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Technical Report No. 5

**An Assessment of the Effectiveness of Government
Decision-Making Processes in the Field of
Occupational Health and Safety**

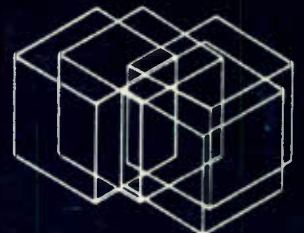
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TECHNICAL REPORT NO. 5

AN ASSESSMENT OF THE EFFECTIVENESS OF GOVERNMENT
DECISION-MAKING PROCESSES IN THE FIELD OF
OCCUPATIONAL HEALTH AND SAFETY

by

Hushion, Ogilvie Associates Limited



The findings of this Technical Report are the personal responsibility of the author, and, as such, have not been endorsed by members of the Economic Council of Canada.

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PREFACE

"In the fall of 1773, Diderot, after much solicitation, finally journeyed to Russia for a tour of temporary duty as visiting sage, political advisor, and professional conversationalist at the court of Catherine the Great. All in all, the visit went well. Diderot was careful not to be too radical in the views he expressed to Catherine. He was a man who believed in such daring notions as constitutionalism, separation of powers, and a merit-system civil service, none of which could be expected to appeal greatly to the Autocrat of All the Russias. Nevertheless, Diderot could not entirely avoid irritating Catherine by what seemed to her the impracticality of his proposals, and one day she snapped at him:

'M. Diderot, you forgot in all your plans of reform the difference between our positions. You work only on paper, which will take anything: it is smooth, simple and opposes no obstacle to your imagination or your pen. But I, poor Empress, I work on the skins of people, and human skin is a great deal more irritable and ticklish.'

On the skins of people. It is thus, in fact, that any government, by its very nature, must write." 1.

This report on the effectiveness of government decision-making in occupational health and safety is one of a major series of studies undertaken by the Economic Council of Canada. The Regulation Reference studies on "Responsible Regulation" are probably the most comprehensive series of studies conducted on Canadian public administration in recent years. Although there are fairly extensive publications by individual Canadian authors on such concepts as regulatory reform, citizen participation, economic implications of regulation etc., the Regulation Reference is a specific attempt to study a cross-section of policy areas simultaneously. 2.

This study of the effectiveness of decision-making processes in the occupational health and safety policy area forms part of the overall study of the effectiveness of governmental interventions in occupational health and safety. The larger study by Dr. Manga and Dr. Broyles provides the overview of occupational health and safety in Canada, against which

our investigation was conducted. Our study investigated only the processes by which government decisions on statutes, regulations and programs were arrived at. The adequacy or effectiveness of the decisions themselves is the focus of the parent study by Dr. Manga and Dr. Broyles.

As Dr. Manga and Dr. Broyles state in the introduction to their overall study of occupational health and safety:

"Judging from the literature in this field it is apparent that contemporary regulatory processes are found to be rather undemocratic in the sense that effective public participation and the full expression of the views of particular constituencies is lacking, especially that of labor. The Ham Commission (1976, 6) concluded that the worker as an individual and workers collectively in labor unions or otherwise have been denied effective participation in tackling these problems; thus the essential principles of openness and natural justice have not received adequate expression". 3.

It is this central point about the democratic nature of the governmental decision-making processes and the nature and extent of public participation that our study investigated. Dr. Manga and Dr. Broyles went on to say:

"This lack of participation not only applies in the formulation of new regulation but also in the enforcement and administration of existing regulations or programs (for example the Workmen's Compensation system.) The process of formulating regulations is said to be complex, uncertain and ad hoc, usually lacking clearly enunciated rules and bases (technical, medical, legal, economic) upon which interested parties can contest particular decisions. This deficiency is compounded not only by the scarcity of the knowledge and sound technical information to allow effective participation in the regulatory process, but also by problems in the access and distribution of relevant information." 4.

Because our report is a component of the overall Manga-Broyles study, there is some repetition and duplication in the descriptions of the literature and the concepts. However, since this report is being published separately from the overall report, some overlap is essential to meet the needs of readers who may not have read Dr. Manga-Dr. Broyles' study.

We began our investigation with the basic question:

"How effective is the process by which new regulations and other forms of interventions are developed?"

and began the work of creating an analytical framework that would help us evaluate this nebulous expression "process". At the same time we were interested in expanding this analytical framework into some form of guideline that could be used by government policy makers in modifying the decision-making "processes" to meet the increasing needs and pressures for more democracy.

The study was designed in four phases, each phase structured to address a particular objective. These objectives were:

1. to delineate the decision-making processes in each of the target jurisdictions. The focus was on the planning, organization, implementation and evaluation of the decision-making processes related to four distinct areas:
 - . Acts/Statutes
 - . Regulations
 - . Compliance Programmes
 - . Non-Regulatory Programmes
2. to assess the effectiveness of the decision-making processes in terms of the costs imposed relative to the benefits and in terms of timing of the process. These two factors were assessed from within a framework of organizational decision-making.
3. to assess the effectiveness of the decision-making processes as perceived by those involved and affected: representatives of client publics and interest groups. The aim was to assess their perception of their degree of participation and the extent to which the process was equitable, and open.
4. to compare and contrast the decision-making processes across jurisdictions with the aim of identifying general principles which might be applied in modifying these processes as well as assessing the implications of implementing these possible changes.

In Chapter 1 we describe our methodology and an analytical framework for assessing the effectiveness of governmental decision-making processes in occupational health and safety. This is elaborated by detailed descriptions of the recent decision-making processes in British Columbia, Alberta, Quebec and Ontario (Appendices) and condensed in Chapter 6 where we review the similarities and differences between these sample Provinces.

The summary of our findings regarding the effectiveness of these decision-making processes in occupational health and safety is the basis of Chapter 6. This summary describes the decision-making processes of the sample provinces in relation to the pressures for "more democratic" decision-making and in relation to some of the modifications being recommended and tested in public administration across North America.

The final chapter in this report outlines a series of models for structuring a decision-making process according to the degree and extent of citizen participation and democratization desired. This is a preliminary attempt to create a "normative" model for use by policy makers in deliberately structuring decision-making processes to suit the circumstances, the client-groups involved and the particular subject or policy area (e.g. occupational health versus occupational safety).

The nature of government decision-making is often such that the "process" is often difficult to see with the "naked eye". Very seldom is a decision-making process deliberately or consciously defined and separated from the content. We often heard and read statements that the process is not only a means to arrive at a particular decision but also an end in itself (if it ensures the effective participation of all those affected by the particular decision being studied or referred to). But very seldom does provincial decision-making in the field of occupational health and safety specify the process by which these decisions were or will be made.

Our approach to analyzing the effectiveness of these decision-making processes was based on our team's previous experience as public administrators directly responsible for occupational health and safety. This "insider" perspective has undoubtedly influenced our interpretation of the naked events and steps in each process we studied. We hope this interpretation of what and why a particular process unfolded

the way it did contributes some insight into the complex and largely invisible workings of these decision-making processes.

This report has been possible because of the excellent cooperation we received from representatives of labour, management, associations, government, as well as private individuals in British Columbia, Alberta, Ontario, Quebec and Ottawa. Their openness and candor was critical to this study and we hope that we have accurately reflected these often conflicting perspectives and objectives.

Special acknowledgements are necessary to Ms. Judith Sutcliffe, Mr. Michael Skolnik and Dr. Jim Stopps for their on-going participation and contributions to the research methodology and review of endless drafts of the various reports of the study. Similarly, we would like to thank Dr. Robb Pritchard and Dr. Michael Trebilcock for their kind assistance in converting our analytical model of decision-making processes into a normative model of various ways of conducting a process depending upon the degree of democracy desired or required.

And a special thanks to Mary McDermott of 2001 Word Processing Services whose patience and efficiency ensured the production of all our reports.

Robb Ogilvie and Don Hushion

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RÉSUMÉ

Le présent rapport sur l'efficacité de la prise des décisions dans le secteur public concernant la santé et la sécurité professionnelles s'inscrit dans l'une des principales recherches entreprises par le Conseil économique du Canada. En fait, suite au Mandat sur la réglementation, les études entreprises dans le cadre de l'ouvrage "La rationalisation de la réglementation publique" constituent l'une des séries de travaux les plus exhaustifs entrepris sur l'administration publique au Canada au cours des dernières années. Même s'il existe des ouvrages assez élaborés de divers auteurs sur des concepts comme la réforme de la réglementation, la participation du citoyen, les effets économiques de la réglementation, etc., le Mandat sur la réglementation est le fruit d'une volonté particulière d'étudier tout l'éventail des domaines subordonnés à des politiques. Nous avons commencé notre enquête par la question fondamentale :

Quelle est l'efficacité du processus par lequel s'élabore la nouvelle réglementation ainsi que les autres formes d'intervention ?

L'étude se divise en quatre phases, chacune d'elles étant structurée de façon à porter sur un objectif particulier dont voici la liste :

1. Délimiter les processus de prise de décisions dans chacune des compétences visées. L'accent est mis sur la planification, l'organisation, la mise en oeuvre et l'évaluation des processus de prise de décisions pour quatre domaines distincts :
 - . Lois ou statuts
 - . Règlements
 - . Programmes de conformité
 - . Programmes non réglementaires.

2. Évaluer l'efficacité des processus de prise de décisions au moyen d'une analyse avantages-coûts, ainsi qu'en fonction de leur échéancier. Ces deux facteurs ont été évalués dans le cadre de la prise de décisions sur le plan organisationnel.

3. Évaluer l'efficacité des processus de prise de décisions en se référant à ceux qui sont mis en cause et à ceux qui en sont touchés, c'est-à-dire les représentants du public client et les groupements d'intérêt. Il s'agissait de savoir ce qu'ils pensaient de leur degré de participation et de déterminer dans quelle mesure le processus était équitable et ouvert.

4. Comparer les processus de prise de décisions entre les diverses compétences en vue d'identifier les principes généraux qui pourraient servir à les modifier et analyser également les conséquences de la mise en oeuvre de ces changements possibles.

SUMMARY

This report on the effectiveness of government decision-making in occupational health and safety is one of a major series of studies undertaken by the Economic Council of Canada. The Regulation Reference studies on "Responsible Regulation" are probably the most comprehensive series of studies conducted on Canadian public administration in recent years. Although there are fairly extensive publications by individual Canadian authors on such concepts as regulatory reform, citizen participation, economic implications of regulation etc., the Regulation Reference is a specific attempt to study a cross-section of policy areas simultaneously. 4.

We began our investigation with the basic question:

"How effective is the process by which new regulations and other forms of interventions are developed?"

The study was designed in four phases, each phase structured to address a particular objective. These objectives were:

1. to delineate the decision-making processes in each of the target jurisdictions. The focus was on the planning, organization, implementation and evaluation of the decision-making processes related to four distinct areas:
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3. to assess the effectiveness of the decision-making processes as perceived by those involved and affected: representatives of client public and interest groups. The aim was to assess their perception of their degree of participation and the extent to which the process was equitable, and open.

4. to compare and contrast the decision-making processes across jurisdictions with the aim of identifying general principles which might be applied in modifying these processes as well as assessing the implications of implementing these possible changes.

CHAPTER 1

Introduction and Research Design

The purpose of this chapter is to outline the major issues involved in attempting to assess the effectiveness of a "process" and to explain our methodology for researching the decision-making processes in the field of occupational health and safety.

The simplicity of the initial question, "How effective is the process by which new regulations and other forms of interventions are developed?", raises the supplementary questions of:

- to whom?
- evaluated according to what objectives?
- which stage or aspect of the process?
- over what timeframe?
- what is meant by regulation?

1.0 Criteria of Effectiveness

The Economic Council of Canada in its Interim Report on Responsible Regulation established what they called "value premises for assessing the regulatory process":

"... regulatory processes should be assessed in terms of the following values: informed decision-making, accountability, procedural fairness, and openness. It should be noted, however, that none of these values is absolute. Effective decision-making about existing and proposed regulations will require trading off and balancing these values against others." 5.

These four "value premises" or criteria of effectiveness are the central focus of our investigation into the regulatory process in occupational health and safety.

1.1 Informed Decision-Making

As the Economic Council of Canada pointed out:

"Decision makers need to formulate a clear statement of the nature of the problem to be solved and the objectives of the intervention. Alternatives must be generated and evaluated. Knowledge of the costs and benefits of regulation and to whom they accrue must be

acquired by decision makers. Important affected interests must be considered in the decision-making process." 6.

This area of informed decision-making has been a constant concern of most groups involved in occupational health and safety. The problems of assessing levels of risk to workers' health and safety is not a new problem but one that is becoming increasingly more important. In examining the degree to which this value or criteria was being achieved by the regulatory process, we traced decision-making processes on such occupational health and safety hazards as toxic substances back to their origins in "criteria documents" and voluntary standards. This was essential because much of the formal or visible decision-making process of government is based on these earlier and previously existing epidemiological studies or voluntary standards technical committees and reports. The legislated adoption by reference of specific guidelines or voluntary standards (such as the A.C.G.I.H. list of TLV's for some toxic substances) for particular hazards to workers' health is predicated upon the scientific and experiential research that went into the development and evolution of these guidelines or voluntary standards in the first place.

One study examined this vital part of the decision-making process in occupational health and safety. Our findings are discussed in more detail in Chapter 6.

1.2 Accountability

The issue of accountability: "under a parliamentary system of responsible government (it) is essential to assure the accountability of regulators to ministers and to the legislature, whether the regulators be in executive departments or in statutory agencies". 7.

This was not a principal focus of our investigation. We did examine it from the perspective of charting the various approval authorities necessary to make a particular decision. Since we were examining not only statutory and regulatory decision-making processes but also operating policy and procedural decision-making, the degree of delegated responsibility and the degree of variance between the sample provinces was described as part of the background.

Openness and accessibility were our principal areas of interest and not an extensive treatment of delegated responsibility and discretion. Our methodology for briefly analyzing the area of accountability was the charting of sample decision-making processes by organization level within the government agency involved. These charts are found in the appendices on each of the sample provinces.

1.3 Procedural Fairness

An excellent explanation of this criterion was the Economic Council of Canada's:

"Procedures must be adopted and followed that are acknowledged to be 'fair' by the vast majority of those affected by them. This criterion should be applied to the process by which new regulations are created and to the administrative process for detailed rule making and decision-making in specific cases. Procedural fairness requires principled decision-making, that is, the 'rules of the game' must be established in advance."
8.

This criterion of procedural fairness is one of the basic difficulties of a technical policy area such as occupational health and safety because of both the scientific ambiguity (lack of precision) in many areas of hazard control as well as the necessary discretion present in the interpretation and application of some standards.

Our study investigated the issue of procedural fairness in the development of the acts, regulations and operating policies and programs for occupational health and safety in our sample jurisdictions. The results of our analyses are included in the appendices on each provincial jurisdiction studies and in Chapter 6.

1.4 Openness and Accessibility

This criterion was our principal focus because not only is it a value or end, it is a means of contributing to informed decision-making and fairness. It was also the most often mentioned criterion cited in our preliminary interviews and in the literature.

"The procedures by which significant regulatory policy decisions are made should be characterized by openness. To enforce this value, it will be necessary

to ensure greater freedom of information than presently exists. The views of all important affected interests should be considered in the decision-making process. Proceedings should be conducted in public to the greatest extent possible. Decisions, as much as possible, should be based on information that is publicly prevented or that is publicly available. Reasons for decisions should be frankly stated and broadly disseminated". 9.

Because of the long traditions and history of the occupational health and safety policy areas, (particularly its history of relying on scientifically open and accessible voluntary standard setting organizations like the International Commission on Radiation protection, the American Conference of Governmental Industrial Hygienists, and the Canadian Standards Association), we designed our investigations to analyze this in detail. The increased attention in all sample jurisdictions being given to the so-called "due process" requirements facilitated our focus on these areas.

Although the following chapters go into considerably more detail regarding the definitions and concepts we used to evaluate the effectiveness of the decision-making processes in occupational health and safety, informed decision-making, accountability, procedural fairness and openness are the basic criteria or "value premises".

1.2.1 Research Design

It was with this general set of criteria that we structured our research design. The following section briefly outlines our approach (supplemented by Appendices A and B).

Our basic approach was to:

- . delineate the decision-making processes in each of the four sample provincial jurisdictions (B.C., Alberta, Ontario and Quebec);
- . assess the effectiveness of these decision-making processes in terms of the criteria outlined (openness and accessibility in particular);

- . assess the effectiveness of these decision-making processes as perceived by a sample of policy actors in the occupational health and safety field;
- . compare these various sample jurisdictions with the aim of identifying general principles which might assist in modifying these processes.

Our sample of interviewees was drawn from the individuals who occupied positions directly involved with the four principal decision-making processes - Acts, regulations, compliance programs and non-regulatory programs. Initial forays were made mainly into the administrative level, where Assistant Deputy Ministers (ADM's) and Directors were the main targets. Cues were taken from these interviewees to direct the interviewer to other key actors. The aim was to include representatives of all groups or sectors who were "shareholders" in that particular policy constituency.

Following is an outline of the four phases of the study which addressed each particular objective.

1.2.2 Phase I - Delineation of Decision-Making Processes

The initial phase of the study documented the current process of decision-making in occupational health and safety in each of the target jurisdictions.

The dearth of documentation on decision-making processes led us initially to examine decisions which had been recently made. The aim here was to reconstruct the process used to arrive at a decision and to try to gain an appreciation of how these processes might be changed by these actors in the near future.

The decision-making processes under consideration were those which were involved with:

- . Acts/Statutes
- . Regulations
- . Compliance Programmes
- . Non-Regulatory Programmes

For the purpose of our investigation we identified four attributes of the decision-making process:

- . the sequence of how a problem, a proposed modification, issue of concern, or subject of review was processed by the organization. Which levels were involved at what stage?
- .

- . the staging of how the problem, modification, issue or review was approached, analyzed, reviewed and evaluated. The concentration here was on the criteria used.
- . the timing of the overall sequence - which events occurred at what time? - and the timing of each stage.
- . the responsibility of the participants in terms of the extent and nature of their input, influence and authority.

To distinguish these elements and define them, we employed the concept of linear responsibility charting. A linear responsibility chart is a two-dimensional matrix of sequence by staging. The responsibility aspect outlines the relationships between the elements according to extent of input.

A second instrument which was employed, still using these four attributes, was the flowchart, in this case illustrating inter-relationships amongst elements as well as time-frames. The flowchart was an assessment device for examining each decision-making process from the standpoint of our model, a way of identifying opportunities for change and as a tool for interviewing policy actors on their perceptions of the effectiveness of the decision-making processes.

Once an outline of the decision-making process had been defined in a particular jurisdiction, specific examples of each major type of government intervention (-statutes, regulations, compliance programmes and non-regulatory programmes-) were traced through the process. The aim here was to identify the discrepancies between policy and practice and the range of constraints as well as opportunities in this type of decision-making.

Although the primary purpose of this first phase of the study was to delineate the decision-making processes the opportunity of interviewing these key actors was used to cover the second phase.

1.2.3 Phase II - Effectiveness of Decision-Making Processes

This phase concentrated on evaluating the decision-making processes in the target jurisdictions. We began with the four basic criteria or values of informed decision-making, accountability, procedural fairness and openness. We subsequently developed an analytical model of organizational

decision-making that would facilitate a more detailed examination of the principal criterion of openness.

It is important to note that our model is a composite of all elements usually considered in organizational decision-making. We used the model as an analytical tool to probe for the maximum range of elements which might be considered in a decision-making process. It must be reiterated that this model is not being presented as a model of government decision-making. (See Appendix A for detailed description of this model.)

One of the questions being asked in this phase was directed toward assessing the costs relative to the benefits of the decision-making processes. What were the various administrative costs for the public sector in terms of staffing, co-ordination of groups who had input, and other related matters? Benefits accrued can be measured in terms of allocative inefficiency (costs avoided or prevented) as well as direct positive results such as a better, more equitable decision. Was it necessary from the private sector standpoint to employ a lawyer, accountant or economist in order to understand and participate in the process?

The other major question being asked was related to the timing of the decision-making processes. Was the process too fast or too slow? Were sufficient anticipatory measures taken. Was there enough planning? Were formal analyses used in the process such as socio-economic impact analyses? What specialized knowledge was employed, at what cost and to what benefit? Once a problem had been identified, a decision reached and an implementation program mapped out, how expeditiously was this achieved?

This phase also concentrated on determining, from the perspective of the key government actors being interviewed, which external agencies and interest groups were involved in the different processes, and examining the nature and role of this involvement and the value of their participation. A key theme running through all the interviews was the use of our model as a means of identifying opportunities for change and assessing the implications of such proposed changes.

The procedure followed in this phase was to introduce the elements of our model to the interviewee, once the flowcharts had been outlined. The data on the efficiency of the processes were collected during the same interviews as Phase I: the discussions were directed at determining the extent to which the individual elements of our model had been considered, the value of each element and the potential for change at each stage.

1.2.4 Phase III - Perceptions of Client-Publics

The objective of this phase was to assess the effectiveness of the decision-making processes as perceived by those groups external to government who were involved in or affected by the process.

Our aim was to assess their point of view, to determine their perception of the process:

- was it equitable?
- was it open?
- to what degree did they participate?

Since a great deal of occupational health and safety regulations are concerned with the concept of equity or fairness, this aspect was central to our enquiries in this phase. In essence, we asked the questions:

- who pays?
- who bears the price?
- to what extent was information made available to the participants in the process?
- was information made available to those who were affected, though not involved?
- what was the nature and extent of participation?

It must be remembered that the crucial element in this phase was these groups' perceptions of the process. It was of the perceived equity, openness and participation that we attempted to gain a measure.

While recognizing that it would be impossible to interview representatives of all interested parties, an attempt nevertheless was made to draw a representative sample. The point was to "identify" the network of individuals or organizations external to government who were involved in, or had the potential to become involved in, the decision-making process, and to assess the nature of this current or potential involvement.

The sample was selected on the basis of:

- . potential contribution to our analysis in terms of knowledge and information about problems and solutions;
- . degree to which their programs were affected by government decision-making processes;
- . historical involvement or non-involvement in the process;
- . degree to which their constituency was affected by decisions in occupational health and safety.

1.2.5 Phase IV - Inter-Jurisdictional Comparisons

Having gathered data on all aspects of the decision-making processes from the target jurisdictions, our next step was to compare these data. Our aim was to assess the relative effectiveness of the processes and to determine the factors which contributed to one process being more or less effective than another.

This analysis was done from two perspectives: from that of our model of organizational decision-making and that of the client-publics' perception of its effectiveness. The analysis compares the presence of the elements of our model and the operational value of these elements within each of the four principal decision-making processes across the provincial jurisdictions studied.

The identification of these "inhibitors" and "contributors", as well as what is workable and appropriate for that jurisdiction is central to our analysis of opportunities for modification of the decision-making processes. As the reader will find in Chapters 1, 2 & 3, no single model was developed. Rather a series of models or guidelines was developed based on different assumptions about the degree of openness and accessibility desired or feasible in a particular situation.

CHAPTER 2

Openness and Accessibility of Governmental Decision-Making Processes

This chapter reviews some of the conventional thinking behind changes designed to increase fairness, openness, and accessibility in the decision-making processes.

2.1 Farmers, Foxes and Chicken Coops

In the past, increased accessibility and openness of the decision-making processes appear to have been directed mainly at decisions within the control of the bureaucracy.

"Neither classical theories of bureaucracy nor the pre-World War II historical experience of the federal government provided much support for the thesis that there should be a deliberate effort to involve clientele and the general public in the operation of government agencies. In fact, the classical concept of bureaucracy holds that a clientele exists as a target group to be taxed, regulated, benefited, or otherwise manipulated, in accordance with law and through the instrument of a neutral, objective bureaucracy. Under this theory, the involvement of agency clientele in the operation of the agency, to the extent that it was considered at all, was viewed as constituting an automatic impairment of agency objectivity that would, in all likelihood, result in failure to provide adequate protection for the public interest. Given the resources the political system already provided for the exercise of pressure by the agency's clientele, there was no attraction for the bureaucracy in the idea of client involvement. Enough difficulties were seen already existing without a gratuitous invitation to the agency's clientele to invoke additional means of pressure at the administrative level. The idea of requesting such clients to serve formally in an advisory capacity within the very bosom of the agency itself would have seemed equivalent to most bureaucrats to suggesting that the farmer be required to consult the foxes on protective devices for chicken coops." 10.

2.2 Emergence of Policy Constituencies

Thompson identified however the inadequacies of restricting the public consultation and negotiation process to the political arenas. His concept of legislative constituencies versus policy constituencies is critical to understanding the current pressures to increase the openness and accessibility of bureaucratic decision-making processes:

"Legislative constituencies are rarely policy constituencies in the highly mobile, interdependent, functionally differentiated industrial society. They are area-bound, communal, and tend to generate particularistic interests in special privileges, recognition, exemptions, favourable treatment, etc. Policies associated with areas or localities are for the most part dealt with by local governmental jurisdictions." 11.
(italics in original)

Policy or administrative constituencies are:

"...highly organized into associational (noncommunal) interest groupings oriented to policies rather than places for their members. Such an organized citizenry provides laterally the ingredients missing from hierarchical controls - technical competence and interest in every conceivable aspect of policy." 12.

2.3 Transcience and Openness

This pressure to extend these values and democratic principles to the bureaucracy itself, especially in highly technical policy areas is presented by Weinberg in his discussion of "transcience":

"Where the questions raised cannot be answered from existing scientific knowledge or from research which could be carried out reasonably rapidly and without disproportionate expense, then the answers must be transcendent and adversary procedure seems therefore to be the best alternative." 13.

As many observers have pointed out, this is one of the major problems of occupational health and safety. In particular, the procedures or protocol by which "standards" on hazards are determined has been a constant concern of all the policy actors.

