOME VALUES	monetary or material worth of residences
IDENTIFY MEASURES	determining and evaluating possible measures to address concerns
IGNITION MEASURES	technical measures for safety during drilling
ILLUSTRATIVE SLIDES	presentation material used to support and illustrate verbal evidence and facilitate understanding of verbal evidence
IMPACT ON COMMUNITY	effects of the oil and gas activity of the applicant on the people who have some interest like living or landholding in the area of the activity
INAUDIBILITY NOTE	document note indicating inaudibility
INCIDENT COMMAND	position of command for direction of emergency response plan during an emergency incident
INDEMNIFICATION	compensation for possible loss resulting from oil and gas operations
INDEPENDENT CHAIR	facilitator of consultation who is not member of company
INDEPENDENT REVIEW	third party review of company plans for emergency
INDUSTRY PRACTICE	any practice commonly approved and applied by companies in oil and gas industry
INFORMATION EXCHANGE	reciprocally sharing information; communication where all parties to communication are active and bring knowledge to be considered
INFORMATION PACKAGE	information document for stakeholders about company plans
INFORMING	giving information to stakeholders about company plans and operational incidents
INNUENDO	indirect accusation about other parties regarding application and consultation process
INSULT	offensive and disrespectful remark; rarely used
INTERRUPT ANSWER	stopping answer of witness to direct evidence to related or unrelated issue
INTRO BOARD MEMBERS	introducing of board members to hearing participants
INTRO COURT REPORTER	introducing court reporter to hearing participants
INTRO OF BOARD STAFF	introducing board staff to hearing participants
INTRO SOUND PERSON	introducing sound technician to hearing participants
INTRO WITNESSES	introducing of witnesses for a party to hearing participants
KEY WELL FOR DATA	main data source used to calculate sour gas release rate
KIEWIT CONSTRUCTION	construction company building road and bridge in well area
KNOWLEDGEABILITY	condition of being well-informed
LAND LEASE	monetary amount to rent land surface to oil and gas companies for subsurface operations
LAND PLAN	development of land for residential and commercial purposes
LAND VALUES	economic value of lands located in the area of the proposed well
LANDOWNER APPROACH	Descriptions about the attitudes and responses of landowner in the issues related to the case
LANDOWNER CONCERNS	problems and issues that interest landowner with respect to application

LEARNING	act of acquiring new knowledge and modifying present and planned behaviour according to new knowledge
LEGISLATION	law or body of laws enacted
LISTENING	act of attending to talk of others
MANAGEMENT SUPPORT	executive assistance and encouragement for lower level staff of company in implementation of company policies and procedures
MEASURES	actions, procedures, arrangements, and plans to deal with concerns and problems caused by application
MEDIA COMMUNICATION	informing mass media about incidents
MEMBER INTRO	introducing a member of group or organization to hearing participants
MONITORING	observing and controlling operations to detect problems and to take precautions
MONITORING MEASURES	measures about whether and how the existing and future operations and industrial activities in the area are properly monitored for any safety and environment problem
MONOPOLY	exclusive control of goods, services, or markets that makes it possible to control prices and to make above-normal profits
MULTIDISCIPLINARY	combining several specialized branches of learning or fields of expertise
NEW SOUR GUIDELINES	draft set of regulations developed and suggested by board; not in effect but for discussions and contributions
NEWSLETTERS	information letters to stakeholders about company activities and plans on application
NOTIFICATION	act of informing people about possible emergency
NOTIFICATION ZONE	area in which stakeholders are notified of any operational incident
OATH NOTE	document note indicating oath of witnesses
OBJECTIVES	goals of emergency response plan
ODOR MEASURES	actions and plans to handle and control odour resulting from company operations
OFFRECORD NOTE	document note indicating something said off record
OIL PRICE	monetary amount of purchasing a barrel of oil in market
OIL PRODUCTION	extraction or recovery of oil for sale
ONE LOCATION	one particular place rather than multiple places where implementation of emergency response plan is directed
ONGOING CHANGE	condition of change process being continuous, not finished or complete
ONGOING DISCUSSION	condition of discussion being continuous, not finished or complete
ONGOING PROCESS	condition of process or plan or activity being continuous, not finished or complete but in continuous process of change and development
ONGOING RECLAIM	reclamation and abandonment activities of company to be done in short term
OPEN HOUSE MEETING	public meeting organized by company to inform stakeholders and learn about concerns regarding application
OPERATION INCIDENTS	operational problems that occur in the area and that are likely to adversely affect safety of people and environment
OPERATIONAL CONCERNS	stakeholder worries and problems and considerations regarding company operations or operation rather than drilling stage of project
OPERATIONAL MEASURES	measures to address concerns that result from the operation of the existing facilities and proposed well in the future
OPERATIONS ERP	emergency response plan to address safety concerns about operation stage
OPERATOR ATTENDANCE	regular presence in area of operator working for company to run and monitor existing facilities of company
ORDER	something well-organized, well-defined, predictable, and harmonious
OTHER COMPANIES	oil and gas companies working within City of Edmonton

PAGE NUMBER	number showing the page of proceeding document
PARKLAND COUNTY	county and local authority in Alberta with which oil and gas companies work
PARTICIPATION	involvement of stakeholders in oil and gas developments and projects to raise their concerns and influence decision making
PAST EVENT	event that already happened some time ago
PEOPLE OUTSIDE	people in well area being outside when incident happens and emergency situation arises
PEOPLE PREFERENCES	choices of people with respect to hearing steps
PERMIT	granting permission for or allowing hearing participant to act, talk, break, continue, question, and answer
PERMIT TALK	granting permission for or allowing hearing participant to talk
PERSONAL EXPERIENCE	something personally lived through or encountered
PETROFUND	applicant company
PIPELINE MAINTENANCE	keeping pipelines in proper and safe working conditions
PIPELINES	linked series of pipes used to transport oil or gas
PLAN CHANGE	making differences, additions or subtractions or modifications, in company plans
PLAN TEST	trial of a planned action to predict its effectiveness during its real implementation
PLANS INTEGRATION	combining company and city emergency plans into one whole plan
POOLING RESOURCES	sharing resources among participant organizations in implementation of emergency response plan
POSSIBILITY	condition of being possible or likely to happen
PRECAUTION	measure taken in advance to avoid harm and address concerns
PREHEARING	process before public hearing to inform stakeholders about hearing process participation and to determine interveners
PRESENTATION TITLE	document note indicating presentation title
PREVENT CAPABILITY	capacity of company to prevent future operational incidents
PRIORITIES	first things to do when implementing emergency response plan
PRIVILEGE	right or benefit enjoyed by particular individuals or groups or organizations
PROACTIVE MANAGEMENT	management style anticipating and predicting problems and concerns then developing solutions and taking measures in advance; showing initiative rather than being reactive
PROACTIVENESS	state of anticipating and predicting problems and concerns then developing solutions and taking measures in advance; showing initiative rather than being reactive
PROCEEDINGS INDEX	document note listing the events and page numbers where those events appear in the current volume of proceedings document
PRODUCTION EPZ	emergency planning zone for operation or production stage of project
PRODUCTION ROUTE	locations where different components of produced output is sent
PROFESSIONAL COMMIT	work-related obligations or promises of hearing participants
PROJECT HISTORY	past events related to the application in question
PROJECT PHASES	stages of application including drilling and operation
PROTECTION COMMIT	value or practice of company to protect people and environment in well area or in operations area
PROTECTION OF PEOPLE	practice of keeping people safe including residents and workers
PUBLIC BENEFIT	benefit for all members of society

PUBLIC COMMUNICATION	informing general public about incidents
PUBLIC SAFETY ADVISOR	employment position developed by the applicant as part of ERP to address the unique safety concerns in urban setting where the applied well is to be located
PUBLISH NOTE	document note indicating publishing institution
QUALIFICATIONS	professional and personal qualities and history of a hearing participant
QUESTION	act of asking a question to someone else
QUESTION CLARIFIED	clarification of question asked to make it more understandable
QUESTION CORRECTED	correction of question asked to make it accurate
QUESTION REPEATED	repeating question asked to make it heard
QUESTION SHIFT	changing question asked to focus on different issue
QUESTIONS ON HEARING	information requests about public hearing process
REASONABLENESS	state of being acceptable and agreeable; not excessive but moderate
REBUTTAL	evidence of applicant after evidence of interveners especially to answer arguments and points of interveners
RECLAIM AND ABANDON	reclamation and abandonment activities which occur after resources are exhausted in the area with the goal of restoration of the area into its pre-operation situation
RECLAIM CAPABILITY	capacity of company to meet reclamation and abandonment requirements
RECORD	evidence or testimony or any talk set down in writing for board to review
RECOVERY	extraction of oil reserves for production and sale
REDIRECT EXAM	examination of witnesses after cross examination by counsels of other parties and board members
REDIRECT TITLE	document note indicating redirect examination title
REGISTRATION	official enrolment of participants in public hearing as applicant or intervener
REGULAR MEETINGS	coming together of company with stakeholders periodically to discuss development of project and problems and exchange information
REGULATIONS	official rules in effect to apply to oil and gas developments
RELATIONSHIP	friendly or cooperative connection between individuals or groups or organizations
REPEAT QUESTION	repeating question asked to make it heard
REPRESENTATION	act of representing a person, group, or organization in public hearing before board members
REQUEST	act of asking for something to be done
REQUEST ACCEPTED	doing action requested by someone else
REQUEST CLARIFY	participant asking another participant to explain question or statement of that participant
REQUEST FOR RESUME	participant asking for resume of hearing
REQUEST HELP	participant asking another participant to help about hearing process or content
REQUEST REPEAT	participant asking another participant to repeat question or statement of that participant
REQUEST SLIDE	participant asking another participant to show slide or transparency of concern
REQUEST TIME	participant asking for time
RESIDENT CONCERNS	problems and issues that interest area residents with respect to application
RESIDENT CONDITIONS	conditions of West Edmonton Landowner group residents for an agreement with the company not to oppose the proposed well
RESIDENT	support for application of residents living in area of oil and gas facilities

ENDORSEMENT	
RESIDENT LAND	land of Dr Gotaas, resident participant, possessed for some time then sold in well area
RESIDENTS APPROACH	Descriptions about the attitudes and responses of WELG residents in the issues related to the case
RESIDENTS MEETING	coming together of area residents to discuss application
RESIDENTS PANEL	state of WELG residents being examined or cross examined
RESPONSE PERSONNEL	company personnel involved in implementation of emergency response plan
RESPONSIBILITY	feeling of obligation towards other people or elements of nature
RESPONSIBILITY AREA	duty or task taken on by a person or organization
RESUME NOTE	document note indicating resume of hearing
RETIREMENT FUND	stock of money created and owned by company for extraordinary reclamation and abandonment activities
RHG NONOBJECTION	non-objection of Riverside Heights Group residents to the proposed well and their withdrawal from public hearing
RHG PANEL	state of RHG residents being examined or cross examined
RHG RESIDENTS	Riverside Heights Group residents, resident group not opposing the proposed well
RISK TAKING	involvement in an event or situation or activity or project that might create harm or loss
RIVER	Riverside Heights Group residents
RIVER RECREATION	refreshment and relaxation of people around river
RIVER SYSTEM	natural environment and environmental characteristics of river
RURAL AREA	countryside rather than urban with far less population and mainly agricultural economy
SAFE OPERATIONS	state of company operations free from danger and harm for people
SAFETY	state of being safe from possibility of experiencing or causing harm or loss
SAFETY AWARENESS	state of being conscious and sensitive about safety
SAFETY EQUIPMENT	articles, tools, and instruments used to ensure safety in company operations
SAFETY MEASURES	actions to be taken to ensure the safety of people possible to be adversely affected by the oil and gas activity of the applicant
SAFETY OF PEOPLE	state of individuals being safe from possibility of experiencing harm or loss
SAFETY OF PERSONNEL	state of emergency personnel being safe from possibility of experiencing harm or loss
SAFETY PERSONNEL	company and city personnel responsible and working for safety of people in emergency area in case of incident
SAND EXTENSION	geological feature of well area
SCIENTIFIC GUIDES	standards and ways of thinking and deciding based on scientific rules and findings
SECTION TITLE	document note indicating section title
SELF INTRO	one's introducing of oneself to hearing participants
SHELTERING	taking shelter inside of homes and buildings to protect in case of sour gas release
SIMILAR COEXISTENCE	cases of coexistence of industrial and residential lives in areas other than proposed well area
SIMILAR DRILLING	any drilling with similar a method and within similar conditions as the applied well system of organization for implementing emergency response plan in which all participant organizations come together in one location and act as one organization with all resources used
SINGLE ORGANIZATION	

SITE INSPECTIONS	environment policy practice of company to visit operation sites and prepare reports for senior management
SITE UPDATES	new information regularly obtained from well sites and shared with emergency personnel to guide their response
SLOW SPEAK	request of board chair from hearing participants to speak slowly so that their testimony can be recorded by court reporter
SMELL	particular odour
SOCIAL STANDARDS	general and informal societal principles to be followed by members of society in their actions
SOUND MEASURES	measures to control sound resulting from company operations
SOUR GAS	possible by-product of the applied well that is deadly if exposed to at particular levels
SOUR GAS CALCULATION	determination of possible sour gas release rate from proposed well
SOUR GAS DATA	data used to calculate sour gas release rate
SOUR GAS DEPTH	subsurface depth where sour gas certain to exist
SOUR GAS DETECTOR	instrument to notice existence or release of sour gas in well area
SOUR GAS DISCOVERY	finding out first time in past that sour gas exists in well area
SOUR GAS MEASURES	measures to address safety concerns that result from a possible sour gas release from the proposed well
SOUR GAS RATE	extent of sour gas possible to be released from proposed well
SOUR GAS RELEASE	leak of sour gas from an oil well
SPECIFIC CONCERNS	problems and issues that interest area residents having specific health sensitivities with respect to application
SPECIFIC PLAN	particular emergency response plan specifically addressing circumstances of application and well area
STAKEHOLDER CONCERNS	problems and issues that interest stakeholders with respect to application
STAKEHOLDERS	individuals, groups, or organizations interested, concerned, or affected with respect to application
STRAT TEST	technical procedure during drilling to determine oil reserves
SURFACE CASING	technical procedure during drilling for safety
TALK	act of speaking
TALK RESPONSE	act of speaking and responding
TECHNOLOGY	knowledge area and products of applied science
TENACITY	quality of being persistent or stubborn
TERMINOLOGY	system of terms belonging to specialized subject
TEST AND DRILL	operational procedure of first drilling well and then testing material obtained with drilling and then drilling again according to results
TESTIMONY	evidence of witnesses given in examinations
TESTIMONY DURATION	time period in which testimony of witness given
TESTIMONY END	statement indicating testimony concluded
TESTIMONY UNDER OATH	condition of testimony given under oath or promise to speak honestly and truthfully
TESTIMONY WEIGHT	relative importance given by board to testimony
THANKS	expression of gratitude, appreciation, favour or kindness
TIMELINE	point or duration of occurrence of an event in time

TITLE SEARCHES	determining people that own lands around proposed well
TRAFFIC CONTROL	measures to control traffic resulting from company operations
TRAFFIC COUNTS	number of vehicles passing through a road within particular time period
TRAINING	developing particular forms of thoughts and behaviours through education or instruction
TRUST BUILDING	developing confidence and trust for or within others
UNDERSTANDING	comprehending or perceiving meaning of statement or word
UNIFIED COMMAND	system of command for implementing emergency response plan in which all participant organizations come together in one location and act as one organization with all resources used
UPDATED DATA	modified data set in which learning is reflected
UPDATES TO PERSONNEL	providing new information to emergency personnel as it arises
UPDATING ERP	modifying emergency response plan to reflect learning
UPDATING PRACTICES	modifying WEOG practice to reflect learning
URBAN AREA	city or town centers and neighbourhoods rather than rural with far more population and diversified economy
URBAN DEVELOPMENT	development of new residential areas within city
VALIDATION	justification of particular argument or viewpoint; providing and focusing on only supporting evidence for particular viewpoint
VISUAL MEASURES	measures related to the appearance of the area and the production facilities
VOLUME NUMBER	document note indicating volume number of proceedings
WELG	West Edmonton Landowners Group residents
WELG RESIDENTS	West Edmonton Landowner Group residents, resident group opposing the proposed well
WELG SUBMISSION	application document of WELG residents to become intervener
WELL LOCATION	location of oil well the applicant applied for to drill
WELL LOCATION REASON	justification of the selection of the well location from which to drill
WELL PURPOSE	purpose of oil well the applicant applied for to drill
WELL REASON	justification of the selection of the applied well to drill
WELL RESULTS	data to be obtained through drilling of proposed well
WELL SITE VISIT	visit by board members of the site where the oil well the applicant applied for is to be located
WELL SUCCESS	state of proposed well proving existence of oil reserves in area
WELLS DATA	data obtained from wells in area of proposed well to be used in sour gas rate calculation
WEOG	West Edmonton Operators Group which consists of area operators and government agencies and which develop standards to be complied by members
WEOG PRACTICE	standard practices of WEOG to be followed by member companies in operations
WITNESS ANSWERING	particular witness to answer question because of interest or expertise or previous answer of witness
WITNESS REFERRAL	referral of question for particular witness to answer because of interest or expertise or previous answer of witness
WORST CASE SCENARIO	worst case possible to occur during an emergency of sour gas release

Appendix 4

Names and Definitions of Categories

Hearing setting: All elements of public hearing including why and how and by whom it is held

Application: Well development proposal of applicant

Existing facilities: Oil and gas facilities currently operated by the applicant in the area of the applied well

ERP: Emergency response plan of applicant proposed to be implemented during emergency situations

Drilling measures: Measures to address safety and other concerns during the drilling operation

Safety measures: Actions to be taken to ensure the safety of people possible to be adversely affected by the oil and gas activity of the applicant

Sour gas measures: Measures to address safety concerns that result from a possible sour gas release from the proposed well

Sour gas: Possible by-product of the applied well that is deadly if exposed to at particular levels

Acclaim incident: A past operational incident which another oil company is involved in and responsible of

Operational measures: Measures to address concerns that result from the operation of the existing facilities and proposed well in the future

Aesthetic measures: Measures related to the appearance of the area and the production facilities

Monitoring measures: Measures about whether and how the existing and future operations and industrial activities in the area are properly monitored for any safety and environment problem

Area operator: Operator of the facilities of the company in the area of the proposed well

Operation incidents: Operational problems that occur in the area and that are likely to adversely affect safety of people and environment

Consultation: Exchanging information and deliberating concerns by meeting or correspondence

City involvement: Participation of the City of Edmonton agencies in the development of industrial facilities and of emergency response plans

RHG non-objection: Non-objection of Riverside Heights Group residents to the proposed well and their withdrawal from public hearing

Resident conditions: Conditions of West Edmonton Landowner group residents for an agreement with the company not to oppose the proposed well

Residents approach and portrayal: Descriptions about the attitudes and responses of WELG residents in the issues related to the case and the portrayal of the WELG residents

RHG residents: The portrayal of the Riverside Heights Group residents, resident group not opposing the proposed well

Company approach and portrayal: Descriptions about the attitudes and responses of company members and consultants in the issues related to the case and the portrayal of the company and its members

Landowner approach and portrayal: Descriptions about the attitudes and responses of landowner in the issues related to the case and the portrayal of Dr. Singh

Business success: Success or failure in economic undertaking

Land values: Economic value of lands located in the area of the proposed well

Land plan: Development of land for residential and commercial purposes

Goat farm: Business undertaking of landowner to raise and sell goats

Reclaim and abandon: Reclamation and abandonment activities which occur after resources are exhausted in the area with the goal of restoration of the area into its pre-operation situation

Timeline: Point or duration of occurrence of an event in time

Egress: Access out of an unsafe area

Responsibility: Feeling of obligation towards other people or elements of nature

Benefit balance: Even and fair distribution of benefits as well as costs of social or industrial activity

WEOG: West Edmonton Operators Group which consists of area operators and government agencies and which develop standards to be complied by members

EPLC: East Parkland Liaison Committee which consists of oil companies, government agencies, and concerned stakeholders and which provides a platform for members to engage in information exchange regarding oil and gas activities

Environment policy: Official company policy to address and integrate environmental and health concerns into business activities

Appendix 5

Keyword and Segment Tables

A: Tables for Project

Table 4.1 Petrofund Corporation's Discussion on Project

Keyword table

(303 MR.MILLER) To Mr. Cronin's right is Mr. Don Van Tetering, manager, production engineering for Petrofund. He has been the **project** manager for this application, and he will address questions related to the application generally, the conceptual Armisic development plan and reservoir engineering.

(669 MR.MILLER) There's been quite a bit that's happened since the time that Petrofund started its initial consultation for this **project** and so on.

(1175 MR.MORRISON) Slide 28 shows a plan view of our **project**. We are setting our surface -- or, sorry, setting our drilling rig up on 7 of 4, drilling our stratagraphic test down into 16 of 33, evaluating the Ostracod zone and then electing to, if favorable, drill a horizontal well from kick-off point around here, down into a bottom hole location in a horizontal of 9 of 33.

(1717 MR.VAN TETERING) Petrofund recognized that this would be a potentially complex **project** and, therefore, established a multi-disciplinary team, which included senior management, production and operations, environment, health and safety, geology, drilling and completions, surface land through Land Solutions Incorporated, emergency planning and public consultation through Gecko Management Consultants.

(1806 MR.VAN TETERING) We expanded the consultation to include others who we thought might be interested in the **project**.

(1978 MR.VAN TETERING) During the open house we provided as much information as possible about our **project** and long-term objectives.

(2439 MR.CRONIN) This fund [our asset retirement fund] will only be used to finance our extraordinary reclamation and abandonment **projects**; as an example, the de-commissioning of a large processing facility.