But, Weinberg's notion of "adversary procedure" or formal competition of scientific ideas has not been viewed by all as the panacea to a more effective method or procedure to developing standards:

"...the situation of a scientific adviser is different from that of a lawyer arguing a case in court ...there is a check ...the judge ...as much an expert as the lawyer ...the situation of a scientist giving advice to a politician ...is much closer to that of a physician in relation to his patient." 14.

2.4 The Experts' Dilemma

The growth of the technically competent and politically separate bureaucracies to develop and administer regulations and their compliance programs was originally based on the concept of ensuring the use of technical-scientific advice in the equitable administration of these compliance programs. The occupational health and safety field was no exception. The central role of physicians and engineers as the experts and in whom the public interest was invested was viewed as a means of injecting science into the debate of determining acceptable levels of risk. However, with the continued inability of the technical-scientific approaches to satisfactorily resolve "occupational health and safety problems", the shine began to dull and the adequacy of these experts began to be challenged. These experts were being challenged by the layman to explain their decision-making processes in terms that were understandable and which would facilitate their direct participation. And as Weinberg pointed out, science could provide these answers at the level of certainty that would satisfy these growing pressures. Open and accessible decision-making processes were perceived as uncontrollable, time-consuming and difficult to reconcile in terms of the protection of so-called public interest.

2.5 Vehicles to Enhance Openness

Since our study was focused on the general area of the openness, accessibility and fairness of the decision-making processes, we reviewed the basic approaches that seemed to have emerged to date. Unfortunately most of the literature available at the time we began was American. Since that time, the Interim Report of the Economic Council of Canada was published and we have attempted to draw on it as well.

2.5.1 Semiannual Agendas of Regulations

The semiannual agenda of agency regulations is a list of significant regulations under development or review. It alerts the agency head and public to the agency's schedule for action on individual regulations and gives the earliest possible indication of upcoming opportunities for participation in specific rulemakings. The agenda also gives the name and telephone number of a knowledgeable agency official and the status of regulations listed on the previous agenda...

Before agendas were required, the public had difficulty learning that an agency was developing regulations. Nowhere could the public find an overview of what regulations were likely to be issued in the near future. The agendas provide the first systematic look at an agency's regulatory activities and the first comprehensive listing of knowledgeable agency officials who could answer questions on specific regulations. Armed with this early warning, the public now has more time to prepare its views on upcoming regulations." 15.

2.5.2 Advance Notices

"Another method to obtain early participation in the regulatory process is the use of Advance Notices of Proposed Rulemaking (ANPRMs). These notices, published in the [USA] Federal Register, call for public views on the issues being considered by an agency before a regulation is proposed formally for comment. They explain why the agency believes a rule is needed, identify the different approaches the agency may be examining, and/or ask specific questions that would help the agency decide whether to regulate and how." 16.

The Economic Council of Canada identified "advance notice" as one of the techniques that will contribute to all four values or criteria (informed decision-making, accountability, procedural fairness and openness). 17.

The Advance Notice System proposed by the Economic Council of Canada set a minimum notice period of 60 days for all parties affected by a particular regulation. 18.

2.5.3 Comment Periods

Similarly, in its proposed Prior Assessment System, the Economic Council of Canada recommended the publication of draft regulations in a way which allows at least 90 days for comment by interested parties before proclamation. 19.

2.5.4 Prior Assessment

"Like advance notice, prior assessment of proposed regulations is responsive to many of the concerns expressed by the private sector. Properly structured, a system for prior assessment could provide advance notice of new regulations, improve the openness of regulatory decision-making, and ensure the opportunity for public input. The goal of accountability would also be served. Accountability among other things, requires an evaluation of past performance." 20.

2.5.5 Regulatory Analysis

"...Each regulatory analysis is to contain a succinct statement of the problem; a description of the alternative ways of dealing with the problem; an analysis of the economic consequences of each of the alternatives; and a detailed explanation of the reasons for choosing one alternative over the others. A draft analysis is to be available to the public when the regulation is proposed and a final regulatory analysis is required when the regulation is issued.

The comparison of alternatives is to be done early in the decision-making process so that policy officials and the public can join in the debate over the most efficient and effective way to regulate. The analysis may compare different approaches (market incentives vs. enforcement of standards), different levels of stringency, alternative enforcement mechanisms, or the timing of compliance. The analysis is not designed to identify costs and benefits for a particular decision; it is intended to be a thorough, common sense consideration of the strengths and weaknesses of various alternative regulatory approaches based on both descriptive and numerical comparisons. The scope and nature of these comparisons is determined by the information available. But for all costly new regulations, decision-makers have the benefit of a discussion of alternative choices, quantified to the greatest extent possible, before the agency proposes the new regulation." 21.

Part of these regulatory analyses include the so-called "impact analysis". There are inflationary impact assessments, economic impact assessments, paper impact assessments, burden analyses, socio-economic impact assessments. This multitude of impact assessments is intended as an estimate as opposed to the final evaluations of impacts experienced under a particular program. Regardless of the fact that these studies are preliminary, there is extensive pressure currently to expand the ex ante and ex post evaluation.

2.5.6 Preambles

As part of the effort to increase openness and accessibility, pressure is being applied to change the format in which statutes and regulations generally appear. The principal technique being experimented with in the United States is the inclusion of preambles, written in plain language.

"In such instances, agencies can write a clear 'preamble' or introduction to the rule that provides a clear explanation of the need for and purpose of the regulation, when alternatives were considered and why the agency chose a particular approach ...explaining in the preamble to a regulation what the regulation means, how the decisions were made, what effect it is expected to have ..." 22.

2.5.7 Other Forms of Outreach

Many attempts have been made to experiment with additional approaches of outreach -- public hearings, particularly those outside provincial and national capitals; use of local newspaper advertising to publish changes or hearings upcoming; the establishment of issue-specific mailing lists; experiments with intervenor funding to assist participants who might otherwise not have participated in the regulation making process; and the use of policy and regulatory workshops. 23.

In summary, it is against this changing paradigm of increasing openness and accessibility to government decision-making that we examined occupational health and safety decision-making processes.

CHAPTER 3

Government Decision-Making Processes and Structures

The purpose of this chapter is to outline the basic characteristics of government decision-making processes and its internal structures that determine the nature and timing of these processes. These basic characteristics have had an impact on decision-making in occupational health and safety because of its positioning relative to other policy areas. Although often more controversial than other policy areas, for some reason it has not achieved the stature nor status of other policy areas such as housing, social services, and public health. 24.

3.1 Personal Leadership vs. Comprehensive Organizational Responses

The decision-making processes in occupational health and safety is the heart of our inquiry. As mentioned earlier, our aim is to assess the effectiveness of these decision-making processes. The nature and characteristics of governmental decision-making has been a source of interest for both researchers and practitioners alike. Kirby, Kroeker and Teschke, describe it thus:

"The distribution of responsibilities and the actual exercise of power continually fascinate both those who study and those who work within government. This fascination often reflects the difficulty of determining when and how particular processes or structures support or constrain individuals in developing a given policy. Canadian public policy is rich in illustrations of strong individuals undertaking major policy initiatives almost oblivious to accepted processes, as well as in examples of needless policy floundering because of inadequate structures or processes." 25.

Perhaps it is because of the complexity of the legislative-executive-bureaucratic responsibility system and the fact that the decision-making process is being increasingly viewed as not only a means to achieving a given set of political-democratic decisions but also an end in itself, that conventional decision-making theories and management principles have been inadequate tools for the participants in governmental decision-making processes.

Kirby, et al. commented on the development of policy making structures and processes at the federal level. There is some merit in considering the applicability of their observations to the provincial government level as well:

"As a broad generalization, the post war period in Canada can be said to contain two basic approaches to policy development in the federal government. The first is characterized by a highly personalized style of selecting, developing and implementing policy. The ascendancy of this approach was in the late 1950s and early 1960s and was marked to the emergence of clearly identifiable individuals at both the political and bureaucratic levels who by force of personality and individual drive 'made policy'. The second, more recent, approach is much more collectivist and collegial in nature and relies a good deal more on structures and processes intended to ensure that all relevant interests are heard before a policy decision is made. This is not to suggest that strong, identifiable personalities no longer exist; rather, in the current process participation in development tends to be diffused much more extensively than it was in the past." 26.

3.2 Management Systems of Government

The move toward more formalized structures of management of the affairs of government involved the development of priority-setting and resource allocation processes, and the use of interdepartmental task forces to enable speedy consideration of problems of interest to Cabinet, the creation of processes which enabled the exchange of views between departmental officials, their "clients" and other levels of government, the use of green, orange and white papers to encourage and focus public discussion, development of planning, programming and budgeting systems, efficiency and evaluation studies, operational performance measurement systems and the introduction of techniques such as management by objectives. 27.

These attempts were designed to support and further the openness and accessibility of interested parties in the particular policy issues under consideration.

What emerged as a pattern across provincial governments was the establishment of three government-wide decision-making

processes that are initiated and controlled by the political executive level of government:

1. A priority-setting process which attempts to deal with the overall objectives, goals and programs of the government in power;
2. An expenditure-budgetary process designed to both translate this priority setting process into resource allocation and to relate "bottom-up" resource requests of various departments to these overall priorities;
3. A regulatory process which initiated or reviewed proposals for new or revised statutes or regulations.

The management and the effectiveness of these government-wide decision-making processes varies with jurisdiction and time given the changes being made to these processes. What is important to remember is that these changes have been primarily "internal" and that the provinces have tended to follow the Federal examples of improving the internal management and administration of compliance programs.

It is against this background of governmental decision-making processes that our study investigated occupational health and safety initiatives. We were attempting to analyze how occupational health and safety issues are handled in terms of priorities, in terms of resource allocation, and perhaps most importantly, how statutes and regulations are developed and modified -- in essence, the regulatory process associated with this policy area.

And as Bruce Doern points out:

"Thus the overall governmental priorities, economic and expenditure budget processes, become entangled with different legislative and regulatory processes, as the goals and the instruments of government are chosen, altered and balanced." 28.

It is within these internal governmental decision-making systems that individual policy areas such as occupational health and safety must survive. The rivalry of numerous policy areas for resource approvals and allocation tend often to have the result of obscuring the underlying purpose and intent of the policy issues themselves.

Occupational health and safety is a policy area whose measure of success is the non-occurrence of an event (i.e. reduced accidents, illnesses, injuries). It is often commented among administrators of occupational health and safety programs "that there are no political points to be gained with occupational health and safety programs. There will always be too many injuries." A number of observers referred to the fact that occupational health and safety is usually viewed by central agencies as part of the economic development policy area and lumped in with resource development programs which churn out better numbers. 29.

3.3 Levels of Bureaucracy within Government

Traditionally, government policy making structures have been subdivided into three principal levels. These levels are designated legislative, executive, and bureaucratic. However, with Peter Aucoin's analysis of the reforms that have taken place in the policy-making processes at the federal level, he has suggested the inclusion of a fourth level which he titled the "Executive Bureaucracy". Following is a brief outline of these levels and the attendant responsibilities.

LEGISLATIVE - This level includes elected representatives to the provincial or federal parliaments and deals with legislative or statutory initiatives as well as spending allocations of the government. This level can also be extended to include interest and pressure groups who participate by invitation both in the informal negotiating process surrounding legislative interventions or by making presentations before formal committees.

POLITICAL EXECUTIVE - This level of policy making includes the Cabinet as well as special Cabinet committees on regulations, policies, priorities, and resources, etc. It is the senior management of the government and deals with all aspects of managing its policies and programs.

EXECUTIVE BUREAUCRACY - The executive bureaucracy is comprised of those special advisors and members of central agencies. These individuals are responsible for assisting the Cabinet in formulating policies which are more than just a reflection of the interests of the responsible technocrats in the bureaucracy and are

consistent not only with each other but with the political climate. The members of the executive bureaucracy may be people with regular civil service appointments or they may be people with contract appointments.

BUREAUCRATIC - The bureaucratic level of policy-making consists of the formal civil service of senior administrators, policy and legal advisors, program managers, and operational staff. This level deals specifically with the programs of a particular policy area and focuses on a restricted number of acts, regulations and compliance or advisory consultative programs. The bureaucratic level may be further subdivided into a category of technocrats. At this level scientific, professional and technical experts are responsible for conducting the technical aspects of the programs in which they are involved. The role of the technical expert may be synonymous with the role of a program administrator.

Whether all levels can be seen to exist and whether compartmentalization between these levels is visible is a function of the size of the jurisdiction and the contentiousness of the policy issue under consideration. The model was derived from the Federal, Ontario and Quebec jurisdictions. From our interviews to date, a number of differences exist in the smaller provinces which should be kept in mind:

- (1) the executive bureaucracy tends to be smaller, less formalized and less influential;
- (2) the technical bureaucracy and the administrative bureaucracy tend to be combined into one level where administrators are chosen because of their technical competence; and
- (3) the degree of compartmentalization appears to be less significant and flows much easier between departmental head, Cabinet and the legislature.

3.4 Continuous Change and Reorganization

As mentioned earlier by Kirby, Kroeker, and Teschke, these governmental structures are in a process of continuous change and reorganization.

"The complexity and interdependence of issues, the size of government, the need for careful use of scarce resources, the policy activism of public groups and governments at all levels, the changing world scene,

the increasing pace of change, the need for more openness, sensitivity and mutual understanding have all brought forth changes in the structure and processes of government as well as a subtle shift which has lessened individual ministerial accountability and increased the responsibility and accountability of the collectivity of ministers. These changes in turn have tended to diffuse the responsibility and accountability of senior officials, and through them the rest of the public service." 30.

As we will discuss in a later chapter, occupational health and safety has seen its share of definitional and organizational changes.

3.5 Occupational Health & Safety as Transcience

The occupational health and safety policy area is typical of decision-making problems when technical or scientific issues are involved. The problems of imperfect data and "soft" answers regarding matters of health, lead Williams and Bates to comment that:

"...all the relevant research needed to underpin a technical judgement has rarely been done. Often this research cannot in principle be done, and reliance must instead be placed on extrapolation, statistical analyses, and other still less satisfactory procedures. It is in this way that most pieces of technical advice come to have at least a penumbra of 'transcience', and in the worst cases the hard core of rigorous fact may be vanishingly small. Judgement of issues or of safety factors going beyond a strict analysis of the significance of data may be called for. Thus it is that great strains are placed on the ethics, as well as the professional skills, of advisers." 31.

"A frequent complaint of policy-makers is that technical information is often offered in a form which is neither relevant enough nor specific enough to be incorporated into the policy process. There are also administrative deficiencies inherent in every decision-making system, quite apart from any shortcomings in respect of the technical input. Public decision-making is not clear-cut and rational..." 32.

As with all public policy decisions, policy makers focus on the issue of values. When one combines that with the problems of risk to health and safety, solid ground is

not often found. The questions of acceptable levels of risk are consistently referred to but infrequently dealt with satisfactorily. Williams and Bates make the comment that:

"Neither the structure nor the style of Canadian government facilitate a rapid and successful response to the problems posed by man-made hazards...By their very nature, man-made hazards cannot be effectively dealt with until they are widely recognized and the level of risk and loss from them rejected as no longer tolerable. The first step is thus public awareness, after which other steps such as public debate, legislation, machinery for monitoring and implementing legislation, and more research, can follow." 33.

As Bruce Doern points out, informed decision-making in highly technical areas as hazardous products and toxic substances is no easy matter:

"...standards of proof, and risk-benefit, cannot be easily or reassuringly offered. The technological mystery of several aspects of the hazardous products regulatory process cannot be underestimated. It affects both substantive standards and how they are perceived...These standards in turn impose different criteria regarding the adequacy of the processes and procedures...the hazardous products regulatory process must adjust its processes to this important reality of its regulatory environment." 34.

Doern goes on to say:

"In many areas of the regulation of occupational health, lack of research or causal knowledge is not the main problem... Scientists, for example, are naturally and necessarily careful about the statements they make about causal knowledge. They have a more cautious sense of 'evidence' about standards or TLV's (threshold limit value) for example. They are likely to advocate, therefore, that the standards be viewed as 'guidelines' and that more research needs to be done. Economic interest with a self-interest in loose standards will exploit this argument and use it to justify lower standards or to postpone action until more conclusive 'cause-and-effect' evidence is produced. Unions and others who must seek more precise administrative and legal criteria of evidence will opt for legislated precise standards." 35.

The decision-making processes must be viewed as both a means and an end in themselves. Effectiveness should be evaluated on both counts. As a means, the issue is the extent to which it facilitates decision-making in a cabinet-parliamentary system. As an end, the question is does it ensure participation, openness and political accountability consistent with our pluralistic democratic system of government.

3.6 Continuum of Governing Instruments

Our inquiry is concerned with evaluating the effectiveness of the processes by which various types of decisions are made. It is essential to make a distinction between types of decisions because the decision-making processes vary with the different governing instrument employed. The process of introducing statutes, for example, is radically different than the process of introducing a new advisory-consultative program. Doern and Wilson's continuum of different types of governing instruments is a useful way of distinguishing between these various types of decisions.

"Certain types of governing response, such as creating a study, involve minimum coercion and might even be referred to as being symbolic or consisting of exhortation. The allocation or distribution of spending resources is an instrument of governing that involves more moderate coercion, because the coercion is basically less noticeable in that it is indirect and displaced onto the taxation system at the time that taxes are collected. Direct regulation, on the other hand, is an instrument of governing that involves a more direct exercise of legitimate coercion, in which rules of behaviour are enacted with the sanction and/or penalties of the state more directly applied." 36.

The following schema (Figure 1) illustrates this continuum. We employed this framework as part of our analysis of the occupational health and safety field. Since occupational health and safety has traditionally been characterized by interventions on both the low (exhortation) and high (regulation) ends of the continuum, it is interesting to note the absence of direct expenditure interventions from a compliance perspective.

"While, in broad political terms, it is appropriate to present a broad range of instruments such as regulation, spending, and exhortation, the choices available in day-to-day legal and administrative terms are much finer. At the regulatory end of the continuum, for

example one can include sanctions which would encompass imprisonment, fines, revocation of licenses, stop work orders, and reporting requirements. Within the spectrum of spending instruments one can envisage grants, subsidies, transfer payments and conditional or shared grants. At the other end of the continuum one might group under exhortation such devices as information programs, research and direct consultative and advisory committees and processes." 37. (*italics in original*)

Figure 1:

Schema of
Continuum of Governing
Instruments

Low ————— Degree of Coercion ————— High		
Exhortation	Direct Expenditures	Regulation
. information programs	. grants	. imprisonment
. research	. subsidies	. fines
. consultative and advisory committees and processes	. transfer payments	. revocation of licenses
	. conditional or shared grants	. stop orders
		. reporting requirements
		. directions

Adapted from: G. Bruce Doern, (Ed.) The Regulatory Process in Canada. Toronto: Macmillan, 1978.

In applying this continuum of governing instruments to our specific interest in the decision-making processes in occupational health and safety, we have further divided the "regulation" end of the continuum (high coercive) into the three subsets of legislation, regulation and compliance. The rationale for this further subdivision is that each of these sub-categories reflects, both from the aspect of content as well as process, a different legal instrument and a different decision-making process (see Figure 2).

In the field of occupational health and safety regulation, the legislation defines duties, responsibilities, powers, authorities and penalties; the regulations focus on the definition of specific occupational health and safety hazards that are to be controlled; and the compliance programs include the detailed administrative and operating policies regarding interpretation of both the statutes and the regulations. All three aspects of regulation represent separate and distinctly different decision-making processes.

Although a great deal of attention is being given to the statutes and regulations as the most visible regulatory instruments of government, compliance programs are an equally important aspect of regulation because of (1) the considerable amount of discretion existing within the legislative framework for interpretation; and (2) the significance of the impact of the use of that discretion and the actual costs and benefits to those affected by the compliance programs. As Bruce Doern points out:

"The regulation-making mandates and compliance processes, as they are now legally enshrined, confer enormous discretionary powers on regulatory authorities..... [h]ow open the regulatory process will be, who will be consulted, how early in the process will particular groups be consulted, whether reports and the results of monitoring will be released (and, if so, to which parties), whether sanctions will be applied, the type of sanction, the sequence in which multiple sanctions are to be applied and a host of other related questions." 38.

3.7 Evaluation from Least Coercive to Most Coercive

Doern and Wilson have taken their classification of governing instruments further in its application to Canadian policy making. They have developed a hypothesis which we think is relevant to the manner in which occupational health and safety interventions have developed:

"...[it would] suggest that politicians (especially the collective cabinet) have a strong tendency to respond to policy issues (any issue) by moving successively from the least coercive governing instruments to the most coercive. Thus, they tend to respond first in the least coercive fashion by creating a study or creating a new or reorganized unit of government, or merely by uttering a broad statement of intent. The next least

coercive governing instrument would be to use a distributive spending approach in which the resources could be handed out to various constituencies in such a way that the least attention is given as to which taxpayers' pockets the resources are being drawn from. At the most coercive end of the continuum of governing instruments would be a larger redistributive programme in which resources would be more visibly extracted from the more advantaged classes and be redistributed to the less advantaged classes. Also at the more coercive end of the governing continuum would be direct regulation in which the sanctions or threat of sanctions would have to be directly applied. It is, of course, obvious that once a policy issue has matured and been on the public agenda for many years, all or most of the basic instruments could be utilized." 39. (*italics in original*)

When Doern and Wilson's hypothesis is applied to occupational health and safety, it appears, on the surface, to hold true for the evolution of occupational health interventions. The traditional approach in provincial jurisdictions has been to move from voluntary guidelines to the regulatory end of the continuum to effect some reduction in accidents and fatalities. Our preliminary indication is that they were unable to utilize these expenditure levels of coercion because they have not had the level of resources that could have been applied in this fashion. And it is only now, that they are supplementing their regulations with expenditures on information, research and advisory services.

As Doern continues on to say:

"An understanding of regulation over longer periods of time may be aided by viewing political behaviour as being partly a process in which politicians trade in a market of governing instruments. Thus, tendencies to regulate, to spend, or to exhort are affected by changes in the relative supply of instruments over timethen vociferous criticism of excessive governmental expenditure and hence the need by politicians to turn to other instruments of governing such as regulation and exhortation (through consultative mechanisms). The alternative choices are limited to regulation and exhortation because the choice of doing nothing is not generally tolerated in modern politics. Thus when the supply of expenditure instruments is reduced, and/or perceived to be less available, one ought to expect a significant increase in the use of regulation and in the use of symbolic and exhortative instruments of government (e.g., studies, commissions, and task forces)." 40.

In analyzing provincial decision-making processes in occupational health and safety from this perspective, it has been difficult to determine either the sequence or the motivation-rationale behind specific examples of exhortation, expenditure and regulation interventions. What does seem to be significant is:

1. The use of commissions, inquiries etc. have usually been employed to respond to a specific occupational health and safety problem (a major explosion, crash, structural failure or occupational health problem). In some instances, the establishment of these Commissions et al have been mandated for a more general overview of occupational health and safety in the particular province; 41.
2. The recommendations of these inquiries have usually resulted in revisions or expansions of the legislative framework designed to improve the preventive-protective aspects of the health and safety of workers;
3. There appears to be relatively little use, at the provincial level, of the direct expenditure form of government intervention. Although this is increasing, particularly in the occupational health area, historically it does not appear to have been used to any meaningful degree. As one respondent commented:

"it's all we can do to get enough inspectors, let alone researchers and educators."
4. The evolution of the occupational health and safety interventions and overall approach within each of the provinces seems to have developed in a cyclical rather than linear fashion as implied in the previous Schema. The rise and fall of pressures and responses to problems in the workplace have grown in a step-plateau-like fashion. Each set of revisions is usually accompanied by significant visibility, resulting in increased awareness of occupational health and safety with the subsequent implementation period returning to the shadows of day-to-day operations. 42.

5. Most of the commission-like instruments that could be classified as forms of exhortation seem to be a fundamental part of each cycle of decision-making. They tend to trigger the cycle and play a critical role both in setting or resetting the overall perspectives on the occupational health and safety problem and facilitating public discussion and input on both the problem and solution development.

In summary, it is against this background of how governments are generally structured and function with respect to regulatory activities in general and all health and safety in parliament, that the next chapter presents our principal findings.

Figure 2:
 Schema of Governing
 Instruments in Occupational
 Health and Safety

Exhortation	Direct Expenditures	Regulation
1. Voluntary Compliance <ul style="list-style-type: none"> . above minimum legislated standards . areas where no or few minimum standards exist e.g., occupational health hazards, toxic substances, TLV's . development of consensus standards 	1. Labour-Management Education Programs 2. Information development and dissemination on OH&S problems, hazards and solutions Guidelines 3. Research and development on cause and effect relationships of hazards. 4. Advisory-Consultative, industrial hygiene, in-plant health services, lab services, etc.	1. Statutes (Acts) <ul style="list-style-type: none"> . duties, responsibilities, powers and penalties . legislates internal responsibility system . compensation system 2. Regulations <ul style="list-style-type: none"> . specify OH&S hazards to be controlled . exposure levels and often how hazard is to be controlled 3. Compliance Programs <ul style="list-style-type: none"> . policies and procedures for interpretation and application of legislative framework. . investigation - inspection . codes of practice . codes of requirement . registration, licensing, certification programs.

CHAPTER 4

Occupational Safety

The purpose of this chapter is to distinguish occupational safety from occupational health and to begin the detailed analysis of the effectiveness of "safety" decision-making processes.

Occupational safety is one of the oldest areas of public policy in most of the provinces in Canada. In a number of provinces, legislation in this area dates back to the late nineteenth century.

Occupational safety has traditionally been located in provincial Departments of Labour across Canada since its inception and has been staffed by people with industrial, construction and engineering expertise and experience (except B.C. where since the inception of the W.C.B. in 1917, it has been part of the W.C.B.)

Occupational safety may be called an incremental policy area. By incremental, we mean that it is a well established area of public policy and that decisions regarding the legislative and compliance frameworks tend to be gradual with incremental modifications of the basic framework and approach. Unlike the energy or rent control areas, occupational safety policy changes do not involve a completely new review and search for appropriate public policy each time modifications or changes are needed.

As mentioned earlier, the traditional definition of occupational safety is that it deals with injuries and accidents to workers that result from a blow or impact on some exterior portion of the body. Typical examples of these types of injuries are falls between levels, electrocutions, broken limbs, cuts, strains and sprains, etc.

4.1.1 Accident Causation Research (safety related)

Accident causation research has an extensive history and array of studies. 43. Unfortunately, virtually all these studies are far from conclusive as to what causes occupational safety accidents. As a result of this research, two principal schools of thought have emerged. The environmental school tends to attribute the majority of accidents to the fact that physical and uncontrolled hazards exist in the work place and that the majority of accidents are due to the

presence of these uncontrolled hazards. The behavioural school, on the other hand, attributes most accidents to unsafe work practices or acts on the part of the workers themselves. Unfortunately this has led the workers to blame accidents on the employers who control the physical aspects of the work place and for employers to attribute accidents to careless and unsafe work practices on the part of workers.

Apart from the fact that this conflict in the research has provided everyone with an opportunity to blame everyone else for occupational safety accidents and injuries, the latest studies have recognized the presence of both environmental and behavioural aspects. But perhaps most importantly they have continued probing into the nature of accidents and are suspecting that the most significant reasons for accidents and injuries are the actual combinations of both environmental and behavioural aspects and the extent to which people, by the nature of the work processes themselves, become careless and become injured. As one administrator of safety legislation observed, "accidents result when an unsafe act meets an unsafe condition."

The result of this accident causation research is that relatively extensive work has been undertaken and completed over the years on the assessment and design of safer materials, equipment, and structures. Very little research on the other hand has been devoted to an increased understanding of worker behaviour and work processes and how carelessness can be reduced or prevented.

4.1.2 Evolution of the Legislative Frameworks for Safety

Based on this background of cause and effect relationships, the so-called policy output of provincial governments across Canada has been the establishment of a legislative framework for prevention and enforcement of minimum standards. In effect, the occupational safety legislation across Canada has systematically established what Dr. James Ham coined as "internal responsibility systems" within the work place. These internal responsibility systems define which level of management, supervisory staff and workers is responsible for which elements of attempting to prevent accidents and injuries. In addition this legislated internal responsibility system also defines the powers of the government to inspect, issue directions and stop work orders, and where deemed necessary, to prosecute offenders of the act or the regulations. In short, the statutes across Canada define the duties, responsibilities, powers and penalties of the actual actors in the work site.

This legislation has been implicitly based on the theory that accidents can be prevented and controlled by setting standards on physical hazards in the work place. 44. And although all legislation across Canada places responsibility on the worker to work safely and upon the employer to train workers in safe work practices, the principal thrust of this legislation has been on placing the responsibility for the control of hazards on the employers and supervisory staff themselves.

This emphasis on physical hazards in the work place has led to the development of what might be termed hazard by hazard minimum standards issued in the form of regulations. These hazards include everything from shoring of trenches to machine guards on punch presses. However, it should be noted, that the core hazards of concern within these legislative frame-works were originally those that had the potential for creating major catastrophies -- explosions, cave-ins and fires. It was only with the increased attention being paid to other causes of safety accidents that we saw the growth of regulations designed to control less dramatic or traumatic types of accidents and injuries. 45.

4.1.3 Employer Liability and Definition of Work Places

In the development of such a legislative framework surrounding the responsibility for the control of physical hazards in the work places, two fundamental issues were addressed early in the process -- employer liability and the definition of work place. The definition of work place was critical to establishing a reasonable framework in which one could expect employers to be held accountable by the courts for accidents due to their negligence. The concern of the designers of the legislation was to restrict the legislation only to those work places where employers had total control over both the environmental conditions as well as direct supervision over the work practices of the workers.

Further, the architects of the legislative framework established the concepts of strict and limited liability whereby it was possible to recognize that in some cases, although the employer had principal responsibility for the working conditions, several aspects of the work place generally remained outside of his control -- e.g., some types of construction, work places influenced by severe weather conditions, etc.

This approach to establishing a legislated internal responsibility system and the development of a sophisticated set of minimum safety standards contained in the regulations subordinate to the actual safety legislation itself, was not viewed as the be-all and end-all. The administrators of this legislation realized that this legislative approach was capable of only dealing with the environmental factors in the work place and of ensuring employers were accountable for the control of these hazards. The responsibility for improving work practices were and still are the responsibility of training and education groups such as the safety associations.

4.1.4 Enforcement

The other main feature of these legislative frameworks is that they are based on the premise that the majority of people affected by them will comply voluntarily with their responsibilities and the minimum standards prescribed. In those instances where voluntary compliance is not forthcoming, two principal enforcement instruments can be used -- stop-work orders and, as a last resort, prosecutions with provision for fines and/or imprisonment. The general opinion across Canada has been, with the exception of the issuance of directions and stop-work orders, prosecutions are not only expensive in terms of manpower but they also have a relatively low success rate. And even in instances where these prosecutions have been successful, the low level of fines imposed by the courts have been seen as rendering this technique virtually useless as an effective form of preventive deterrence. 46. As a number of labour legislators and administrators have observed, this inability to successfully enforce the legislative framework, has resulted in a shift in strategy from enforcement to auditing and advisory consultative modes of seeking compliance.

This concern about the enforceability and the deterrent effects of the legislative framework has been exacerbated by the levels of resources committed in each of the provinces to inspecting and auditing the state of compliance with these legislative frameworks. The average number of companies and employees per inspector is high compared with the time and resources necessary to effectively audit environmental and behavioural hazards in the work place. Because of the pressure to show the flag and be seen to be inspecting a significant percentage of all the work placed on their beat, the inspectorates have been forced to reduce the time they spend on individual inspections in favour of increasing the frequency of these inspections across a range of work

places. And as a result, the inspectors often feel that they end up playing the role of safety co-ordinator for individual companies who wait until the inspector shows up before correcting hazards in their operation.

4.1.5 New Approaches

The current trends in safety legislation and regulations represent a major departure from the approaches of the past. Of particular note, is the increased effort to expand the role and power of the workers in the actual identification, evaluation and control of safety hazards in their work place. This expansion of the internal responsibility system to include the worker in plant level decisions regarding his work place is in effect restructuring authority at both the work place and in the development of the over-all legislative framework. Examples of this legislative change in the responsibility systems are the changes in the provision for right to refuse unsafe work, joint health and safety committees, the right to accompany inspectors during inspections, the right to company statistics on accidents and injuries. And although these decisions have been instituted at different rates in different provinces, the basic result has been an increase in the awareness and commitment to occupational health and safety of all policy and client actors in the system.

This concerted effort to change the balance of participation in the campaign to prevent occupational safety accidents and injuries is viewed as part of a long-term attempt to increase the direct participation and awareness of workers in creating and maintaining a safe work place. It is viewed with suspicion as to its potential for abuse and misuse, especially where poor labour management relations exist.

4.2 Occupational Safety Acts

Apart from the major innovations in worker participation, occupational safety legislation has grown steadily in expanding the control of environment hazards. It has periodically undergone housekeeping changes related to improving the ability of a particular jurisdiction to successfully enforce its legislation and to incorporate changes in appeal procedures and powers and penalties.

The principal revisions to the actual occupational safety acts have usually been the result of various provincial Royal Commissions or Inquiries into the state of occupational safety in a particular provincial jurisdiction. In these instances, the Inquiries were used to review both the state of occupational safety as well as to invite the input and participation of any and all interest groups.

These decision-making processes tended to be the traditional legislature oriented exercise. The stimulus for change was usually a crisis, major accident or an external Commission or Inquiry based upon some collective sense of the need to improve the situation. The public consultation processes were conducted through the legislatures. However, it is a relatively recent phenomenon, for provincial legislatures to make extensive use of public hearings and to receive briefs during the second reading of such bills. Perhaps the most notable examples were the cases in Alberta, Ontario and Quebec in recent years where the revisions to the safety legislative framework, although combined with the occupation health issue, did make extensive use of public hearings of the legislature. This departure from the usual approach of closed committee meetings on second reading seems to signal the increased interest, awareness, and desire on the part of various special interest groups in improved access and participation in the decision-making process.

4.2.1 Omnibus Legislation

Another trend that has been developing in recent years is the interest in combining all relevant occupational health and safety legislation into one omnibus act. The basic attraction of omnibus legislation is simplicity both from a client and administrative perspective. This attempt to integrate, rationalize and simplify the legislative framework for a particular industrial sector or client group has increased the time it would have normally taken to make the basic legislative changes. The dysfunctional aspects of this simplification are offset by the complicated way in which such an integrated framework has to be created and drafted. For instance, the requirements on ladders in mining, industrial, and construction sectors of the economy are basically similar but significant differences must be maintained in the framework. These require a very complex and often overbearing section to ensure that the general principles applicable to all ladders and all sectors exist as well as the identification of any special requirement in any one of those particular sectors. Under separate legislation, the drafters wrote the relevant sections for

each industrial sector and did not have to deal with the complications of attempting to write a single section that applied to all industrial sectors, covered all idiosyncrasies, and ensured that there were no loop holes that could be used to avoid compliance.

4.2.2 Other Provinces as the Reference Standard

An important characteristic of provincial legislative decision-making is their constant attempt to keep consistent with each of the other provinces in a particular policy area. Perhaps because Departments of Labour tend to be among the oldest government departments in each of the provincial jurisdictions, they tend to follow each others' efforts in great detail. Through frequent meetings and a continuous exchange of information, provincial legislation in occupational safety tends to be similar. And although there is no overt attempt to establish national patterns, the net result is that with the exception of some individual variances based on the perceived needs of particular provinces, both the frameworks and the hazards regulated are similar.

These inter-provincial comparisons are often used internally as one of the rationales for specific legislative changes. The smaller jurisdictions tend to rely upon the research and ex ante evaluations done, to the extent they are done, by the larger jurisdictions such as Quebec, Ontario and Alberta and the interprovincial coordinating mechanisms (e.g. Canadian Association of Administrators of Labour Legislation).

In examining the sequence of events and the role of various policy actors in this restructuring of the legislative framework around worker participation, it was evident that few of the provincial departments or policy actors in the field explicitly separated "process" of regulating from the "content" of what should be regulated.

The desired policy outcome of these changes in the internal responsibility system and the increased participation of workers in occupational safety, was to follow principles emerging from growing trade union pressure and recent studies such as the Ham Commission. The Ham Commission recognized the basic dilemma in the accident causation

research and the need to find some additional vehicles beyond simply legislating minimum standards for environmental hazards. The Ham Commission sought to supplement this focus on environmental hazards by increasing the active participation of workers in creating and maintaining a safe and healthy workplace.

4.2.3 Institutionalizing the Responsibility System

The policy output or means of achieving this was to institutionalize the responsibility, legitimacy, and authority of workers to actively and meaningfully participate in occupational safety decisions at the work place. The attempt to re-order the working relationships at the shop floor level, often turned out to be one of the most hotly debated and contentious legislative changes. The focus for the discussion was the changes in recent years in the provisions regarding the right of workers to refuse unsafe work.

In short, these changes in worker participation signalled a fundamental shift in the assumptions about accident causation. These changes sought to increase the awareness of workers to safe work practices and to tap their expertise and knowledge of the individual work places involved. This attempt to create a new internal responsibility system with increased emphasis on and participation of workers, was not instead of changes to minimum standards but rather in addition to. The principal form of this participation was the joint health and safety committee vehicle. This was expected to not only increase the formal attention being given to occupational health and safety in each work place, but also to expand the nature of that participation by requiring these committees to conduct periodic inspections of their work place. Provisions of this type established and reinforced a responsibility for the continuous monitoring and improvement of occupational health and safety in the individual work places.

4.2.4 Decision-Making Processes

The philosophy of how these decision-making processes were to operate is vague. The degree of participation envisaged was often a preliminary attempt by the bureaucracy to go out and discuss with the clients, their needs and reactions.

The so-called rational problem solving sequence employed tends to be based on the research conducted by the various Commissions on the cost effectiveness, in particular the relative benefits or anticipated benefits, of worker participation. There were no formal research studies conducted on worker participation but there was a recognition that the traditional approach of hazard by hazard regulation was not working and that there was a need to restructure the approaches to improve the state of occupational health and safety. There were numerous attempts to evaluate the likely impact of these various worker participation modifications but due to both limited methodologies and limited data, these ex ante evaluations were both superficial and relatively useless in making reasonable estimates of the likely impact.

The decision-making sequence itself for these statutory changes was both lengthy and complex. No one expected the increases in the time it now takes to get these legislative changes finalized. In the case of Bill 70 in Ontario, a total of three years passed.

The roles of the various policy actors, with the exception of those within the bureaucracy were very poorly defined and very few people had a clear understanding as to who was managing the process and what they were expected to contribute or the manner in which they were expected to participate. Perhaps the most significant observation is that the processes tend to be one-on-one exercises where individuals, representatives, or groups are identified for consultation and participate in selective meetings called by the departments.

The interaction or dynamic element of these ongoing decision-making processes was the most difficult element to identify because of the dispersion and the invisibility of many aspects of the consultation.

4.3 The Use of Subordinate Legislation Regulations

The approach to regulating standards has been to reduce the potential for accidents to be caused by unnecessary or preventable environmental hazards. The approach, in a nut shell, has been to identify physical hazards in the work place that have been responsible for either serious injuries or fatalities and to subsequently develop minimum standards on these hazards either prohibiting their presence or effectively controlling their potential for causing accidents.

The rationale of including these minimum standards in the Regulations (as opposed to the Act) has been the need to ensure that governments can respond quickly to unanticipated hazards that suddenly appear in the work place. A new regulation can be promulgated and implemented in one day through an Order-in-Council whereas statutory changes require the consent of the legislature and generally requires substantially more time. This attempt to provide a simple, effective, and timely response device for crisis situations, has often been criticized. The basis for their criticism is rooted in a suspicion of the decision-making processes surrounding Regulations. This criticism has led to a number of recommendations and calls by the external client groups to have the minimum standards enshrined in the actual statute itself to ensure the opportunity for consultation. In some cases this was also expressed as an attempt to minimize the potential for the government and bureaucracy to skirt the issue or render some standards impotent.

Most regulations deal with specific hazards on an individual basis and define the characteristics of the hazard and specify the manner in which the hazard is to be controlled. In recent years there has been an increased attempt to develop what are commonly called performance standards which recognize the individual variations in different places and provide the companies with some flexibility in controlling the hazard in the most convenient and economical manner possible.

4.3.1 Consultation for Standard Setting

The result of this long tradition of safety minimum standards has been the establishment of a fairly lengthy and consultative process. With the exception of the times that governments have had to respond to a crisis situation and promulgate regulation in fairly short order, the majority of minimum standards developed in recent years have been the result of extensive consultation. This consultation process on the occupational safety side tends to be focused through a number of national and international standard development organizations. Perhaps the most interesting feature of the Canadian Standards Association is that it is a private sector initiative funded by subscriptions and donations from manufacturers and suppliers of the equipment and materials commonly used in Canadian work places. In most instances, initiatives to establish minimum standards are vetted through the various standing committee mechanisms of the Canadian Standards Association.

The Canadian Standards Council of Canada is the umbrella organization for these various organizations all of whom contribute to the development of technically and economically feasible improvements in the safety of equipments and materials. This area of voluntary standards will be discussed in a later chapter.

Many of the critics of the regulatory process have stressed the fact that the minimum standards included in the regulations are not subject to adequate consultation or ex ante evaluation. It may be appropriate to observe that perhaps these critics are right in that there is not enough consultation with the non-experts and that perhaps the existing systems of technical consultation and development should be expanded to include more opportunities for final user-client participation, in particular, labour.

The purpose of regulations tends to be very specific in that each hazard under consideration is being subjected to this form of control because it has been responsible for the injury or death of a significant number of workers that could have been prevented. The policy output is either the elimination or direct control of a specific hazard by the prohibition of its use or application in particular ways. The key limitation and weakness of such a hazard by hazard approach is that it does not take into account the behavioural factors such as work processes, work scheduling and worker behaviour itself. But as we mentioned earlier, the basic strategy of legislation in this field is the control of specific environmental hazards where strict liability can be imposed on the company.

The philosophy of the process for developing regulations on hazards has been fairly well established over time and tends to focus on the extensive participation of technical experts, manufacturers and users of these materials and equipment. The participation is facilitated through an extensive decision-making process that has been formalized by the various standards organizations.

The problem-solving sequences used to determine the scope and magnitude of a particular hazard and likely options for its control is subject to the conventional testing criteria of the engineering discipline.

The weakness would appear to be the inability of these technical standard setting processes to include appropriate considerations of the so-called values of what individuals, groups of occupations, and institutions are prepared to accept. The question of the acceptability of a technical

solution tends to remain a sore point with a number of representatives of workers. This tends to be the result of a concern that the technical and economic considerations of any standard are given an overwhelming priority compared to the need to solve the problem as soon as humanly possible.

4.3.2 New Regulations

The decision-making sequence for regulations is fairly common between provinces because of the normal propensity of the bureaucracy to establish fixed rules and procedures on decision-making decisions.

The decision-making structures and mechanisms involve an extensive range of external experts, manufacturers, users and clients along with the senior officials of the safety branch and the legal or legislative planning group within the department. Based on the analyses and recommendations of these principal groups of actors, the draft regulations are forwarded as a matter of course to the standing committees on regulation and the Legislative Council for final drafting, approval, and proclamation. The roles of the various players are defined by virtue of their position within the organization of this process. The information available on each of these standards tends to be voluminous in terms of minutes of various committee meetings but relatively limited in terms of explaining clearly the benefits and the cost of the particular approach being recommended. This is not unusual given the fact that the national and international standards-setting attempts to get not only consensus regarding the technical feasibility of the particular approach, but also the economic feasibility of implementing a particular standard and the voluntary support of the manufacturers and users themselves. The criticism tends to centre around the slowness of the process and the pressure to increase regulations over broader area of potential environmental hazards.

As mentioned earlier in this section, each of the provinces monitors legislative developments in the other provinces and sits on various standards committees jointly. This affords them an early opportunity to both seed a particular issue into a standard setting process for consideration as well as monitor the developments regarding the particular area of hazard. These interlocking committees and the follow-the-leader pattern has often resulted in similar safety standards in each of the provinces for each of the industrial sectors.

4.4 Compliance Programs

One of the most interesting areas that is currently coming under investigation is the administrative discretion and flexibility each of the enforcement compliance programs has over the interpretation, in application of both the act and the regulation regarding individual instances and individual employers. Discretion is perhaps one of the most interesting aspects of regulation and is particularly relevant in the field of occupational safety. Although there is a good deal of scientific rigour to the various regulated standards, many individual instances or situations must be interpreted by a professional as to the extent of the hazard and the interpretation in applying the existing legislative framework. This discretion with respect to interpretation and application has been in the regulations, by the expressions " ...where in the opinion of the inspector ..." It is this area that has led many labour and management representatives to seek a greater deal of precision in the drafting of legislation and regulations and to pressure for the publication of policy and precedent guidelines.

The limited ability to inspect all the environmental hazards in the multiplicity of companies in each province and the relatively low level of fines imposed by the courts on successful prosecutions, has led to a shift in strategy. While this shift in strategy has been necessitated by the inability to use prosecution as an effective deterrent, it has led to increased pressures from workers regarding their perception of the inability of inspectors to protect the health and safety of the workers. The administrators of safety legislation have attempted to preserve the integrity of their laws to the extent that they could by not forcing the issue with every individual contravention of the legislation.

In addition there are considerable concerns on the part of the field staff and the administrators as to the extent to which they should enforce the legislation and regulations as they are written. As a number of field officers commented, "we could close down every workplace in the province tomorrow if we went by the book." The field staff appear to have an intuitive understanding of the extent to which their decisions will be supported by their organizations.

In looking at compliance programs from the perspective of our framework of the decision-making processes, the decisions tend to be based upon a "reasonable man" approach to getting self-compliance by the individual companies and

workers. The inspectorates have no illusions about the inherent limitations of the effectiveness of regulation and seem to use it also as an educational tool to ensure that companies and workers understand the principal hazards that would be detrimental to their health and to encourage compliance.

There is no doubt that with the existing pressures for regulatory reform, the operating policies and procedures of the compliance and enforcement programs will come under increased scrutiny. Frustration with the inability of existing approaches to reduce occupational accidents and injuries appears to be increasing the pressure on the day-to-day operations of the compliance programs.

4.5 Non-Regulatory Interventions

By non-regulatory interventions we mean the entire range of advisory and consultative programs that have been developed in recent years to assist labour and management in the identification, evaluation and control of hazards. In many cases, these advisory/consultative programs have included training and development programs in safe work practices, educational programs in the identification, evaluation and control of occupational safety hazards, the publication of technical data sheets and guidelines on various alternatives for controlling hazards. This host of so called exhortative interventions has been supplemented in recent years by expenditures on information to individual workers, occupations, and unions. These expenditures have also included investments in research and development on difficult hazards and new hazards being identified.

It should be pointed out that these non-regulatory interventions are viewed as the last to be approved within the government decision-making process and the first initiatives in programs to be cut whenever there are resource constraints. During the budgetary process, the priority tends to be given to existing statutes and regulations and where cuts have to be made, the so-called soft programs and non-statutory initiatives are often first to go. This legislative imperative often provides that the primary programs that get approved and funded over the long haul are those which are based in statutes and regulations. Unless the advisory or consultative program is designated in the Statute or the Regulation, initiatives will often be thwarted either initially or in the next round of budget cuts.

These advisory and consultative programs are often seen as being in competition with services that are or should be provided by the private sector on a fee for service basis to

the final users. Even though it is unlikely these services will be provided in the initial stages because of the heavy costs and constantly changing research and development needs, it is usually during good budget years or crisis opportunities that such a program is approved or maintained. And the experience of most administrators who have such programs is that once they have the programs, they're always defending the need for these programs. The amount of time this takes is often seen as disproportionate to their relative value in the system. The non-regulatory options are often indirectly considered illegitimate and seem to be the most difficult to maintain.

There is relatively little consultation or participation in the design and development of these interventions and they are often not considered worthy of much time given the higher level priority assigned by client groups influencing the actual statute and the regulations themselves.

In summary, occupational safety should be viewed separately from occupational health in terms of its longer history and the professions involved (engineering in particular). Perhaps most important is the conventional thinking about the causes and solutions. To a large degree, "safety hazards" are usually visible, known to most workers in a particular workplace and are thought to be caused by a combination of worker error (behavioural) and management error (environmental).

Occupational safety has been characterized by the development of an extensive framework of "minimum standards" aimed at controlling, reducing or eliminating these so-called environmental hazards by regulation. And although most people recognize the parallel importance of the worker and his work practices, worker behaviour and awareness has usually been addressed by non-regulatory approaches and in several cases by non-governmental organizations such as safety associations funded under the Workmen's Compensation Board. However, with the legislative trend to increase and institutionalize worker participation in workplaces, is an attempt to reconcile these two approaches and improve the health and safety of the workers.

CHAPTER 5

Occupational Health

As mentioned earlier, occupational health, although a relatively old public policy area, is still younger than occupational safety. The initial manifestation of formal government policy in the field of occupational health emerged as part of the broader area of public health in the 1920's - 1930's.

The initial approach to public health was based on clear and effective legislative authority to prevent the use of any toxic substance or material where it could be scientifically and medically demonstrated that there were specific adverse health effects on workers. Public health policy, in its embryonic stages, concentrated on providing professionally qualified public health inspectors with the responsibility and powers to stop or evacuate any work site where the health of the workers was threatened. Generally these powers were used only in situations where there was specific evidence that a group of workers were suffering some diagnosable damage to their health. The most common instances were those instances where leaks or spills of toxic substances would have an immediate harmful effect on the health of workers.

The growing awareness, public visibility of the issues and pressure to do more about these often invisible hazards have been counterbalanced by the estimates that over ninety-five percent of the man-days lost due to injuries and illnesses are safety injuries as opposed to occupational health illnesses.

The unreliability of data generally, and the fact of an invisible latency period of occupational health illnesses merely add to the controversy of which gets the priority.

5.1.1 Different Origins of Occupational Health

In most of the provinces, there were no legislated minimum standards for specific toxic substances prior to the last ten - twenty years. The preferred approach was to participate with the scientific and policy communities in the development of appropriate TWA's (time weighted averages) and related industrial hygiene and medical surveillance programs to encourage the voluntary use of guidelines. This lack of regard for legislated standards is one of the significant differences between occupational safety and occupational health.

We should also point out that the origins of occupational health emerged from a different policy field and professional discipline. Public health was historically the preserve of Departments of Health across Canada and staffed, operated and directed by physicians and paraprofessionals in the medical field. These factors have been cited by several senior administrators as key determinants of the different approaches that have been used in occupational health.

The difference between physicians and engineers and how they define problems and develop policy solutions is subtle but important. Although we do not claim to be studying the professional determinism that some would suggest is inherent in the background of the officials who manage any public policy area, it is important to note that in the early seventies, when provincial governments across Canada were beginning to seek some coordination between occupational health and occupational safety programs, the attempts to arrive at effective coordination of strategies and programs were made more difficult by the differing perspectives, backgrounds and orientations of the different professionals.

5.1.2 Embryonic Nature of Occupational Health

According to our preliminary framework that differentiates between incremental and fundamental policy decisions, occupational health should probably be categorized as a fundamental policy issue. Although this classification is by no means clear-cut, the basic differences from occupational safety are that occupational health and the treatment of legislative standards for individual toxic substances is a relatively new approach with its own sort of problems -- particularly since it has been distinguished and to some extent separated from public and environmental health. In this sense, it does represent a new policy area and one which necessitates and probably will continue to necessitate the extensive involvement of various key interest groups in the formulation stage of what represents a new generation and direction of public policy. The struggle to find workable minimum standards for exposures of workers to toxic substances is still an indication of its embryonic nature. Especially given the growing labour and public interest and involvement in the discussions of acceptable risk.