(2457 MR.CRONIN) I would also like to advise that Petrofund spent 4.6 million dollars from our cash flow on abandonment and reclamation **projects** in 2004.

(2460 MR.CRONIN) We spent 4.7 million from our cash flow in 2003, and we spent 2.2 million from our cash flow in 2002 on our ongoing abandonment reclamation **projects**.

(2463 MR.CRONIN) In addition, we have budgeted, we are budgeted to spend a further 4 to 52 million dollars on reclamation and abandonment **projects** in the current year.

(8288 MR.GIBSON) One point that I would make, compared to other **projects** we worked on or other hearings I've been involved in, I think it would be pretty clear when you look at the participation of the consultants, that the people like Mr. Tidmarsh and Mr. Van Tetering and others are, have been very hands-on here.

(8295 MR.GIBSON) This is not a case where the consultants are managing the **project**.

(15547 MR.MILLER) I have been involved in this **project** for more than a year, and I can tell you that I have never encountered a company more willing to go the extra mile, and then the next extra mile, and the next extra mile, even though it knew it would continue to encounter an ongoing barrage of criticism, innuendo, accusation, generalization and inflammatory statements.

(15592 MR.MILLER) Notwithstanding the comments of Dr. Gotaas, I have to say to you that, in my experience, the individuals behind this **project** are honest and honourable individuals who operate with the highest degree of integrity.

(15626 MR.MILLER) It was one that was selected, that would minimize impact to area residents at least at this, at this particular juncture for the initial well, which may be one of up to eight wells in the area, depending on the results of this **project** and the ongoing assessment of the conceptual development plan.

(15745 MR.MILLER) Again under this banner, Mr. Tidmarsh explained the emergency readiness that will be employed prior to and during the drilling phase of this **project**.

(17831 MR.MILLER) And that would apply to not just well sites, but I could imagine only that it would apply to some very large **projects**, and affect in a very economically inefficient manner pre-fund abandonment and reclamation liabilities many years in advance of when they incur, when they would like likely be incurred.

Segment table

(889 MR.MILLER P-1-52) Mr. Lemermeyer, for context, would you please describe the layout of the existing Petrofund facilities in the Armisic area?

Property or theme: existing facilities are considered as a context only not part of the project

(1265 MR.STRONG P-1-52) We are going to position the rig on the north side of the North Saskatchewan River and drill a deviated well, with the strat test ending up in LSD 16 of 33. We will drill through the Ostracod and Ellerslie. We just get into a little bit more detail from the previous slide here. So once we have drilled through the Ostracod in Ellerslie, we will log the well and that will give us information on the presence of reservoir and hydrocarbon.

Property or theme: the project has technical dimensions

(1380 MR.VAN TETERING P-1-52) The conceptual drilling plan could change as wells are drilled and evaluated, taking into account results of the previous wells.

Property or theme: the project is evolving

(1611 MR.MORRISON P-1-52) The lower sections of the wellbores would be sour, and that would be the lower sections of our initial strat test; and the intermediate casing, or intermediate hole, as well as our horizontal wellbore. The time spent in this sour zone would be estimated to be anywhere from 18 to 25 days.

Property or theme: sour gas concern is described in terms of a calculated number

(3434 MR.CRONIN P-115-217) It is going to have its challenges obviously. We are prepared to work with, work with that; but we see no reason right now why, why we couldn't co-exist under just about any scenario.

Property or theme: the project and residences can coexist in the area

Table 4.2

City of Edmonton's Discussion on Project

Keyword table

(8909 MR. BLACK) We have been working with them for about, as I say, until -- from September/October of last year, working with them on the plan for this particular **project**; but prior to that we had their general emergency plan, yes.

Table 4.3

West Edmonton Landowners Group's Discussion on Project

Keyword table

(16782 MR. BODNAR) And everything went from eight wells to one well. Well, if you read between the lines, this is about an eight well **project**. Okay?

(16783 MR. BODNAR) An eight well **project** where all the wells, I believe, will have some sort of an H2S factor to be considered.

(16805 MR. BODNAR) One of the things in those recommendations is, that the operator is encouraged to apply for all wells together, in a **project** together if they are going to do something so the proper plans can be in place.

Segment table

(201 DR. GOTAAS P-317-439) Well, this started, I was sensitized to Petrofund's operation, I mean I had some concerns about it, shortly after the time that I bought the 98 acres on which 13 of 33 is located.

Property or theme: concerns are the reason for involvement in the project

(632 DR. GOTAAS P-317-439) It sits in the middle of a beautiful field on the riverbank of the North Saskatchewan River. There was some dispute when the wells first showed up about, if they should be located there, but that's another story.

Property or theme: oil and gas facilities in the area contrasts with the beauty of the area

(1581 MR. BODNAR P-53-114) And is the information, the geological information that you are basing this application on, is it based on data from those wells?

Property or theme: technical qualities are relevant because of sour gas content

(2734 DR. GOTAAS P-317-439) For a while they have been concerns related to 7 of 4. That is the reason we are here. That's -- we realize that's the application that is before the board. We believe that there should be a set of common terms and conditions for the entire neighborhood.

Property or theme: existing facilities are part of the project

(3193 MR. BODNAR P-440-565) I'm not really convinced that there is an absolute need for this well. I think this whole thing is driven by one thing, profit and greed.

Property or theme: profit and greed are the main motivation of the company for the project

Table 4.4

Dr. S. P. Singh's Discussion on Project

Segment table

(1857 MR. ENGELKING P-115-217) I understand that, but I guess -- I guess my question is this: Based upon the wells that are already drilled, and based upon the information we have been provided with in slide number , how long would it take to get the other roughly million -- , barrels of oil that the EUB estimated could be recovered from this pool?

Property or theme: the duration of the operations is a concern

(3595 MR. ENGELKING P-440-565) I tell you, if I lived on the property that Dr. Singh owns, in the southeast quarter of Section , and I was far enough from the top of the bank and I knew that that well had , parts per million H2S gas in what was being produced. And if I knew that a thousand parts per million could be fatal to me, I might take the goats.

Property or theme: the project is comparable to other economic projects, sour gas is a major concern

(4113 DR. SINGH P-317-439) My immediate concerns are that my land will not be developed; the price of the land, if I want to dispose it off, would be much lower than what would have been the case. I'm quite concerned about the pollution of, in terms of noise, in terms of the quality of air. The safety in case I build a house. And for the information of the board, I had started a goat farm there, and very briefly I lost about to \$, because we were losing goats every day in number that was almost about to percent of the total herd.

Property or theme: the project is a source of health, environment, and economic concerns

(4528 MR. ENGELKING P-317-439) And has Petrofund ever provided to you any assurances that the proposed activity at 7 of 4 is different somehow than the Acheson site and that you need not to be concerned about the possibility of a blowout on 7 of 4?

Property or theme: the project is compared to other similar projects in terms of well-blowout potential

Table 4.5

Alberta Energy and Utilities Board's Discussion on Project

Keyword table

(329 DECISION) It is the Board's view that when a company makes commitments of this nature, it has satisfied itself that these activities will benefit both the **project** and the public, and the Board takes these commitments into account when arriving at its decision.

(6955 MR. PERKINS) So given that, the first question I have is, have all the residents that are within the awareness zone been contacted by Petrofund with respect this **project**?

(7438 MR. PERKINS) I'm trying to get a handle on what consultation occurred for what **project** at what time.

(7887 MR.SHARP) You are going to conduct periodic air quality -- blah, blah -- and then establish some kind of a process. So this is going to go on for the life of the **project** then, or life of these leases?

Segment table

(142 DECISION) The maximum hydrogen sulphide (H₂S) content in the associated gas would be 11 moles per kilomole (1.1 per cent H₂S). The maximum drilling release rate would be 0.0916 cubic metres per second (m³/s). The corresponding emergency planning zone (EPZ) would be 500 m. The proposed 7-4 well would be located on an existing well site within the corporate limits of the City of Edmonton.

Property or theme: sour gas concern is defined in terms of calculated numbers

(937 MR.SHARP P-218-316) Are there any technical reasons why you couldn't drill any other well from that of site when all the -- like, you have got three well bores there now.

Property or theme: the project has technical dimensions

(1713 DECISION) The Board notes that while the proposed 7-4 well is the subject of the hearing, the interveners' concerns go beyond that proposed well and include operational matters in the entire Armisic Field.

Property or theme: the focus of the project is the current well application

(1797 DECISION) The Board regards Petrofund and the Armisic Field area residents as neighbours that need to work together on concerns regarding the proposed well and the existing facilities in the area throughout their operating life.

Property or theme: the project refers to an long-term activity in the area

(3390 MR. PERKINS P-115-217) And has Petrofund considered a scenario where residential developments in the vicinity of the proposed well and the possible future wells, the other Armisic

facilities, so that there is much denser residential development and it's potentially closer to your facilities?

Property or theme: the project and residences in the area can coexist but denser residential development is questionable

B: Tables for Concerns

Table 5.1

Petrofund Corporation's Discussion on Concerns

Keyword table

(312 MR.MILLER) He will address questions related to production operations and steps Petrofund has taken to address operational **concerns** regarding Petrofund's facilities in the Armisic area.

(1256 MR. MORRISON) An on-site safety advisor will listen to public feedback and be available to promptly address community issues or **concerns**.

(1361 MR.TIDMARSH) The residents on 17th Avenue, down in the southern area here, were originally included in the EPZ because of their **concerns** about egress through the normal -- through the original expanded emergency planning zone.

(1426 MR.TIDMARSH) Petrofund will team with the city and Capital Health to address any public safety **concerns** and coordinate communications with the public and the media.

(1669 MR.TIDMARSH) This **concern** [egress] has been raised by residents primarily on 1717th Avenue.

(1671 MR.TIDMARSH) Petrofund appreciates that the residents have a **concern** about egress.

(1699 MR.TIDMARSH) In the revised Emergency Response Plan access to 184th Street will not be restricted unless air monitoring results indicate a potential **concern**.

(1728 MR.VAN TETERING) As we learn more about the area and potential community **concerns**, we changed the consultation area, generally expanding it.

(1770 MR.VAN TETERING) The objectives of the consultation plan were... to help Petrofund to identify potential **concerns** or objections, to permit Petrofund to respond to and, to the extent possible, address **concerns** and issues.

(1772 MR.VAN TETERING) The objectives of the consultation plan were... to help Petrofund to identify potential **concerns** or objections, to permit Petrofund to respond to and, to the extent possible, address **concerns** and issues.

(1967 MR.VAN TETERING) The benefit of this was that all parties could at the same time hear the responses of Petrofund to the **concerns** and issues raised by the neighbours.

(1982 MR.VAN TETERING) The open house provided us more and better information about the issues of **concern** for the area residents and provided us with the opportunity to respond to those concerns and indicate how our plans could address such issues.

(1984 MR.VAN TETERING) The open house provided us more and better information about the issues of concern for the area residents and provided us with the opportunity to respond to those **concerns** and indicate how our plans could address such issues.

(2095 MR.TIDMARSH) We felt it was important to get this information out to all residents and other stakeholders as quickly as possible, to inform them of the changes and identify any **concerns** they might have with the revised document.

(2132 MR.TIDMARSH) The wellhead incident at 13 of 33 in December was mentioned as a **concern**.

(2135 MR.TIDMARSH) Finally, some continued to have **concerns** regarding historical incidents which occurred prior to when Petrofund first acquired the facilities.

(2242 MR.MILLER) Mr. Lemermeyer, following the earlier stages of consultation, what did Petrofund understand to be the **concerns** of various stakeholders, in a general sense?

(2248 MR.LEMERMEYER) Stakeholders told us our, in our consultation process that there were frequent odours from the 6 over 4 battery, unacceptably noisy pump jacks from the various pads and general **concerns** about emissions in the area.

(2253 MR.MILLER) Would you generally describe the operational measures that Petrofund has taken to alleviate the **concerns** of local area residents with Petrofund's facilities where it's been possible?

(2294 MR.MILLER) Sir, there have been **concerns** expressed about Petrofund's ability to monitor the 7 of 4 well and other wells in the area.

(2297 MR.MILLER) What are the **concerns**, and what are your plans to mitigate those?

(2426 MR.CRONIN) We have heard those **concerns** raised through our extensive public consultation process.

(2529 MR.MILLER) Mr. Cronin, **concern** has been raised by some that approval of this well would then result in the automatic approval of all future Petrofund wells.

(2582 MR.CRONIN) We could meet with on a regular basis to keep them abreast of our activities and for us to keep abreast of their issues and **concerns**.

(3437 MR.HEMSTOCK) So if a resident down on 17th Avenue gets a notification at a Level and there is any potential **concern** that the weather conditions are poor, the road conditions are poor, it's going to take a long time to get out of here, whatever the circumstances, we are providing as much advance notice as we can.

(4026 MR.LEMERMEYER) **Concerns** have been raised by area residents precisely about that and about when the operators were there during the day.

(4098 MR.TIDMARSH) We are aware of, aware of the **concerns** and conditions he has, and we will take the appropriate steps should we get into that situation.

(4266 MR. MORRISON) As well as, during our conversation, Mr. Bodnar also expressed **concern** over the quality of the data and the timeliness of the data, whether, you know, were we using too old of data, data collected back in 1951.

(4397 MR.MILLER) If Mr. Bodnar had indicated some **concern** about that earlier, we could have had more complete information available to at least address it.

(6148 MR.LEMERMEYER) Some of the **concerns** we heard in our initial consultations was that there had been past odors from our 6 of 4 facility, that there was sound issues with some of our pumping equipment.

(6159 MR.LEMERMEYER) One of the other, one of the other **concerns** that was raised to us was monitoring of the wells.

(6229 MR.HEMSTOCK) There will be a number of different stakeholders or jurisdictions that would all have various **concerns** about how the emergency response should be provided.

(6243 MR.HEMSTOCK) They have all got various **concerns** or issues that they want to make sure are addressed.

(6247 MR.HEMSTOCK) There is a process in place so that every one of these **concerns** or issues or jurisdictions is represented and involved in the discussion process.

(6689 MR.HEMSTOCK) There may be some situations where, on a short-term basis, we could have response people from the City of Edmonton that wouldn't have the specific H2S Alive training, and we did make some provision for that potential **concern** by committing to have some safety personnel who had the equipment and the monitoring devices and the training that would be in attendant with these response personnel.

(6909 MR.TIDMARSH) One of the major **concerns** that, I think all of us have shared in, through the process, is how to ensure that we have consistent communications to the public, to the media, to other government agencies through this process.

(6978 MR.TIDMARSH) Capital Health was very comfortable with the notion that this thousand meter awareness zone around the wellsite would more than cover their **concerns** about potentially sensitive individuals.

(7270 MR.TIDMARSH) What we committed to do in our meetings with the Kiewit people was to sit down, discuss the, our plan, how we would clarify our notification process with them, and identify any particular **concerns** that they would have before we finalized our document here.

(7340 MR.TIDMARSH) And because there is a potential egress concern, if we had a pipeline failure, flow line from 7 of 4 to the battery, that there is a potential egress **concern** there.

(7342 MR.TIDMARSH) And because there is a potential egress concern, if we had a pipeline failure, flow line from 7 of 4 to the battery, that there is a potential egress **concern** there.

(7413 MR.TIDMARSH) We designated a meter emergency planning zone as a highlight for our people that, yes, there are some issues and **concerns** here that we have to be cognizant of those going in.

(11481 MR.MILLER) Ms. Hazlett, as a member of that group, I think, is entitled to express her **concerns** and I'm just passing those through.

(15726 MR.MILLER) But if a party doesn't tell you that they have a concern, we cannot then, you know, be -- you know, read minds, to put it that way, to then say, well, this will be a **concern** to these people.

(15729 MR.MILLER) But if a party doesn't tell you that they have a concern, we cannot then, you know, be -- you know, read minds, to put it that way, to then say, well, this will be a **concern** to these people.

(15942 MR.MILLER) This [proposed revisions to the ERP] was not something that arose simply because of that incident or because of **concerns** of landowners.

(16091 MR.MILLER) If there is a **concern** raised about noise, let's identify the source and let's do something about it.

(16091 MR.MILLER) And what was offered in my letter of response in Exhibit 10 is that, following this hearing, let's sit down and talk about those specific **concerns**.

(16102 MR.MILLER) Now, in terms of Dr. Singh, he comes in and raises **concerns** about the effect of these facilities on the development, future development of his land.

(16122 MR.MILLER) He raised the issue of societal **concerns** as between surface owners and subsurface owners.

(16125 MR.MILLER) I found that somewhat contrary to what I would see as a lack of societal **concerns** in the instance where he wanted to raise goats and the Riverside Heights residents were complaining about the smell.

(16132 MR.MILLER) So it raises questions as to when societal **concerns** are important to profit and when they are not important to profit.

(16153 MR.MILLER) The last point is that at no time has Dr. Singh's son communicated any **concern** to Petrofund.

(16157 MR.MILLER) His son has always been aware of this, and there's never been any suggestion that there's been any **concern**, other than just Dr. Singh saying, my son is out there, and so on.

(17906 MR.MILLER) You never get to discuss specifics of operational **concerns**.

(17478 MR.MILLER) I said last night that Ms. Hazlett brought some **concerns** to my attention.

Segment table

(114 MR. TIDMARSH P-53-114) We are confident that residents could safely leave that area in the unlikely event of a sour gas release. I should point out that the distance between the 7 of 4 well site and the 2323rd Avenue and 184th intersection is over one kilometer. In order to ensure the safety of the 1717th Avenue residents, we have taken three specific steps.

Property or theme: project location is a not source of concern, there are health concerns

(934 MR. LEMERMEYER P-53-114) With any of the incidents that occurred, at no time were residents in danger.

Property or theme: past incidents are not a source of concern, there are health concerns

(942 MR. LEMERMEYER P-53-114) Our philosophy is to learn from these incidents and to ensure that they will not be repeated.

Property or theme: the company learns from past incidents

(2186 MR. CRONIN P-115-217) Once we drill, test and produce the proposed well, we will have a better idea on a probable exit date.

Property or theme: the company's understanding of concerns is evolving, there are economic concerns that might be addressed with the quick exit of the company

(2470 MR. MILLER P-440-565) He comes in and raises concerns about the effect of these facilities on the development, future development of his land. It's clear that he purchased the land knowing of these facilities, and that was pre-Petrofund. He took that risk.

Property or theme: individual risk taking is a source of concern

(2484 MR. MILLER P-440-565) Ms. Ainsley had indicated future development of this area is highly speculative. The timelines are uncertain.

Property or theme: the duration of operations is not a source of concern

(2496 MR. CRONIN P-115-217) The analogy, or the quick comparisons that people make were in the area; but our situations, just on the base parameters, are totally different than theirs.

Property or theme: comparisons with other oil and gas projects are misleading

(2509 MR. CRONIN P-115-217) When the time is right, they have offered to sit down with us and fill us in and let us see the learnings of what happened there.

Property or theme: the company learns from other companies' projects and past incidents

(2512 MR. MILLER P-440-565) If I had a choice between having a pump jack adjacent to where I lived or a goat herd, the pump jack would be first choice each and every time.

Property or theme: other economic activities are risky as well

(2590 MR. MILLER P-440-565) This is a very financially stable company. It has -- its company ethos supports a strong and sound environmental health and safety program.

Property or theme: financial capability is considered as a measure to address concerns, environmental health and safety policy of company is a reference to address concerns, environmental concerns are recognized

(2679 MR. TIDMARSH P-115-217) The battery itself will be taken apart, moved away, and the locations completely restored to standards set by the Department of the Environment.

Property or theme: governmental regulations are the reference to address concerns, environmental concerns are recognized and addressed

Table 5.2

City of Edmonton's Discussion on Concerns

Keyword table

(8711 MS. AINSLEY) We have had contact with a number of stakeholders, other departments, utilities agencies, Capital Health and some of the affected residents; and in having that contact, we have attempted to draw up conditions that we think would satisfy their **concerns**.

(9399 MS. AINSLEY) They didn't given us a time-line, but they did want AEUB and the applicant to know that that was of **concern** to us.

(9631 MS. AINSLEY) They can, if they are -- you know, and I have made myself available to them if they have any **concerns**.

(9811 MR. BLACK) Their [Capital Health] **concern**, as I understand it, is that outside of the emergency planning zone there may be people who could suffer adverse effects from a lesser level of release that is below the danger zone or who had, could have an increased anxiety, just by knowing that something was going on.

Segment table

(2711 MR. BLACK P-218-316) I would expect we would have to re-route traffic around, either quickly bulldoze a road in or move whatever is in the way out of the way. But in terms of the -- as we have seen from the maps earlier, the emergency planning zone doesn't cross into any of the evacuation routes.

Property or theme: health concerns and emergencies are recognized, the city emphasized measures to address concerns, project location is not a source of concern

(2919 MR. BLACK P-218-316) I would say that the events of the Acclaim blow-out brought a lot of things to our attention and caused us to look a lot more carefully at some other aspects.

Property or theme: comparisons between the project and other projects and incidents are valid and form a basis for concerns

(3542 MS. AINSLEY P-218-316) I think that basically we have been satisfied.

Property or theme: the company's approach to address concerns is satisfactory

(3450 MS. AINSLEY P-218-316) We expect that it is possible that development could occur in this area within 10 years so we would like Petrofund to get the oil out as quickly as possible.

Property or theme: the duration of the operations is a source of concern because of health issues

Table 5.3

West Edmonton Landowners Group's Discussion on Concerns

Keyword table

(3045 MR. BODNAR) And is it fair to say that the involvement of the city and the development of the present plan, if you will, was spawned primarily by the **concerns** the landowners were raising.

(3169 MR. BODNAR) It's a **concern** about the operations of 7 of 4, too, isn't it?

(3200 MR. BODNAR) But wouldn't you think that that would be important, because people in the area, the well group, for example, have **concerns** about operations and emergency issues?

(3597 MR. BODNAR) That was with the original group that got together to raise **concerns**, that we called the original West Edmonton Landowners Group.

(4104 MR. BODNAR) And I understand Ms., Mr. And Mr. Novak have provided you with some of their **concerns** as well, specific concerns?

(4105 MR. BODNAR) And I understand Ms., Mr. And Mr. Novak have provided you with some of their concerns as well, specific **concerns**?

(4186 MR. BODNAR) And our **concern** is this, is I think it is fair to say, sir, that H2S is the primary consideration in all of this stuff, particularly from a safety point of view.

(4330 MR. BODNAR) Well, I guess my question is, you know, from the board's perspective, sir, is that -- with all the **concern** with H2S, is a further -- you know, should there not be a further inquiry, or are there further inquiries that could be made?

(8940 MR. BODNAR) With respect to this Armisic field, you have heard **concerns** expressed about the limited access along 23rd Avenue into that field.

(8942 MR. BODNAR) Does the city have any particular **concerns** with that access?

(10413 DR. GOTAAS) Well, this started, I was sensitized to Petrofund's operation, I mean I had some **concerns** about it, shortly after the time that I bought the 98 acres on which 13 of 33 is located.

(10426 DR. GOTAAS) We had no success whatsoever in dealing with Petrofund, in gaining any assistance in either receiving answers about our questions or any action related to any of the **concerns** that we had.

(10435 DR. GOTAAS) I had **concerns** about the oil operation because Petrofund had refused to even answer my counsel's requests for their plans.

(10466 DR. GOTAAS) I certainly had significant **concerns** about there being expansion on the site.

(10581 DR. GOTAAS) We had technical **concerns**.

(10582 DR. GOTAAS) We had **concerns** about what we thought were possible licensing concerns or contradictions in some of the paperwork at that we received.

(10583 DR. GOTAAS) We had concerns about what we thought were possible licensing **concerns** or contradictions in some of the paperwork at that we received.

(10647 DR. GOTAAS) Hoping to come to some resolution about terms and conditions of their existence or an idea of when they might be finishing, an idea of what they might be able to do to address some of these long-standing **concerns** we had; and they denied that anything was on the table.

(10724 DR. GOTAAS) One major concern that the residents of Riverside Heights had was that finances were a **concern**.

(10726 DR. GOTAAS) One major **concern** that the residents of Riverside Heights had was that finances were a concern.

(10734 DR. GOTAAS) There was **concern** all the way along, on the part largely of the Riverside Heights community about the costs, what would be involved with opposing this development.

(11152 MR. BODNAR) For example, when you raise a **concern**, what has their response been like?

(11169 DR. GOTAAS) When with we talk about water, air, noise, environmental **concerns**, they want to know what specific **concerns**?

(11170 DR. GOTAAS) When with we talk about water, air, noise, environmental **concerns**, they want to know what specific **concerns**?

(11172 DR. GOTAAS) They don't want to address our **concerns**.

(11194 MR. BODNAR) To your knowledge, has there ever been any confirmed concession, if you will, or compromise or agreement from Petrofund to any of the **concerns** you have presented?

(11253 DR. GOTAAS) We really don't know what the level of **concern** [H2S] is.

(11285 DR. GOTAAS) The ones who did believe it and shared the **concerns** we had joined us in forming West Edmonton Landowners Group.

(11289 DR. GOTAAS) The other neighbours, some of those people who joined us had financial **concerns**.

(11307 DR. GOTAAS) We could read them: No **concerns** voiced, or no concerns conveyed.

(11308 DR. GOTAAS) We could read them: No concerns voiced, or no **concerns** conveyed.

(11308 DR. GOTAAS) **Concern** about a little bit of noise, reassured.

(11310 DR. GOTAAS) It was absolutely a white-washing of the **concerns** of the neighborhood.

(11314 DR. GOTAAS) One of the things that drove the group to pursue, is the obvious misrepresentation about their **concerns**.

(11437 MR. BODNAR) Our **concern** is that, you know, the people that should be at this hearing are not here, and our concern is that there have been some misrepresentations that have, A, fractured a group and, B, you know, given them representations that we don't think are going to materialize into operational standards.

(11439 MR. BODNAR) Our concern is that, you know, the people that should be at this hearing are not here, and our **concern** is that there have been some misrepresentations that have, A, fractured a group and, B, you know, given them representations that we don't think are going to materialize into operational standards.

(11619 MR. SULYMA) I have **concerns** over, partially because of my condition [hemi-sensory loss].

(11677 MR. SULYMA) My **concern** with that is it sounds almost like a glib response to a concern of access and egress.

(11679 MR. SULYMA) My concern with that is it sounds almost like a glib response to a **concern** of access and egress.

(11701 MR. SULYMA) I also have a **concern**. There was an incident in December where there was a leak at 13 of 33.

(11716 MR. SULYMA) My **concern** is that Petrofund have not taken any steps to be able to identify when they have a problem.

(11788 MR. SULYMA) We still have **concerns** over the operator, whether or not they are able to effectively carry out an Emergency Response Plan.

(11842 DR. GOTAAS) We have from the beginning patterned our **concerns** a particular way, covering the various issues.

(11852 DR. GOTAAS) They suggested that he put the **concerns** in writing.

(11853 DR. GOTAAS) Some **concerns** that may admittedly have been -- they didn't have to admit anything.

(11855 DR. GOTAAS) Familiar **concerns** were presented in written form to them.

(11861 DR. GOTAAS) We were asking for just reasonable terms and conditions and reassurances to a deal that, to **concerns** that have been expressed.

(11916 MR. BODNAR) Now, that pre-ADR, as I understand, had to do with your **concerns** with 13 of 33 primarily?

(11963 DR. GOTAAS) I guess that's [pre-hearing conference] an aside; but that's one thing that has made, made it difficult for the neighborhood to express **concerns**.

(11972 MR. SULYMA) Some of the submissions made by Petrofund in terms of their application where they said that they had discussed the access and egress problem with me and that I no longer had a **concern** with it is simply not true.

(12183 MR. BODNAR) The conditions that we proposed, sir, were given to include all of the **concerns** about the operations.

(12405 DR. GOTAAS) We're concerned about monitoring of H2S, and we're concerned about having an effective Emergency Response Plan; and one of our **concerns** is about having a route in and out of the area, an alternate route in and out of the area.

(12410 DR. GOTAAS) We had some **concerns** about being able to have that water quality assessed periodically.

(12412 DR. GOTAAS) We had **concerns** about esthetics of anything.

(12450 DR. GOTAAS) For a while they have been **concerns** related to 7 of 4.

(12456 DR. GOTAAS) We are all neighbours with common **concerns**, and we are affected similarly.

(12490 DR. GOTAAS) I met with Mr. Gibson in my office when he was giving me information, and I expressed some of my **concerns** over my health conditions.

(12510 DR. GOTAAS) I passed along my medical condition and my **concerns** about access and egress.

(12514 DR. GOTAAS) What are your **concerns** about an Emergency Response Plan, and then I would be able to address it.

(12752 DR. GOTAAS) We talked about, maybe it falls within that category of **concern** [potential health impacts].

(12753 DR. GOTAAS) Maybe it's an esthetic **concern**.

(12760 DR. GOTAAS) You know, they have recognized that H2S is a **concern**, and that's probably our foremost concern.

(12761 DR. GOTAAS) You know, they have recognized that H2S is a concern, and that's probably our foremost **concern**.

(12823 DR. GOTAAS) And we're told that there really should be no **concern** for you driving along that road because that's not within the EPZ.

(13206 DR. GOTAAS) I didn't know if you are trying to get information about what land is worth there, development land or -- but as far as our homes go, we have certainly **concerns**, we -- about propagation.

(15295 MR. BODNAR) You have had an active role in the **concerns** raised by Dr. Gotaas and also an active role in the concerns raised by WELG, the West Edmonton Land Group as a whole?

(15296 MR. BODNAR) You have had an active role in the concerns raised by Dr. Gotaas and also an active role in the **concerns** raised by WELG, the West Edmonton Land Group as a whole?

(15303 MRS. GOTAAS) I certainly have lived it for three years and have been behind the scenes a lot and certainly have lots of **concerns**.

(15333 MRS. GOTAAS) Is it proper consultation to misrepresent neighbours' comments and **concerns** in their public consultation updates?

(15351 MRS. GOTAAS) Is it proper consultation to attend a pre-ADR meeting and ask my husband and myself what possible **concerns** we could have with H2S in our area?

(16442 MR. BODNAR) This operator tends to acknowledge something when we have a **concern**, state good intentions that they will work with us and be community people and be good neighbours and work together and they are interested in us; but then they will deny that there is any problem or any validity to the issue.

(16531 MR. BODNAR) I guess I might not have any **concerns**.

(16533 MR. BODNAR) No **concerns**. That has been already questioned by a number of people.

(16538 MR. BODNAR) The proper way to do it [consultation] would be to consider what the **concerns** of the people are, to make some compromise to address those concerns, and to come up with a creative solution that would address those concerns.

(16540 MR. BODNAR) The proper way to do it [consultation] would be to consider what the concerns of the people are, to make some compromise to address those **concerns**, and to come up with a creative solution that would address those concerns.

(16541 MR. BODNAR) The proper way to do it [consultation] would be to consider what the concerns of the people are, to make some compromise to address those concerns, and to come up with a creative solution that would address those **concerns**.

(16911 MR. BODNAR) You just can't walk in and presume that you can drill these wells without addressing individual **concerns** and without addressing the uniqueness of the area.

Segment table

(887 MR. BODNAR P-115-217) H2S is the primary consideration in all of this stuff, particularly from a safety point of view.

Property or theme: Health concerns are the major issue in the hearing

(933 DR. GOTAAS P-317-439) We had just had all sorts of information given to us about what you do in the case of a gas leak and what had happened at the Acclaim site.

Property or theme: the project is comparable to another project and incident

(987 DR. GOTAAS P-317-439) Nobody had received any notification from anyone. There was no roadblock. There were none of these things that I think you are supposed to do in a sour gas leak situation, according to their document.

Property or theme: the company's response to incidents is a source of concern, past company incidents are a source of concern

(1216 DR. GOTAAS P-317-439) That's the only access in and out for the five residences at the end of the road. We have to pass the 13 of 33 site and its access off of 184th Street.

Property or theme: the location of the project in relation to the residences and egress route is a source of concern

(2733 MR. BODNAR P-218-316) But are you aware of the overlapping emergency planning or awareness zones from other operations that is transgress 23rd Avenue?

Property or theme: the City is responsible for effective development and implementation of emergency plans

(3717 DR. GOTAAS P-317-439) Two is quaint. Eight or eight additional, next to your home is not so quaint. So certainly, I think some of us have had initial discussions with the city saying that, you know, part of this issue is how it affects our property values.

Property or theme: there are environmental and economic concerns

Table 5.4

River Heights Group's Discussion on Concerns

Keyword table

(17652 MS. HAZLETT) They could continue to badger and harass Petrofund, as they have seen fit to do; and I would cooperate with Petrofund and, in this way, address the **concerns** of the group from both angles.

(17677 MS. HAZLETT) There was a comparison to the Compton **concerns**, which I thought were not valid because the levels of H2S are much reduced in the Arm -- in the Armisic field.

Table 5.5

Dr. S. P. Singh's Discussion on Concerns

Keyword table

(9535 MR. ENGELKING) What do we now ask the board to do to satisfy the city's **concerns** that this pool be exhausted as quickly as possible?

(13493 MR. ENGELKING) What are your **concerns** about the application that Petrofund has made to drill a well at surface location 7 of 4?

(13496 DR. SINGH) I have a lot of **concerns**.

(13507 DR. SINGH) My immediate **concerns** are that my land will not be developed; the price of the land, if I want to dispose it off, would be much lower than what would have been the case.

(13528 MR. ENGELKING) Why do you have that **concern** [your land might not be developable], Dr. Singh?

(13702 MR. ENGELKING) So if there was a time certain for Petrofund to extract the pool and get out of this area, in your view, would that help allay some of the **concerns** you have about the impact upon society generally as a result of these operations?

(13746 DR. SINGH) I have grave **concern** about the problem that I might face when the oil is exhausted and they want to leave the place and clean-up has to take place.

(13770 DR. SINGH) If I have expressed any **concern** to them on this point, they never showed any concern.

(13771 DR. SINGH) If I have expressed any concern to them on this point, they never showed any **concern**.

(13772 DR. SINGH) They never showed their **concern** on this particular issue to me.

(13844 DR. SINGH) I never got any, any, either answer or my **concern** taken care of.

(13903 DR. SINGH) Let's try to work together in a way that your **concerns** and our concerns are taken care of.

(13904 DR. SINGH) Let's try to work together in a way that your concerns and our **concerns** are taken care of.

(13918 DR. SINGH) We try to work together and find reasonable solutions where the **concerns** of all the parties are taken care of, but there were absolutely no response.

(13928 DR. SINGH) I'm talking about the present situation of you drilling a well and exhausting it in a reasonable period of time in order that the **concerns** of the citizen landowners and everybody else is taken care of.

(13980 DR. SINGH) They could look at the overall situation where the **concerns** of the citizen, of the citizens are also taken into account.

(14625 DR. SINGH) The **concern** we have is, the future capability and the control that they have.

(14655 DR. SINGH) All the **concerns** that were expressed here by Dr. Gotaas and his neighbours, and one time by River Heights people, because I attended their meetings, meeting as well.

(14659 DR. SINGH) Those [all the concerns that were expressed here by Dr. Gotaas and his neighbours, and one time by River Heights people] are the **concerns** that I have in mind.

(14660 DR. SINGH) I do not have a **concern** for myself or from my family at the moment because we live at another site.

(14662 DR. SINGH) Of course my **concern** is that I'm not able to build a home there which I could because there is -- I mean, even if -- I mean, if the land does not develop for years, then I could have at least built a house there and enjoy my investment in the land.

(14682 DR. SINGH) I also heard what other residents had the **concerns** and they being more affected than myself, I am concerned about it.

(17080 MR. ENGELKING) One of the things that **concerns** us, and my client, is simply that this is sour gas.

(17155 MR. ENGELKING) If you gentlemen are not prepared to take into account the **concerns** of those stakeholders and to say, yes, we know Petrofund is going to comply with all the regulations but we need to go further, who is going to do it?

(17180 MR. ENGELKING) When this pool is exhausted, this land and these residents will be able to carry on their lives without the imposition of any of these facilities, without the risk or fear of gas leaks, without any **concern** whatsoever about what used to be there.

Segment table

(339 DR. SINGH P-440-565) The externalities have made this operation of Petrofund so profitable. So the technology combined with the international price of oil has prolonged the life of this well; and with that, my earlier estimate in the purchase of land and to develop it has been, has been thrown out the window.

Property or theme: externalities or uncontrollable events are a source of concern

(863 DR. SINGH P-440-565) My life and health and my family's health and life is much more important than anything else. I'm, I don't have very objective facts to say what is going to happen so -- and I don't want to take any risks. So for that reason I don't have any firm plan.

Property or theme: there are health concerns, project location is a source of concern

(2466 MR. ENGELKING P-115-217) One of the reasons that I suspect this hearing is rather topical has to do with the Acclaim Energy situation.

Property or theme: the project is comparable to another project and incident

(4128 DR. SINGH P-317-439) Those goats, the way we saw it, were dying because of the location of the well and whatever pollution was being created.

Property or theme: the project is comparable to alternative economic activities that are less risky

(4143 DR. SINGH P-317-439) Because of the pumps and that, that they have at the moment and because of the exploration for oil by drilling more wells, I don't think that anybody would like to

buy house very close to oil pumps.

Property or theme: there are economic concerns related to land development plans

(4157 DR. SINGH P-317-439) Either I wait and try to develop it at the right time; but if this situation continues, I don't know when that time will come.

Property or theme: the duration of the operations is a source of concern

(4229 DR. SINGH P-317-439) I was a professor at U of A, and I taught economics for about , years. Then I retired. And one of the courses that I taught was in this area. And I did fair amount of research in this area as well.

Property or theme: professional knowledge and experience is a reference to understand concerns

(4315 DR. SINGH P-317-439) What Petrofund is trying to do is trying to abuse this particular right for their own benefit and to the detriment, and to the detriment of the interest of the society at large.

Property or theme: the company's approach is self-oriented

(4416 DR. SINGH P-317-439) They always present the situation whereby these funds are very safe, they are financially very sound; but when the time comes, when the time comes those funds are not there. So I have grave concern about the problem that I might face when the oil is exhausted and they want to leave the place and clean-up has to take place.

Property or theme: the uncertainty in measures is a source of concerns

Table 5.6

Alberta Energy and Utilities Board's Discussion on Concerns

Keyword table

(130 MR. McGEE) The other point I want to raise this morning is the board and staff have been on the site and have been in the area and reviewed and looked at the area of **concern**.

(384 DECISION) The Board acknowledges the **concerns** expressed by WELG members with respect to the issue of egress through the expanded EPZ.

(390 DECISION) The Board also notes that the City has not expressed any **concerns** about the ability of 17th Avenue residents to safely exit the area in the event of an emergency.

(542 DECISION) The Board appreciates the interveners' **concerns** with regard to maintaining a separate, segregated trust to manage Petrofund's asset retirement fund.

(691 DECISION) The interveners' **concerns** go beyond that proposed well and include operational matters in the entire Armisic Field.

(701 DECISION) The Board recognizes that Petrofund and its predecessor had some past operational incidents in the Armisic Field and that Petrofund has attempted to resolve some of the interveners' **concerns** as they pertain to those incidents.

(707 DECISION) The Board is of the opinion that pre-existing operational **concerns** in the Armisic Field are not an impediment to the future development and drilling of the proposed 7-4 well and that mitigative measures exist to minimize further impacts.

(722 DECISION) The Board regards Petrofund and the Armisic Field area residents as neighbours that need to work together on **concerns** regarding the proposed well and the existing facilities in the area throughout their operating life.

(724 DECISION) The Board believes the working group program suggested by Petrofund should help to deal with those **concerns** if both sides can communicate openly.

(6143 MR. PERKINS) Can you summarize briefly the esthetic **concerns** that have been raised with Petrofund from the landowners and also your intentions, if you have any, to address those.

(6991 MR. PERKINS) So what then, Mr. Tidmarsh, would Petrofund's response be if, in the course of that, a resident in the awareness zone, not within the EPZ, expresses a **concern** about the proposed well?

(10123 MR. MCGEE) You are confident that you can handle the situations or any of the situations that will arise that might **concern** the residents of this area?

(12441 MR. PERKINS) Is that what these **concerns** relate to, or do they relate to all Petrofund operations, or the 13 of 33 site?

(12638 MR. PERKINS) Mr. Sulyma, what -- you mentioned egress issues, the particular, one of the **concerns** that you have -- access and egress.

(12650 MR. PERKINS) You mentioned that access issues to and from your residence was a **concern** that you have.

(12653 MR. PERKINS) What arrangements would you like to see being made for you within the ERP that would address your **concerns**?

(13065 MR. BOYLER) It really has to deal with the generalized **concerns** that you have raised about the operations that Petrofund has conducted.

(13073 MR. BOYLER) As far as the terms and conditions that have been outlined and proposed, they would satisfy your **concerns** with respect to the application that's before us now?

(14460 MR. PERKINS) This new 7 of 4 application indicates a revival of activity that might prolong the activity in that area, and that causes you **concern**.

(14645 MR. PERKINS) Just moving then finally to the last condition, which is condition (d) on page 4, a safety and monitoring plan is instituted by Petrofund in a manner which satisfies the intervenor's **concerns**.

(14678 MR. PERKINS) Do the measures in there address some of your **concerns** that you have around safety and monitoring?

Segment table

(925 DECISION) The Board acknowledges the concerns expressed by WELG members with respect to the issue of egress through the expanded EPZ. The Board notes that Petrofund has committed to providing notification and evacuation assistance to the 17th Avenue residents. **Property or theme:** health concerns are acknowledged, the issue of location is recognized as a source of concern, measures or plans to address concerns are emphasized

(1017 MR. SHARP P-218-316) You are looking after the drilling of the well, and I think one of your evidences was you expected that between 18 to 25 days would be in the sour zone. **Property or theme:** the duration of the operations is a source of concerns

(1056 MR. MCGEE P-440-565): You distributed the loss of those goats to the industry development. **Property or theme:** economic concerns are recognized

(1319 DECISION) Dr. Singh acknowledged that he took a risk when he purchased the lands and

that he had since received offers to purchase his lands.

Property or theme: individual risk taking is a source of concern

(1737 DECISION) The Board recognizes that Petrofund and its predecessor had some past operational incidents in the Armisic Field and that Petrofund has attempted to resolve some of the interveners' concerns as they pertain to those incidents.

Property or theme: past incidents are not a source of concern, measures and plans are emphasized

(1763 DECISION) The Board has taken note of Petrofund's commitments to the Armisic Field area landowners and residents to properly abandon all facilities and reclaim the Armisic Field sites in accordance with all government (EUB and Alberta Environment) standards.

Property or theme: environmental concerns and measures are acknowledged

C: Tables for Measures or Plans

Table 6.1

Petrofund Corporation's Discussion on Plans

Keyword table

(345 MR.MILLER) He will address questions related to compliance with the revised Emergency Response **Plan**.

(379 MR.MILLER) Mr. Chairman, as Exhibit No. 3 I would propose filing the revised Emergency Response **Plan** of Petrofund for this particular well.