5.1.3 Science Does Not Have All The Answers

When we speak of occupational health, it is important to remind ourselves that we are talking about injuries to the body which are the result of inhalation, ingestion and absorption of toxic substances generally found in the work place. In occupational health, the long latency period of many of the health effects contributed to its lack of visibility as a public political issue. It is only recently that the workers have become aware of the multiplicity of hazards that potentially exist in the work place and have increased pressure to effect preventive programs to avoid occupational disease in the future.

Unlike occupational safety where we can see and visualize the hazards, we have limited tools for verifying suspected health hazards. This fear of the unknown, especially its attribution to employers given their ultimate control over physical and chemical hazards in the work place, has contributed to the relative ignorance about such hazards and their prevention and control. Occupational health is perhaps one of those areas of "trans-science." Trans-science has been coined as an expression to cover those questions in public policy that can legitimately be asked of science but for which science has no answers. This notion of trans-science, has led its proponents to propose the use of the antagonism of ideas to arrive at some form of consensual decision in the absence of any absolute answer.

In tracing back the evolution of occupational health, one is immediately struck by the very low-keyed approach to relying on science in these areas and the attempt to provide some form of preventive protection for workers in the absence of justifiable and dependable medical and scientific information.

The policy outcome in occupational health is easily stated as an improvement in the occupational health of workers or conversely the reduction in the incidence and severity of occupational health illnesses. However, because of the difficulty in the medical identification of occupational health illnesses and the extremely difficult process of attributing health illnesses to work, we have very little statistical evidence of the scope and magnitude of the problems. Although occupational safety suffers a similar problem, they are more easily defined as work-related. In addition, there is clear evidence to suggest that although many illnesses can be limited to one's occupation or place of work, the addition of poor and unhealthy lifestyles on the part of

some workers which when taken in concert with exposures to certain toxic substances and chemicals, will clearly result in major illnesses.

The policy output of these decision-making processes in occupational health have been relatively invisible over the years. Since occupational health was part of the public health legislation, and since public health had higher visibility than occupational health per se, there did not appear to be any visible evidence of specific programs or policies directed at occupational health in the work place. In many respects, the increased pressures on government to improve occupational health were partly the result of this perceived lack of concrete and identifiable policy output related to the work place. Occupational health has been characterized as an on-going negotiating process between various interest groups in reducing worker exposures to toxic substances and the development of realistic, technically and economically feasible solutions on a voluntary basis.

Apart from the inclusion of noise and radiation in the traditional safety legislation, there were no legislated standards related to specific toxic substances, instrumentation and measurement of these toxic substances, engineering control specifications or medical surveillance programs in either the statutes or the regulations.

In the 1970's, there was an explosion of information on the toxic effects of various chemical substances: increased visibility of accidents involving toxic substances (spills from tank trucks, and derailments of railway cars carrying highly toxic substances) and perhaps most importantly, growing coverage by the media. This seemed to trigger major reactions on the part of special interest groups and the union movement in pursuing the development of a specific set of legislated standards to either eliminate toxic substances from the workplace or at least control the levels of exposure to the point where they would not be harmful to workers in either the short-term or long-term.

Although researchers across the globe have been and continue to be intimately involved in various aspects of studying the toxicology of chemical substances and compounds, they are unable to keep up with the volume of new substances, compounds, and trade names that are being introduced into

the work place yearly. As a result, they have attempted to focus their efforts on what they perceive as the priority hazards and to try to increase the adequacy of the existing data on the identification, evaluation and control of exposures to these substances. And as with all priorities, there are conflicting criteria as well as a host of crisis-based interruptions resulting in both duplication, overlap, gaps and non-rationalized use of resources. As one scientist commented, we all think that the problems in a specific workplace in our country are unique and therefore require our own special study of those exposures. Even though parallel research in a number of other countries has conclusively demonstrated the harmful effects and reached some sense as to how to control exposures to them.

Perhaps the most dramatic change in the decision-making process, is the increased questioning of the validity and useability of the concept of a threshold limit value (TLV's). Many special interest groups and unions in particular are taking this concept to task and demonstrating that it is not workable when you restrict its use and application to guidelines only. Many groups feel this is an unsatisfactory device for legislated standards. This growing awareness of the weakness of these "magic numbers", has been additional ammunition to the principle of zero-level exposures to toxic substances especially since the concept of TLV's was designed and maintained by the A.C.G.I.H. as a guideline only.

5.2 Occupational Health Legislation

As mentioned earlier, the decision-making processes under Departments of Health regarding public health acts were subject to rather extensive consultations with the well organized and influential professional medical associations. Since occupational health was treated as a sub-set of this overall concern for public health, many of the current issues never really emerged in this larger process of resolving public health. Similarly, since there were no specific legislated standards on individual hazards, occupational hygiene practices, or health engineering requirements, most of the consultation and participation in the decision-making processes was part of a longer and more informal process of deciding non-legislated used and administered standards in the form of guidelines.

This, however, has been changing radically as a result of the increased pressure from the trade union movement and other interest groups in getting specific legislated standards established formally within the legislative framework. Perhaps the most significant characteristic of the existing legislative frameworks is that many of them have just undergone basic changes to increase the provisions regarding occupational health or revisions are planned which will result in changes in the near future.

The decision-making processes that have been operative in recent years have focused on changes to the statutes themselves. The increased awareness brought about by the various Commissions, publicity and general public awareness of occupational health, has created a highly visible process. This is not to suggest that the decision-making process has been conducted to everyone's satisfaction and with the appropriate levels of participation for all the groups involved. But simply to point out that because of the contentiousness of the subject matter and its general visibility, a greater number of external policy actors have been included in the process.

The purpose of the changes that each of the provinces have undergone in occupational health has been somewhat blurred by both the pressure to improve legislated standards on toxic substances as well as the organizational efforts to combine occupational health with the more traditional safety-oriented legislation. The desired policy outcome has been in the direction of creating more rigorous standards in the hopes of reducing future potential occupational health illnesses of workers.

The policy output sought has been to try to find that thin line between exploitation of workers and intolerable economic costs on industry. Since the conventional wisdom regarding ways and means of effectively reducing occupational health illnesses is relatively ambiguous, there appears to have been considerable resistance to blindly following the American OSHA example.

The implicit or informal philosophy of how these decision-making processes were conducted again appears to follow the traditional model of consensus rather than the adversarial model followed in the United States. There were a number of attempts in various provinces to experiment with more structured and more formal means of consultation than in the past. And although these attempts are criticized by virtually all the policy actors, there was very little disagreement that they were an improvement over the traditional

internal processes usually followed by legislators. In several instances, vehicles such as "white paper", were used in advance of the introduction of the various bills in the legislature.

Of particular concern to the drafters of the legislation was the inadequacy of the existing scientific data regarding everything from identification through to evaluation of particular toxic substances. The traditional engineering criteria for legislative standards were not always met. The occupational hygiene and medical experts in the field consistently attempted to avoid having to include legislated standards in any way, shape or form other than at a very general and loose level. They felt there was inadequate evidence to support or defend the particular TLV chosen and that it would eventually be counter-productive to implementation in achieving self-compliance in the province. They feared the polarization of the industrial community and the inequitable and impractical effects of universal application of legislated standards on particular toxic substances.

The decision-making sequence varied between the different provinces but in effect followed the basic manner of developing, introducing and proclaiming statutes in provincial legislatures. In a number of instances these statutes followed on the heels of provincial commissions inquiring into the status of occupational health or followed on the heels of an informal consultation process initiated by the Department of Labour itself.

The decision-making structures and mechanisms were as varied as are the provinces. The policy actors in these decisions were primarily centered around the MLA's and the appropriate cabinet ministers. But because of the visibility and popularity of the issue with the media, a considerable number of external interest groups became extensively involved through both briefs and hearings in the development of these legislations or these statutes.

The roles of each of these policy actors were implicitly defined by the bureaucracy and the political executive in relation to the internal decision-making process of the government at the time. The roles of the external actors and of the MLA's has been ambiguous and has led to much confusion in terms of how they were expected to participate and how this compared with their expectation of participation.

The interaction or dynamic element of the process appears to be very loosely defined and often gave the appearance of

being unstructured. One clearly gets the impression that in each instance, the management of the interaction in developing and passing these statutes was ad hoc at best. There was very little formal and continuous exchange of information regarding such things as why the legislative changes were being sought, the impact of these legislative changes and their likely result on the problem being considered. This separation of "process" from "content" is not all that explicit nor does there appear to be much interest in "managing the process" separate from the content. The dynamic resembles a negotiation process rather than a pure consultative process.

In most instances, one got the impression that very few of the provincial governments got the legislation that they actually wanted, and that there were significant victories for opposition parties and special interest groups in terms of the revisions and modifications that had to be effected to achieve passage of the bills. This was particularly pronounced in the provinces where either minority or slim majority governments existed.

5.3 Subordinate Legislation Regulations on Occupational Health

Much of what we have said in the preceding section about statutes applies to the regulations on occupational health. The occupational health standards were pressured from both the legislatures as well as the external interest groups for inclusion in the statutes themselves as opposed to their traditional place in subordinate regulation.

In a number of provinces, the decision-making processes included drafts of the regulations at the time the statutes were being considered. This was a new approach to considering statutes and regulations simultaneously and broke with the tradition of subordinate regulations being the prerogative of the political executive through Orders-in-Council.

The ACGIH (the American Conference of Governmental Industrial Hygienists) was originally formed in the 1940's to address some fundamental measurement and control problems being experienced with toxic substances. As a result of this group's formation and its continued operation, it has become the benchmark for determining the TLV's (Threshold Limit Value), measurement techniques and instrumentation, occupational hygiene practices, engineering control methods, and medical surveillance programs related to a host of toxic substances. Each of these substances is organized under a committee which is monitored and updated by a panel of leading experts, scientists, and professionals in the field of

occupational health. It is through this ongoing dialogue, research, and publication that what limited standards we have, are maintained and updated on an annual basis.

A key issue is the interpretation of the ACGIH schedule of TLV's. Although the ACGIH constantly makes every effort to remind users that their TLV's are guidelines and not standards, these TLV's often are referenced by the legislation and take on the force of law. And the debate still continues.

The central role of the ACGIH and related occupational health institutions such as the National Institute for Occupational Safety and Health, The National Library of Medicine and the American Cancer Institute, a number of Canadian standards development institutions and organizations, has developed over the years. In Canada, there has been an Inter-Governmental Committee on Occupational and Environmental Health which has attempted to coordinate these policy issues and provide focus for determining realistic and feasible approaches. Again, based on the origins of occupational health in the public health area and in Departments of Health, these coordinating mechanisms were part of that national and inter-provincial public health and environmental health orientation in Canada.

With the inception of the Canadian Centre for Occupational Health and Safety in 1979, the potential for a national network and coordination vehicle is being developed. And although its start-up has been slow, it is currently gearing up to undertake a number of initiatives such as establishing a national information service on toxic substances. The role and relationship with the provincial regulatory functions is being discussed by the members of the Centre.

The last point that should probably be made regarding the development of regulations in occupational health is that they have so far been relatively new compared to the occupational safety regulations and have yet to really withstand the test of time and implementation. In many cases their adoption and passage by Order-in-Council has been primarily a matter of following the lead of the ACGIH or one of the other provinces. It is too early to evaluate the impact of these regulations or anticipate the decision-making processes that will result from some actual experience in implementation and the operation of them. The traditional safety dominated decision-making processes are in a state of flux and struggling with the ways and means of how to adapt themselves to include adequate and equitable participation on the occupational health issues.

5.4 Compliance Programs

The compliance programs in occupational health are relatively unique compared to occupational safety. Since they have, in the past, operated under the general provisions of various public health acts which did not include specific legislated standards, the inspection or auditing programs tended to be complaint based. There are, however, a number of instances where the staff of occupational hygienists and occupational health physicians had sufficient resources to undertake industry surveys on a more comprehensive basis.

The earlier comment about the occupational health compliance programs being crisis oriented is a reflection of the limited resources available and the lack of information about risk levels for particular companies in any province. They simply did not know where the most hazardous substances were being used and more importantly, what the levels of exposures actually were that would permit the development of a preplanned and priority based scheduling system based on levels of risk.

A significant percentage of the compliance resources, where they existed as a separate entity, were often used as part of the research and policy planning process to determine what non-legislated guidelines and standards should be used in a particular province. A significant percentage of the limited compliance resources were used in the policy and research process as opposed to auditing for compliance with the guidelines. Many of the programs tended to be advisory-consultative programs aimed at securing voluntary compliance over time supplemented with published data sheets and guidelines on various toxic substances.

Where the occupational health programs transferred to the Department of Labour, there was the expectation that a new dawn was breaking over the field of occupational health. However, in most provinces, except where there were substantial resources already involved in occupational health, the verdict is pending. One constraint has been the lack of available trained personnel who can play both advisory and enforcement roles. In a number of provinces that have adopted the ACGIH standards, they are not in a position to audit the presence of all these substances in their industrial establishments. The manpower shortage of occupational hygienists, occupational health engineers, occupational health physicians, and occupational health nurses is so substantial that it is slowing the implementation of a number of the provincial programs.

In several of the provinces, a significant trend is starting to emerge where traditional consultation and participation by the union movement in the internal policies and operations of the Department of Labour is being threatened by the CLC's formal decision to back the NDP. As one senior labour administrator said, "If those guys are now playing the role of politicians, they can see the legislation and the policies when the other politicians do -- in the legislature and not before." There is a very keen sense of the need to be independent of any political decisions, especially in the smaller provinces.

At the same time in a number of provinces, the Federations of Labour have begun to develop a more independent role regarding occupational health and in several instances are concerned about participation on traditional joint consultative committees. Now although this trend is not uniform across Canada, it is significant that while the unions are in some instances pulling away from the possibility of being overloaded in consultation, the bureaucracy is pulling away with equal speed from involving it and is creating several future problems for any attempts designed to create a more participative decision-making process.

5.5 Non-Regulatory or Exhortative Programs

As we mentioned in earlier sections of this report, exhortation has been the historical pattern for occupational health. The lack of statutes and specific regulations on toxic substances is perhaps the most classic example of exhortation. They have attempted through the provision of technical information, to encourage enlightened self-interest and to encourage employers to comply with these informal standards on the basis that it was beneficial to their workers and would have some impact in terms of reducing the need to regulate at all. This exhortation took the form of data sheets, guidelines, and reflected the basic scientific and professional approach of the physicians and administrators of public health. This so-called emphasis on exhortation actually comes closer to being a use of government in an advisory and consultative capacity. The budget expenditures in the major provinces on these advisory and consultative resources in occupational health tended to run close to the size of the traditional occupational safety compliance program expenditure patterns. However, in the smaller provinces, the expenditures in occupational health were very limited. This tended to be a catch-as-catch-can approach on a complaint only basis. In the more organized or larger provinces, the expenditures of funds were dedicated not only to the advisory and consultative roles but

but also to basic research on toxic substances. In addition, certain funds were also expended in broad based information dissemination programs designed to distribute occupational health and occupational engineering data sheets and guidelines on various toxic substances. Occupational health nurses and occupational health physicians conducted training programs, clinics, and consultative advice on how to set up in-client health service units.

We should also note that the traditional involvement of the Departments of Health in certain medical surveillance programs such as those run by government for miners were extended to include chest x-rays, blood and urine sampling and monitoring for other occupations. This predominant interest in monitoring employee health records in areas where there were legislative requirements for such monitoring programs or where there were emergency situations that the physicians wished to monitor and evaluate, was, and still remains, a central foundation of the occupational health program.

In summary, occupational health has evolved from different origins and philosophical approaches on how to control exposures to health hazards in the workplaces. The lack of understanding and familiarity of employers, supervisors and workers with health hazards in the workplace contributes to the embryonic nature of the government interventions. The continuing debate over the acceptability of various threshold limit values and the basic issue of zero-levels of exposures has contributed to lengthy consultations over legislated standards or guidelines. In some respects, occupational health appears to be dominating the time and resources of most groups as they continue to wrestle with the development and implementation of an acceptable and effective framework.

CHAPTER 6

Major Findings of the Study and Suggestions for Future Directions

The purpose of this chapter is to present the major findings of the study and to indicate briefly appropriate directions for future policy development. The findings of the study derive substantially from the detailed interviews with representatives of labour, management, and government in the four sample provinces -- British Columbia, Alberta, Ontario and Quebec. More detailed reports of these surveys are found in the appendix to this report.

The chapter begins by re-stating the principal criteria that should be considered in assessing the effectiveness of government decision-making in the field of occupational health and safety. It is noted that of the four principal criteria established by the Economic Council of Canada in its Interim Report on responsible regulation, this study focuses primarily upon openness and accessibility.

The next section describes the model of government decision-making which was developed in order to analyze the data obtained in this study.

Then we get into summarizing the principal findings of the study, starting with an overview of the levels of activity that occurred during the 1976-80 period within each of the four major categories of decisions in the four sample provinces and identification of the major types of innovations relevant to increased openness and accessibility. We then go on to describe what appeared from our research to be the six principal phases of occupational health and safety standards development, and conclude with a pulling together of the principal conclusions of the study and related policy implications.

6.1 Criteria for Evaluating Effectiveness of Decision-Making Processes: Emphasis on Openness and Accessibility

Based upon our interviews and our survey of the literature, we concluded that the appropriate criteria for assessing the effectiveness of government decision making in the field of occupational health and safety are, indeed, the four "value premises" outlined by the Economic Council of Canada. 47.

1. Informed Decision-Making
2. Accountability

3. Procedural Fairness
4. Openness (and accessibility)

Openness and accessibility was the primary focus of our detailed investigation. As mentioned earlier, openness and accessibility overlap and in some respects subordinate procedural fairness and informed decision-making as aspects of openness and accessibility. At the same time these value premises or attributes are directly related to the degree and nature of participation of the policy clientele in the various decision-making processes.

We developed a model of the openness and accessibility characteristics of a decision-making process in an attempt to both guide our investigation as well as facilitate the development of a normative model in our conclusions. This model is summarized in the next section.

6.2 Public Policy-Making Processes - Model of Principal Elements

In order to assess the openness and assessability of government decision-making in the field of occupational health and safety, we constructed a broad framework for understanding government decision-making. The literature is voluminous in terms of the various attempts to analyze different aspects of government and its operation, but we were unable to locate a specific and comprehensive model for analysing the effectiveness of government decision-making processes themselves. This is partly due to the variety of perspectives from which one can analyze government decision-making processes as well as the embryonic nature of the study of government decision-making systems. The purpose of this section is to describe our original analytical model used to evaluate occupational health and safety decision-making processes. The following are the principal elements:

1. Purpose of the process
2. Philosophy of the process
3. Problem-solving sequences
4. Decision-making sequences
5. Decision-making structures and mechanisms
6. Interaction of the process

These elements are described below (see also Figure 3).

1. PURPOSE - In evaluating this aspect of the decision-making process, the following issues arise. Is there a clear understanding of the occupational health and safety problem? Its scope and magnitude? Is it understood in relation to other public policy issues? Is this understanding of purpose known to all relevant groups? More importantly, is it accepted by these relevant groups? Is it formally stated? How was it developed and who were the parties to it?

- 2) PROCESS PHILOSOPHY - It is important to assess the attitudes and operational aspects of the governments' approach to the process or procedures of making decisions in terms of: What are the basic responsibilities and authorities of these various groups? What do they control or influence and how does this impact on occupational health and safety? How do they view themselves and their contribution to occupational health and safety? What are their capabilities to participate in the process? What are the limitations? How are they currently participating and how effectively?

- 3) PROBLEM SOLVING SEQUENCES OR METHODOLOGIES -
The types of issues of concern here are:

Is there understanding of cause and effect relationships of injuries and illnesses? Do we understand the basic problem in the first place? Who are the participants in this initial definition stage? What method is used to come to some definition of the problem? Is there agreement on this? How are differences of opinion handled? How is a decision made on which definition or description of the problem is used as a basis from which to develop alternatives? Is it documented in some form? How is it communicated to the appropriate groups? How are changes in problem definition handled and accommodated? What are these changes based upon?

Figure 3:

Schema of Principal Characteristics of a Decision-making Process

Purpose of the particular process	Philosophy of how process should function	Problem-Solving Sequences	Decision-making Sequence	Decision-making Structures - Mechanisms	Interaction of Dynamic element of the process
<ul style="list-style-type: none"> desired policy outcome (end) policy output (means) 	<ul style="list-style-type: none"> consensus vs. adversary positional policies that determine structure of "influence" degree of participation desired 	<p>Rational Stream</p> <p>so-called scientific analysis & solution generation</p> <p>Political Stream</p> <p>analyses of what clients are prepared to accept (winners vs. losers)</p>	<p><u>Stages</u></p> <p><u>Sequence</u></p> <p><u>Timing</u></p> <p>of the actual decision-making process as proposed changes proceed through various approval authorities</p>	<ul style="list-style-type: none"> <u>Policy Actors</u> Internal - external - <u>Roles of different policy actors</u> <u>Relationships between policy actors</u> <u>Organizational Form of the process</u> <u>Vehicles for communicating</u> 	<ul style="list-style-type: none"> management of decision-making process information exchange between policy actors conflict management consensus development

This composite model was created to set up a model of the elements considered necessary to ensure an effective (i.e. open and accessible in its progression to a technically and politically viable decision) decision-making process.

How are the basic options or alternatives developed or reviewed? Who participates, when, to what extent? What basic options are reviewed? Here we are examining basically the legislation and regulations because they have been historically the primary option exercised. How are the implications of such options evaluated? What criteria are used? What use is made of impact assessments, simulations, benefit-cost, feasibility assessments, etc.?

How and to what degree are the results of this analysis communicated to the appropriate groups? What are special limitations to both the generation of alternatives and the openness of such a process? Who plays what roles -- who manages the process and how well do the players understand their roles?

- 4) DECISION-MAKING SEQUENCE - The so-called decision-making sequence has been identified as a separate element in any decision-making process in an attempt to artificially isolate and analyze the stages, sequence and timing of the approval process employed within the government structures for a particular decision. We are concerned with the various stages and levels within the government through which a particular policy proposal must be processed and the time frames within which this process usually occurs.

The formalization of the decision-making sequence and the awareness of both internal and external policy actors of these formal constraints and limitations is becoming an increasingly important issue. The increased pressures to open up the entire policy-making process, requires both a restructuring of the traditional decision-making sequences as well as the publication of the sequences themselves.

For most external policy actors, the key is to identify when the pre-formulation stage begins and to ensure that one is in a position to participate at that point in time. Participation in any consultative processes after preliminary or tentative decisions have been arrived at, tends to be ineffective in influencing change at that point in time.

- 5) DECISION-MAKING STRUCTURES AND MECHANISMS - What is the current array of organizations, agencies, groups, individuals involved in occupational health and safety? What are their respective roles and how did they evolve? How are they prioritized? According to what criteria? In effect, what is the overall organization chart? How does this affect the decision-making process? What changes could be made to improve the situation? What are the operational definitions of including or excluding?
- 6) INTERACTION OR THE DYNAMIC ELEMENT OF A PROCESS - How is coordination between these various groups effected? What are the liaison and operational lines of communication and support? How do these relationships help or hinder the decision-making process? What informal system operates and how is it used? Specifically what are their relationships with:

- .. Legislative level
- .. Executive level
- .. Bureaucratic level
- .. Technical level

How were they developed and what is their use? How regular and what improvements could be made? How are these changing now and in what direction?

These six principal elements of any policy-making process are the key determinants of the effectiveness of any policy-making process. Our investigation of the various decision-making processes in the policy area of occupational health and safety was based upon these six principal elements in an attempt to both analyze the adequacy of the decision-making processes that have been used in the past and to identify potential opportunities for change and improvement in the actual processes themselves.

Processes must be designed explicitly and consistently with a specific philosophy in mind, the execution of which determines the extent to which the desired degree of openness and accessibility will be achieved.

6.3 Levels of Activity in Occupational Health and Safety Regulation in the Sample Provinces During 1975 - 80

As mentioned earlier in this report, we are analysing four major types of decisions common to the regulatory process. These four major types of decisions can be titled:

1. Statutory Changes
2. Changes in Regulations i.e. Subordinate Legislation
3. Compliance Program Operating Policy and Procedure Changes
4. Non-Regulatory Intervention Program Changes

In each of the provinces under consideration, we have examined the formal procedures or traditions regarding the process by which changes in these four major types of decisions are made. We have also conducted detailed investigations of specific case histories of these decision-making processes within each of the jurisdictions as well (see Appendices C, D, E.)

The following Figure 4 illustrates the levels of activity that occurred within the four sample provinces during the years 1975 - 1980. This chart illustrates the heavy activity in revising almost all of the areas under investigation. As a result of these extensive changes and the fact that it was only in 1979 and 1980 that the legislative frameworks were being finalized, the revisions to the compliance programs and non-regulatory programs were just being addressed and could not be evaluated to the extent originally anticipated.

In the period under consideration (1975 - 1980), there was considerable innovation and experimentation in the various provinces with regard to increasing the openness and accessibility of their decision-making processes.

This period in time saw major revisions to the statutory and regulatory frameworks. Most of these decision-making processes followed on the heels of Provincial Royal Commissions or formal public inquiry mechanisms constituted to evaluate the state of occupational health and safety, e.g.:

British Columbia	- P.S. Ross Review	(1976)	48.
Alberta	- Gale Commission	(1975)	49.
Ontario	- Ham Commission	(1976)	50.
Quebec	- Beaudry Commission	(1976)	51.

Figure 4:

Schematic Diagram of Level of Activity
in Various Types of Decision-Making
Processes by Provincial Jurisdiction

Four Sample Provinces

		B.C.	Alberta	Ontario	Quebec
Types of Decisions Examined	Statutory Changes	Mining Acts only	Revisions & Transfer & Mining Act frame- work	Major Revisions --- Omnibus Act	Major Revisions
	Regulatory Changes	Major Revisions WCB-Regs. Factories Act-Regs.	Major Revisions to all OH&S Regs.	Revisions to former Regs.	Major Revisions
	Compliance Programs: Operating Policy & Procedure Changes	Admin. & Engineer- ing Instruc- tions	Revisions pending Regs.	Major Revisions	Major Revisions
	Non-Regula- tory Program (eg. Info., Education, Research) Changes.	Refocus- ing of Info. & training programs.	Expansion of virtually all these programs.	Major Expansion and Revisions	Revisions

Given the extensive inter-relationships between policy actors in the occupational health and safety policy constituency, there appeared to be some crossover or lateral effects from each of these Commissions on other provincial jurisdictions. The synergistic effect of these public inquiries contributed to an overall increase in the awareness of occupational health and safety (occupational health in particular) as well as improving the opportunities for input for the various external policy actors.

A number of the respondents indicated that the reasons for this increased attention and emphasis on accessibility stemmed from both political considerations of borderline or minority governments as well as to an increased desire on the part of the departmental technical experts to improve the availability of information on which to make these decisions and to increase commitment to the subsequent decisions.

This increased level of public inquiry into occupational health (and safety health in particular) seemed to have set the stage for changes in the degree of openness and participation. The new philosophies and recommendations about openness and worker participation in the actual operation of occupational health and safety in the workplace, seemed to be extended to include these principles of openness and accessibility in the actual regulatory decision-making processes.

As mentioned earlier in this report, occupational health and safety had a history of some accessibility and participation of technical experts in the decision-making processes on regulations (minimum-standards in particular). The use of mixed committees and task forces that often included technical representatives of the external client groups was common in most provinces. And most importantly, these minimum standards and regulations were usually based on the research and consultative processes of the voluntary standards development organizations such as the Canadian Standards Association, the American Conference of Governmental Industrial Hygienists, etc.

This period of time also saw a dramatic increase on the part of the labour movement in its concern and participation in occupational health and safety matters. 52. Their visibility, reactions, and advocacy of changes in the legislative frameworks as well as the enforcement policies has been interpreted by most respondents as the most significant factor promoting changes in each of the provinces. Coupled

with the increased attention being given to occupational health and safety by the media, each of the provinces witnessed significant pressures for change and appear to have responded accordingly. Although a bit early to tell, it would seem that future historians will regard this period in time as being a watershed for fundamental shifts in occupational health and safety both in terms of the nature of the decisions made as well as the processes by which these decisions were determined.

With the increased awareness and concern about occupational health particularly, the acceptability of the minimum standards traditionally referenced in the regulations was brought into question and became a focus for reexamination by the external client groups. It is impossible to say how or in what sequence this pressure manifested itself in each sample province. However, what is evident is that the government responses were to begin "opening up" the decision-making processes to widen participation and in different formats. And we should bear in mind the comment of one administrator who was remarking on the changes in participation of external client groups:

"I can remember when no one was interested in occupational health and safety and it was difficult to get enough people representative of all interests to work on a standard".

6.4 Major Innovations Resulting in Increased Openness and Accessibility

Of particular note, are the attempted experiments in the areas of:

1. Advance notice to client groups that changes are being considered and will be based on some form of input from them; 53.
2. Attempts to increase the range of interest groups participating in consultation beyond that traditionally encouraged through professional and scientific organizations; 54.
3. Expansion in the use of public hearings as a vehicle for both increasing the accessibility as well as increasing the discussion of acceptable levels of risk. These public hearings ranged from one-stop hearings of one day through to province-wide series of public hearings in multiple locations; 55.

4. Increased use of formal advisory committees to assist in the preparation of first draft changes to both statutes and regulations; 56.
5. Multiple-stage comment opportunities for the client groups throughout the decision-making processes. This is of particular interest since, in most cases, these decision-making processes have spanned a minimum of eighteen months from initial formal notice of intent to proclamation of the various provisions; 57.
6. Increased use in several jurisdictions of published transcripts of both advisory committee meetings as well as public hearings themselves; 58.
7. Increased experimentation with outreach approaches to both advise various interest groups of pending changes as well as the opportunities available to them to participate in the informal and formal discussion vehicles; 59.
8. Preliminary efforts to conduct various types of formal ex ante impact assessments of proposed changes. And although most people feel uncomfortable with the adequacy of the methodologies applicable, what is important is the fact that these organizations have been attempting it either internally or in conjunction with various labour and management groups. 60.

6.5 Major Findings

The past decade in the history of government intervention in occupational health and safety, has been a time of considerable turbulence and change. Each of the provincial jurisdictions examined have undergone significant policy re-examinations as a result of either royal commissions, special inquiries, or as a result of the spin-off of a major royal commission held in another province. These overall policy reviews have led to a significant number of reorganizations and restructurings of the agencies responsible for various aspects of occupational health and safety. In addition, most of the reorganizations were also accompanied by dramatic and significant expansions in the attention and resources being allocated to the occupational health areas specifically. This has led to the subsequent wholesale revision of statutes, regulations, compliance programs, and in particular, the expansion of the so-called non-regulatory intervention such as research, information, training and education programs.

During this period the primary attention and creative energy of politicians and administrators has been focused upon the establishment of new statutes, new structures, and new organizational forms. Procedures have received relatively less attention than has been given to the more visible manifestations -- and visibility has been in great demand -- of government's presence in the field of occupational health and safety. The procedures followed in the development, interpretation, and application of standards have evolved through this period largely on an ad hoc basis, in which traditional procedures have been modified only as new legislation, new organizational forms, and pressures from client groups have made apparent certain anomalies in the traditional procedures. There has been no major attempt in any province to articulate a comprehensive model of procedures for standards development. Now that major legislative and structural change has occurred there is clearly an imbalance between the conceptual quality, rigour and comprehensiveness of the legislative and organizational frameworks, on the one hand, and the procedures for development and implementation of standards, within these legislative and organizational frameworks, on the other. In order to value the full potential of the new legislation and administrative structures which were established in the late 1970's, this imbalance must now be addressed. We expect that the 1980's will see consolidation and refinement of the structures recently established, with the major efforts going into articulation of thorough and comprehensive procedures that will bring about increased openness and accessibility.

As a step in the direction of de-mystifying the process of standards development and implementation, we present below the schematic model of standards development and implementation which we developed on the basis of our research.

6.5.1 Schematic Representation of the Process of Standards Development and Implementation

The process of standards development and implementation can be described in terms of the following six phases (see Figure 5).

1. Basic Research Phase

This phase is where different types of studies are done on equipment, materials, toxic substances, to determine the safety and/or health hazards. This can include testing the strength of new types of ropes through to the toxicity of various chemical

Figure 5:

Schematic of Spectrum of Standard Development Phases In Occupational Health and Safety

(on-going) BASIC RESEARCH PHASE	(1-2 years each time) EVALUATION PHASE	(2-3 years) VOLUNTARY SETTING PHASE	(1-2 years) PRE-FORMULATION PHASE	(1-2 years) LEGISLATED/MANDATORY STANDARD SETTING PHASE	(2-3 years on-going) INTERPRETATION AND APPLICATION PHASE
<ul style="list-style-type: none"> • data base dev. • failure/stress testing • time-dose studies • animal studies 	<ul style="list-style-type: none"> • evaluation of literature & research related to a particular problem 	<ul style="list-style-type: none"> • process of setting voluntary standards 	<ul style="list-style-type: none"> • on-going "pushing" & "pulling" of various pressures to improve & expand minimum standards <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <ul style="list-style-type: none"> • push of voluntary standards or guidelines to become legislated </div> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <ul style="list-style-type: none"> • pulling voluntary standards into legislated arena </div>	<ul style="list-style-type: none"> • actual decision-making processes in revising statutes & regulations 	<ul style="list-style-type: none"> • operating policies & procedures of compliance staff in determining satisfactory compliance with legislated standards
DATA BASE DEVELOPMENT	RISK ASSESSMENT PHASE	ACCEPTABLE RISK DETERMINATION PHASE			

substances. This research can be done by any organization from the National Science Council through to a private commercial laboratory. It can emerge from work directed at consumer safety through to public health. The research can be funded by these independent research organizations, by government departments or as in the case of Ontario, through provincial lotteries. The research is also international in that organizations around the world are all engaged in this type of research. Although there is no explicit coordination, the communication networks result in considerable exchanges of findings, such as international medical hazard alerts.

2. Evaluation Phase

This phase seems to begin when some organization (usually a government sponsored initiative) begins to evaluate the existing data available on a specific hazard or group of hazards. The purpose of these studies is usually to review the conventional wisdom and draw some tentative conclusions about the levels of risk associated with a particular hazard. It is a scientific exercise to determine the extent of knowledge available and what further research may be necessary to answer the risk assessment questions.

3. Voluntary Standard Setting Phase

Where there is enough information available about a particular hazard and the voluntary standard organizations place it on their agendas (see Appendix G for an overview of voluntary standards organizations in Canada), the hazard (substance, material, equipment, etc.) can be scheduled for the development of a voluntary minimum standard. In the case of safety standards, their primary purpose is to reduce "unwarranted diversity" of a particular product, etc., with special consideration for the safety hazard aspects. On the occupational health side, the most often cited voluntary standards organization is the American Conference of Governmental Industrial Hygienists.

These voluntary standards are often "called up" or "referenced" in occupational health and safety regulations to supplement the actual legislative standard or as a means of coordinating with the prevailing conventional wisdom.

4. Pre-Formulation Phase

Since there is no formal or explicit relationship between the organizations managing the voluntary standards phase and the provincial governments controlling the legislated (or mandatory) standard setting phase, we have created a "buffer" phase which we called the pre-formulation phase. This pre-formulation phase represents a varying period of time (varies with each standard depending upon the pressures and circumstances pushing for a mandatory standard) and seems to be a testing vehicle, to determine the importance based on the persistence and visibility of the pressures.

5. Legislated/Mandatory Standard Setting Phase

This phase is the actual development of a statute or regulation on a specific hazard. This is the phase that is discussed in detail for each of the sample provinces investigated (British Columbia, Alberta, Ontario and Quebec in Appendices C, D, E, F.)

Our findings showed that government decision-making relied heavily on these earlier phases for both the scientific accuracy of specific standards and the participation and consultation of relevant interest groups in the original research and risk assessment. Very few provinces had the resources or the inclination to conduct their own studies of specific hazards. Yet because of the increasing openness and accessibility of the legislated standard setting process, relatively new participants, the labour representatives in particular, are requiring the reexamination of these underlying studies, reports, committees, etc.

6. Interpretation and Application Phase

Because of the embryonic nature of some legislated standards and the necessary discretionary or interpretative nature of others, the actual standard setting phase is supplemented by a final phase which tests the standards in the field and creates (formally or informally) a "casebook" on interpretation and application. It is this phase that is as important as the actual legislated standard setting phase but tends to be as invisible as the first three phases (Basic Research, Evaluation and

Voluntary Standard Setting). These operating policies and procedures of the government compliance programs are coming under increasing scrutiny by the external client groups.

6.5.2 Principal Problem Areas in the Standards Development and Implementation Process

The schema described in 6.5.1 reveals that decision-making in the field of occupational health and safety is predicated upon a massive and uncoordinated (perhaps "uncoordinatable") infrastructure of research, evaluation and voluntary standard development that makes excessive demands upon the scientific knowledge base and is necessarily lengthy and complex. Below we indicate major problem areas, drawing upon the model of principal elements in public policy development processes, presented in Section 6.2.

1. Lack of Clarity of Purpose

It may seem surprising, but one of the major impressions obtained in our interviews was that most respondents did not have a clear sense of the purpose of their actions in the regulatory process. This seems, at first glance, surprising, since it is clear from the literature that the purpose of government regulation in the field of occupational health and safety is to reduce the incidence and severity of occupational accidents and illnesses.

However, the typical administrator is working with such a small piece of the over-all "machine" of government regulation that it is almost inevitable that he or she "will lose sight of the forest through the trees", and opt for some secondary objective, like maximizing the number of regulations or inspections, rather than keeping a firm sight on the primary objective of reducing occupational accidents and illnesses.

This type of goal displacement, which is common in bureaucracies, can result in the procedures becoming more costly, time-consuming, and complex without contributing any more to the over-all policy objective. The tendency to concentrate upon means rather than ends is perhaps greater in occupational health and safety than many other areas of public policy because (a) there is intense pressure on government "to do something" because lives are at stake; and (b) the scientific knowledge base is insufficient to be able to predict with much reliability the consequences of many types of intervention.

2. Lack of Common Appreciation of the Limits of Scientific Analysis

As noted above, the entire process of standards development is strongly rooted in scientific analysis of hazards and determination of hazard reducing standards. It is assumed by many that there are "scientifically correct" answers to the various questions that arise in the standards development process, when, as we have noted in Chapter 2, the answers to many of these questions, are "trans-scientific". Obviously, there will be conflict and dissonance between people who believe that scientific experts can give definitive answers to questions about hazards and standards, and those who believe that scientific experts are just one group among many who have a major role to play in the development of standards. There will also be differences of opinion as to what constitutes the optimum degree of non-experts, i.e. whether the inclusion of people from various lay constituencies provide valuable and constructive input or whether it serves only to pacify and patronize) vocal interest groups.

3. Lack of an Explicit Statement of the Underlying Philosophy of Participation

All provinces at least pay lip service to the desirability of increased public participation in the standards development process. However, it is rare to find a clearly articulated philosophy of, or set of principles, guiding public participation, i.e. indicating the desired nature and extent of public participation, the points in the process where it should occur, the manner of interaction between technical experts and lay persons, etc. The lack of explicit policy statements on such matters reflects the fact that most jurisdictions have thus far neglected to address explicitly the issues raised in the model of public policy decision-making presented in Section 6.2.

In terms of process philosophy, as was noted in the earlier sections, the predominate characteristic of the Canadian political system is a cooperative and consensual oriented approach as opposed to the adversarial system of checks and balances of the American approach. This cooperative and consensual approach has generally characterized occupational health and safety; however, it has been implemented inconsistently, being followed principally for statutory and regulatory types of decisions, and being not all that well accepted or practiced at the operational and implementation stages of these decisions.

Participation and input tends to be sought on an issue by issue (and not all issues) basis rather than on an on-going and integral basis.

If the philosophy of a particular process is to seek input only on a particular clause or standard, then the explicit clarification of this is essential to all participants. On the other hand, if the philosophy is closer to the notion of joint determination, then the participants should be equally clear as to the expectations about their participation.

It would seem however that if participation is based on a consensual model, this philosophy should be followed consistently through the balance of the elements. Whereas if it is based on the adversarial concept of adversity of ideas and interests, it is useful to all participants to understand this philosophical difference and prepare themselves accordingly.

The way in which the participation of the scientific experts is reconciled with the participation of the non-experts is the major issue that arises under the heading of problem-solving sequences.

Central to any policy or decision-making process is the problem-solving methodology that is to be used in addressing both the definition of the problem and the development of solutions to the particular problem. In this respect, we suggest that there are, in fact, two problem-solving sequences that tend to operate parallel to each other in any policy formulation process. The first, may be called the "rational" stream and is the specific approach that is used to conduct the so-called scientific analysis of the problem as well as the solution generation and evaluation phase. It may be a bit pretentious to use the word scientific when many scientists feel that public policy-making leaves a lot to be desired in terms of the extent to which it uses the basic scientific principles and approaches to the identification, analysis and evaluation of problems. Nevertheless, this term does differentiate the extent to which the problem-solving sequence uses various methodologies and takes into account the multi-disciplinary approach that is often employed in this situation (economics through to nuclear physics).

The second and parallel problem-solving sequence which we have labelled the "political" stream deals with the trade-off values of different interest groups relative to the problem and the potential solutions. Traditionally, the

scientists and the policy-makers have often found it difficult to communicate with each other, and finding the most effective way of integrating the perspectives of the scientist with those of the various lay interest groups is perhaps the greatest challenge of all in improving the decision-making processes in occupational health and safety.

One of the major deficiencies resulting from the inability to meld the rational stream with the political stream in the existing processes is the collective inability to adequately deal with the issues of acceptable levels of risk. Because of this, the issue of risk is often not overtly addressed and implicitly built into the scientific side of the problem solving sequence with many of the controversies over standards being inconceivable, because they are really controversies over acceptable levels of risk, a factor which cannot be debated if it is subsumed implicitly in earlier levels of the process.

4. Inadequate Attention to the Details of Procedural Steps in the Decision-Making Sequence

The so-called decision-making sequence has been identified in the model presented in Section 6.2 as a separate element in any decision-making process attempt to artificially isolate and analyze the stages, sequence and timing of the various steps in the approval process employed within the government structures for a particular decision. We are concerned here with the various stages and levels within the government through which a particular policy proposal must be processed and the time frames within which this process usually occurs.

In the smaller provinces, the decision-making sequence tends to be both shorter and more informal than in the larger jurisdictions of Ontario and Quebec. We should also recognize that, although such decision-making sequences may have been formally established and generally operative, there are instances where decisions or issues are handled outside these formal steps and often short circuit certain stages of the original sequence. This is particularly noticeable when the government is faced with a crisis and the need to respond in a short period of time is paramount. In any policy-making process, the stages, sequence and timing of the analysis and authorization of particular decisions are the critical determinants of the effectiveness of the process. Ensuring the awareness by all

the policy actors of these stages and this sequence is often neglected out of a traditional pre-occupation with the substantive contents of the decision-making process.

However, the formalization of the decision-making sequence and the awareness of both internal and external policy actors of these formal constraints and limitations is becoming an increasingly important issue. The increased pressures to open up the entire policy-making process, requires both a restructuring of the traditional decision-making sequences as well as the publication of the sequences themselves.

For most external policy actors, the key is to identify when the pre-formulation stage begins and to ensure that one is in a position to participate at that point in time. Participation in any consultative processes after preliminary or tentative decisions have been arrived at, tends to be ineffective in influencing change at that point in time.

As was noted in Section 6.4, the past five years have seen some important innovations in the decision-making process which have resulted in increased openness and accessibility, e.g. use of advance notice of changes, expansion of public hearings, multi-stage comment opportunities and published transcripts of advisory committee meetings.

From the perspective of improving the openness and accessibility of the decision-making sequences, these initiatives would be advanced further by:

- i) implementing specific plans to organize and develop the "stakeholders" in the occupational health and safety policy constituency into an effective on-going working constituency;
- ii) planning for longer-term and on-going decision-making processes rather than leaving the impression with these external "stakeholders" of one-shot and ad hoc processes;
- iii) formal use or institution of some type of "regulatory analysis" which attempts to evaluate and address:

the problem under consideration

- . the alternative ways of dealing with the problem
- . an analysis of the economic consequences of each alternative
- . an explanation of the reasons for selecting one of these alternatives

In a number of the cases where public hearings or policy conferences were used as a vehicle for increasing accessibility, these questions were often addressed as part of the discussion and response sessions. However, it did depend upon the quality and persistence of the questioner.

- iv) increasing the efforts devoted to ex ante evaluations of the likely impact of specific occupational health and safety minimum standards or clusters of related standards;
- v) guarding against "analysis paralysis" and inadvertently losing sight of the dual objectives of any public policy decision-making process.

If the objective is to improve the openness and accessibility of these decision-making processes, then the decision-making sequences (i.e. stages, sequence and timing) would have to be modified to encourage, support and facilitate this participation in a meaningful way. And the more that one wishes to pursue openness, the more time for the various stages must be increased.

5. Lack of Clarity of the Roles and Relationships of the Various Participants in the decision-making process.

This factor relates to the element referred to earlier as decision-making structures and mechanisms.

This element of the overall process includes the definition of who the policy actors are going to be (both internal and external), the definition of the specific roles that each of them or groups will play, the definition of the relationships between these various individuals or groups, the definition of the organizational form (task force versus one man commission), and finally the definition of the vehicle that

will be used to communicate both the analysis and proposed decisions through the decision-making sequence (white paper versus green paper versus straight fact finding reports.)

In effect, this is the identification and analyses of which policy actors are going to play what roles with what levels of authority and influence and in what relationship to each other. In many respects, these aspects are the most critical to determining the degree of effectiveness of any particular decision-making process. And, as is often the case in any organization, there is usually substantial confusion and ambiguity surrounding these role and relationship definitions in spite of the best of intentions. This inevitably leads to a lack of understanding and agreement between the policy actors regarding their respective roles, which may result in doubts about the legitimacy of the entire process.

6. Inadequate Management of the Decision-Making Process

Given the relatively limited attention which tends to be given to the conceptualization, planning and articulation of the decision-making processes in occupational health and safety, it is not surprising that the processes themselves generally are not managed as effectively as they might be.

Management determines the effectiveness of the Interaction element in the process. Of particular importance is the management of the interpersonal relationships that grow and develop within the time frame of the particular decision-making process, the information exchange and sharing process, the ability to manage conflict and develop consensus.

This dynamic or interaction of the players or policy actors in the process that is often inadequately addressed. One of the prime reasons for the lack of analysis or evaluation of the interaction is the confidentiality that usually surrounds the major policy-making processes. Our experience and involvement as participant-observers in these processes in occupational health and safety, has provided a number of insights into these difficulties. Of particular interest is the fact that the overall process is very

seldom carefully oriented toward any given set of participation principles. Traditionally, the processes have been conducted on the assumption that all the policy actors understand their limited roles. And participation is attempted to increase the commitment of all "stake holders" to a particular decision once it is formulated. Given the often adversarial nature of the relationships that exist between the bureaucracy and its various client and interest groups, the exercise of attempting to manage this interaction or dynamic is difficult even for experienced "process experts". It is somewhat delicate because one needs the continuing commitment and support of persons who, from time to time may be greatly upset by specific decisions made through the process.

6.5.3 Concluding Observations

In a sense all the problem areas described in the previous issue from a common cause -- the failure to conceptualize, plan and articulate a comprehensive set of procedures for government decision-making in the field of occupational health and safety. Articulation of such a set of procedures would clarify to all concerned -- both those who have responsibility for managing the process and those who participate in it -- the roles and relationships of all parties, as well as the sequence, timing and information exchange regarding all the steps in the process.

There are two main reasons for the lack of articulation of procedures. One reason is the newness of legislative and organizational frameworks for occupational health and safety in most Canadian jurisdictions. As noted previously, the period 1975-80 has been one of extraordinary pace in developing new legislation and administrative structures for dealing with occupational health and safety. Procedures could not have been articulated until these new legislative and organizational frameworks were solidly in place, and we are only reaching a period of relative stability in these frameworks.

Now that the new legislative and organizational frameworks are in place, generally accepted and widely understood, articulation of procedures can go ahead. It could not have gone ahead while legislation and organization were in a state of flux.

Whether substantial progress will occur in the articulation of procedures will depend upon how successfully political

and administrative leaders deal with the second reason which has inhibited the articulation of procedures. That reason is the traditional preoccupation with "substance issues" to the almost total neglect of "process issues". As with many other public policy areas, occupational health and safety policy makers have tended to concentrate almost exclusively on "substance issues", such as "what should be the TLV for a particular toxin?", rather than "process issues", such as "How should the various interested parties and relevant experts participate together in the process of establishing TLV's"?

Our research suggests that the distinction between "substance" and "process" is somewhat artificial, and certainly dysfunctional. The issues involved in developing standards for occupational health and safety are purely technical issues. They involve trade-offs among conflicting interests, values and perspectives. The best technical research may not lead to sound policy decisions if the process through which it is fed into the decision-making stream is poorly defined and vaguely articulated. Moreover, even technically sound decisions will lack legitimacy if the process is not perceived as open and accessible. Perceived legitimacy is an essential characteristic of decisions in the field of occupational health and safety, because the stakes are high and most decisions are likely to go against someone's preferences, however many others are pleased by the particular decision. Also, when one considers the time and resources involved in development of standards, review of impact, or assessment of potential hazards, it is apparent that consideration must be given to efficiency of the processes if cost-effectiveness is to be taken seriously.

The job of developing and articulating systematic procedures which will ensure technical vigour, fairness, accountability, openness and accessibility is difficult, but it will bring significant pay-offs in terms of more effective and acceptable implementation of occupational health and safety programs and policies. It is a job for which the expertise and knowledge is, for the most part, available. What is needed most is the commitment to do it.

As a starting point in doing this job, we would recommend that careful attention be given to the parameters contained in the model of public policy development which is contained in Section 6.2 of this report. We believe that this model contains a convenient checklist of essential aspects of an effective process for government decision-making in the field of occupational health and safety. Working through

this checklist, it should be possible to develop and articulate to all concerned a set of procedures which clarify:

- . the purpose of the particular activities, regulations, policies or programs being considered;
- . the philosophy of participation and of determining trade-offs among conflicting values, interests and perspectives;
- . the roles of the various interested parties within and outside government and the relationships among these parties;
- . the way in which scientific research findings will be fed into and considered in the decision-making process, as well as anticipated strengths and limitations of scientific knowledge in the area under consideration;
- . the specific steps that will be followed in the decision-making sequence and the timing of these steps;
- . the location of authority and responsibility for managing the various steps in the decision-making process and how the process will be managed.

Finally, we should like to note that given the recency of existing legislative and organizational frameworks for decision-making in the field of occupational health and safety, and the lack of systematic and well-publicized procedures, we were surprised at the great extent and frequency of consultation and participation which we did find. However at present, this consultation and participation is largely ad hoc and uncoordinated, and is dependent upon the inclinations of individual administrators. The existing degree of consultation and participation could be increased in effectiveness and the procedures could be made more satisfactorily open and accessible if governments would formalize the decision-making procedures and publish these to their client groups in order to ensure that everyone is familiar with the ground rules. The effectiveness of the recent legislation could be greatly enhanced, and the potential new organizational structures could be realized, if this were done.

APPENDIX A

Public Policy-Making Processes -- Model of Principal Elements

The following elements are the essential aspects that constitute a decision-making process. These have been distilled from the previous sections of the report and are outlined in an attempt to define the critical minimum elements necessary for any process to function as a process.