(410 MR.MILLER) I would propose marking a letter from Burnet Duckworth & Palmer to the board dated April 5th, 2004 updating the board regarding various matters, including consultation, and which also included 10 attachments, one of which was a letter also to Ms. Pane regarding the amended emergency, or the revised Emergency Response **Plan**.

(1292 MR. MORRISON) We will have a site specific Emergency Response **Plan**.

(1346 MR.TIDMARSH) On slide 30 we have a map of the emergency planning zone from the revised **plan**.

(1366 MR.TIDMARSH) The continued inclusion of the 17th Avenue residents was reviewed during the process of revising the Emergency Response **Plan**.

(1382 MR.TIDMARSH) In the revised **plan**, the residents of 1717th Avenue will be notified at a Level emergency.

(1392 MR.MILLER) Would you generally describe the procedures and processes of the Emergency Response **Plan**?

(1397 MR.TIDMARSH) On slide we have an outline of our corporate organizational **plan**.

(1399 MR.TIDMARSH) I would just like to provide an overview of the structure of the **plan**.

(1401 MR.TIDMARSH) We have three parts to the **plan**.

(1405 MR.TIDMARSH) The overall structure for initiating and maintaining an appropriate response, including the involvement of the city and the Capital Health Authority, are included in the first part of the **plan**.

(1412 MR.TIDMARSH) However, there are four points in the **plan** I would like to emphasize.

(1442 MR.TIDMARSH) Petrofund personnel have been assigned responsibility in the response organization outlined in the **plan**.

(1442 MR.TIDMARSH) The **plan** has been tested internally.

(1448 MR.TIDMARSH) We have also prepared a systematic process for immediately notifying government agencies, area residents and potentially transients at the three different emergency levels identified in the **plan**.

(1454 MR.TIDMARSH) The initial notification responsibilities are assigned to specific Petrofund personnel identified in the **plan**.

(1472 MR.TIDMARSH) We have representation from the Capital Health Authority and the City of Edmonton at the earliest stages of a possible emergency to help **plan** public safety actions early in the process.

(1476 MR.TIDMARSH) The implementation of the public safety measures identified in the Emergency Response **Plan**, or additional measures that Petrofund and the government agencies decide to implement, will be initiated by the offsite command post team and with the assistance of the municipal operations centre.

(1491 MR.TIDMARSH) Petrofund has developed the position of public safety advisor for our response **plan**.

(1509 MR.MILLER) Could you please generally describe the revisions made to the Emergency Response **Plan**?

(1511 MR.TIDMARSH) The emergency **plan** was revised to enhance our capability to quickly and effectively respond to a potential sour gas release at the 7 of 4 wellsite and also to reflect the learnings of the city and the Capital Health Authority from the recent Acclaim incident.

(1557 MR.TIDMARSH) In the original **plan** it was shown that the planning, the adopted planning zone in fact turned west across th Street and, upon review, that was deemed to be unnecessary.

(1567 MR.TIDMARSH) The integration of the functions of the regional emergency operations centre in the EUB's office in St. Albert, and as described in the emergency management, Alberta's Upstream Petroleum Incident Support **Plan**, was combined with the City of Edmonton's municipal emergency operations centre.

(1588 MR.TIDMARSH) The involvement of the city and the Capital Health Authority in the development of the revised **plan** was much more extensive than we have experienced in the past and something that we believe considerably improved the plan that we have.

(1590 MR.TIDMARSH) The involvement of the city and the Capital Health Authority in the development of the revised plan was much more extensive than we have experienced in the past and something that we believe considerably improved the **plan** that we have.

(1596 MR.MILLER) Could you please identify the particular measures that will be taken by Petrofund under its Emergency Response **Plan** during the phases of the drilling operation when sour gas could be released in the event of a problem?

(1601 MR.TIDMARSH) Specific measures have been identified in the **plan**.

(1626 MR.TIDMARSH) We will confirm the availability of commercial emergency services providers that we have identified in the **plan**.

(1675 MR.TIDMARSH) After our review of the **plan** and discussions with the City of Edmonton... we are confident that residents could safely leave that area in the unlikely event of a sour gas release.

(1697 MR.TIDMARSH) In the revised Emergency Response **Plan** access to 184th Street will not be restricted unless air monitoring results indicate a potential concern.

(1767 MR.VAN TETERING) The objectives of the consultation plan were... to ensure the stakeholders understood Petrofund's **plans**.

(1783 MR.VAN TETERING) We consulted with Alberta Energy, the EUB both in Calgary and St. Albert, Capital Health, the City of Edmonton, including the emergency preparedness officials to advise them of Petrofund's **plans**.

(1834 MR.VAN TETERING) We worked closely with the City of Edmonton Emergency Preparedness, Capital Health Authority, City of Edmonton fire department, et cetera, with respect to Petrofund's Emergency Response **Plan**.

(1985 MR.VAN TETERING) Our **plans** could address such issues.

(2102 MR.TIDMARSH) The objectives of these visits were to explain the revised Emergency Response **Plan**.

(2297 MR.MILLER) What are the concerns, and what are your **plans** to mitigate those?

(2305 MR.LEMERMEYER) Petrofund has made **plans** to enclose all wellheads with a small enclosure and install an H2S detector inside.

(2337 MR.LEMERMEYER) That is why [ensure our neighbors are safe and protected] we have such things as emergency response **plans**.

(2410 MR.CRONIN) Number five, develop **plans** to respond to operational emergencies.

(2585 MR.CRONIN) We would also expect to meet with emergency preparedness and Capital Health from time to time to further update, revise and test our Emergency Response **Plan**.

(3013 MR.TIDMARSH) The revised **plan** was -- the process of looking at the revised plan started about six months ago.

(3014 MR.TIDMARSH) The revised plan was -- the process of looking at the revised **plan** started about six months ago.

(3023 MR.TIDMARSH) [Consultation] with respect to the **plan**?

(3067 MR.TIDMARSH) We had proactively initiated a review of our **plan**.

(3070 MR.TIDMARSH) We needed to go back and talk to the city and to Capital Health because of revisions of our corporate Emergency Response **Plan**.

(3080 MR.TIDMARSH) Our **plan** was at that time almost a year old, we had to re-open it, look at it and decide what steps we needed to take to revise it.

(3093 MR.TIDMARSH) I don't think our original **plan** was deficient in that respect [urban areas].

(3109 MR.TIDMARSH) We have site specific **plans** in six other locations in Alberta in primarily rural environments.

(3125 MR.TIDMARSH) What we have done is taken the conventional learnings and wisdom from the experience of ourselves and the industry over the years, applied it to this situation, worked with the city and Capital Health in order to make our **plan** as good as we possibly can make it.

(3127 MR.TIDMARSH) We have to test the **plan**.

(3129 MR.TIDMARSH) We have a commitment to work with the city, Capital Health, to test our **plan** before we do any drilling.

(3134 MR.TIDMARSH) We have the essence of the correct **plan**.

(3136 MR.TIDMARSH) The board has not formally approved the **plan** yet.

(3139 MR.TIDMARSH) We believe that the essence of the **plan** as we have it is acceptable to all parties.

(3172 MR.TIDMARSH) Ultimately the **plan** that we will develop for 7 of 4 will depend on the results of the drilling program itself.

(3193 MR.TIDMARSH) We only got approval for the **plan**, as I indicated, on January 6th.

(3209 MR.TIDMARSH) There is really no material difference in the, in how we would ask residents to participate in an emergency response **plan**.

(3216 MR.TIDMARSH) The same notification steps that we have identified in our **plan** would be followed.

(3231 MR.TIDMARSH) The operations **plan** has got the essence of that material in it.

(3233 MR.TIDMARSH) All the specifics that have come out of this March 17th plan that you have in front of you now are not specifically contained in the operational **plan**.

(3235 MR.TIDMARSH) All the specifics that have come out of this March 17th plan that you have in front of you now are not specifically contained in the operational **plan**.

(3255 MR.TIDMARSH) In terms of specifically developing the Emergency Response **Plan** we did not consider "cumulative effects".

(3384 MR.TIDMARSH) He was directly responsible for the development of the **plan**.

(3548 MR.TIDMARSH) The residents on 17th Avenue declined, declined our invitation to meet with them and discuss the **plan**.

(3559 MR.TIDMARSH) We did deliver a letter to Ms. Traxler on April th or th, but we didn't have an opportunity to discuss any aspect of the **plan** with her.

(3748 MR.GIBSON) We did discuss the Emergency Response **Plan** at that time.

(3765 MR.GIBSON) If you mean, sir, did we leave the full response **plan** with them, no, we didn't leave the full response plan with them.

(3766 MR.GIBSON) If you mean, sir, did we leave the full response plan with them, no, we didn't leave the full response **plan** with them.

(3794 MR.GIBSON) You were being provided with the full **plan** by other representatives of the team.

(4092 MR.TIDMARSH) Medical problems, pardon me, or other disabilities that would, or sensitivities that would prevent ready evacuation or were identified and are included in our response **plan**.

(4113 MR.TIDMARSH) The **plan**, as we have it, will be reviewed and has to be submitted to the board again for approval.

(4617 MR.HEMSTOCK) With respect to evacuation routes or people in the neighborhood, the emergency **plan** focused on the people on the west side of the river.

(4630 MR.HEMSTOCK) We were quite interested in finding out whether or not there was a heavy recreational use and whether or not the city had any steps in place as part of their municipal **plan**.

(4665 MR.HEMSTOCK) As we progressed through and had some items on the response **plan** that we wanted to update, it was recognized that there was a need to touch base with the city emergency planning people.

(4669 MR.HEMSTOCK) There was a need to touch base with the city emergency planning people to see whether or not there was anything else that needed to be updated in the response **plan**.

(4674 MR.HEMSTOCK) The emergency planning people and the resources of Edmonton would somehow or other need to be included in the Emergency Response **Plan**.

(4723 MR.HEMSTOCK) The part that started in January was the series of review meetings that were initiated to make sure that the current **plan** that was prepared, that there was an understanding on that.

(4739 MR.HEMSTOCK) Petrofund was looking at to reflect some slight changes in their internal organization so it was consistent with the corporate **plan**, that those could be incorporated in an update.

(4778 MR.GIBSON) About the consultation around the Emergency Response **Plan**, one of my colleagues, Mr. Van Tetering, pointed out to me that there was an April 5th letter sent to the Board.

(4785 MR.GIBSON) An attachment 2 to that letter was a March 28th letter that was sent to the intervenors, with a copy of the Emergency Response **Plan**.

(5449 MR.TIDMARSH) The one that you have in front of you, yes, is the **plan** for the drilling and completions phase.

(5461 MR.TIDMARSH) There have been some clarifications through correspondence with the EUB but no changes to the **plan** per se.

(5466 MR.TIDMARSH) We have a **plan** that was approved by the EUB on January th of this year.

(5566 MR.TIDMARSH) The information was circulated at the community meeting concerning our **plan**.

(6263 MR.HEMSTOCK) The action **plan** is implemented under that one command.

(6437 MR.HEMSTOCK) We re-established the review process for the emergency **plan**.

(6448 MR.HEMSTOCK) The City of Edmonton outlined the notification process that they have implemented through their municipal **plan** so we ensured that it was consistent with that.

(6484 MR.HEMSTOCK) That's something that the City of Edmonton wouldn't typically have in their municipal **plan**.

(6495 MR.HEMSTOCK) We went back and tried to fit our particular situation into their **plan**.

(6497 MR.HEMSTOCK) They did provide us a copy of their municipal **plan**.

(6500 MR.HEMSTOCK) We worked that [municipal plan] back into our emergency **plan**.

(6518 MR.HEMSTOCK) We could present something that would say, we've run an exercise and these are the learnings, and these are the changes that we would like to see made to the emergency **plan**.

(6527 MR.HEMSTOCK) We have made the commitment to Capital Health and the EUB and the city, is that we will take this **plan** [then develop and exercise].

(6537 MR.HEMSTOCK) We will take a look at the results of the exercise and see if there is anything in the **plan** that needs updating.

(6540 MR.HEMSTOCK) We will have an exercise report prepared, and then we will make a final revision to the **plan** and use that to submit to the EUB for their final review.

(6562 MR.TIDMARSH) As far as this drilling **plan** goes, ideally we would like to have the board's input to that process before we ran the exercise.

(6566 MR.TIDMARSH) We need to do the same thing for our operations **plan**, to try and test our proposed structure notification process with that.

(6572 MR.TIDMARSH) We need to run this exercise in some form as soon as we reasonably can in order to take the learnings and put the best face we can on our **plan**.

(6581 MR.HEMSTOCK) The **plan** that's been presented here, it's had a lot of development with the City of Edmonton and Capital Health.

(6585 MR.HEMSTOCK) I am familiar with the Guide regulations, and I've seen lots of **plans** in the past.

(6588 MR.HEMSTOCK) This is an extremely cooperatively developed **plan** with the City of Edmonton and Petrofund and the others that we have talked to.

(6710 MR.HEMSTOCK) It wasn't anything that I would want in the Emergency Response **Plan** if it meant that it complicated the city's response.

(6803 MR.HEMSTOCK) With respect to the municipal **plan**, it's built very much -- well, it is built on an incident command system.

(6809 MR.HEMSTOCK) The Petrofund **plan** is not based strictly on an incident command system.

(6813 MR.HEMSTOCK) The Petrofund **plan** has been designed more around the company's organization.

(6815 MR.HEMSTOCK) The municipal **plan** has a number of different alert levels.

(6826 MR.HEMSTOCK) Part of the planning to integrate these, or provide consistent **plans**, we have included in our notification process as an example.

(6835 MR.HEMSTOCK) There has been some modification of our standard procedures to make sure that we integrate into their **plan**.

(6846 MR.HEMSTOCK) We have tried to work that into the emergency **plan** so that there is cooperation between the two organizations.

(6849 MR.HEMSTOCK) The municipal **plan** has a position identified for outside agencies to come in and provide support.

(6859 MR.HEMSTOCK) It's pretty difficult to sort of itemize all of the similarities and all of the details of the **plan**.

(6871 MR.HEMSTOCK) The procedures and scripts that we have included in the company **plan** focus primarily on the roles that are going to be filled by the company personnel.

(6905 MR.HEMSTOCK) There is going to be a continual discussion back and forth about, not only are these enough or are there other special circumstances that are coming up that might require new or slight modifications to the existing **plan**.

(6930 MR.TIDMARSH) We view this **plan** very much as a work in progress.

(7007 MR.TIDMARSH) They are not directly part of the, of our **plan** now.

(7084 MR.TIDMARSH) We could include it [notification text]. Our -- not necessarily included in the **plan**.

(7088 MR.TIDMARSH) The initial notification, the documentation that we use to collect the information would not, we would not necessarily include in the **plan**; but some information, to indicate that there is a potential problem and the steps they should take would certainly be included.

(7264 MR.TIDMARSH) I'm not specifically aware of an evacuation **plan**.

(7267 MR.TIDMARSH) What we committed to do in our meetings with the Kiewit people was to sit down, discuss the, our **plan**.

(7348 MR.TIDMARSH) The public involvement piece of that **plan** was limited.

(7353 MR.TIDMARSH) The **plan** that we have now has been modified.

(7356 MR.TIDMARSH) It was mentioned to area residents, the information was included in the **plan**.

(7358 MR.TIDMARSH) I specifically was not involved in any direct consultation with the **plan**.

(7416 MR.TIDMARSH) There may not always be somebody that's directly familiar with the area and the **plan** that may be asked to participate.

(8270 MR.GIBSON) Our company has been retained by Petrofund to assist them on the emergency **plans** for production as well.

(8306 MR.TIDMARSH) We take a very strong role in ensuring that the **plan** reflects, or in this case reflects what Petrofund believes to be the best approach.

(8312 MR.TIDMARSH) My fingers are all over this **plan** as much as his own are.

(8328 MR.TIDMARSH) I accompanied Mr. Gibson on the visits we paid in late March and early April, simply to have people recognize that this is Petrofund's **plans**.

(15648 MR.MILLER) Mr. Hemstock has explained at length and detail, because it was necessary, as to the extensive considerations that have been put into this particular **plan**.

(15669 MR.MILLER) It is important to take into account his sort of characterization of this **plan** relative to the big picture of what Edmonton emergency responders are faced in day in and day out.

(15698 MR.MILLER) The release rate that is incorporated in this application for the purposes of Emergency Response **Plan**, or the EPZ determination is, in our view, very conservative.

Segment table

(78 MR. TIDMARSH P-218-316) Our belief is that these people are not directly and adversely affected as a result of the proposal directly.

Property or theme: measures are based on the concept of direct and adverse effect

(793 MR. TIDMARSH P-115-217) The plan, as we have it, will be reviewed and has to be submitted to the board again for approval.

Property or theme: the development of measures is an ongoing process

(1557 MR. MORRISON P-1-52) To minimize the impacts of our operation on the community, measures of, are such as controlling truck traffic.

Property or theme: there are preventive measures

(1685 MR. MORRISON P-1-52) Horizontal release rates were calculated at .09 meters cubed per second. We used the horizontal release rates to determine the 500 meter EPZ.

Property or theme: measures are based on calculated release rate of sour gas and emergency planning zone

(1835 MR. GIBSON P-218-316) We are supporting Petrofund and have, I would say, like a strategic partnership with the company.

Property or theme: the company cooperates with other consulting firms

(1883 MR. TIDMARSH P-218-316) One of the challenges we always have is that we need specialists such as Gecko to do the detailed work for us.

Property or theme: expert knowledge is important to develop measures

(3517 MR. LEMERMAYER P-115-217) We have addressed, significantly addressed, we think, both those issues with our battery and with the vapor recovery system there, as well as reducing sound levels at our pumping units.

Property or theme: there are corrective measures

(3625 MR. HEMSTOCK P-115-217) The City of Edmonton's emergency preparedness representative, whether it's from emergency preparedness office or from the fire department, would be there. Capital Health could be there. Energy Utilities Board could be there. Alberta

Environment could be there.

Property or theme: government agencies are effectively involved in the implementation of measures

(3934 MR. HEMSTOCK P-115-217) It was quite a long conversation where they provided a description of how they would typically respond to an emergency situation and how that response would be managed.

Property or theme: measures are developed through consultations with government agencies

(4062 MR. TIDMARSH P-115-217) We know we need to run this exercise in some form as soon as we reasonably can in order to take the learnings and put the best face we can on our plan.

Property or theme: the exercise of emergency plans is important for further learning

(4498 MR. TIDMARSH P-115-217) We have consistent communications to the public, to the media, to other government agencies through this process.

Property or theme: communication is a major process in the organization of emergency plans

Table 6.2

City of Edmonton's Discussion on Plans

Keyword table

(8727 MS. AINSLEY) Bob Black is the expert in the Emergency Response **Plan**.

(8832 MR. BLACK) We do these fairly routinely, with all the petrochemical companies, reviewing their emergency response **plans**.

(8893 MR. BLACK) We get copies of all updated emergency response **plans** from all operators on a regular basis.

(8908 MR. BLACK) We have been working with them for about, as I say, until -- from September/October of last year, working with them on the **plan** for this particular project.

(8910 MR. BLACK) We had their general emergency **plan**.

(9007 MR. BLACK) The planning process that we have been through to develop this **plan** with Petrofund is probably one of the most rigorous processes.

(9011 MR. BLACK) We started off with them presenting us with their **plan**, which we then examined and, carefully, and compared it to our municipal emergency plan.

(9013 MR. BLACK) We started off with them presenting us with their plan, which we then examined and, carefully, and compared it to our municipal emergency **plan**.

(9014 MR. BLACK) With a lot of dialogue, we adjusted their **plan** as far as is possible to be compatible with the municipal emergency plan.

(9015 MR. BLACK) With a lot of dialogue, we adjusted their plan as far as is possible to be compatible with the municipal emergency **plan**.

(9021 MR. BLACK) When we actually go through the exercise to validate this **plan**, we will have a chance to practice how we will do.

(9036 MR. BLACK) No **plan** is finished until it's been validated, and we will exercise it with Petrofund.

(9347 MS. AINSLEY) My attachment 2 is a letter of March th Re the Emergency Response **Plan**.

(9628 MS. AINSLEY) The emergency preparedness department continues to work with Petrofund and with the residents to implement the details of the Emergency Response **Plan**.

(9670 MR. BLACK) I would be uncomfortable if the drilling happened before we had a chance to exercise the **plan**.

(9691 MR. BLACK) The City of Edmonton's municipal emergency **plan** is what is known as an all-hazards plan.

(9692 MR. BLACK) The City of Edmonton's municipal emergency plan is what is known as an all-hazards **plan**.

(9700 MR. BLACK) That's [command and control, communications and, within the city, specific responsibilities for each department] the focus of our municipal emergency **plan**.

(9700 MR. BLACK) Attached to our **plan** we have supporting plans and contingency plans which go into a little more detail.

(9701 MR. BLACK) Attached to our plan we have supporting **plans** and contingency plans which go into a little more detail.

(9701 MR. BLACK) Attached to our plan we have supporting plans and contingency **plans** which go into a little more detail.

(9703 MR. BLACK) It is an all-hazards **plan**.

(9704 MR. BLACK) It is not a petrochemical event **plan**.

(9705 MR. BLACK) It is not a gas well **plan**.

(9705 MR. BLACK) It is an all-hazards **plan**.

(9707 MR. BLACK) When we sat down with Petrofund and examined their **plan**, from our perspective, we would have classed what they were working on as a contingency plan.

(9710 MR. BLACK) When we sat down with Petrofund and examined their plan, from our perspective, we would have classed what they were working on as a contingency **plan**.

(9714 MR. BLACK) What we wanted to make sure was that the way their contingency **plan** was laid out matched how we would deal with any particular disaster or emergency within the city.