1. PURPOSE - In evaluating this aspect of the decision-making process, the following issues are relevant and are usually dealt with implicitly: Is there a clear understanding of the occupational health and safety problem? Its scope and magnitude? Is it understood or countersunk in relation to other public policy issues? Is this understanding of purpose known to all relevant groups? More importantly, is it accepted by these relevant groups? Is it formally stated? How was it developed and who were the parties to it?
2. PROCESS PHILOSOPHY - It is important to assess the attitudes and operational aspects of the government's approach to the process or procedures of making decisions in terms of: What are the basic responsibilities and authorities of these various groups? What do they control or influence and how does this impact on occupational health and safety? What is their track record of accomplishments? How do they view themselves and their contribution to occupational health and safety? What are their capabilities to participate in the process? What are the limitations? How are they currently participating and how effectively?
3. PROBLEM SOLVING SEQUENCES OR METHODOLOGIES - The types of issues of concern here are: Is there understanding of cause and effect relationships of injuries and illnesses? Do we understand the basic problem in the first place? Who are the participants in this initial definition stage? What method is used to come to some definition of the problem? Is there agreement on this? How are differences of opinion handled? How is a decision made on which definition or description of the problem is used as a basis from which to develop alternatives? Is it documented in some form? How is it communicated to the appropriate groups? How are

changes in problem definition handled and accommodated? What are these changes based upon?

How are the basic options or alternatives developed or reviewed? Who participates, when, to what extent? What basic options are reviewed? Here we are examining basically the legislation and regulations because they have been historically the primary option exercised. How are the implications of such options evaluated? What criteria are used? What use is made of impact assessments, simulations, benefit-cost, feasibility assessments, etc.?

How and to what degree are the results of this analysis communicated to the appropriate groups? What are special limitations to both the generation of alternatives and the openness of such a process? Who plays what roles -- who manages the process and how well do the players understand their roles?

4. DECISION-MAKING -- SEQUENCE - The so-called decision-making sequence has been identified as a separate element in any decision-making process in an attempt to artificially isolate and analyze the stages, sequence and timing of the approval process employed within the government structures for a particular decision. We are concerned with the various stages and levels within the government through which a particular policy proposal must be processed and the time frames within which this process usually occurs.

The formalization of the decision-making sequence and the awareness of both internal and external policy actors of these formal constraints and limitations is becoming an increasingly important issue. The increased pressures to open up the entire policy-making process requires both a restructuring of the traditional decision-making sequences, as well as the publication of the sequences themselves.

For most external policy actors, the key is to identify when the pre-formulation stage begins and to ensure that one is in a position to participate at that point in time. Participation in any consultative processes after preliminary or tentative decisions have been arrived at, tends to be ineffective in influencing change at that point in time.

5. DECISION-MAKING STRUCTURES AND MECHANISMS - What is the current array of organizations, agencies, groups, and individuals involved in occupational health and safety? What are their respective roles and how did they evolve? How are they prioritized? According to what criteria? In effect, what is the overall organization chart? How does this affect the decision-making process? What changes could be made to improve the situation? What are the operational definitions of including or excluding?

6. INTERACTION OR THE DYNAMIC ELEMENT OF A PROCESS - How is coordination between these various groups effected? What are the liaison and operational lines of communication and support? How do these relationships help or hinder the decision-making process? What informal system operates and how is it used? Specifically what are their relationships with:
 - .. Legislative level
 - .. Executive level
 - .. Bureaucratic level
 - .. Technical level

How were they developed and what is their use? How regular and what improvements could be made? How are these changing now and in what direction?

APPENDIX B
Figure 6:
Schema of Research Design

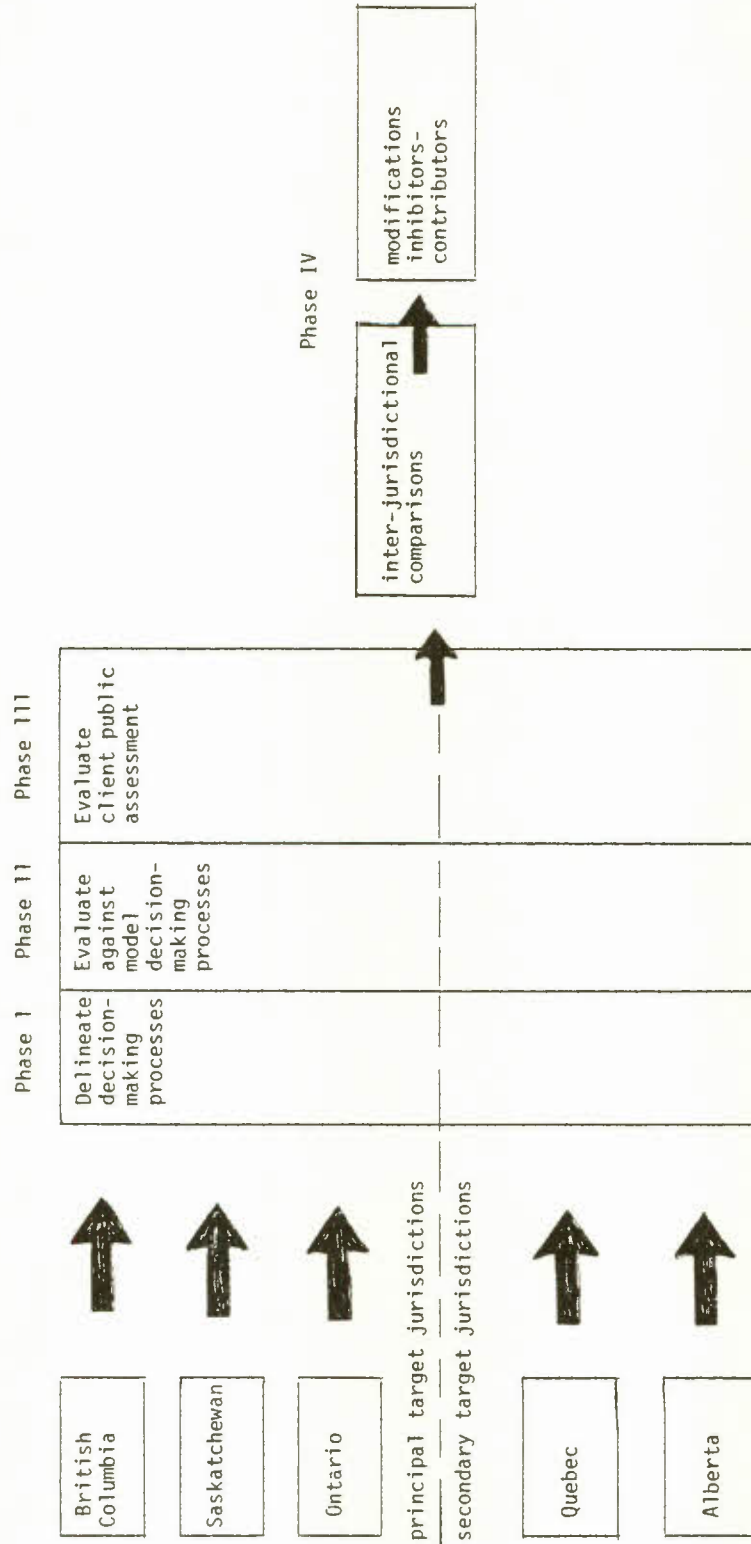
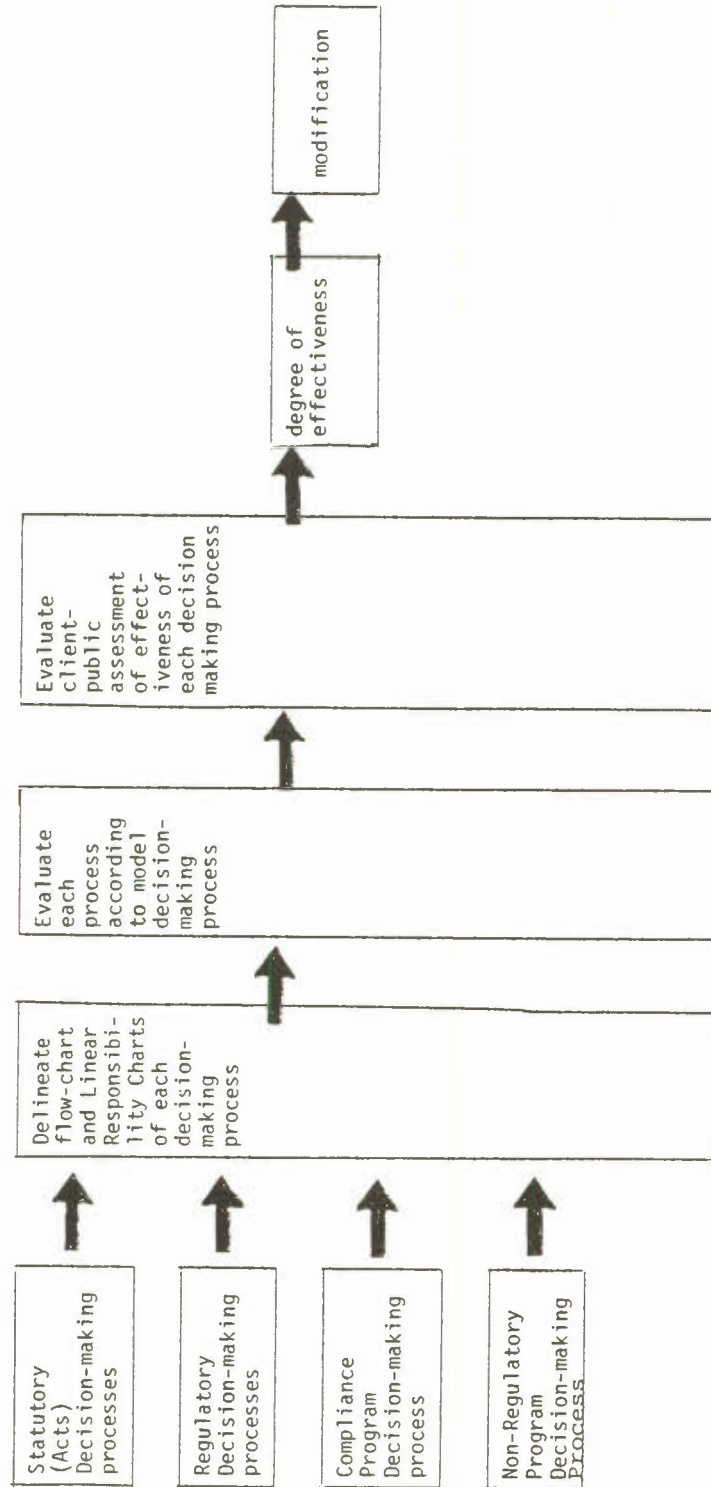


Figure 7:
Schema of Research Design
Within Each Target Jurisdiction



APPENDIX C

Review of the British Columbia Experience

The province of British Columbia occupies a special place in the policy field of occupational health and safety in Canada by virtue of its history of experimentation and innovation in occupational health and safety. It is often cited by the other provinces for various examples of policy changes that they would like to make within their own jurisdiction. As well, it is viewed by many as having established the necessary and fundamental link between accident prevention and compensation by combining both within the Workers' Compensation Board organization. Not only do the Rockies separate it from the rest of Canada, but its philosophical and program approaches have made it significantly different from the rest of the provinces.

Interestingly enough, occupational health and safety in British Columbia is actually split between three different regulatory organizations:

1. The Ministry of Energy, Mines and Petroleum Resources is responsible for all aspects of mining health and safety;
2. The Ministry of Labour is responsible for the so-called Occupational Environmental Systems within industrial establishments throughout the province;
3. The Workers' Compensation Board is responsible for all workplaces and occupations (with the exception of the Federal jurisdiction) with regard to both occupational health and occupational safety.

The distinction between the Ministry of Labour and the Workers' Compensation Board was explained by one respondent as follows:

"The Ministry of Labour handles the question of heating, lighting, ventilation and air conditioning systems within industrial establishments from the perspective of them being a total system and the standards that are appropriate to ensure that. The Workers' Compensation Board, on the other hand, handles the question of individual hazards in that work place both from an occupational safety perspective as well as an occupational health perspective. The overlaps occur when the exposure to a particular toxic substance in a work place under the Workmens' Compensation Board interfaces with the overall systems within the plant regulated under the Ministry of Labour's Factories Act and the Occupational Environment Regulations."

In summary, the major regulatory agency responsible for the bulk of the legislative framework, client groups, work places, and workers is the Workers' Compensation Board -- The Accident Prevention wing of the organization.

Summary of Findings of the British Columbia Experience

British Columbia is unique in another respect as well. In the last four years, occupational health and safety in British Columbia has undergone the most extensive significant set of changes to virtually all of its various subordinate regulations. Since 1976 it has undertaken seven reviews of its various regulations: four versions under the Workers' Compensation Board, two versions under the Ministry of Labour and one version under the Ministry of Energy, Mines and Petroleum Resources. All of which was heightened by the start-up of the Bates Commissions on uranium mining in early 1979.

British Columbia has the most extensive experience, of any province, with public consultation forms and vehicles. This is a result of the original Workers' Compensation Act in 1917 which stipulated the legal necessity to hold public hearings prior to the development and modification of any regulations under this Act. Although the Pineo Royal Commission on Workmen's Compensation in 1916-17 was only a 21 page report, it established the fundamental requirement of public consultation, openness and accessibility in the development and maintenance of accident prevention regulations. These public hearings have developed a series of traditions and customs over time which in recent years have been expanded to test more effective vehicles of public consultation during the decision-making processes. This sixty year experience with public consultation and public hearings has led to a significant number of experiments and innovations far exceeding the original expectations of the Pineo Commission. These experiments and innovations have included such things as:

1. Extending the advance notice provisions (the Act stipulates ten days notice in advance of a public hearing) to time frames in excess of eighteen months;
2. Experiments with the use of formally constituted advisory committees to review first draft regulations prior to public dissemination for comment;
3. Formal dissolution of these advisory committees to ensure that its members are unhampered in subsequent consultation on the regulations;

4. Experimentation with advertising vehicles to increase the awareness and participation at public hearings;
5. Experimentation with multiple-location community hearings to both facilitate wider participation as well as reducing the cost to individuals or interest groups in the participation process itself;
6. Dissemination of formal versions of second draft regulations and the publication of public transcripts of all public hearings.

To say the least, there is considerable experience within the Workers' Compensation Board with regard to improving the openness and accessibility of various government decision-making systems.

Similarly, the Ministry of Labour has experimented in the last few years with ways of improving the openness and public consultation in changes to its Occupational Environment Regulations. In a process that lasted over two years, the Occupational Environment Branch of the Ministry of Labour experimented with an extensive advisory committee process for revising its heating, ventilation, air-conditioning and lighting regulations.

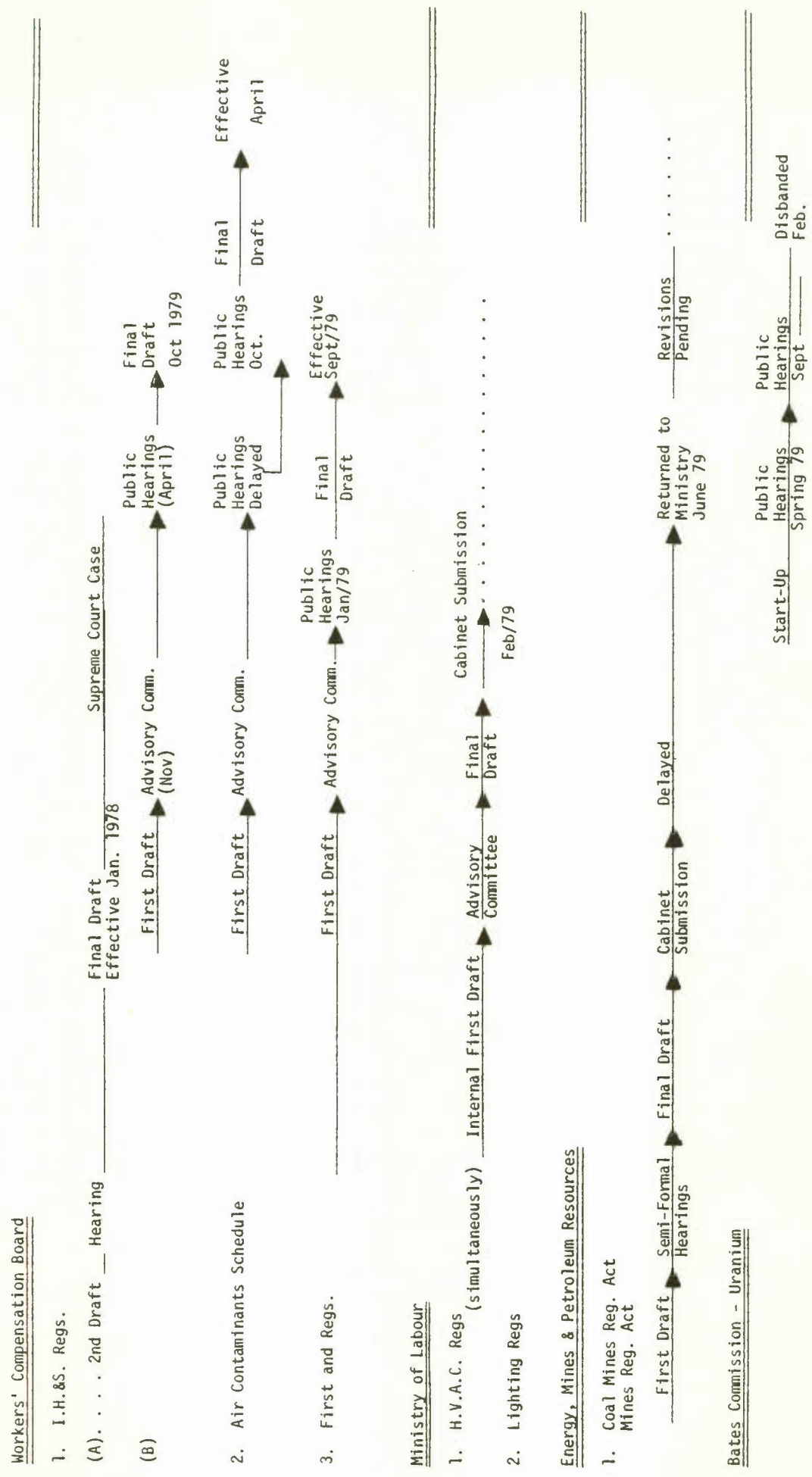
The Ministry of Energy, Mines and Petroleum Resources has been going through a fairly extensive process in modifying its Mines Regulation Act and the Coal Mines Regulation Act. It should be noted that the traditional standards normally found in regulations have historically been included in the mining statutes themselves. In this instance, the revisions that began in 1976 have yet to be introduced in the legislature. Consultation, openness and accessibility has traditionally been facilitated by ensuring that all standards are included in the statutes themselves and therefore subject to public debate in the legislatures. And although there appeared to be some changes in the wind regarding consideration of separating the rules (so-called regulations) from the statutes themselves, the vehicle of ensuring openness has been the inclusion in the statutes. As one industry spokesman commented,

"It's not an accident that the three hundred and sixteen rules appear in the statutes themselves. This is the only way that we can ensure that we don't wake up some Monday morning to find changes have been made in the rules and enacted by Order-In-Council without any consultation."

The following chart "Figure 8: Overview of Various Decision-Making Processes in British Columbia in Occupational Health and Safety Policy Area" is a schematic diagram of the various decision-making processes that have been undertaken in British Columbia in the past four years. It illustrates the variety and multiplicity of decision-making processes that were all undertaken by the three major regulatory organizations in the field. This schematic diagram is intended to give some indication of the general background against which to view the individual case studies that are discussed in the following sections. Unlike the other provinces under consideration, British Columbia had a more formal decision-making process over a longer period of time than any of the other jurisdictions. This multiplicity gives us a slight glimpse into the likely implications of the wholesale introductions of open decision-making systems in the other jurisdictions. This multiplicity led to a certain amount of confusion on the part of some respondents during the interviews as to which decision-making process happened when and who was involved to what degree. Nevertheless, because of the rather extensive tradition of open decision-making systems in British Columbia, the external client groups were generally equipped to handle this multiplicity. This is not to say that they did not recommend modifications and changes to it, but rather to highlight the point that the success of any open decision-making process is affected by the familiarity and previous experience of the policy actors with the approaches being used by the regulatory agency in charge of managing the process.

Figure 8:
 Overview of Various Decision-Making Processes in B.C. in OH&S Policy Area

1976
 1977
 1978
 1979
 1980



STATUTES

The decision-making processes employed in British Columbia to revise provincial statutes have been somewhat difficult to analyse by virtue of the lack of changes made in recent years to any of their Occupational Health and Safety Acts. This relatively stable statutory framework, for each of the three regulatory agencies involved in Occupational Health and Safety, reflects both the advanced worker participation frameworks long established in British Columbia as well as more extensive activity and energy devoted to the decision-making processes required to revise their regulations. The following list outlines the latest dates on which amendments were made to their existing statutes:

1. The Workers' Compensation Act - 1975;
2. The Factories Act - 1966;
3. The Mines Regulation Act - 1967;
4. The Coal Mines Regulation Act - 1972.

For the purposes of our investigation, the principle example of a decision-making process undertaken to revise a statute was the Mines Regulations Act and the Coal Mines Regulation Act under the auspices of the Ministry of Energy, Mines and Petroleum Resources. This is the only statute that had formerly undergone any major attempts at revision during the time period under investigation.

The Mines Regulation Act and the Coal Mines Regulation Act are particularly interesting because historically they have not had any subordinate legislation, i.e. regulations. The standards for specific hazards have been included as "rules" in the actual statutes themselves. There are some 316 rules covering everything from mine ventilation to ladders. And although the formal process of beginning to redraft these acts was initiated in 1976, the revisions are still underway within the Ministry of Energy, Mines and Petroleum Resources. There is no firm indication as to when the potential amendments may be introduced in the Legislature. The following attempts to describe the procedure and processes that have been undertaken to date.

Operational Procedure for Revisions to Statutes

Figure 9 outlines the procedure within the British Columbia government of the steps and stages through which any amendments or revisions to the statutes generally pass. With the exception of those instances where it is deemed necessary to short circuit these internal steps, the procedure tends to reflect the traditional model of statutory decision-making

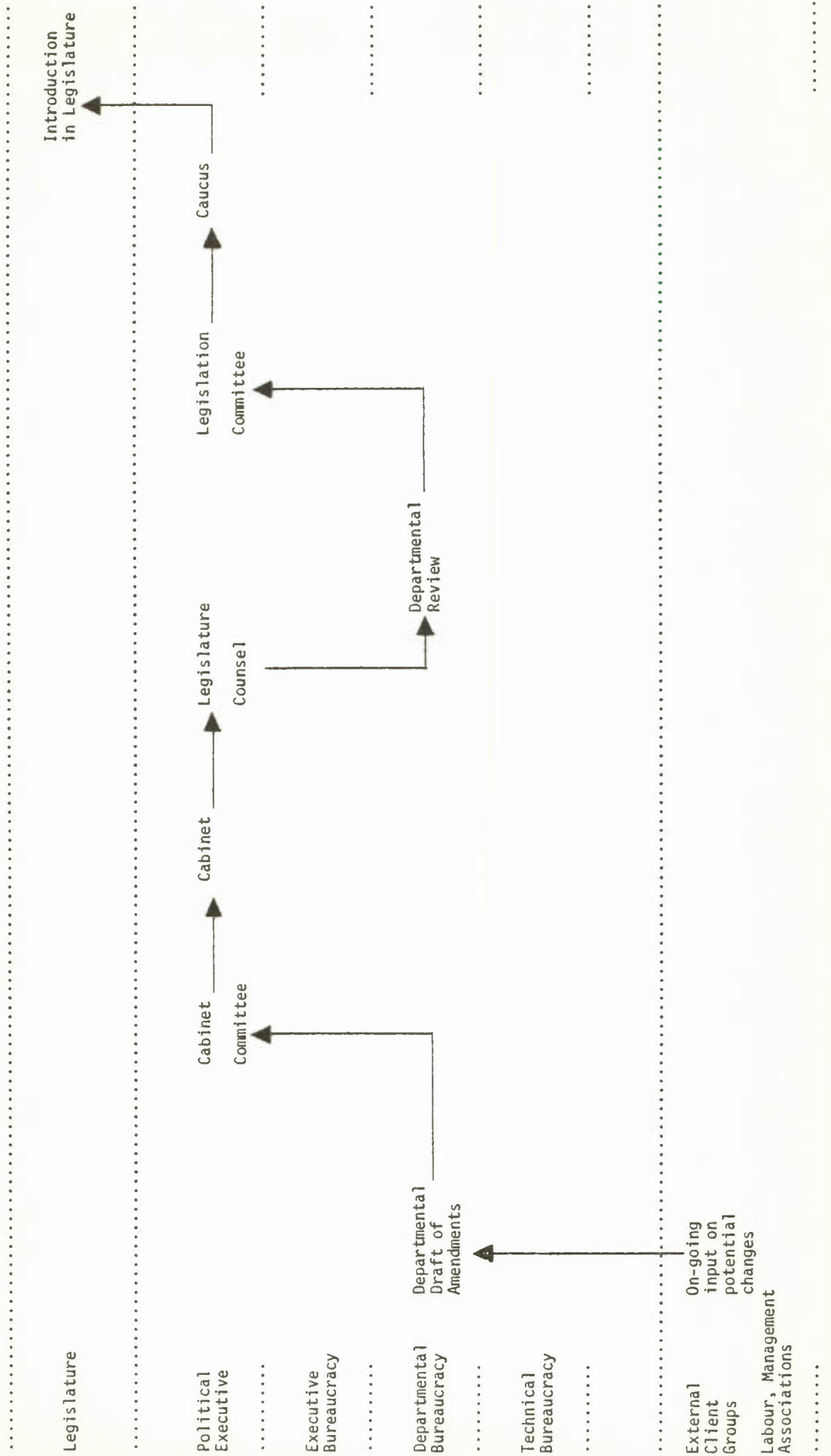
processes. The basic steps in the process involve the following:

1. The Ministry responsible for the policy area prepares a revised draft of the statutory changes under consideration. This revision is accompanied with a policy analysis document which outlines the need for change, the changes being proposed, and some overall assessment of the impact of these changes.
2. One or more of the Standing Cabinet Committees review this document, which may or may not result in subsequent revisions, clarification or rejection.
3. This submission is then forwarded to the full Cabinet for approval.
4. The approved cabinet document is then forwarded to the Legislative Counsel for review in terms of the conventional approaches to framing and wording legislation.
5. This final draft from the Legislative Council is returned to the originating Ministry or department to ensure that any changes made on the basis of legal wording have not disrupted the technical or operational intent of the amendments.
6. The final draft from the Ministry or originating department is then submitted to the Standing Legislation Committee who then presents it before the full Caucus.
7. The Bill is then introduced in the Legislature in the form of a First Reading. The procedures regarding the review of the Bill in the Legislature is then subject to the normal policy and procedures of the Legislature.

Figure 9: Operational Procedure for Revisions to Statutes in British Columbia is a schematic diagram of these basic steps. It is important to note in the diagram, that historically in British Columbia, external client groups of Occupation Health and Safety legislation have an ongoing input of potential changes by virtue of their regular letters, briefs, and discussions with Ministry staff on application, interpretation and operation of the statute on a day-to-day basis. Although it very seldom appears in any

Figure 9:

Operational Procedure For Revision To Statutes in B.C.



formal analysis of the decision-making processes, this ongoing dialogue is the principle source of information for the bureaucracy. As a number of the respondents informed us, very seldom is the source or originator of a particular change the public servant charged with responsibility for administering the statute. The actual originator is usually some labour or management group in the industry who has encountered a particular problem with the existing statutory framework based on either changing technology or changing work processes.

The actual decision-making process employed in the revisions to The Mines Regulation Act and the Coal Mines Regulation Act is summarized in the following schematic diagram titled "Figure 10: Flowchart of Revisions to the Mines Regulation Act and the Coal Mines Regulation Act". As you will notice in reviewing this chart, the process was delayed in the fall of 1977 and June 1979. It was significantly altered by virtue of the Cabinet Committee returning the draft legislation to the Ministry of Energy, Mines and Petroleum Resources for further study and review.

The delay between the fall of 1977 and June 1979 was said to be the result of the slower economic conditions in the province at the time and the lower priority given to these revisions than originally anticipated. In June 1979, the Cabinet Committee indicated that it may be desirable to change the tradition of including the 316 rules in the statute to following the practice of including these rules in the form of regulations. As such, a number of respondents advised us that the draft statute was subsequently returned to the Ministry to continue its efforts in drafting an omnibus statute to cover both Mines Regulation as well as Coal Mines Regulation and to further separate out the actual rules from the statute itself.

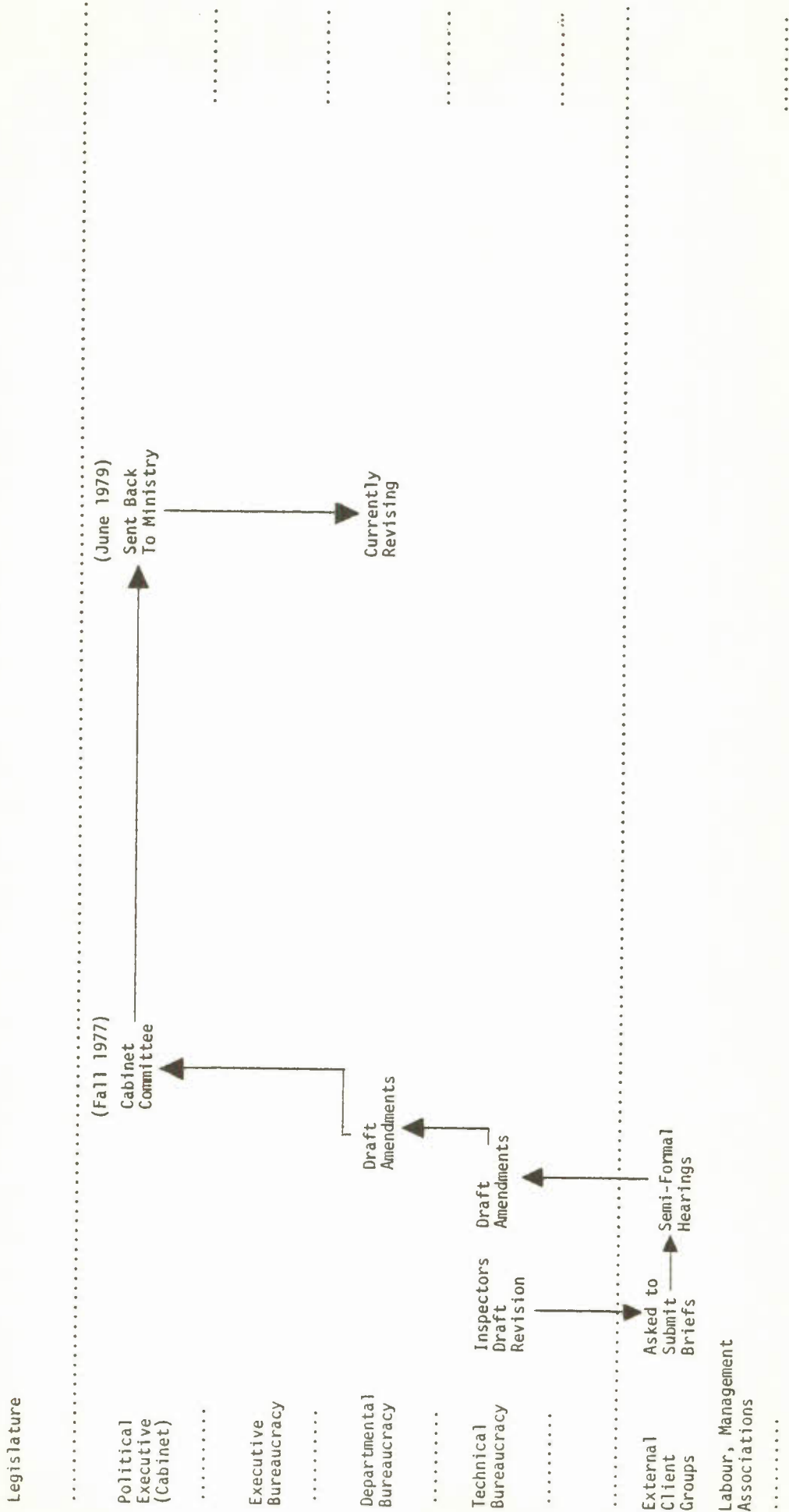
There is a certain optimism within the province that the spring session of 1980 might be the time in which the government deems it appropriate to reconsider these revisions and to introduce a final draft in the Legislature.

The decision-making process outlined on the subsequent flowchart Figure 10 is a reflection of the traditional approach to selected consultation in revisions to statutes of this nature. As was described to us, the statute under consideration has a long tradition and history in the province of British Columbia and one in which most of the policy actors have a fair degree of awareness and knowledge. They have

Figure 10:

Flow Chart of Revisions to Mines Regulation Act and Coal Mines Regulation Act - B.C.

1976 1977 1978 1979 1980



traditionally submitted periodic suggestions for improvements and change to the statutes, in particular the rules, which are subsequently reviewed internally within the inspectorate. These internal reviews within a bureaucracy are an attempt to summarize the basic suggestions that have been brought forward from the external client groups as well as include suggestions from the inspectors themselves regarding the potential modifications necessary to improve the prevention and enforcement aspects of the statute. When enough suggestions "of merit" have been assembled, the inspectorate usually initiates a preliminary draft of the revisions and then ventilates this with the various client groups in the province. This ventilation of the preliminary drafts is meant to be both advance notice as well as providing them an opportunity to comment on these initial attempts to update the statutory framework. In the case under consideration, in 1976, the external client groups were actually asked to submit briefs which were then followed by a series of semi-formal hearings in which draft amendments were reviewed. The results of these semi-formal hearings was a second draft created by the inspectorate internally and subsequently launched on its course through the internal decision-making processes of the government.

As was pointed out to the interviewer, the principle thrust for the draft revisions was metrification, the neutering of the language and general legislative housekeeping related to a number of mechanical and electrical aspects.

In view of the dramatic changes that have been occurring in the province of British Columbia in the last four years, the alterations in the decision-making process in this case, makes it difficult to generalize this experience. Perhaps what it does reflect, is the significance of changing government agendas over long time periods or long time frames and how this can inadvertently stretch the process out.

Summary

In reviewing this decision-making process on the Mines Regulation Act and the Coal Mines Regulation Act according to our model of criteria or elements, we should begin these conclusions by recognizing that the procedures for statutory reviews and decision-making in British Columbia have been changing in recent years.

The decision-making process on the Coal Mines Regulation Act and the Mines Regulation Act is also unique given the inclusion of the "rules" in the statutes themselves and the fact that this traditional body of regulations has been subject to ongoing, extensive, and informal consultation as do most

regulations in the field of occupational health and safety across Canada. This long standing tradition of consulting on rule changes is a function of the bureaucracy's concern for "feasibility, practicality, and implementability" considerations in the case of mining occupational health and safety, has established a long standing tradition and familiarity on the part of most of the actors with both the substantive issues as well as the processes and procedures by which these changes are made. The consultation process is "clause" or "standard" specific rather than dealing with the broad philosophical or mission statements. Most of the policy actors have a clear understanding of the need and value of the statute and its role and relationship in terms of minimizing occupational health and safety hazards in mining operations.

This basic approach may be generally viewed as an informal consensus approach. Because of the traditions and history of the various policy actors, no major documentation in addition to the revised clauses is usually included in the material presented to the various policy actors. In turn, the briefs to the government have been relatively straightforward rephrasing of various clauses in the statute with brief indications as to the relative value of these changes and modifications. There are very few so-called "paper trails" to show the decision-making process itself. Rather the individuals who participated consistently through the semi-formal hearings and discussion sessions tend to be the principle agents and historians of the process. There tend to be no formal ex ante evaluations. These evaluations tend to occur at the stage when the various groups discuss the question of the efficiency and effectiveness of proposed standards or changes in these standards and serve as part of the ongoing discussion and search for consensus.

Regulations

The two principal areas where significant changes in occupational health and safety occurred were the Industrial Health and Safety Regulations 62. and the Industrial First Aid Regulations 63. subordinate to the Workers' Compensation Act as well as the Occupational Environment Regulations pursuant to the Factories Act under the Ministry of Labour. The Industrial Health and Safety Regulations have been selected for consideration in this analysis.

In prefacing the detailed analysis of the decision-making process in revising the Industrial Health and Safety Regulations under the Workers' Compensation Act in British Columbia, it is important to remember that there is a formal requirement in the Workers' Compensation Act that all revisions to the regulations be conducted through formal public hearings and that advance notice of these public hearings must be given ten days prior to the actual conduct of the public hearing. This formal requirement has been part of

the original Workers' Compensation Act since 1917 and was created specifically by the Pineo Commission to facilitate openness and accessibility in what the Commission considered to be the vital area of accident prevention.

Similarly, we should also keep in mind that because the Workers' Compensation Board is a regulatory agency at arm's length from the traditional government bureaucracy itself, its regulations are promulgated without the traditional Order-In-Council. Although the revised regulations must go to the Registrar of Regulations for legal review, they are not formally subject to any governmental decision-making processes. And the fact that the regulations are Gazetted appears to be merely a formal requirement or rite of passage for them to come into force in the traditional legal fashion.

In summary, the operating procedures as well as the actual experience in the decision-making processes in these regulations evidence perhaps the most significant attempt in Canada to move towards open and accessible decision-making processes. This is not to suggest that all of the policy actors are completely satisfied with these processes, but rather by preliminary comparison to other jurisdictions and according to our model of criteria or elements for decision-making processes, the traditions and customs in British Columbia are the most extensive and highly developed in attempting to pursue openness and accessibility.

The principle characteristics of the procedures and the actual experience are as follows:

1. Ongoing input of potential changes or revisions to the regulations are accepted and retained for future analysis from any group of clients or policy actors;
2. The formal use of Advisory Committees to review internal first drafts of the amendments;
3. The formal dissolution of these technical Advisory Committees to ensure that the participants are free to participate in the subsequent public discussions and hearings without any encumbrances related to their initial participation in reviewing the first draft;
4. Public distribution of 5,000 copies of a formal second draft of the amendment;

5. Extensive advertising in the various media throughout the province regarding the distribution of the formal second draft and the notice of the upcoming public hearings;
6. The formal solicitation of briefs and comments pursuant to the issuance of the formal second draft;
7. The conduct of open public hearings prior to the preparation of the final draft;
8. The subsequent publication of the approved amendments in the Gazette and their inclusion in Board publications of these changes.

The actual operating procedures for making revisions to the regulations have been the collective result of various attempts in the past to conduct public hearings. In addition to this, the recent experience of the B.C. Supreme Court 64. case on the 1978 amendments to the methyl and ethyl mercaptan threshold limit values increased the awareness of all concerned regarding the steps leading up to the public hearing and the manner in which the public hearing and subsequent amendments are made. The Supreme Court Case overturned the 1978 version of the threshold limit values for several reasons. Perhaps the most significant issue brought to life by this case, was the importance of how the hearings are conducted and what formal commitments are made by the regulatory agency to the external client groups regarding the degree and nature of the consultation. In the case of these threshold limit values, the original levels prior to the amendments were lower than those subsequently published and effective January 1, 1978. The Supreme Court ruled that because of the wording of the covering letter attached to the formal second draft sent to the client group, any changes in the levels which were not proposed in the second draft were ruled invalid. And although there was, and still is, some confusion regarding the increased mercaptan threshold limit values above that originally published, it is important to recognize the growing body of law regarding the obligations placed on the regulatory agency once it has launched an open and accessible consultative process. There seems to be the implication that once formal mechanisms of this nature are introduced and employed, the flexibility of the regulatory agency is coming under significant questioning.

Nevertheless, the operating procedures in existence for revision to the regulations under the Workers' Compensation

Act are extensive as pointed out or displayed in the following schematic diagram titled "Figure 11: Operating Procedures for Revisions to the Workers' Compensation Board Industrial Health and Safety Regulations - B.C." The active participation of the external client groups is significant on successive occasions and this consultation extends over a relatively significant period of time. In practice, changes to these regulations have usually taken a minimum of 18 to 24 months from the date of the first draft to the final Gazetting of the approved amendments. In addition, Figure 6 illustrates the independence of the Workers' Compensation Board and the relatively short hierarchical chain through which it has to proceed in order to approve its amendments. The absence of the involvement of the political executive (cabinet) and the executive bureaucracy (i.e. any central policy agencies), is quite pronounced. This is one of those rare instances where the accident prevention and enforcement of the regulations are actually part and parcel of the Workers' Compensation Board.

The actual decision-making process and the sequence of events for the 1979 revisions to the Industrial Health and Safety Regulations is illustrated in the schematic diagram titled "Figure 12: Flowchart of Last Revisions to the Worker's Compensation Board Industrial Health and Safety Regulations - British Columbia". As you will notice, the operation of this decision-making process followed the operating procedures very closely and took approximately 30 to 32 months from initiation of the ongoing reviews to the final Gazetting of the draft regulations effective October, 1979.

Again as a result of the long standing history of this type of participation in revisions to these regulations, the stakeholders have been fairly well defined historically and are constantly being expanded as additional interest groups indicate their concern and interest in occupational health and safety. 65. Perhaps the most dramatic change in recent years has been the increased attention being given to occupational health and safety by the union movement. In the past, a number of observers commented that it was often difficult to get enough people to agree to participate in the advisory committees in the initial stages let alone to get adequate representation during the public hearings. Apparently the awareness has increased significantly to ensure both adequate participation on Advisory Committees as well as through the public hearing process.

Although there is considerable discussion of the individual clauses included in the regulations, there is very little background analysis of the scope and magnitude of the problem being addressed by a specific clause and the anticipated or expected results due to the proposed revisions to the particular regulations. This area of regulatory analysis

Figure 11:

Operating Procedures for Revisions to WCB Industrial Health & Safety Regulations - B.C.

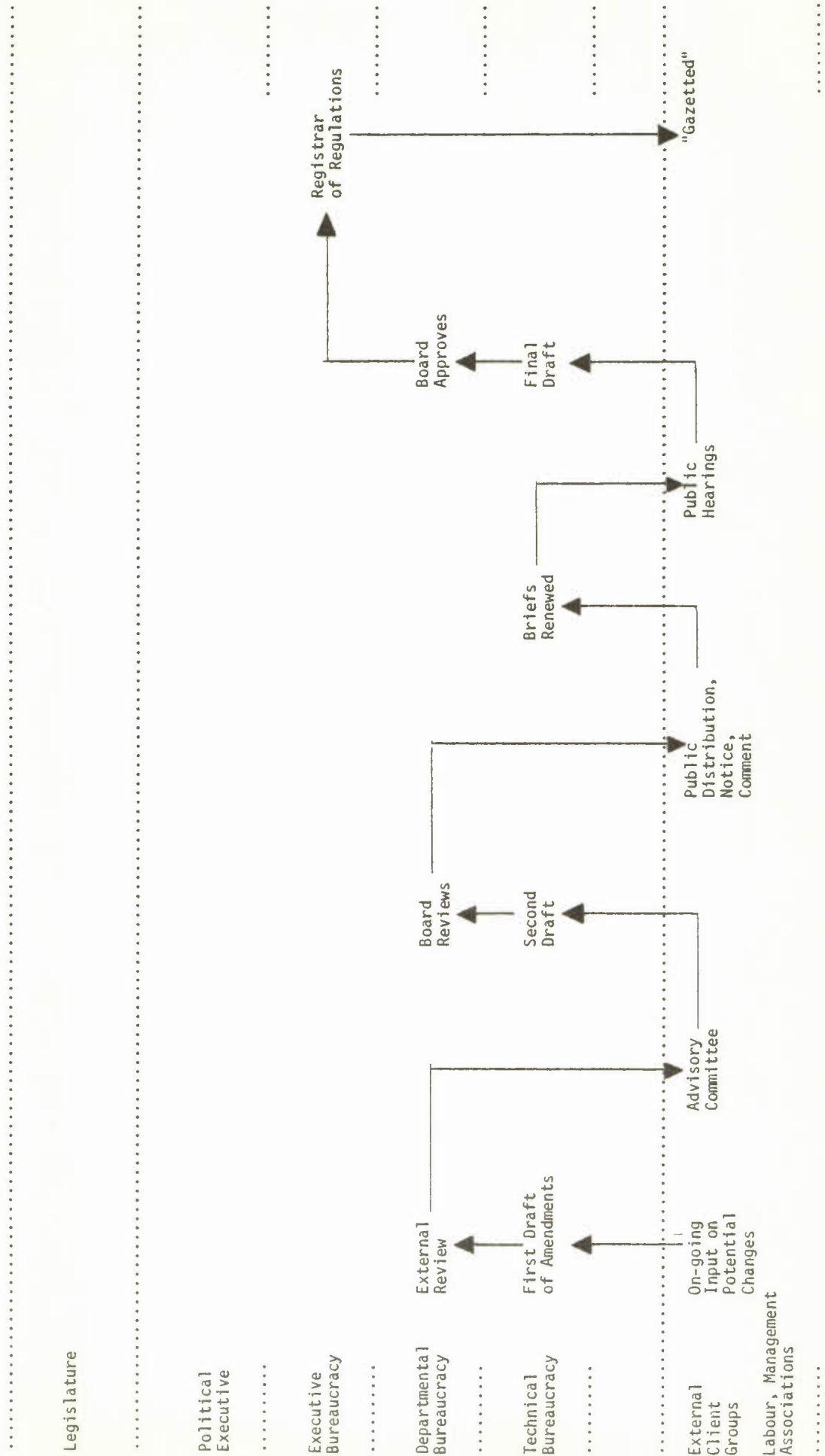
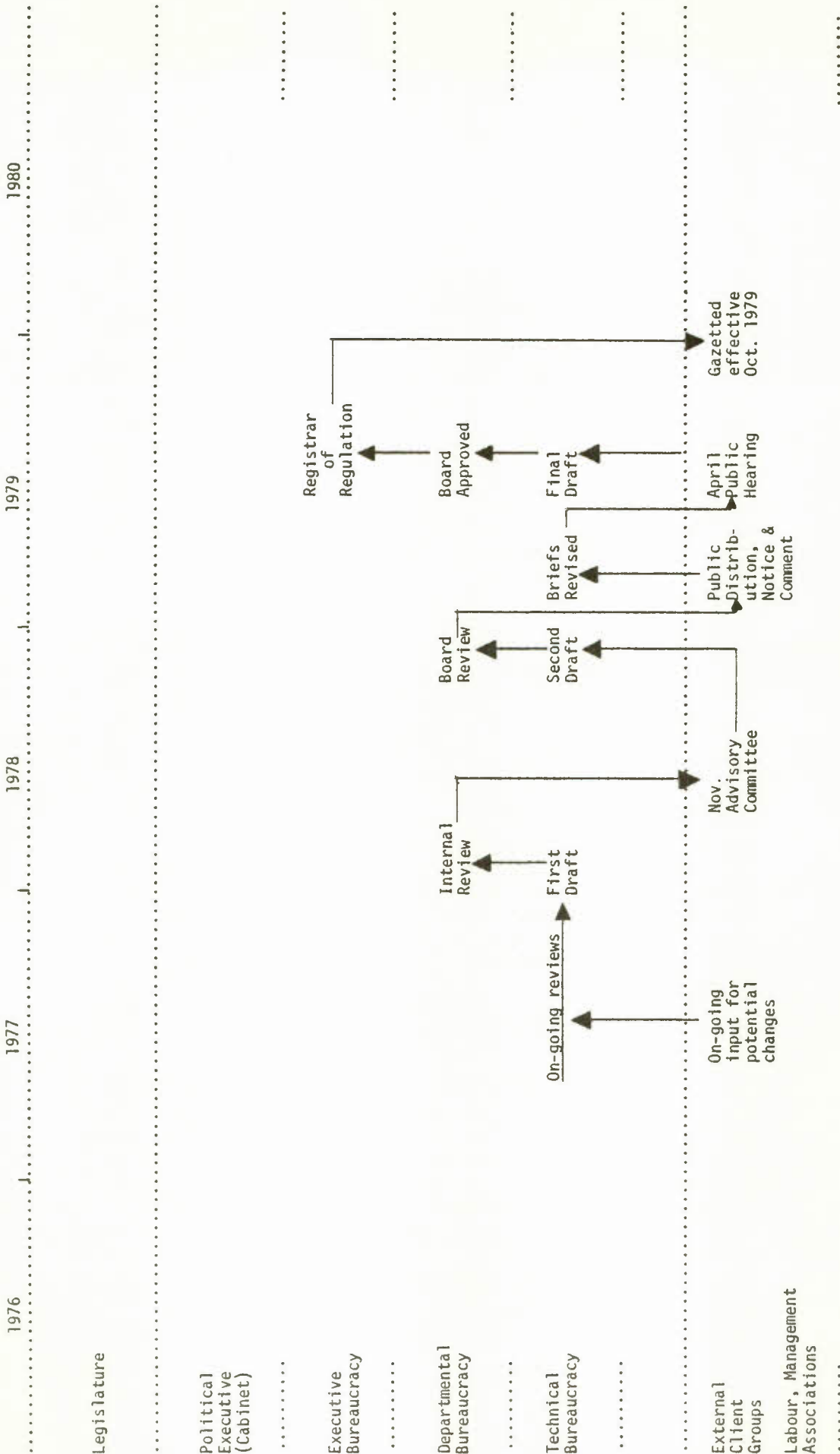


Figure 12:
Flow Chart of Last Revisions to MCB Industrial Health & Safety Regulations -- B.C



being promoted in the U.S. has yet to be adopted in British Columbia, although increasing efforts are being made to increase the availability of background information generally on individual standards included in the regulations.

There is increasing interest on the part of a number of the policy actors to change the actual public hearing format from that of the public airing of written policy submissions to a more adversarial forum in which the search for acceptable hazard control and standards is debated. And although public and official transcripts of all these proceedings are kept and made available, many feel there is the need to increase the formalized aspect of the debate and to extend the duration of these hearings. Generally the hearings take place in one location and over a one or two day period of time. The Board has experimented in recent years with the conduct of community hearings throughout a number of locations in the province in an attempt to both increase accessibility to these public hearings as well as reduce the costs to the external client groups of participating in these public hearings.

Operating Policies and Procedures of Compliance Programs

The third major category of decision-making processes under consideration in this investigation is the analysis of the procedures by which the interpretation and application issues of the statute and regulations are developed. As was mentioned in the preliminary report and earlier in this report, the field of occupational health and safety has developed a rather extensive tradition of leaving certain aspects of the regulations open to professional interpretation in the interests of providing both flexibility as well as handling relatively fuzzy issues through the professional occupations involved (i.e., engineers, physicians, and inspectors). The presence of such expressions as "adequate protection", "precautions reasonable in the circumstances", and "where in the opinion of..." all exemplify both the range and frequency of interpretation required to determine compliance with the legislative framework.

The most highly developed process of attempting to qualify and provide guidance on these grey areas of interpretation and application, is the approach used by the Prevention Services group of the Workers' Compensation Board in British Columbia. They have developed over a number of years a formal set of internal policy documents called Administrative and Engineering Instructions. These Administrative and Engineering Instructions are the successors of the old Inspector Instructions under the 1976 versions of the regulations.