(9719 MR. BLACK) If you look at the draft emergency, emergency **plan**, you will see in some cases where they have had to do, use both terms, our term and then the other term in brackets.

(9744 MR. BLACK) They have been able to bring their **plan** along and fit quite nicely in what we have.

(9839 MR. BLACK) Is that [commitment] reflected in our municipal emergency **plan**?

(9847 MR. BLACK) I would have to go through the **plan** and sort of review it a bit more.

(9853 MR. BLACK) The **plan** is far more general than that.

Segment table

(2621 MR. BLACK P-218-316) We review them fairly regularly and, you know, I would say we probably had a half dozen come through the office last year.

Property or theme: government involvement in developing measures is a routine procedure

(2716 MR. BLACK P-218-316) The emergency planning zone doesn't cross into any of the evacuation routes.

Property or theme: measures are based on a calculated emergency zone

(2783 MR. BLACK P-218-316) With a lot of dialogue, we adjusted their plan as far as is possible to be compatible with the municipal emergency plan.

Property or theme: measures are developed through consultations with the company

(2792 MR. BLACK P-218-316) When we actually go through the exercise to validate this plan, we will have a chance to practice how we will do.

Property or theme: plans should be subject to exercise for learning and validation

(3641 MS. AINSLEY P-218-316) The emergency preparedness department continues to work with Petrofund and with the residents to implement the details of the Emergency Response Plan.

Property or theme: measures are developed through consultations with all stakeholders, the development process is still ongoing, emergency plan is both preventive and corrective

Table 6.3

West Edmonton Landowners Group's Discussion on Plans

Keyword table

(3044 MR. BODNAR) Is it fair to say that the involvement of the city and the development of the present **plan**, if you will, was spawned primarily by the concerns the landowners were raising?

(3131 MR. BODNAR) So you believe you have the correct **plan** now?

(3142 MR. BODNAR) That **plan**, Mr. Tidmarsh, as I understand, is a drilling and completions plan?

(3143 MR. BODNAR) That plan, Mr. Tidmarsh, as I understand, is a drilling and completions **plan**?

(3148 MR. BODNAR) Does Petrofund have an operations Emergency Response **Plan**?

(3158 MR. BODNAR) Do you have that **plan** [operations emergency response plan] here today?

(3179 MR. BODNAR) So what would, what might you find in 7 of 4 that might change the drilling plan -- the operations **plan**?

(3187 MR. BODNAR) Have you shared that operations **plan** with the residents in the Armisic area?

(3221 MR. BODNAR) But is all of this in this operations **plan**, in the January plan?

(3223 MR. BODNAR) But is all of this in this operations plan, in the January **plan**?

(3229 MR. BODNAR) Is all of these commitments that you are talking about, drilling and completion, is that in the operations Emergency Response **Plan**?

(3239 MR. BODNAR) So the board will have to review that **plan** again?

(3244 MR. BODNAR) In development of either the drilling completion **plans** or the operations plan, did you take into account the other circumstances or the peculiar circumstances of this area?

(3244 MR. BODNAR) In development of either the drilling completion plans or the operations **plan**, did you take into account the other circumstances or the peculiar circumstances of this area?

(3302 MR. BODNAR) In developing your Emergency Response **Plan** have you considered other factors that affect that access?

(3542 MR. BODNAR) One of the directions of the city was to consult with the West Edmonton Landowners Group relative to this Emergency Response **Plan**?

(3732 MR. BODNAR) Did you present that new Emergency Response **Plan** and consult with the people along 17th Avenue, the Gotaases and the Novaks?

(3762 MR. BODNAR) Did you present that **plan** to the Gotaases?

(3776 MR. BODNAR) Have you consulted with Mr. Sulyma on the **plan**?

(3780 MR. BODNAR) With regard to the new **plan**.

(3790 MR. BODNAR) Did you contact me with regard to the new **plan**?

(3796 MR. BODNAR) Did you speak to the Sabulkas about the **plan**?

(4095 MR. BODNAR) In the case of Mr. Sulyma, have you developed a **plan** specific to his circumstances?

(4108 MR. BODNAR) Have you developed a **plan** for them (Mr. And Mr. Novak)?

(4591 MR. BODNAR) In determining your Emergency Response **Plan**, what considerations, or how do you assess the unique situations here?

(4609 MR. BODNAR) How are those things [unique situations] considered, or how are they factored in determining your Emergency Response **Plan**?

(8882 MR. BODNAR) And you have agreements or emergency response **plans** with those people [oil and gas operators]?

(8946 MR. BODNAR) What is your **plan** then, or how would you see, if for some reason that access was blocked, how would you see people being evacuated from that area?

(8997 MR. BODNAR) We heard a lot of discussion from Mr. Hemstock about how this Emergency Response **Plan** for drilling and completions would kick in.

(9003 MR. BODNAR) Is the city satisfied at this point that the communications and change of authority and change of command and steps and priorities are established, that that **plan** would work?

(9033 MR. BODNAR) What other work has to be done then to bring this **plan** to a level that's fully operational?

(9057 MR. BODNAR) It is referenced in the **plan** and the discussions that, in the event that 23rd Avenue is blocked, some sort of city all-terrain vehicle is going to be employed.

(11110 MR. BODNAR) Petrofund has touted a number of Emergency response **plans** in relation to the 7 of 4 surface location.

(11113 MR. BODNAR) Have you ever received from them or been consulted in any way regarding any Emergency Response **Plan**, whether on 7 of 4 or 13 of 33?

(11117 DR. GOTAAS) We have never been consulted about any Emergency Response **Plan**.

(11718 MR. SULYMA) The whole **plan** hinges on somebody saying there's a leak.

(11731 MR. BODNAR) Have you ever been consulted or contacted by Petrofund with regard to developing an Emergency Response **Plan**?

(11790 MR. SULYMA) We still have concerns over the operator, whether or not they are able to effectively carry out an Emergency Response **Plan**.

(11795 MR. SULYMA) The incident in December -- December would have been an excellent way for them to run through their Emergency Response **Plan**.

(12239 DR. GOTAAS) The Emergency Response **Plan** for the drilling operation, within that document we are within the EPZ.

(12405 DR. GOTAAS) We're concerned about having an effective Emergency Response **Plan**.

(12502 DR. GOTAAS) Well, a consultation would be, they would first of all tell me that the purpose of the meeting was to develop an Emergency Response **Plan**.

(12514 DR. GOTAAS) What are your concerns about an Emergency Response **Plan**, and then I would be able to address it.

(12577 DR. GOTAAS) There is some discussion in this **plan** about why 17th Avenue is included, why the EPZ, or why the area of the Emergency Response Plan is irregular in form.

(12579 DR. GOTAAS) There is some discussion in this plan about why 17th Avenue is included, why the EPZ, or why the area of the Emergency Response **Plan** is irregular in.

(12816 DR. GOTAAS) There has been no Emergency Response **Plan** information made to us.

(16338 MR. BODNAR) He thought Mr. Black did a commendable job of validating this Emergency Response **Plan** and what we heard about yesterday.

(16453 MR. BODNAR) I don't know who's going to handle this Emergency Response **Plan**.

(16626 MR. BODNAR) There is some kind of an ongoing operational Emergency Response **Plan**, but it has never been communicated to those residents.

(16655 MR. BODNAR) None of those issues have been addressed in this Emergency Response **Plan**.

(16659 MR. BODNAR) There is no Emergency Response **Plan** at this stage.

(16744 MR. BODNAR) If the incident at 13 of 33 is any indication of the effectiveness of this operator's Emergency Response **Plan**, we're in trouble.

(16806 MR. BODNAR) One of the things in those recommendations is, that the operator is encouraged to apply for all wells together, in a project together if they are going to do something so the proper **plans** can be in place.

(16862 MR. BODNAR) We have to have a proper Emergency Response **Plan**.

(16862 MR. BODNAR) That **plan** should be not only for drilling and completion, but that plan should also be for operations.

(16864 MR. BODNAR) That **plan** should be not only for drilling and completion, but that plan should also be for operations.

Segment table

(1083 DR. GOTAAS P-317-439) Nothing like the yellow binder in front of you related to this drilling operation ERP. We have never been consulted. We were not consulted about that document.

Property or theme: measures should be developed through consultations

(1779 MR. SULYMA P-317-439) I'm not sure what kind of vehicle the city would be utilizing to try and get us through the field to the north during the winter months or during a heavy rain.

Property or theme: the City is a major responder but its involvement is ineffective

(1809 MR. SULYMA P-317-439) Petrofund have not taken any steps to be able to identify when they have a problem.

Property or theme: the residents' experience with the company is a reference to evaluate measures and plans

(1980 MR. BODNAR P-53-114) Does Petrofund have any other fields where there are urban situations and H2S may be a problem?

Property or theme: the company's inexperience in urban areas is a reference to evaluate plans

(3118 DR. GOTAAS P-317-439) I think that early detection of a problem so there is not a health hazard is something we have talked a lot about.

Property or theme: there should be preventive measures

(3133 DR. GOTAAS P-317-439) Maybe it's an esthetic concern. We talked about if they were to put additional facilities on, into the area. Could they use submersible technology?

Property or theme: there should be corrective measures

Table 6.4

Dr. S. P. Singh's Discussion on Plans

Keyword table

(5444 MR. ENGELKING) The emergency **plan** that we have seen so far, that deals with the drilling phase.

(5464 MR. ENGELKING) I take it we don't have an Emergency Response **Plan** for the production phase?

(5535 MR. ENGELKING) What's the **plan** for reclamation?

(5558 MR. ENGELKING) And is this **plan** reduced to writing anywhere?

(5560 MR. ENGELKING) Have you made a commitment to the residents that you will reduce this **plan** to writing and provide it to them?

(5577 MR. ENGELKING) Can you put such a - can you prepare such a **plan** and supply it to the people that live in the area?

(17026 MR. ENGELKING) What they have to do is to make sure that their drilling protocol and Emergency Response **Plan** works.

(17039 MR. ENGELKING) We at the city don't want this drilling to happen unless and until we have had the opportunity to test this Emergency Response **Plan**.

(17052 MR. ENGELKING) Some attention should be paid to giving the opportunity for the test of the Emergency Response **Plan** to see if it works.

(17055 MR. ENGELKING) I asked Petrofund whether there was an Emergency Response **Plan** for the production phase.

(17060 MR. ENGELKING) Because of the long-term life of this, potentially long-term life of this facility, the Emergency Response **Plan** is something that would be of fairly considerable importance to my client.

(17070 MR. ENGELKING) If I was the operator, trying to seek the cooperation of my client and having this process go smoothly, they would say, oh, by the way, here is our Emergency Response **Plan** for the production process.

(17077 MR. ENGELKING) Petrofund says in response to my question, we have a **plan** and a protocol for the maintenance of our pipeline and our facility that's out there.

(17107 MR. ENGELKING) We asked for a **plan** into which we had some input for the reclamation and abandonment of this facility.

(17119 MR. ENGELKING) We have to have a reclamation, an abandonment **plan** into which we have had some input.

Segment table

(2415 MR. ENGELKING P-115-217) Do I take it you calculate the emergency protection zone on the basis of your estimates as to how, if there was a leak of gas having 11,000 parts per million?
Property or theme: measures are based on a calculated release rate of sour gas

(3623 MR. ENGELKING P-440-565) We at the city don't want this drilling to happen unless and until we have had the opportunity to test this Emergency Response Plan; and so that's one of the things that has to happen in our submission.
Property or theme: measures should be tested before the project proceeds, the City is part of the development and implementation of measures

(3723 MR. ENGELKING P-440-565) We have to have a reclamation, an abandonment plan into which we have had some input.
Property or theme: there should be corrective measures, the landowner should be able to contribute to measures

(3789 MR. ENGELKING P-440-565) So forgive me if them telling us that they're rich now doesn't give me much comfort.
Property or theme: measures should be available in future as well at present, there should be preventive measures

(3895 MR. ENGELKING P-440-565) I look at what Mr. Strong had to say and I give him some lead, I give him a break. Give him the benefit of the doubt. Give him 10 years.

Property or theme: measures can be based on approximate rather than precise calculations

Table 6.5

Alberta Energy and Utilities Board's Discussion on Plans

Keyword table

(348 DECISION) The Board expects that the final updates and revisions to the **plan** will accurately reflect the procedures and site-specific information required by responders in order to implement an effective response in the event of a release of sour gas.

(365 DECISION) The Board requires that the applicant consult with these local agencies during the initial stages of developing its ERP in order to confirm the availability of resources needed to ensure the effectiveness of the **plan** and the various parties' acceptance of their respective roles and responsibilities.

(712 DECISION) The Board has also taken note of Petrofund's commitment to put a written **plan** into place to inform area landowners of the steps it intends to take to properly abandon the wells in the area, remove all surface facilities, and remove all pipelines upon Petrofund's or its successor's exit from the Armisic Field.

(726 DECISION) The Board suggests that the parties work with the City to develop a **plan** on how to implement the recommendations resulting from the 1983 Board inquiry into oil and gas development in west Edmonton.

(6167 MR. PERKINS) Have you got any **plans** to build berms, plant trees, disguise, for a better word, oil field facilities as some other structure, whether give it the appearance of a residence or a barn or something like that?

(6292 MR. PERKINS) So the unified action **plan**, is that the product of them putting their heads together and deciding how to tackle the incident?

(6423 MR. PERKINS) The revised ERP indicates that it is compatible with the City of Edmonton's municipal emergency **plan** and in fact is to be used in conjunction with that plan.

(6424 MR. PERKINS) The revised ERP indicates that it is compatible with the City of Edmonton's municipal emergency plan and in fact is to be used in conjunction with that **plan**.

(6428 MR. PERKINS) Can you tell me the steps that Petrofund took in developing its ERP to ensure that it was compatible with the municipal emergency **plan**?

(6781 MR. PERKINS) Could you please describe the differences between the city's municipal emergency **plan** and Petrofund's ERP.

(6866 MR. PERKINS) When there is city personnel responding to an incident, will they follow the procedures and scripts that are outlined in the Petrofund ERP, or are they going to be following the city's **plan**.

(7261 MR. PERKINS) Do you know whether the plant has its own evacuation **plan**?

(8261 MR. McGEE) When I look at the Emergency Response **Plan**, I see that you are involved and Gecko is involved and I think Tristar is involved.

(9659 MR. PERKINS) I just wanted to go back to the response you gave Mr. Engelking concerning the test of the integration of the Petrofund Emergency Response **Plan** and the city's municipal emergency plan.

(9660 MR. PERKINS) I just wanted to go back to the response you gave Mr. Engelking concerning the test of the integration of the Petrofund Emergency Response Plan and the city's municipal emergency **plan**.

(9674 MR. PERKINS) Do you have any understanding with Petrofund on that issue, that is, whether the well would be drilled before the **plan** or, sorry, the test takes place?

(9682 MR. PERKINS) Petrofund's ERP indicates that it is compatible with the City of Edmonton's municipal emergency **plan**.

(9686 MR. PERKINS) Can you describe for me, in your view, how the city's **plan** and Petrofund's plan will work together from an integration point?

(9687 MR. PERKINS) Can you describe for me, in your view, how the city's plan and Petrofund's **plan** will work together from an integration point?

(9830 MR. PERKINS) Does this commitment integrate into the policies and procedures of the city's municipal emergency **plan**?

(9842 MR. PERKINS) Does it [commitment] come out of that **plan**?

(10139 MR. McGEE) We really appreciate the time that you have taken to come at least speak to the **plan**.

(13033 MR.SHARP) In response to a question from Mr. Perkins about what you would like to see from the Emergency Response **Plan**, you said you would like to have an access to 17th Avenue to the west.

(14502 MR. PERKINS) And with respect to condition (b) which is a defined abandonment and reclamation **plan** into which the intervenor has had some input is implemented.

(14567 MR. PERKINS) And you touched on this about the segregated fund be maintained by Petrofund in order to comply with the abandonment and reclamation **plan**.

(14643 MR. PERKINS) Just moving then finally to the last condition, which is condition (d) on page 4, a safety and monitoring **plan** is instituted by Petrofund in a manner which satisfies the intervenor's concerns.

(14648 MR. PERKINS) What you would expect to see or want to see in that **plan** [safety and monitoring plan]?

Segment table

(824 DECISION) The submitted ERP is considered to be a work in progress, with final revisions and updates to be submitted to the EUB for final review.

Property or theme: measures are still evolving

(849 DECISION) It [ERP] must address many issues, including some not normally faced by an applicant, such as the close proximity to a major urban centre. The Board recognizes that communication and close cooperation between Petrofund and the City and Capital Health are essential to the provision of effective public protection measures for the area.

Property or theme: urban location should be taken into account in developing measures, consultations with and involvement of government agencies are important in developing and implementing measures

(915 DECISION) An exercise of the ERP must take place in order to validate the procedures

described in the ERP and the ability of key responders to implement their respective roles.

Property or theme: measures should be subject to exercise for further learning and validation

(1713 MR. BOYLER P-218-316) The 500 meter planning zone right now is based on the highest H2S concentration in the pool, I understand, as well as the highest flow rate for many wells developed in the pool?

Property or theme: measures are based on a calculated zone and rate of sour gas concentration

(1805 MR. MCGEE P-218-316) When I look at the Emergency Response Plan, I see that you are involved and Gecko is involved and I think Tristar is involved.

Property or theme: measures are developed in cooperation with other consulting firms

(1950 DECISION) Petrofund commits to enclosing all existing and future wellheads in the Armisie Field and to install automated H2S detectors at any and each existing and future wellhead in the Armisie Field.

Property or theme: there are preventive measures

(1972 DECISION) Petrofund commits to installing a submersible pump at the proposed 7-4 well site and to discuss landscaping at the well site with area residents.

Property or theme: there are corrective measures

D: Tables for Consultations

Table 7.1

Petrofund Corporation's Discussion on Consultations

Keyword table

(318 MR.MILLER) He will address questions related to the public **consultation** efforts undertaken by Gecko on behalf of Petrofund.

(406 MR.MILLER) I would propose marking a letter from Burnet Duckworth & Palmer to the board dated April 5th, 2004 updating the board regarding various matters, including **consultation**.

(668 MR.MILLER) There's been quite a bit that's happened since the time that Petrofund started its initial **consultation** for this project and so on.

(1714 MR.MILLER) Can you explain how Petrofund went about designing its **consultation** plan for this well license process?

(1723 MR.VAN TETERING) Petrofund established a multi-disciplinary team, which included senior management, production and operations, environment, health and safety, geology, drilling and completions, surface land through Land Solutions Incorporated, emergency planning and public **consultation** through Gecko Management Consultants.

(1725 MR.VAN TETERING) The public **consultation** for the 7 of 4 well was an evolving process and the plan, a living document.

(1729 MR.VAN TETERING) As we learn more about the area and potential community concerns, we changed the **consultation** area, generally expanding it.

(1734 MR.VAN TETERING) Prior to commencing public **consultation** we calculated the H2S release rate for the proposed well.

(1741 MR.VAN TETERING) This [H2S release rate] helped us determine the starting point for our public **consultation** program.

(1757 MR.VAN TETERING) A draft public **consultation** plan was prepared to identify stakeholders and approaches.

(1761 MR.VAN TETERING) The objectives of the **consultation** plan were to collect information to ensure the Emergency Response Plan met the needs of the residents, the EUB, public stakeholders, the City of Edmonton, the Capital Health Authority and Petrofund, to ensure the stakeholders understood Petrofund's plans, to ensure that Petrofund heard the community feedback, to help Petrofund to identify potential concerns or objections, to permit Petrofund to respond to and, to the extent possible, address concerns and issues.

(1777 MR.VAN TETERING) To exceed EUB requirements for public **consultation**, as outlined in EUB guides 56 and 71.

(1784 MR.VAN TETERING) Prior to meeting with neighbours, we consulted with Alberta Energy, the EUB both in Calgary and St. Albert, Capital Health, the City of Edmonton, including the emergency preparedness officials to advise them of Petrofund's plans, course of action for the **consultation** and to seek their advice.

(1787 MR.VAN TETERING) They might have had [information] about the area and any additional information that would be important to know for an effective **consultation** plan or program.

(1790 MR.VAN TETERING) We also formalized a company-wide public **consultation** policy.

(1799 MR.MILLER) What have been the main components of Petrofund's **consultation** program?

(1801 MR.VAN TETERING) We followed the public **consultation** requirements listed in EUB Guides and , along with CAPP guidelines for public involvement.

(1804 MR.VAN TETERING) We expanded the **consultation** to include others who we thought might be interested in the project.

(1808 MR.VAN TETERING) Boundaries for the **consultation** was chosen based upon physical and visible constraints, such as from slide 34, the -- north of the North Saskatchewan River, west of the west North Saskatchewan River, south of Anthony Henday Drive, and generally west of th Street.

(1944 MR.VAN TETERING) During our initial public **consultation**, we did not consider hosting a public meeting due to the small number of people in the neighborhood and because we considered that individual meetings were more efficient.

(2197 MR.LEMERMEYER) These include proactive communication and **consultation**.

(2234 MR.LEMERMEYER) We presented an update of our **consultations** with the City of Edmonton, emergency preparedness, Capital Health, with regard to our drilling application for the 9 of 33 well from the 7 of 4 location.

(2241 MR.MILLER) Following the earlier stages of **consultation**, what did Petrofund understand to be the concerns of various stakeholders, in a general sense?

(2245 MR.LEMERMEYER) Stakeholders told us our, in our **consultation** process that there were frequent odors from the 6 ever 4 battery, unacceptably noisy pump jacks from the various pads and general concerns about emissions in the area.

(2427 MR.CRONIN) We have heard those concerns raised through our extensive public **consultation** process.

(2542 MR.CRONIN) Each facility application we decide to make would require us to conduct the same level of public **consultation**.

(2571 MR.CRONIN) Our **consultation** process will not end once this application concludes.

(2749 MR.CRONIN) There was extensive **consultation** with the board as to the, I guess the worst case scenario that we referenced earlier, that that was in fact worst case scenario.

(3016 MR.TIDMARSH) Most of the direct **consultation** with the city area residents has occurred since about the 1st of January.

(3031 MR.TIDMARSH) I'm actually going to ask Mr. Gibson to address that question because he is been directly involved with the **consultation** part of the program.

(3039 MR.GIBSON) The actual formal **consultation** didn't occur, or didn't start until January, .

(3429 MR.HEMSTOCK) It was clear through the **consultation** process that that was an issue.

(4049 MR.CRONIN) As part of our **consultation** process, I suspect that it [environmental corporate policy] has come up.

(4088 MR.TIDMARSH) We are [aware of the certain individual requirements], when we did our initial **consultations** in January, '04.

(4584 MR.GIBSON) So Petrofund has substantially enhanced the **consultation** area over what they'd normally do.

(4586 MR.GIBSON) The company, in the **consultation**, was mostly focused on residency rather than ownership; although we did as well talk to some of the close landowners.

(4661 MR.HEMSTOCK) That's why the **consultation** process with emergency preparedness started right at the very beginning, over a year ago.

(4778 MR.GIBSON) I guess, one other point Mr. Bodnar had asked earlier, about the **consultation** around the Emergency Response Plan, one of my colleagues, Mr. Van Tetering, pointed out to me that there was an April 5th letter sent to the Board.

(4786 MR.GIBSON) There was an inference before that maybe the **consultation** with people about the enhanced ERP had not been that thorough; but in fact we had the personal visits, as well as the mail-out, to the people who indicated they were intervenors.

(5695 MR.CRONIN) That [commitment] was based on our initial **consultation** with the residents and landowners.

(6149 MR.LEMERMEYER) Some of the concerns we heard in our initial **consultations** was that there had been past odors from our 6 of 4 facility, that there was sound issues with some of our pumping equipment.

(7357 MR.TIDMARSH) I believe it was mentioned to area residents, the information was included in the plan; but I specifically was not involved in any direct **consultation** with the plan.

(7363 MR.GIBSON) When we did the original **consultation** in January of 2004, a lot of residents didn't know necessarily, or didn't recall that the facilities were sour.

(7443 MR.GIBSON) At least as part of the **consultation** that we commenced in January of 2004, we believed that in the interests of meeting all of the needs of the stakeholders, that we would talk about production safety just as much as we would talk about drilling safety.

(8310 MR.TIDMARSH) We take a very strong role in ensuring that the plan reflects, or in this case reflects what Petrofund believes to be the best approach to a number of issues, whether they be public **consultation** or emergency response planning.

(15541 MR.MILLER) Petrofund and its consultant experts, or its **consultation** experts, Gecko, have done a first-rate job in developing, implementing and adjusting where necessary a comprehensive consultation program.

(15544 MR.MILLER) Petrofund and its consultant experts, or its consultation experts, Gecko, have done a first-rate job in developing, implementing and adjusting where necessary a comprehensive **consultation** program.

(15607 MR.MILLER) The evidence is on the record with respect to the **consultation** program.

(15642 MR.MILLER) Petrofund has gone the extra mile, the next extra mile, the next extra mile, and more, in implementing or in developing this revised ERP in **consultation** with the City of Edmonton, the emergency responders and Capital Health and through the board's process.

(15788 MR.MILLER) Corrective measures is an ongoing process. It's like the **consultation** process.

(15862 MR.MILLER) The company is committed to further **consultation**.

(15885 MR.MILLER) It [Petrofund] will share those results and conduct discussions and **consultation** with area residents regarding possible surface locations for any additional wells.

(15888 MR.MILLER) Such discussions and **consultations** would involve, among others, the members of WELG and the Riverside Heights Group and their authorized legal representatives.

(16069 MR.MILLER) For the same reason that the company couldn't agree with what Mr. Gibson referred to as the community leaders at the early stages of **consultation**, that the company couldn't commit to not drilling at 3 of 4.

(16221 MR.MILLER) There is a strong commitment of the company to safety, environmental protection, ongoing **consultation**.

(17870 MR.MILLER) You sit back and really judge the efforts of my client to engage in **consultation**.

(17882 MR.MILLER) It is stuff like that that does happen that makes **consultation** very difficult.

(17885 MR.MILLER) It takes two parties to engage in meaningful **consultation**.

(17895 MR.MILLER) **Consultation** can get high-centered because, if you have one pivotal issue that forms the basis for moving to the next stage of consultation.

(17898 MR.MILLER) Consultation can get high-centered because, if you have one pivotal issue that forms the basis for moving to the next stage of **consultation**.

Segment table

(176 MR. VAN TETERING P-53-114) We also expanded the number of stakeholders we

communicated with and consulted with.

Property or theme: consultations are extensive, including several stakeholders

(264 MR. GIBSON P-115-217) We asked that if the Gotaases would please call us.

Property or theme: phone calls are a means in consultations

(406 MR. GIBSON P-53-114) The community leaders wanted Petrofund to commit to never drilling from 3 of 4, which was closer to their homes than 7 of 4. Petrofund said it could not make that commitment.

Property or theme: one possible result of consultations is commitments by the company, another result is disagreement

(484 MR. VAN TETERING P-53-114) The open house provided us more and better information about the issues of concern for the area residents and provided us with the opportunity to respond to those concerns and indicate how our plans could address such issues.

Property or theme: consultations result in learning about stakeholder concerns, consultations are about stakeholders concerns and measures or plans for addressing them, consultations are an opportunity to respond to concerns

(580 MR. CRONIN P-53-114) At the close of the meeting Petrofund agreed to submit a letter to the city's executive committee confirming its commitment towards satisfying each condition.

Property or theme: consultations might result in an agreement and commitments

(699 MR. GIBSON P-218-316) We believed that in the interests of meeting all of the needs of the stakeholders, that we would talk about production safety just as much as we would talk about drilling safety.

Property or theme: consultations are inclusive, covering several topics

(1306 MR. CRONIN P-218-316) It is one of the concessions that we made, or agreements or commitments we made with the residents.

Property or theme: one result in consultations is concessions from the company

(1646 MR. GIBSON P-115-217) We had the personal visits, as well as the mail-out, to the people who indicated they were intervenors.

Property or theme: two means of consultations are personal visits and mail-outs

(1807 MR. MILLER P-440-565) Petrofund has continued, and has committed to continue to seek a reasonable resolution to real problems.

Property or theme: the company is committed to ongoing consultations

(1853 MR. MILLER P-440-565) This is an application for 7 of 4. We wanted to focus on that.

Property or theme: consultations focus on the current application

(2221 MR. MILLER P-440-565) The fact that you cannot make those commitments or come up with better estimates doesn't mean that you are withholding information. What it means is you don't have the information to be able to make those kinds of detailed assessments.

Property or theme: the company is transparent in terms of providing information

(2454 MR. MILLER P-440-565) Following this hearing, let's sit down and talk about those specific concerns.

Property or theme: concerns should be described specifically in consultations

(4703 MR. MILLER P-440-565) With problems that may be based on misperceptions, sometimes solutions cannot be achieved.

Property or theme: issues in consultations should not be based on misperceptions

Table 7.2 **City of Edmonton's Discussion on Consultations**

Segment table

(2371 MS. AINSLEY P-218-316) We have had contact with a number of stakeholders, other departments, utilities agencies, Capital Health and some of the affected residents; and in having that contact, we have attempted to draw up conditions that we think would satisfy their concerns, and we have put those in a letter to you. And I guess that Petrofund has supported our conditions.

Property or theme: stakeholder concerns are a major issue in consultations, one result of consultations is agreement

(2778 MR. BLACK P-218-316) We started off with them presenting us with their plan, which we then examined and, carefully, and compared it to our municipal emergency plan.

Property or theme: measures or plans for addressing concerns are a major issue in consultations

(3646 MS. AINSLEY P-218-316) The residents all have my number now. They can, if they are -- you know, and I have made myself available to them if they have any concerns.

Property or theme: consultations is ongoing

Table 7.3 **West Edmonton Landowners Group's Discussion on Consultations**

Keyword table

(3007 MR. BODNAR) I understand that there's been a lot of **consultation** that's taken place here.

(3020 MR. BODNAR) How long prior to that time, Mr. Tidmarsh, was there this **consultation** going on with residents in the area?

(3653 MR. BODNAR) Your **consultation** process is flawed then.

(3728 MR. BODNAR) He is trying to skirt around the **consultation** process here.

(3933 MR. BODNAR) Is it fair to say that basically all that was resolved with River Heights was a commitment to do more **consultation** on future applications?

(4551 MR. BODNAR) Regarding the matter of this **consultation** process that you have been embarking on, to what extent have title searches been done in this area?

(4566 MR. BODNAR) In the **consultation** process to determine land holding interests, it would seem to me that title searches would be in order.

(4745 MR. BODNAR) Did you do any **consultation** south of the river, on the south side?

(4750 MR. BODNAR) Has there been any **consultation** on the south side of the river?

(11149 MR. BODNAR) In the **consultation**, if you will, that has taken place, how have you found the demeanor of Petrofund to be?

(11327 DR. GOTAAS) I don't know what **consultation** was going on, but one of the key individuals on Riverside Heights Drive was led to believe that Petrofund and I had struck a deal about further development on 13 of 33.

(11426 DR. GOTAAS) This recent **consultation** effort has been misleading towards the people of Riverside Heights Drive, to the point where there was a misunderstanding great enough to fracture what had been a fairly cohesive group.

(12468 DR. GOTAAS) Riverside Heights group, according to one of these letters here, is under the impression that Petrofund is going to, in good faith, negotiate, meet and go through proper **consultation** to address some of these things I'm talking about.

(12493 DR. GOTAAS) That was not a **consultation**.

(12496 DR. GOTAAS) I don't consider that a **consultation**.

(12500 DR. GOTAAS) A **consultation** would be, they would first of all tell me that the purpose of the meeting was to develop an Emergency Response Plan.

(12511 DR. GOTAAS) But a **consultation**, to me, would say this is, this is the goal.

(12520 DR. GOTAAS) I do not consider that a **consultation**.

(12878 DR. GOTAAS) But what would represent -- what would provide us with an opportunity for adequate **consultation** would be -- can you repeat the question here?

(12899 DR. GOTAAS) I haven't been part of that **consultation**.

(15314 MRS. GOTAAS) A couple of weeks ago we received a letter from Petrofund's counsel in which there was a statement made indicating that if we brought up the issue of proper **consultation** at this hearing, that Petrofund was fully prepared to provide its documentation.

(15331 MRS. GOTAAS) Is it proper **consultation** to invite a select few to a public open house?

(15332 MRS. GOTAAS) Is it proper **consultation** to misrepresent neighbors' comments and concerns in their public consultation updates?

(15334 MRS. GOTAAS) Is it proper **consultation** to misrepresent neighbors' comments and concerns in their public consultation updates?

(15338 MRS. GOTAAS) We, as residents, have numerous meetings where we got together and could not believe the responses that Petrofund gave in their Petrofund -- sorry, in their public **consultation** updates.

(15341 MRS. GOTAAS) Is it proper **consultation** to attend a pre-ADR meeting without pertinent information that we as residents need to have an understanding of the details of Petrofund's operations?

(15349 MRS. GOTAAS) Is it proper **consultation** to attend a pre-ADR meeting and ask my husband and myself what possible concerns we could have with H2S in our area?

(15352 MRS. GOTAAS) Is it proper **consultation** to ensure that, residents that a certain level of monitoring is taking place and to not actually be providing that monitoring?

(15356 MRS. GOTAAS) Is it proper **consultation** to have a consultant phone me and to mention that they would be happy to meet with us in the next day or two as they are in town, when they know full well that we have legal representation and that Mr. Bodnar does not reside in Edmonton?

(16440 MR. BODNAR) It [the attitude of this operator] certainly has been apparent throughout the course of the "**consultation**" that has gone on.

(16467 MR. BODNAR) They have been pretty successful, Mr. Chairman, in this venture through their **consultation** process, to divide and conquer a community.

(16515 MR. BODNAR) Then we go to this **consultation** process, you know. Seems to be a big word.

(16516 MR. BODNAR) **Consultation**, consultation. Well, what is it?

(16516 MR. BODNAR) Consultation, **consultation**. Well, what is it?

(16517 MR. BODNAR) What is this **consultation**?

(16518 MR. BODNAR) They have got all these **consultation** experts.

(16519 MR. BODNAR) What is **consultation**?

(16520 MR. BODNAR) To Petrofund, **consultation** has meant, well, you know, go out there, ask a few questions, pick the answers you want, put them in a summary, throw them in a binder.

(16535 MR. BODNAR) It doesn't reflect **consultation**.

(16536 MR. BODNAR) If there was **consultation**, I would submit, sir, that the proper way to do it would be to consider what the concerns of the people are, to make some compromise to address those concerns.

(16660 MR. BODNAR) There certainly has been no **consultation** with the affected people on the effectiveness of it or any input they want into it.

(16884 MR. BODNAR) The **consultation** will be their definition of consultation, and I think we already know what that is.

(16885 MR. BODNAR) The consultation will be their definition of **consultation**, and I think we already know what that is.

(16887 MR. BODNAR) They have to rethink the notion of **consultation** and respect the landowner interests and do it right.

(16898 MR. BODNAR) The answer lies in no license being issued until this operator can demonstrate that it has done a proper **consultation**.

Segment table

(135 MR. BODNAR P-115-217) I leave it to you to show me some evidence that you consulted with them with me.

Property or theme: consultations are inadequate, legal counsels can participate in consultations

(470 DR. GOTAAS P-317-439) They would make no promises whatsoever about the time-line of wells on 13 of 33 or anywhere else in the Armisic field.

Property or theme: one result of consultations is concession

(495 DR. GOTAAS P-317-439) They denied that anything was on the table.

Property or theme: disagreement is one result of consultations

(1074 DR. GOTAAS P-317-439) One of the things we requested at that point in time was their ERP, and that was never forthcoming.

Property or theme: measures or plans for addressing concerns are a major issue in consultations, the company is not transparent in consultations

(1132 DR. GOTAAS P-317-439) When we talk about water, air, noise, environmental concerns, they want to know what specific concerns?

Property or theme: concerns are a major issue in consultations

(1156 DR. GOTAAS P-317-439) All we want is some disclosure on their part about what their intentions are.

Property or theme: the company is not transparent in consultations

(1512 MS. GOTAAS P-440-565) Is it proper consultation to misrepresent neighbors' comments and concerns in their public consultation updates?

Property or theme: consultations misrepresent stakeholder concerns

(1588 MR. BODNAR P-115-217) Did you do any consultation south of the river, on the south side?

Property or theme: consultations should be extensive, including all concerned stakeholders

(2734 DR. GOTAAS P-317-439) For a while they have been concerns related to 7 of 4.

Property or theme: consultations should be comprehensive and cover all related issues

(3014 MR. BODNAR P-440-565) When the city got involved finally in January, which by the way was because of the insistence of the community residents -- and those residents included members of WELG proper, members of River Heights, okay, and other persons. Went to the city and said, look, something is happening here. We need something to be done. Then this company started to bend a little bit.

Property or theme: consultations should be timely

(3568 DR. GOTAAS P-317-439) We will stick with this until we reach an end. But we are so tired of this, we would love to come to some agreement that is reasonable.

Property or theme: the residents are committed to ongoing consultations, one result of consultations is agreement

Table 7.4

River Heights Group's Discussion on Consultations

Keyword table

(17707 MS. HAZLETT) It took until April 30th, or last Friday, for the River Heights Group to come to some terms with, through **consultation** with Petrofund.

Segment table

(4370 MS. HAZLETT P-440-565) It has been my history to choose to consult with Petrofund. I have -- I do this because I think I'm keeping abreast of the changes that they are considering.

Property or theme: consultations are ongoing

(4474 MS. HAZLETT P-440-565) The River Heights group withdrew because the group feels that Petrofund has a right to operate in the field.

Property or theme: one result of consultations is agreement

Table 7.5

Dr. S. P. Singh's Discussion on Consultations

Keyword table

(5686 MR. ENGELKING) At some part of the **consultation** process you were asked to commit never to drill anymore wells from 3 of 4.

(14146 DR. SINGH) Say, for example, all your **consultations** with the River Heights people.

(14147 DR. SINGH) All your **consultations** simply with other people.

Segment table

(1189 DR. SINGH P-440-565) I have the name of the president of Petrofund; and I do plan to call him, and I do plan on my own to pursue this matter.

(AEUB, 2005a: 466)

Property or theme: consultations are ongoing and the landowners is committed

(2247 MR. ENGELKING P-115-217) You had wrote to the city, you made these commitments to these conditions, and as a result of which the city wrote this letter, March st, agreeing not to oppose the application.

Property or theme: two results of consultations is agreement and commitments

(2717 MR. ENGELKING P-115-217) They may be general knowledge to you, but I'm sure that for my client and the rest of the residents out there, they are not necessarily general knowledge.

Property or theme: the company should be transparent in consultations, providing relevant information

(3723 MR. ENGELKING P-440-565) We have to have a reclamation and abandonment plan into which we have had some input.

Property or theme: consultations are about measures and plans for addressing concerns, consultations should integrate the contribution of other stakeholders into the company's plans

(4190 DR. SINGH P-317-439) If they able to provide me an answer, it was so vague, and it was so deliberately made vague, that it had no meaning.

Property or theme: response should be specific in consultations

(4572 DR. SINGH P-317-439) In all the documents that I've been, prepared, Dr. A. K. Singh's name has not been mentioned.

Property or theme: non-legal representation is a means to participate in consultations

(4632 DR. SINGH P-317-439) Let's try to work together in a way that your concerns and our concerns are taken care of. And to my great surprise, there was absolutely no response to that point.

Property or theme: consultations are about stakeholder concerns, the company is irresponsive in consultations

(4941 DR. SINGH P-317-439) The application itself, if my information is right, has come to our lawyer very late in the game.

Property or theme: consultations should be timely

Table 7.6

Alberta Energy and Utilities Board's Discussion on Consultations

Keyword table

(393 DECISION) Petrofund conducted its public **consultation** programs (as set out in Guides 56 and 71) for both the current production ERP for the existing sour facilities and the drilling and completions ERP for the proposed well simultaneously with the same residents.

(401 DECISION) An applicant will ensure that its public **consultation** program affords residents enough information to be able to distinguish between two separate ERPs: one for existing operations and one for proposed operations.

(7437 MR. PERKINS) I'm trying to get a handle on what **consultation** occurred for what project at what time.

(12498 MR. PERKINS) So what would you consider a **consultation**?

(12853 MR. PERKINS) Let me ask you what your expectations are with respect to **consultation** for the purpose of developing an ERP.

(12894 MR. PERKINS) What would you like to see from that company on the matter of **consultation** towards developing an ERP?

Segment table

(230 DECISION) The parties met several times between July and November 2004, but were not successful in reaching an agreement.

Property or theme: one result of consultations is disagreement

(945 DECISION) Petrofund conducted its public consultation programs (as set out in Guides 56 and 71) for both the current production ERP for the existing sour facilities and the drilling and completions ERP for the proposed well simultaneously with the same residents.

Property or theme: measures or plans for addressing concerns are a major issue in consultations

(1797 DECISION) The Board regards Petrofund and the Armisic Field area residents as neighbours that need to work together on concerns regarding the proposed well and the existing facilities in the area throughout their operating life. The Board believes the working group program suggested by Petrofund should help to deal with those concerns if both sides can communicate openly.

Property or theme: consultations are ongoing and long-term, stakeholder concerns are a major issue in consultations, open and transparent communication is important, both proposed and existing facilities are an issue

(1905 MR. MCGEE P-218-316) There was some debate whether or not there was a written agreement, and I think the, on the record it is, there is some verbal agreements.

Property or theme: one result of consultations is agreement

E: Tables for Actor Approaches and Ways

Table 8.1

Petrofund Corporation's Discussion on Actor Approaches and Ways

Keyword table

(1759 MR.VAN TETERING) A draft public consultation plan was prepared to identify stakeholders and **approaches**.

(1815 MR.VAN TETERING) Where possible, our **approach** was to meet people face-to-face, recognizing that this was the most effective way to provide information and receive feedback.

(1817 MR.VAN TETERING) Our approach was to meet people face-to-face, recognizing that this was the most effective **way** to provide information and receive feedback.

(2692 MR. MORRISON) Most of the information you are seeing on the submission is older data and would lean you towards more of a conservative **approach** to the calculation about flow rates and H2S.

(3416 MR.HEMSTOCK) I'm going to go through the process to sort of explain the **approach** that we took.

(3870 MR.HEMSTOCK) It's a -- Petrofund and the city, when we are working on this -- this is coming through as a team **approach** to the emergency response.

(4318 MR. MORRISON) Calculating the 400,000 or, sorry, 400 E3M3 rate is conservative. That's the **approach** we have taken.

(4347 MR. MORRISON) The **way** - my understanding though is that the calculations were given and agreed to with the board, and approved.

(5143 MR. CRONIN) You know, in terms of our **approach** to this development of the field -- and I guess I need to get to my end point here before it is really made -- we appreciate where we are located.

(5204 MR. CRONIN) The other thing I would mention on this is that there is two-phases this **approach**.

(5629 MR. CRONIN) I mean, we could apply it any **way** we wanted to.

(6070 MR. CRONIN) Given the nature of our production, given the nature of our **approach** in terms of how we operate, we see no reason of why we cannot co-exist.

(6674 MR. HEMSTOCK) I guess standard **approach**, is that if you are bringing in contract personnel, to provide that, or using company personnel, that those individuals would have H2S training, public protection equipment and possibly monitors.

(6805 MR. HEMSTOCK) With respect to the municipal plan, it's built very much -- well, it is built on an incident command system which is a standardized **approach**.

(7051 MR. TIDMARSH) These people are notified in a timely manner but not, not in a **way** that unnecessarily puts them at stress.

(8087 MR. CRONIN) The simplest **way** would be to enter into an agreement with them and document that.

(8309 MR. TIDMARSH) We take a very strong role in ensuring that the plan reflects, or in this case reflects what Petrofund believes to be the best **approach** to a number of issues.

(15556 MR. MILLER) Notwithstanding that kind of carpet bombing **approach**, as I would characterize it, to facility opposition, Petrofund has continued, and has committed to continue to seek a reasonable resolution.

(15565 MR. MILLER) It is a neighbor of the nearby residential areas and that the best **approach** is to take, the best approach to take is to seek a good neighbor relationship.

(15566 MR. MILLER) It is a neighbor of the nearby residential areas and that the best approach is to take, the best **approach** to take is to seek a good neighbor relationship.

(15923 MR. MILLER) I just want to emphasize that this **approach** was strongly endorsed by the city in its condition.

(15949 MR. MILLER) They [the City] were then able to take their learnings from that incident and, in a very helpful **way**, incorporate that into this revised ERP.

(17391 MR. MILLER) WELG and the Riverside Heights Group went their separate **ways**.

(17487 MR. MILLER) It is it is intended to respond to Dr. Gotaas's characterization of how the parties went their separate **ways**.

(17855 MR. MILLER) The company has given evidence as to why they think that drilling and producing through a horizontal well in this area would be fulfillment of that **approach** or certainly seek to fulfill that objective.

Segment table

(1766 MR. MILLER P-440-565) Petrofund has filed with the board extensive materials that fully and completely address all issues relevant to the subject application.

Property or theme: the company is responsive to stakeholder concerns

(1799 MR. MILLER P-440-565) It knew it would continue to encounter an ongoing barrage of criticism, innuendo, accusation, generalization and inflammatory statements.

Property or theme: The WELG's approach in consultations is based on generalizations and accusations

(1807 MR. MILLER P-440-565) Petrofund has continued, and has committed to continue to seek a reasonable resolution to real problems.

Property or theme: the company is committed to consultations

(1812 MR. MILLER P-440-565) Petrofund recognizes that even without any new facilities, it is a neighbor of the nearby residential areas.

Property or theme: the company's approach is neighborly

(1821 MR. MILLER P-440-565) I take your point, Mr. Chairman, when you posed the questions to the intervenor panels as to whether they were prepared to sit at the table, and I can tell you that Petrofund is prepared to do that.

Property or theme: the company is committed to further consultations

(1856 MR. MILLER P-440-565) As the applicant, to some degree we are disadvantaged because we have to take the high road. We have to come in, and we don't want to be seen as intervenor bashing and engaging in a whole array he said/she said type of debate.

Property or theme: the company is willing to continue consultations

(2025 MR. MILLER P-440-565) If you want the information, then communicate that request, and that's an easy thing to fulfill.

Property or theme: the residents are uncommunicative

(2030 MR. LEMERMEYER P-218-316) We had a long discussion at that group, talking that, you know, we think we need to be part of that rather than just react to it after it happens.

Property or theme: the company is proactive in addressing concerns

(2059 MR. MILLER P-440-565) These are sincere individuals. These are committed -- these are people who are committed to meeting or exceeding standards.

Property or theme: the company members are sincere and committed in addressing concerns

(2064 MR. MILLER P-440-565) As a good corporate citizen, so quite apart from the issue of bottom line matters, you know, the company is staffed with people who care. They live in communities where issues of safety and environmental response, responsibility is important so as we -- we all share those issues.

Property or theme: the company is a good corporate citizen, the company operates in a safe and environmentally responsible manner, the company members care other people

(2125 MR. MILLER P-440-565) We keep logs; but then if you have naysayers say, well, you know, you could fix those logs. So the best solution in those circumstances is to come up with something that could be independently verified.

Property or theme: the WELG members are naysayers and skeptics

(2136 MR. MILLER P-440-565) It is a case of trying to demonstrate that, where you have sceptics, that what's being said is true. That's an extra measure.

Property or theme: the WELG members are skeptics

(2321 MR. MILLER P-440-565) We cannot tell you how extreme the position was that was presented for the company or why the company would have rejected the position that was presented.

Property or theme: The WELG's approach to the project is extreme and unacceptable

Table 8.2

City of Edmonton's Discussion on Actor Approaches and Ways

Keyword table

(9018 MR. BLACK) That's probably the only **way** that you can command and control an operation like this.

(9714 MR. BLACK) What we wanted to make sure was that the **way** their contingency plan was laid out matched how we would deal with any particular disaster or emergency within the city.

(9729 MR. BLACK) The **way** we would manage an event within the city matched the way Petrofund would do it.

(9730 MR. BLACK) The way we would manage an event within the city matched the **way** Petrofund would do it.

(9908 MS. AINSLEY) There would be this automatic monitoring system; and we thought that that was a reasonable **way** to deal with it.

(9910 MS. AINSLEY) That would maybe be a better **way** to deal with it.

Segment table

(4024 MS. AINSLEY P-218-316) What they have suggested is probably satisfactory to us, even though it is not exactly what we said in here. What they came back with was probably better than what we suggested.

Property or theme: the company's approach in addressing concern is satisfactory

Table 8.3

West Edmonton Landowners Group's Discussion on Actor Approaches and Ways

Keyword table

(10883 DR. GOTAAS) I know, if it's going to be like my experience, what they are going to do is they're going to sit at a meeting and say, we're doing this, this **way**.

(11141 DR. GOTAAS) I don't know who I could have found who would have stuck to this the **way** he has.

(11794 MR. SULYMA) December would have been an excellent **way** for them to run through their Emergency Response Plan.

(11843 DR. GOTAAS) We have from the beginning patterned our concerns a particular **way**, covering the various issues.

(16537 MR. BODNAR) The proper **way** to do it would be to consider what the concerns of the people are, to make some compromise to address those concerns, and to come up with a creative solution.

(16703 MR. BODNAR) It just seems really odd to me that, you know, they're so absolutely certain that they can drill in this concocted **way**.

(16736 MR. BODNAR) Because it seems that unless this operator does it its **way**, no one else knows anything else about what's going on out there.

(16878 MR. BODNAR) The only **way** they will raise that bar is if they are pushed.

(16879 MR. BODNAR) The only **way** they will raise that bar is if they have to.

(16890 MR. BODNAR) If we do it that **way**, we will just come full circle.

(17427 MR. BODNAR) The River Heights Group went its separate **ways**.

Segment table

(157 DR. GOTAAS P-317-439) We are on the south end of 184th Street in west Edmonton, within the city limits, and I live with my wife and children in a home on 22 or three acres. The northern boundary of that property is just south of one of the Armisic well sites.

Property or theme: one characteristic of WELG is the location of the members' residences in relation to the company's wells

(178 DR. GOTAAS P-317-439) About 15 people.

Property or theme: the total number of member residents is a characteristic of WELG

(274 DR. GOTAAS P-317-439) We had tried to find out what Petrofund's plans were for the previous two years and had not even had a response.

Property or theme: the company is unresponsive to concerns

(938 DR. GOTAAS P-317-439) I said, you are not going in there. I said, the EUB are on their way, and they're coming here. They're fully aware of what's going on. You're not driving in there. We didn't want to blow up the neighborhood to boot.

Property or theme: the company's approach in addressing concerns is dangerous

(1051 DR. GOTAAS P-317-439) There's certainly discrepancies between what they say they do when there's an incident and what actually happens.

Property or theme: the company is inconsistent in developing measures or plans

(1118 DR. GOTAAS P-317-439) We're informed that Petrofund will follow the proper regulatory process and meet minimum EUB requirements, and that's it.

Property or theme: the company's approach in addressing concerns is based on minimum EUB requirements

(1173 DR. GOTAAS P-317-439) That's about the only thing that crosses my mind that we have received. Nothing -- no agreement to do absolutely anything.

Property or theme: the company is uncompromising in consultations

(1266 DR. GOTAAS P-317-439) When I heard that 7 of 4 was being applied for and talked to the neighbours in Riverside Heights Drive, I told them about Julian and we formed this group.

Property or theme: the history of the group is a characteristic of WELG

(1296 DR. GOTAAS P-317-439) We had been misrepresented by the, by the consultants about

our opinions about the application.

Property or theme: the company is untruthful

(1319 DR. GOTAAS P-317-439) As the hearing approached, we were meeting, and I don't think anybody really wanted to come to a hearing.

Property or theme: the members are committed to further consultations and solution

(1499 MRS. GOTAAS P-440-565) What you cannot document is sincerity, and I question the sincerity behind Petrofund.

Property or theme: the company members are not sincere in consultations

(2028 MR. SULYMA P-317-439) I have no animosity towards the industry. It's what Alberta is all about.

Property or theme: WELG is not against oil and gas industry

(2030 MR. SULYMA P-317-439) I do have a problem with poor operations and operations that won't give you the courtesy of communicating and dialoguing, and that's what I feel we are dealing with.

Property or theme: the company is uncommunicative

(2041 MR. SULYMA P-317-439) We have been open to it. We have had meetings.

Property or theme: WELG is open to further dialogue

(2721 MR. BODNAR P-440-565) Mr. Sulyma happens to be a lawyer himself, Dr. Gotaas is an oral surgeon.

Property or theme: the professions of the members refer to a group characteristic

(2753 MR. BODNAR P-440-565) The only reason they have gone that extra mile is because they have been pushed to do it.

Property or theme: the company is not proactive in addressing concerns

(2918 MR. BODNAR P-440-565) They have been pretty successful, Mr. Chairman, in this venture through their consultation process, to divide and conquer a community that was together on these issues.

Property or theme: the company's approach in consultations is divisive

(3043 MR. BODNAR P-440-565) They have only done what they needed to do to build their case to validate what they are doing.

Property or theme: the company's approach in consultations is based on validation

(3046 MR. BODNAR P-440-565) They have not developed a neighborly relationship. They have not developed a working understanding as to how this is all going to pan out.

Property or theme: the company is not neighborly

(3065 MR. BODNAR P-440-565) You will see regard for community interests. Okay? You really don't see any individual interests in, with any financial motive or anything like that.

Property or theme: the WELG's approach to the project is based on community interest

(3208 MR. BODNAR P-440-565) It just seems really odd to me that, you know, they're so absolutely certain that they can drill in this concocted way, and extending way under the river and then kicking off in another direction, and they are going to hit oil, and they are absolutely certain about that.

Property or theme: the company's approach to drilling is overconfident and unrealistic

(3290 MR. BODNAR P-440-565) Those people have to be given some credit for their tenacity; and Dr. and Mrs. Gotaas have to be given some credit for their tenacity.

Property or theme: the members are tenacious in dealing with the issue

Table 8.4

River Heights Group's Discussion on Actor Approaches and Ways

Keyword table

(17645 MS. HAZLETT) I do this because I think I'm keeping abreast of the changes that they are considering; and in that **way**, I think that I can make it a safer field.

(17647 MS. HAZLETT) The **approaches** of the two resident groups could work to the benefit of the entire neighborhood.

(17652 MS. HAZLETT) They could continue to badger and harass Petrofund, as they have seen fit to do; and I would cooperate with Petrofund and, in this **way**, address the concerns of the group from both angles.

Table 8.5

Dr. S. P. Singh's Discussion on Actor Approaches and Ways

Keyword table

(13683 DR. SINGH) Either **way**, that profit is normal; and it's not abnormal, is not excessive.

(13864 DR. SINGH) It's simply not playing the game in a fair **way**.

(13903 DR. SINGH) Let's try to work together in a **way** that your concerns and our concerns are taken care of.

(13907 DR. SINGH) It was just taken in a totally unconcerned **way**.

(13953 DR. SINGH) It seems that Petrofund is not sincere and is just trying to find **ways** to run away from that.

(14078 DR. SINGH) What the people do not know is, that we have the right of appeal and we could have appealed it, that appeal, the **way** I have appealed here.

(14522 DR. SINGH) It's very difficult to say whether or not it will be done on time and, if it will be done, it will be done the **way** we would expect it to be.

(15096 DR. SINGH) Because when the presentation from the city came, and our lawyer pointedly asked about this 10 years limit, I could see the **way** they were trying to avoid the issue.

(15101 DR. SINGH) They are not forthright in taking certain responsibility and saying that, yes, we would live with it and we are pursuing this matter in a very sincere **way**.

Segment table

(1229 DR. SINGH P-440-565) Petrofund would not play this kind of game that, if they find a hole, they just try to slip away or use it.

Property or theme: the company is not sincere in addressing stakeholder concerns

(3122 MR. ENGELKING P-115-217) I can tell you that's what he does have. Now, what is the distance between surface hole location of and the area of that triangular section that is not defined by river bank or trees?

Property or theme: the location of Dr. Singh's land in relation to the proposed well is a part of the self-portrayal

(3551 MR. ENGELKING P-440-565) We don't subscribe to the theory that Petrofund is evil

incarnate, and we also accept that they have good intentions.

Property or theme: the company is not evil

(4229 DR. SINGH P-317-439) I was a professor at U of A, and I taught economics for about , years.

Property or theme: the profession of Dr. Singh is a personal characteristic

(4242 DR. SINGH P-317-439) I think it is very important that Petrofund and the oil industry is provided an environment in which they operate.

Property or theme: Dr. Singh is not against oil and gas industry

(4315 DR. SINGH P-317-439) What Petrofund is trying to do is trying to abuse this particular right for their own benefit and to the detriment, and to the detriment of the interest of the society at large.

Property or theme: the company' approach to operations is abusive, self-oriented, and against societal interest

(4628 DR. SINGH P-317-439) I wanted to talk to the vice-president of Petrofund on the same line that, look, there's no point in having an adversarial role.

Property or theme: Dr. Singh is committed to further consultations

(4725 DR. SINGH P-317-439) I see that, very competent people on the production side in, in what they are presenting before the board.

Property or theme: the company has competent people

Table 8.6

Alberta Energy and Utilities Board's Discussion on Actor Approaches and Ways

Keyword table

(370 DECISION) The Board appreciates the significant efforts between Petrofund, the City, and Capital Health in developing an ERP that uses a collaborative command and control **approach** to public safety response.

(377 DECISION) The Board continues to encourage applicants to work closely with local government agencies in developing and coordinating **approaches** to emergency response that incorporate innovative concepts and protocols, accounting for unique situations and exceeding the minimum requirements in EUB Guide 71.

(718 DECISION) The Board encourages the parties to develop a **way** to work together to address any future operational issues that may occur at the existing or the proposed 7-4 well and within the Armisic Field in general in a timely manner.

(6103 MR. PERKINS) Does that **approach** seem feasible to Petrofund?

(6107 MR. PERKINS) Petrofund intends a more stepped or incremental **approach**.

(6121 MR. PERKINS) The **approach** that I have heard today, it's more of an incremental approach.

(6123 MR. PERKINS) The approach that I have heard today, it's more of an incremental **approach**.

(8111 MR.SHARP) The worst case scenario would be that the well you drill is dry and abandoned but, from your point of view, and you have lost your investment and you just continue on the **way** you are.

(10024 MR.SHARP) You are looking at the whole **approach** to the oil and gas development and whatever relationships you have with the oil and gas people.

Segment table

(171 DECISION) The members of the RHG include the Hazletts, D. Rowand, the D'Alquens, K. Okrainetz, B. Karesa, H. Flewwelling, L. Poulette, and D. Motz. Ms. Anne Hazlett appeared at the hearing and presented a brief statement.

Property or theme: the members' names are a part of the portrayal of a stakeholder group

(1178 MR. MCGEE P-440-565) I ask you that if you would be willing to sit down and be part of a good neighbor policy and start an open discussion with the operators of this Armisic field, Petrofund.

Property or theme: stakeholders should be committed to dialogue

(2009 MR. MCGEE P-218-316) My sense is, is that when I hear about buildings and trees and all of the things that Petrofund is prepared to do, that when you talk about enhancing that group, you are raising the bar.

Property or theme: the company's approach to operations goes beyond industry standards

(2976 MRS. PERKINS P-317-439) Dr. Gotaas, do you know how far your residence is from the proposed 7 of 4 surface location?

Property or theme: the location of the residences in relation to the proposed well is a characteristic of stakeholder groups

(3561 MR. MCGEE P-317-439) You said that you would be open for dialogue, as much as there is animosity. You believe you can get through that and move on?

Property or theme: stakeholders should open to dialogue

F: Tables for Hearing Setting

Table 9.1

Petrofund Corporation's Discussion on Hearing Setting

Keyword table

(299 MR.MILLER) He will address questions concerning Petrofund's position and policy in this **hearing**.

(1219 MR.MILLER) Sir, for the benefit of **hearing** participants, can you explain how directional drilling works and whether it is more difficult and more expensive?

(1958 MR.VAN TETERING) The EUB staff was also asked to participate and set up a display table manned by the EUB, providing information on the board's regulatory dispute resolution and public **hearing** processes.

(3074 MR.TIDMARSH) As a result of the experience of our consultants during the Compton (phonetic) **hearings**, had learned a lot about the, some of the questions surrounding the involvement of the Health Authorities and the city in responding to potential emergencies in or near urban areas.

(6513 MR.HEMSTOCK) It was my hope that we would actually have, run an exercise prior to this **hearing** with the City of Edmonton so that we could present something that would say, we've run an exercise and these are the learnings, and these are the changes that we would like to see made to the emergency plan.

(6528 MR.HEMSTOCK) If there is any updates or recommendations that come out of the **hearing**, those will be incorporated.

(8039 MR.MILLER) It was the city that was satisfied with the written response of Petrofund when it made its decision to not object in this **hearing**.

(8289 MR.GIBSON) Compared to other projects we worked on or other **hearings** I've been involved in, I think it would be pretty clear when you look at the participation of the consultants, that the people like Mr. Tidmarsh and Mr. Van Tetering and others are, have been very hands-on here.

(8632 MR.MILLER) Most of the people that end up having to show up at these **hearings**, where you have a date scheduled since January, tend to have commitments.

(15612 MR.MILLER) We rely on you to make your own assessment of that evidence and the integrity and strength of what I say are honest and honorable individuals that were presented in this **hearing**.

(15709 MR.MILLER) In many instances, when an applicant comes in to a **hearing** like this, there are other independent and separate steps that are taken where you incorporate the results, or the decisions from that process in formulating your application.

(15731 MR.MILLER) We cannot then, you know, be -- you know, read minds, to put it that way, to then say, well, this will be a concern to these people and, therefore, even though we have gone through a prior process, we should have all this data here in this **hearing** when it's never been an issue before.

(15897 MR.MILLER) At this stage there is just not enough information to make the kinds of commitments that others have been seeking, both prior to and during this **hearing**.

(16090 MR.MILLER) What was offered in my letter of response in Exhibit 10 is that, following this **hearing**, let's sit down and talk about those specific concerns.

(16178 MR.MILLER) That is a broader policy issue, and so on. It's not really something for -- well, it is not something for this particular **hearing**.

(16249 MR.MILLER) The better approach would be to acknowledge in your decision the city's letter, Petrofund's response and Petrofund's commitment made to you in this **hearing**.

(17473 MR.MILLER) The understanding was that we would take actions necessary to inform Mr. O'Ferrall in the event that something might arise in the course of this **hearing** that would prejudice the position of the Riverside Heights Group.

(17871 MR.MILLER) You sit back and really judge the efforts of my client to engage in consultation and how you consider the differing opinions expressed in this **hearing** room.

Segment table

(142 MR.MILLER P-115-217) He can ask questions that are relevant regarding the process; but to then start putting propositions that the process is flawed and what is the evidence and what is not the evidence, we can -- Mr. Bodnar and I can address those in final arguments.

Property or theme: cross examinations are not for putting argumentative propositions

(1851 MR.MILLER P-440-565) One is that most of it, most of the evidence that we would rebut related to 7 of 4. This is an application for 7 of 4. We wanted to focus on that.

Property or theme: the focus of the hearing is the current application for the proposed well

(1866 MR.MILLER P-440-565) We rely on you to make your own assessment of that evidence and the integrity and strength of what I say are honest and honorable individuals that were presented in this hearing.

Property or theme: the Board should make its own independent assessment of the evidence

(2278 MR.MILLER P-218-316) I know, you know, everybody here has commitments and other participants that have shown up.

Property or theme: personal and professional commitments are not an excuse for not showing up at the hearing on time.

(2281 MR.MILLER P-218-316) My preference would be that we make good use of the daytime tomorrow, the normal business hours tomorrow.

Property or theme: the evidence should be given within normal business hours

(2285 MR.MILLER P-218-316) We are flexible in terms of what the board would decide to do to, in order to receive the evidence of the WELG group.

Property or theme: the company is flexible in terms of the evidence time if the Board is flexible as well

(2488 MR.MILLER P-440-565) If there are issues with respect to impacts on property values and so on, there are other avenues to deal with that. That is really not something for the board to engage in.

Property or theme: the impact of the project on property values is not one of the Board's responsibilities

(2535 MR.MILLER P-440-565) His son has always been aware of this, and there's never been any suggestion that there's been any concern, other than just Dr. Singh saying, my son is out there, and so on. So -- and there's been ample opportunity to participate, and obviously he has chosen not to do so.

Property or theme: personal participation in the hearing shows that the person has concerns

(2610 MR.MILLER P-440-565) This application meets or exceeds all regulatory requirements.

Property or theme: the decision should be based on regulatory requirements

(2613 MR.MILLER P-440-565) There is a strong commitment of the company to safety, environmental protection, ongoing consultation, not only as a good neighbor but for any future development.

Property or theme: the company's approach based on safety, environmental protection, ongoing consultation should be taken into account in the decision

(2644 MR.MILLER P-440-565) The company will fulfill each and every one of its commitments made in the March st, letter. I think that the better approach would be to acknowledge in your decision the city's letter, Petrofund's response and Petrofund's commitment made to you in this hearing.

Property or theme: the commitments of the company should be considered in the decision

(4067 MR.MILLER P-440-565) She's entitled to her point of view so I'm certainly not opposed to her expressing that view.

Property or theme: a witness can give evidence without being subject to cross examination

Table 9.2

City of Edmonton's Discussion on Hearing Setting

Keyword table

(9620 MS. AINSLEY) I guess the fact that we are at this **hearing** and are asking the board to sort of give some added weight to our conditions.

(9985 MS. AINSLEY) Then when the **hearing** went ahead, we thought there is, there is an opportunity perhaps for the board to impose some of these as conditions.

(9989 MS. AINSLEY) Perhaps, even if the **hearing** hadn't gone ahead, I'm not sure how the board would have dealt with it.

Segment table

(2358 MS. AINSLEY P-218-316) I'm here for three reasons: To demonstrate, firstly, our interest in this issue; secondly, to represent the city's letter to the board as well as the conditions; and thirdly, to answer any questions that you may have.

Property or theme: participation in the hearing allows the City to demonstrate and support the City's interests and conditions and to respond to stakeholder questions

(2578 MS. AINSLEY P-218-316) The board regulates the oil and gas industry. They regulate this process.

Property or theme: one of the responsibilities of the Board is to regulate the oil and gas industry

(2586 MS. AINSLEY P-218-316) They would impose those as conditions if it is within their jurisdiction to do that.

Property or theme: the Board has a certain jurisdiction

Table 9.3

West Edmonton Landowners Group's Discussion on Hearing Setting

Keyword table

(2644 MR. BODNAR) Is it not part of this **hearing** then?

(10841 DR. GOTAAS) We have heard them tell at public **hearings** that, or at public information sessions that they do inspect twice a day.

(11318 DR. GOTAAS) As the **hearing** approached, we were meeting, and I don't think anybody really wanted to come to a hearing.

(11319 DR. GOTAAS) As the hearing approached, we were meeting, and I don't think anybody really wanted to come to a **hearing**.

(11439 MR. BODNAR) I think our concern is that, you know, the people that should be at this **hearing** are not here.

(11845 DR. GOTAAS) We really felt that our position here at this **hearing** was compromised when the group fractured.

(11956 DR. GOTAAS) That [prehearing conference] would have allayed a lot of the fears, answered a lot of the questions about who could come to this **hearing** and be considered an intervenor.

(15315 MRS. GOTAAS) There was a statement made indicating that if we brought up the issue of proper consultation at this **hearing**, that Petrofund was fully prepared to provide its documentation.

(15404 MRS. GOTAAS) I think it, it gave some of us a bit of a better idea of how the **hearing** might proceed.

(15451 MRS. GOTAAS) I would guess they have heard it again through this **hearing**.

(16366 MR. BODNAR) I don't think there has yet been a proper **hearing** of this matter.

(16404 MR. BODNAR) She [Ms. Hazlett] has been here throughout the **hearing**. You know, I'm still at a loss as to why that portion -- and we were glad to see them form -- why they withdrew their objection at the last moment.

(16421 MR. BODNAR) We have carried the ball and, through the course of this **hearing** anyway, have revealed much of the inaccuracies, uncertainties, contradictions and so forth.

(16435 MR. BODNAR) It [the attitude of this operator] was apparent throughout the course of the **hearing**.

(16438 MR. BODNAR) It's apparent with the responses that we have had for requests for information and clarifications in the course of the **hearing**.

(16479 MR. BODNAR) Is there anything that we can conclusively say through the course of this **hearing** that this operator has agreed to and committed to.

(16573 MR. BODNAR) They are still, at this time of the day and stage of the **hearing**, still suggesting that people don't know what they are talking about.

(16848 MR. BODNAR) Contrary to what the board said when we asked for a pre-hearing conference way back in November, I think it was, to deal with the issues, that we were denied that privilege and that, and I believe the board's words, or in its own correspondence, words are the matter is ready for **hearing**.

(16853 MR. BODNAR) Having heard all the evidence in the last day-and-a-half here, with all due respect, I don't think this matter is ready for **hearing** yet.

(16859 MR. BODNAR) Affected people should be given an opportunity to respond to or to at least be consulted, to have their input before this matter should be going to **hearing**.

(16927 MR. BODNAR) The best solution, and we are not trying to drag everyone back, but that the **hearing** be adjourned until such time as outstanding issues are addressed, until such time as the players that should be at this table take proper notice and comfort in coming to this hearing.

(16931 MR. BODNAR) The best solution, and we are not trying to drag everyone back, but that the hearing be adjourned until such time as outstanding issues are addressed, until such time as the players that should be at this table take proper notice and comfort in coming to this **hearing**.

Segment table

(177 MR. BODNAR P-115-217) I didn't mean to be argumentative, sir; but I take some exception to, at this stage of the game, the applicant suggesting that I don't represent some people or that they were confused as to whether I represent them.

Property or theme: there are some exceptions when legal counsels may make argumentative statements during cross examination

(1387 MR. BODNAR P-440-565) We wouldn't mind at least one woman on our panel to give her perspective, and I think that's only fair.

Property or theme: at least one woman should give evidence for the sake of fairness

(1476 MRS. GOTAAS P-440-565) I certainly have lived it for three years and have been behind the scenes a lot and certainly have lots of concerns; and I guess that's why I would like to make a

statement today.

Property or theme: the WELG witness participates to communicate her concerns

(1553 DR. GOTAAS P-317-439) I guess I'm emphasizing the problems because they're not here to do that.

Property or theme: WELG represents RHG as well as the group members are not in attendance

(2094 MR. BODNAR P-218-316) We are planning tomorrow evening only because the people in our group have personal and professional commitments.

Property or theme: personal and professional commitments are a valid reason for rescheduling the evidence time

(2096 DR. GOTAAS P-317-439) The board makes decisions like we're talking about all the time. We, I thought we made a reasonable request for a prehearing conference.

Property or theme: one of the responsibilities of the Board is to hold a pre-hearing conference to inform the residents about the hearing process

(2292 MR. BODNAR P-218-316) Part of the difficulty was we got the late notice that River Heights was not presenting any evidence on Friday.

Property or theme: the late notice about the withdrawal of RHG is a reason for rescheduling the evidence time

(2411 MR. BODNAR P-317-439) We are fooling ourselves if we think that this is only about 7 of 4. This is about the Armisic field.

Property or theme: the hearing subject includes all the operations in the area

(3188 MR. BODNAR P-440-565) It's incumbent upon this board to ensure that that model is properly set up and tested before anything is done and the group is consulted with, the community is properly consulted with.

Property or theme: the Board's job is to ensure the effectiveness of the City's involvement in the emergency response plan and the integration of the residents' input into the plan through proper consultations

(3402 MR. BODNAR P-440-565) Affected people should be given an opportunity to respond to or to at least be consulted, to have their input before this matter should be going to hearing and certainly well before any license is issued to this operator.

Property or theme: in the decision, it should be considered whether the residents' input is integrated into the project through consultations

(3409 MR. BODNAR P-440-565) We have to have a proper Emergency Response Plan; and that plan should be not only for drilling and completion, but that plan should also be for operations.

Property or theme: in the decision, it should be considered whether there is a proper emergency response plan that can address both drilling and completion, and operations

(3413 MR. BODNAR P-440-565) The city's terms of reference should be considered, and they are not ready yet. In fact I think the city is scrambling to respond to this whole situation, as Ms. Ainsley pointed out yesterday. The EUB sour gas procedures. Okay? They are being reviewed.

Property or theme: the City's new terms of reference and new EUB sour gas procedures should be the reference in the decision

(3425 MR. BODNAR P-440-565) Given the history of this company, given its attitude, given how it's still denying that there is any problem, they think they are ready to roll here.

Property or theme: the company's approach of denying concerns should be considered in the decision

(3450 MR. BODNAR P-440-565) We will have a community at risk.

Property or theme: the fact that the community will be at risk should be considered in the decision

(3468 MR. BODNAR P-440-565) We need to send a message back that says, you just can't walk in and presume that you can drill these wells without addressing individual concerns and without addressing the uniqueness of the area.

Property or theme: whether all individual concerns are addressed is a decision criterion

(3495 MR. BODNAR P-440-565) I think with due respect to the city and Capital Health, they should have been here in full force as intervenors. They should have been allowed to come along and, you know, say their entire piece.

Property or theme: whether the City and Capital Health is effectively involved in the process should be considered in the decision

(3501 MR. BODNAR P-440-565) What we seem to have resorted to is a situation where everybody is in a panic and the city wants to have these conditions, or whatever that letter is, incorporated into the board decision. Well, I think that might be a difficulty. I think this board knows that. How are you going to do that? I think it would be treading new ground. We need to back this thing up a little bit. We need to give people a chance to come forth and be comfortable.

Property or theme: the stakeholders should be able to effectively participate in the hearing

(4091 MR. BODNAR P-440-565) I don't know who she's making this statement on behalf of.

Property or theme: a witness's representation status should be clear

(4095 MR. BODNAR P-440-565) River Heights Group withdrew their submission, or their objection I should say, so their submission has not even become part of the record.

Property or theme: the evidence a RHG witness is questionable because the group already withdrew

(4100 MR. BODNAR P-440-565) I guess we would reserve the right to cross-examine.

Property or theme: any evidence should be subject to cross examination

(4120 MR. BODNAR P-440-565) Given what's gone on, maybe this group should be here, with all due respect to the position they took. And they stand to be most affected.

Property or theme: a party affected by the project should participate in the hearing

(4338 MR. BODNAR P-218-316) The best use from Dr. Gotaas's perspective would be to, him and I need to convene for a few minutes, but to present his evidence tonight.

Property or theme: the evidence time should be rearranged according to the needs of the residents

Table 9.4

River Heights Group's Discussion on Hearing Setting

Keyword table

(17624 MS. HAZLETT) Although Petrofund had agreed to keep these issues out of the **hearings**, they were not all together successful.

Segment table

(4297 MS. HAZLETT P-440-565) I would rather not be cross-examined without counsel; and as they are not here, I would not want to be sworn.

Property or theme: a witness should be able to give evidence without being cross-examined

(4300 MS. HAZLETT P-440-565) I would be speaking for myself, up until the point where Dr. Gotaas was wondering why the River Heights Group withdrew; and then at that point, I would just, some of what we had decided.

Property or theme: the RHG witness clarifies her representation status

(4427 MS. HAZLETT P-440-565) I was severely restricted by the board in not having my status as an intervener confirmed regarding costs. I was given status when I proved incompetent in legal matters in, with Petrofund.

Property or theme: the intervener status should be by the Board, legal help is important for participation although it is costly

(4481 MS. HAZLETT P-440-565) After this time, we would intervene if there was to be a well applied for on of , of and then also on of .

Property or theme: RHG intervenes and participates in the hearing to protect its interests and communicate concerns regarding the future development in the area

Table 9.5

Dr. S. P. Singh's Discussion on Hearing Setting

Keyword table

(5390 MR. ENGELKING) One of the reasons that I suspect this **hearing** is rather topical has to do with the Acclaim Energy situation.

(5699 MR. ENGELKING) My question is today, before this **hearing**, does that accurately set out Petrofund's position, they will never commit to not drilling from 3 of 4?

(14081 DR. SINGH) When the residents of River Heights appealed in the **hearing**, not the city. We did not go there and we did not appeal.

(17163 MR. ENGELKING) If it is adequate for Petrofund to say, we'll comply with the regulations, we are good boys and we won't breach those regulations, if you can't help us why are we having a **hearing**?

Segment table

(206 DR. SINGH P-440-565) He was not even sure whether or not his objection has been recorded.

Property or theme: the company's unconcerned attitude hinders participation

(208 DR. SINGH P-440-565) Being a professional, he thought that it was not worth his time to be here.

Property or theme: Dr. Singh participates and represents his son as well

(792 DR. SINGH P-440-565) I have already provided an authorization from him in this regard to AUB.

Property or theme: Dr. Singh participates and represents his son as well

(3756 MR. ENGELKING P-440-565) One, you presume the operator is going to comply with all those regulations, and they better or they're offside; but, two, you are here to take into account the interests of the stakeholders to the extent that those interests are outside of the regulations or are not met by strict compliance with the regulations. That's what I see your job.

Property or theme: the responsibilities of the Board include ensuring the company's compliance with the regulations and taking into account the concerns outside of the regulations

(3949 MR. ENGELKING P-440-565) We don't think that those good intentions provide adequately for the protection of my clients.

Property or theme: the company's good intentions or positive approach are irrelevant in the decision

(3952 MR. ENGELKING P-440-565) We want this board to exercise its authority, to impose reasonable conditions on the privilege that Petrofund has.

Property or theme: the decision should include conditions that address the concerns

(4251 MR. ENGELKING P-440-565) If it is its intention is to respond to evidence given by Dr. Gotaas, then, by definition, it becomes evidence and cross-examination should be available.

Property or theme: any evidence is subject to cross examination

(4762 DR. SINGH P-317-439) I would request the board, that they take a serious view of the intentions of Petrofund in terms of protecting the interest of the society at large.

Property or theme: the Board's job is to protect the societal interest as opposed to particular interests

Table 9.6

Alberta Energy and Utilities Board's Discussion on Hearing Setting

Keyword table

(85 DECISION) The RHG, a group of adjacent landowners and residents, filed its submission on April 8, 2005, and subsequently withdrew it on April 29, 2004, prior to the **hearing**.

(87 DECISION) Ms. Anne Hazlett appeared at the **hearing** and presented a brief statement.

(90 DECISION) At the time of the **hearing**, the members of WELG included B. Sulyma, the Sabulkas, A. Owczarek, J. Traxler, the McFadyens, the Gotaases, and the Novaks.

(93 DECISION) The Gotaases and Mr. Sulyma appeared at the **hearing** to represent the WELG.

(98 DECISION) Paula Ainslie and Bob Black, employees of the City, appeared at the **hearing** to speak to any questions raised at the proceeding.

(100 DECISION) The Board scheduled a public **hearing** to be held in Edmonton, Alberta, May 3-4, 2005, before Board Member T. M. McGee (Presiding Member) and Acting Board Members K. G. Sharp, P.Eng., and D. K. Boyler, P.Eng.

(103 DECISION) A site visit was conducted on May 2 and May 3, 2005, prior to opening the **hearing**.

(103 DECISION) Those who appeared at the **hearing** are listed in Appendix 1.

(104 DECISION) The Board closed the **hearing** on May 4, 2005.

(108 DECISION) In conjunction with proceeding to establish a **hearing** date on this matter, the EUB encouraged the parties to engage in appropriate dispute resolution (ADR) in order to continue discussing issues of interest.

(137 MR.MCGEE) Mr. McCluskey, can you provide us with particulars of giving Notice of **Hearing**?

(143 MR.MCCLUSKEY) Notice of **Hearing** for Application 1365474 was issued from the board's offices on January 4th, 2005.

(155 MR.MCCLUSKEY) Mr. Chairman, with your permission, I would like to enter as Exhibit a package consisting of the Notice of **Hearing** and distribution list as sent to all parties.

(169 MR.MCGEE) Next order of business, ladies and gentlemen, is to register those who wish to participate in this **hearing**.

(179 DECISION) The Board has a duty to consider the interests of all Albertans, not just the interests of those applicants and interveners appearing at an EUB **hearing**.

(226 MR.MCGEE) Finally are there anyone, or any other interested parties who wish to register and participate in the **hearing** today?

(229 MR.MCGEE) I would like to briefly explain the procedures that we will be using at this **hearing**.

(373 DECISION) The Board also found the evidence presented by the representatives of the City at the **hearing** particularly helpful in understanding the City's role in the ERP.

(690 DECISION) While the proposed 7-4 well is the subject of the **hearing**, the interveners' concerns go beyond that proposed well and include operational matters in the entire Armisic Field.

(4463 MR.MCGEE) One of the things that the **hearing** does is that it does provide a process for us to certainly have discussions and allows the board to look at the material that's provided to them.

(6548 MR. PERKINS) The board's policy is to issue a decision within days after a **hearing**.

(10032 MR.SHARP) You are aware of the West Edmonton Operators Group that we heard about here at the **hearing** today?

(15393 MR.SHARP) In the course of setting down this **hearing**, one of the things the board does is to ask its staff to come out and make a presentation to the people that may be there.

(15465 MR.MCGEE) It is my hope that, because there's been a **hearing** and its been vetted and it's been heard by the board, and put a decision together around it, that we can be a catalyst in putting, you know, the neighborhood back together again.

(17946 MR.MCGEE) This **hearing** is closed.

(17555 MR.MCGEE) I've been at many **hearings** where people said, I just really want to put a statement forward.

Segment table

(115 DECISION) Having carefully considered all of the evidence, the Alberta Energy and Utilities Board (EUB/Board) finds that the proposed well can be drilled, completed, and operated safely.
Property or theme: the decision is based on a careful evaluation of the evidence and the criterion of safety

(162 DECISION) The attached map shows the approximate location of the proposed well in relation to the lands owned by each party.

Property or theme: participants are described in terms of their lands in relation to the proposed well

(392 DECISION) While it has agreed that a need exists for the well, the Board must now consider this need in light of the Board's duty to consider the public interest in its decision making.

Property or theme: one of the Board's duties is to consider the public interest

(749 MR.SHARP P-440-565) Your son has chosen not to participate?

Property or theme: personal participation in the hearing is emphasized

(763 MR.SHARP P-440-565) He's given you the opportunity to speak for him?

Property or theme: a stakeholder can be represented by a close relative

(920 MR.PERKINS P-115-217) We are a bit hamstrung of course, Mr. Chairman. We're not witnesses here, and I would be loathe to start giving evidence.

Property or theme: the members of the Board staff are not supposed to give evidence

(1276 MR.MCGEE P-115-217) That's the job that the board takes on very seriously, thus the public safety sour gas, recommendations on how to get to those points; and part of those recommendations were to look at all of these things and to see if there are changes that are needed. We have not decided whether there are significant changes in the disbursal movements, but there is certainly science that's arguing back and forth.

Property or theme: one of the Board's responsibilities is change and update sour gas regulations based on science

(1334 DECISION) Petrofund's asset retirement fund is monies held voluntarily by Petrofund, which the EUB does not have authority to regulate.

Property or theme: it is not the Board's job to regulate a privately held fund

(1561 MR.MCGEE P-317-439) That's what we are here for, is to hear the evidence.

Property or theme: hearing the evidence is a responsibility of the Board

(1585 MR.MCGEE P-317-439) What I wouldn't want to do is to hear the same story again because I think we get the gist of it.

Property or theme: the same evidence should not be repeated

(1817 DECISION) In the preceding sections, the Board has considered the evidence concerning possible local impacts of the proposed well and related facilities and has found that it is satisfied that the impacts can be mitigated by various actions by the applicant, both in the short term and longer term. The Board also believes that the additional well will provide data that will allow appropriate decisions to be made about the long-term production from the Armisic Field, which on the provincial level will accrue benefits to the Crown and at regional levels to the City through additional royalties and taxes. At the local level, the additional well could lead to an earlier departure of oil and gas facilities from the area or at least provide additional data to determine an appropriate exit date. Weighing these benefits along with the need for the well against the impacts leads the Board to be satisfied that a well could be drilled, completed, and operated safely at the 7-4 location.

Property or theme: the decision is based on a comparison of local impacts of the proposed well and related facilities, various actions and plans used to mitigate the impacts, and the benefits to the Crown and to the City

(1919 DECISION) The Board takes these commitments into account when arriving at its decision.

Property or theme: the decision takes into account the commitments made by the company

(2114 MR.MCGEE P-218-316) Given that there is a lot of people with professional issues, and it would be -- I would hope that you would be able to offer us some information.

Property or theme: professional commitments are not a good reason for rescheduling the evidence

(2120 MR.MCGEE P-218-316) It would be a huge gap of time if we were finished early and not being able to move into argument, then wait until the evening to hear a discussion that you may or may not put forward.

Property or theme: the evidence time should be used efficiently

(2128 MR.MCGEE P-218-316) But I recognize your situation as well, Mr. Bodnar.

Property or theme: the Board shows understanding for the request of rescheduling the evidence time

(2456 MR.MCGEE P-317-439) We have an application before us. We have not narrowed it. In fact, if we had have narrowed it, we might have said to these gentlemen saying, you know, that's interesting, but it is not the application before us.

Property or theme: the focus of the hearing is the current application

(4262 MR.MCGEE P-440-565) This board has been, on most occasions, very interested in what people have to say.

Property or theme: the Board supports the participation of different stakeholders in the hearing

(4281 MR.MCGEE P-440-565) This board is of the opinion that if Ms. Hazlett wants to say, and put her thoughts on the record, we would ask her to do that.

Property or theme: a witness can give evidence without being cross-examined

(4285 MR.MCGEE P-440-565) Are you doing it on behalf of yourself or the River Heights Group?

Property or theme: the representation status of a witness should be clear

(4290 MR.MCGEE P-440-565) The weight is only as, what can be given to it without cross-examination.

Property or theme: the weight of the evidence without cross examination is less than the evidence with cross examination

(4317 MR.MCGEE P-218-316) We are not sure of how to approach these as -- and we are learning as well, whether or not you come to speak to issues, whether you bring expert witnesses.

Property or theme: the City's participation provides information about and contributes to the participation process in general