As a result of the attempt in the 1978 regulations to make the regulations more explanatory and illustrative for the users, many of the original Inspector's Instructions were included in the actual regulations themselves. In addition, the regulations were expanded in a number of areas and this required the development of a new set of operating policies and procedures within the Prevention Services of the Workers' Compensation Board. The following schematic diagram titled "Figure 13: General Procedures To Develop WCB Compliance Program Policies -- British Columbia", is the basic operating procedure followed by the Prevention Services group in constructing and modifying these Administrative and Engineering Instructions.

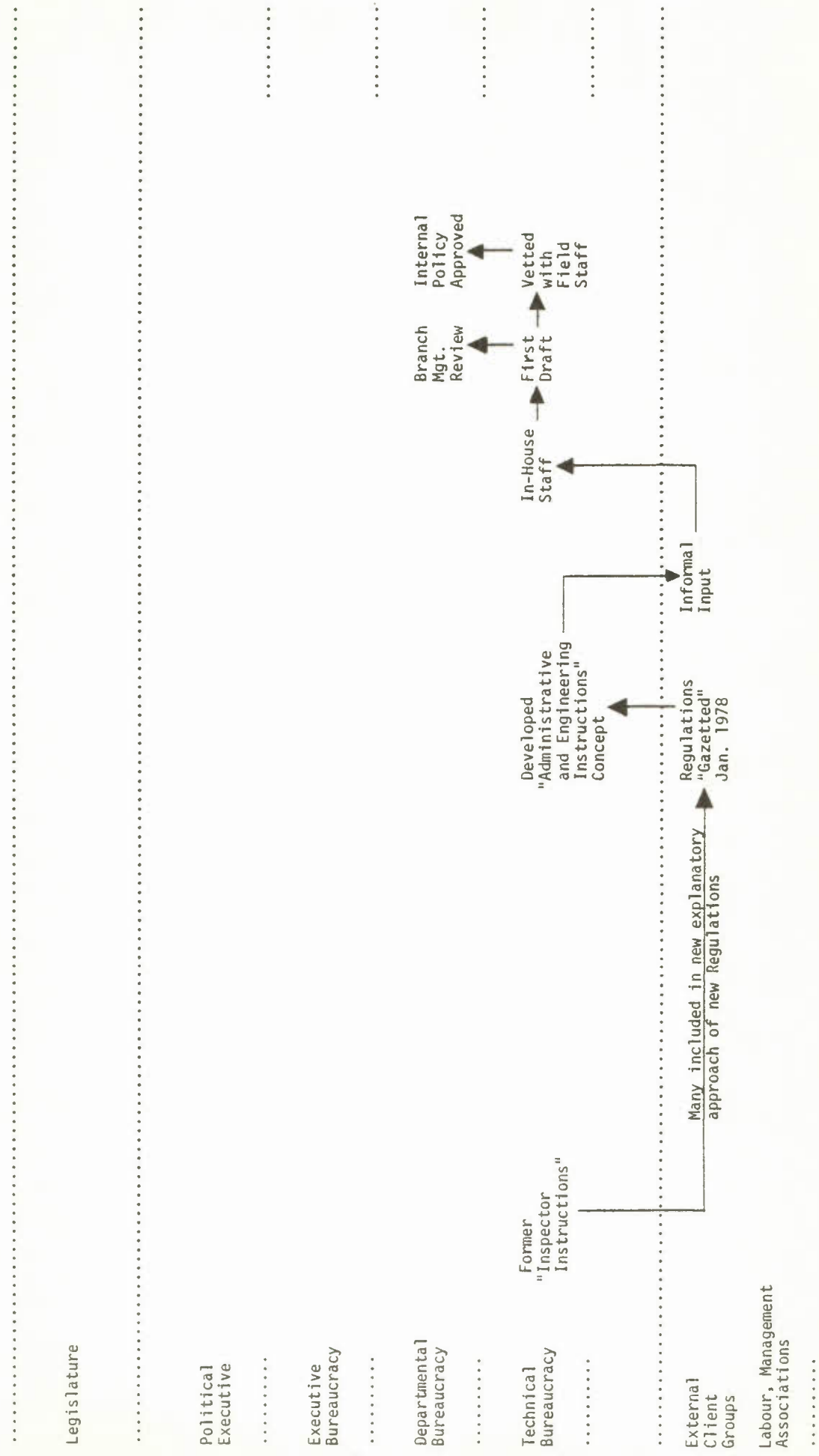
As you will note in reviewing Figure 11, there is informal input from an engineering and technical perspective but it is clearly the policy of the Prevention Services to maintain these documents for internal compliance purposes only. Their responsibility for ensuring the integrity of the enforcement procedures has been the principle criteria for maintaining these documents as internal and not for public consumption. In their efforts to ensure consistent interpretation and application of the legislation by formalizing and determining these policy instructions, the Prevention Services group have been under some pressure to make these documents available to the external client groups.

In addition to these "instructions", inspector conferences are frequently run to review new operating policies and procedures and to provide guidance in general areas which have not been codified into a formal administrative and engineering instruction. As a number of respondents pointed out, the backlog of work is substantial and as a result of the time, energy and effort that has been taken up on the decision-making processes on the regulations themselves, it has delayed the development of the full range of the administrative and engineering instructions that they feel would be appropriate to provide a comprehensive package to the inspector. Nevertheless, Prevention Services appears to be proceeding on the continued course of expanding and improving these internal operating policies and procedures to the extent that their resources permit.

We should also point out, that as a result of the extensive "referencing" of national and international standards (developed through such organizations as The Canadian Standard Association, The Society of Automotive Engineers, The American National Standards Institute, The British Standards Institute and The National Building Code), there is

Figure 13:

General Procedures to Develop WCB Compliance Program Policies -- B.C.



a very extensive and generally unknown set of these documents available in each of the regional offices of the Prevention Services throughout British Columbia on each of these standards. As we will discuss in a later chapter of this report, this underlying foundation of traditional equipment, material and processes standards originally developed on a voluntary basis, have been "called up" for purposes of specifying detailed approaches to compliance on specific regulations. These formally referenced standards along with the growing body of voluntary standards "not referenced" also form a baseline for operating policies and procedures in interpreting compliance with the legislation. These voluntary standards, as well as engineering in data sheets from a number of other jurisdictions, quite often find themselves as part of the inspector's kit. These provide him with guidance on specific hazards and serve guidelines to facilitate the determination of compliance in a particular situation.

In conclusion, the decision-making processes on operating policies and procedures regarding interpretation and application of the statutes and regulations under the accident prevention services of the Worker's Compensation Board in British Columbia, are not open and accessible to the external client groups. And the principle reason for the closed or restricted nature of these decision-making processes is that most of the respondents felt that the integrity of a compliance-enforcement program must be maintained and that there was some risk of compromising this integrity by the wholesale publication of these Administrative and Engineering Instructions. Since the compliance program's principle vehicle of enforcement is the assessment of financial penalties on individual companies that are in contravention of the legislation, there are other opportunities under the appeal procedures pursuant to such penalties to ensure that due process is provided the recalcitrants. Our mandate is not to evaluate the adequacy of this rationale, but rather to examine these decision-making processes in terms of their effectiveness as both a means and an end to making effective decisions.

Non-Regulatory Interventions

This fourth category of major decisions is intended to examine the decision-making processes of the regulatory agencies or government departments in the design and implementation of information, advisory, consultative, and research type programs. The principal intent of these programs is usually to supplement the traditional compliance programs with information and expenditure programs designed to either advance the study or knowledge levels of external client groups in the field of occupational health and safety in the hope that this will increase the momentum toward self compliance.

In reviewing the programs in British Columbia that would fall in this category, suffice it to say that there is no consistent formal or informal decision-making process regarding these types of interventions. These programs tend to exist as a result of the success of the particular department in negotiating the necessary funds through the budgeting processes. It was pointed out in the preliminary report that programs of this nature tend to be a lower priority and whatever budget cuts are made, these groups fall quickly beneath the axe. The statutory and regulatory programs get first priority and whatever money is left, is what these non-regulatory interventions obtain. They tend to be developed on an incremental basis and function as a supplementary operation to the compliance programs. Because they tend to be structured separately from the compliance programs, they often operate in some isolation from the actual priority client groups of the compliance programs. Their evolution and development is a function of the energy, ingenuity and expertise of the people available at that point in time.

The consultation and accessibility of the decision-making processes leading up to the development of these programs or their operation and revision, is subject to the day-to-day informal discussion and operation. In almost a classic marketing sense, these programs tend to evolve in an incremental fashion based on discussions of what the clients require, and what product deficiencies exist in the particular marketplace for occupational health and safety services. It is not a formal or consistent marketing approach that is applied but rather one characterized by ongoing discussion and consultation with a variety of policy actors and external client groups. For this reason we do not feel it is useful to chart any particular decision-making process.

In conclusion, the various regulatory agencies and government departments responsible for occupational health and safety appear to have had their plate full with regards to open and accessible decision-making processes in the other three decision-making areas and these minor programs pale by comparison.

APPENDIX D

The Alberta Experience

In Alberta, the emphasis on occupational health and safety grew with the Gale Commission in 1976-66. and the subsequent reorganization of the occupational health and safety functions into a separate organization with its own Minister.

The establishment of this independent organization in early 1979 integrated the traditional occupational health and safety functions from the Ministry of Labour, the Ministry of Health and the Ministry of Natural Resources under one roof while at the same time closing the distance to the Workers' Compensation Board.

Unlike the other provincial jurisdictions under consideration, the Alberta government has such an overwhelming majority in the provincial legislature that it is not subject to the critical day-to-day pressures that several of the other provincial jurisdictions where either slim majorities are potentially threatened on a day-to-day basis or where the government is already in a minority position. However, the interesting aspect of this overwhelming majority in Alberta is the increased emphasis given by all government departments in Alberta to extensive consultation in an effort to ensure that this overwhelming majority does not result in less effective government decisions. As one respondent commented:

"The premier has been quite insistent that changes in regulations be subject to extensive consultation with all the affected parties and that wherever possible, consensus be developed before the issuance of a particular regulation."

As a result of this emphasis on openness and accessibility of government decision-making in Alberta, the occupational health and safety organization has experimented with a number of significant fully different approaches to this consultation. And although we can describe the processes that have been employed and the attitude and opinions of the policy actors as they went through the process, insufficient time has passed since these processes were concluded, to allow any overall evaluation.

Summary

By way of an overview, the most significant change that has undergone a major decision-making process was the current

Occupational Health and Safety Act-1976 and the Occupational Health and Safety Amendment Act-1979. The statutory framework has been in existence for some time and has not received any major amendments in recent years. The only amendments of note would be the inclusion of the Mining Act provisions as part of an omnibus framework (i.e. the Occupational Health and Safety Amendment Act-1979).

The major characteristics of the decision-making processes employed in the revisions to the regulations in the last year and a half have been the following;

1. The publication of a formal first draft of amendments for review by a diverse group of interested client groups involved;
2. Formal meetings with individual groups who responded to these initial drafts;
3. The establishment of formal tri-partite cooperation between the Alberta Federation of Labour, the Alberta Chamber of Commerce and the Occupational Health and Safety Division for the development of a jointly-owned process to review and revise the regulations;
4. The establishment of a bilateral steering committee between the Alberta Federation of Labour and the Alberta Chamber of Commerce to design and implement an open public conference to formally revise the draft regulations;
5. The provision of resource people from the occupational health and safety division to the conference to assist in the discussions and explanation of the revised versions of the draft regulations;
6. The publication of a formal conference document outlining clause by clause, the amendments to the draft regulations.

In many respects, our methodology is designed to identify and evaluate those formal, concrete or overt mechanisms that are often utilized by regulatory agencies and departments to improve openness and accessibility. In the case of Alberta, we should also make special note of the unique and very extensive informal and ongoing dialogue that exists between virtually all levels of the occupational health and safety division and the broad base of external client groups. By this we mean to say that, although the Alberta Occupational

Health and Safety Division has experimented in some radically new and different ways with formal mechanisms, such as this Regulations Conference in Red Deer in February 1980, an intricate part of the way it conducts its day-to-day business is the fact that it is continuously in touch with its external client groups and constantly reviewing, revising and reshaping its perspectives and approaches based on this continuous input. It appears to be a significant characteristic of how the Occupational Health and Safety Division does business and this was frequently cited by the external client groups as a beneficial characteristic of their functioning process. Although most of the external client groups were supportive of the formal efforts that had been made by the occupational health and safety division to improve the openness and accessibility, they were also generally supportive of the normal way in which business is done in Alberta.

And as a number of respondents pointed out, the frontier-like characteristics of Alberta's industrial community seems to promote a more open attitude generally as well as a relatively new and to some degree inexperienced, group of policy actors or stakeholders. Many of the participants in the Regulations Conference were relatively new to the field of occupational health and safety and viewed it as an educational vehicle to improve their level of knowledge and understanding of the regulations. And in this context, a number of the participants saw the conference as another step in the ongoing process of outreach aimed at improving their ability to participate effectively in the ongoing decision-making processes.

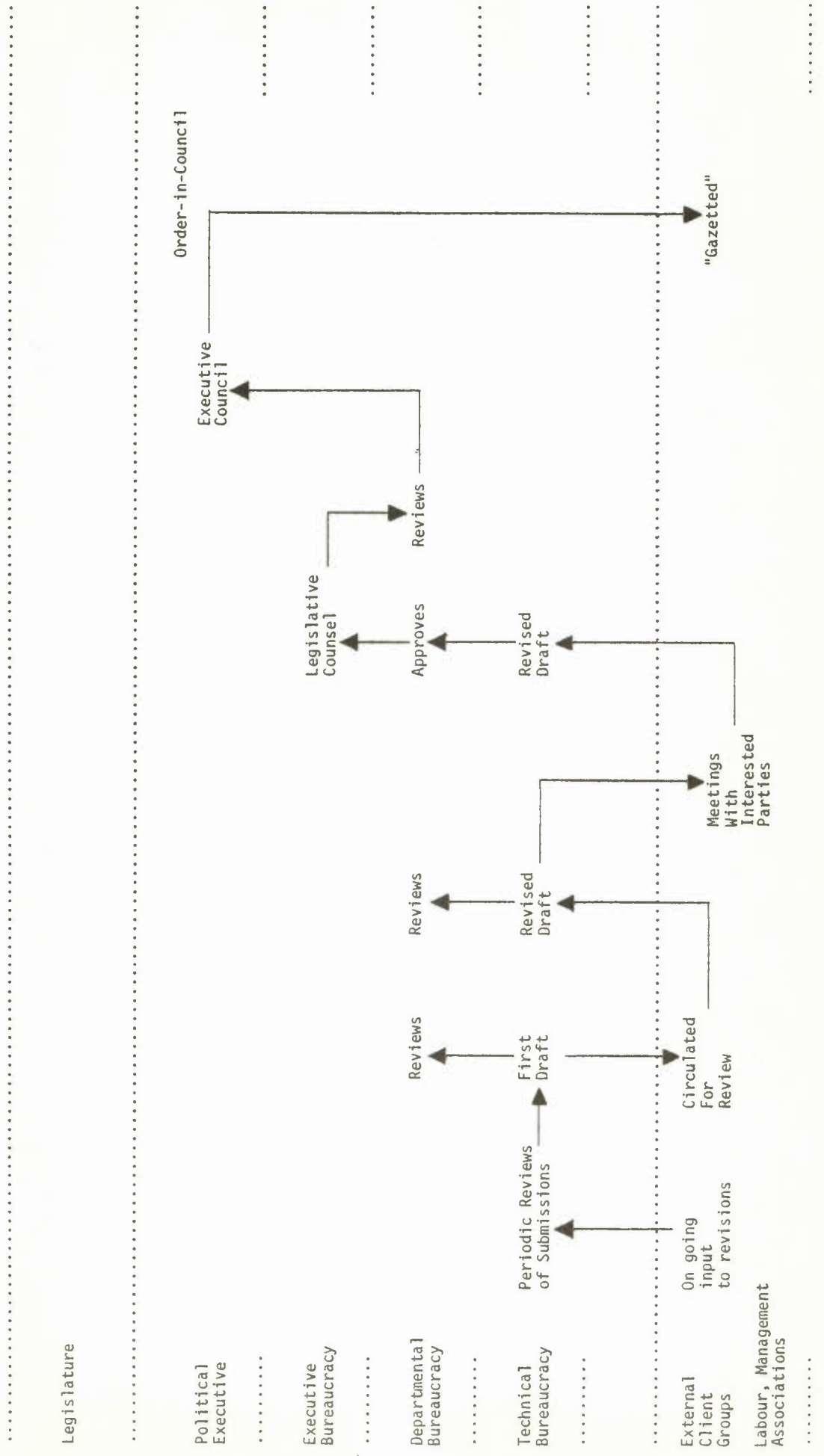
Regulations

The evolution of the decision-making processes of the amendments to the regulations in Alberta really began in 1977 following the government's acceptance of the Gale Commission Report on Occupational Health and Safety. This was combined with the structural reorganization of the agencies responsible for occupational health and safety and the expansion of resources available to improve the state of worker health and safety.

The standard government policy on the process for changing or amending regulations is detailed in the following flow-chart titled "Figure 14: Operating Procedures for Revising Occupational Health and Safety Regulations-Alberta". The principal characteristic of the formal policy is the extensive consultation with a broad range of external clients

Figure 14:

Operating Procedures for Revising OH&S Regulations - Alberta



at very early stages in the development of draft regulations. And in fact, it is these initial and often informal submissions, mini-briefs, and letters suggesting changes to regulations which are accumulated for some period of time and which subsequently become the trigger for a formal review and revision of the regulations. As with most formal decision-making processes regarding statutes or regulations, the policy tends to concentrate on the procedural steps necessary to obtain review and approval with the bureaucracy and the government itself. This traditional emphasis upon internal decision-making processes has been supplemented in the Alberta model, by the extension of opportunities for external consultation.

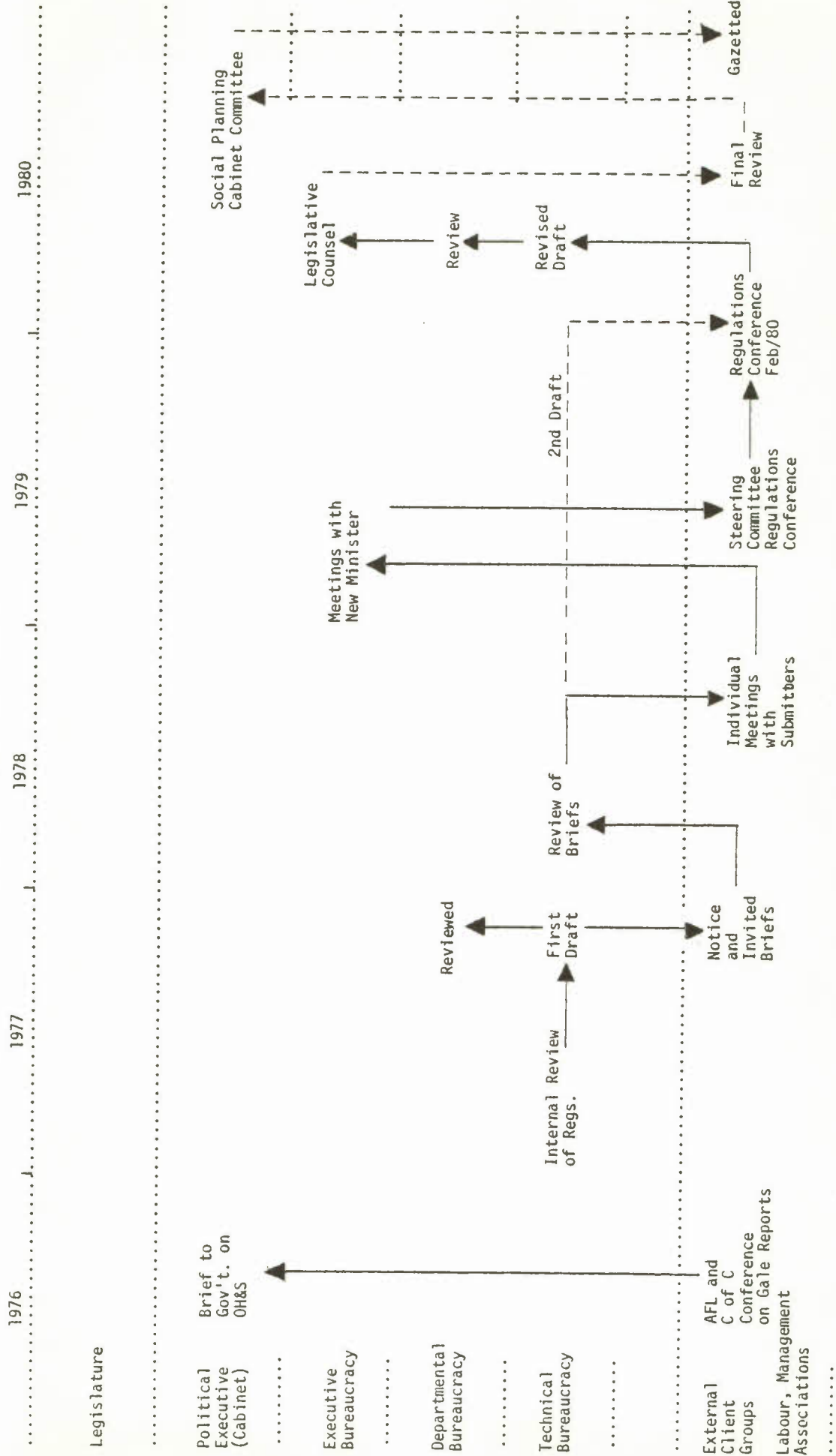
Although the mode of consultation, degree and quality are unspecified in the formal documents, the experience in the application of this policy in the occupational health and safety area in Alberta has been extensive and would be considered a high-risk undertaking.

The actual experiences in Alberta in revising the occupational health and safety regulations are diagramed in the subsequent chart titled "Figure 15: Flowchart of Revisions to Occupational Health and Safety Regulations-Alberta".

The trigger or initiator for this decision-making process was a Conference sponsored by the Alberta Federation of Labour in 1976 which reviewed the Gale Commission Report. 67. Perhaps the most significant characteristic of this conference was the fact that the Federation of Labour invited the Chamber of Commerce to participate in the conference which subsequently resulted in a joint brief to the government on occupational health and safety policies and their support and extension in the adoption and implementation of the Gale Commission Report. As a result of this base or foundation, the cooperation between the external client groups provided a unique opportunity for the new and embryonic occupational health and safety division to begin developing a viable and credible working relationship with these principal organizational groups.

In 1977 work began within the Occupational Health and Safety Division on revisions to the regulations in a process of integrating and extending the Gale Commission recommendations. These initial reviews resulted in a first draft

Figure 15:
Flow Chart of Revisions to OH&S Regulations - Alberta



which was subsequently published for the various external client groups to review and invited their submission of individual or joint briefs on potential changes or amendments. These briefs were subsequently reviewed by the Occupational Health and Safety Division and followed up with an extensive range of meetings with the individuals or groups who submitted these briefs.

By early 1979, the Occupational Health and Safety Division was created as an independent entity separate from the governmental departmental structure. With the appointment of a minister responsible for this new commission or agency, the initial process for reviewing the regulations was temporarily interrupted by the various external client groups. At this point in time, their interest was in establishing contact with the new minister and ensuring that the level of cooperation and participation that was starting to emerge was going to continue in an uninterrupted fashion in the new organization. It was after a number of these meetings that the initial concept of the tri-partite Conference on Regulations was born.

Subsequently, a Steering Committee to be composed of the Alberta Federation of Labour and the Alberta Chamber of Commerce was organized. It was this Steering Committee that developed the conference with the backing and support of the Occupational Health and Safety Division. Approximately nine months after the formation of the Steering Committee, the Regulations Conference was held in February, 1980. The second draft of the proposed amendments to the regulations was introduced and reviewed by all of the 280 participants. The three day conference was considered by all the participants as a success. This is not to say that there were a number of suggestions tendered for improvement or change for any future or subsequent conference, but rather to highlight the fact that there was strong support in the planning for the conference, both during its actual operation and in the subsequent days after its completion.

The process is still underway as indicated by the dotted lines on the flowchart. The results of the input in discussion received at the conference are being included into a formal revision to the second draft of the regulations, which will then be vetted within the government and finally approved by the Legislative Counsel. At that point in time, it is planned to then circulate for one last check (proof-reading) the final draft before it is submitted to the Social Planning Cabinet Committee for final approval and promulgation.

This experimental application in Alberta reflects the basic and underlying working relationship that exists between the occupational health and safety division and its principle client groups as well as indicating the extent to which it is prepared to take the risk in experimenting with this type of open decision-making process. Our hope is that we will have a subsequent opportunity before completion of the final report to interview a number of additional respondents regarding their final evaluation of the decision-making process used at the conference.

The processes for establishing operating policies and procedures for the interpretation and application of this legislative framework are pending. As such we have not included any detailed discussion of the former approaches. Similarly the non-regulatory programs are subject to the same constraint.

APPENDIX E

The Ontario Experience

The province of Ontario has been undergoing, in the last four years, some of the most significant changes to its previous programs in occupational health and safety. The Royal Commission on the Occupational Health and Safety of Mine-workers (The HAM Commission) was established in 1974 and published its report and recommendations in August 1976. 68. Since that period of time major revisions have been made to the legislative framework, the organization structure of the regulatory departments involved as well as dramatic increases of resources allocated to occupational health and safety programs. This major overhaul of the occupational health and safety programs created a significant period of turbulence and uncertainty both within the regulatory departments themselves as well as with the external client groups. And although everyone attempted to carry on business as usual under the existing legislative and program frameworks, considerable uncertainty existed and it required considerable time and energy to respond and react to the various decision-making processes employed.

Summary

Ontario has perhaps one of the most extensive and formalized decision-making processes for initiating changes to the statutes. The results of the Camp Commission on legislative procedures resulted in a considerable opening up of the internal decision-making processes and increasing the accessibility of background information and rationales related to the statutory changes being proposed to the Legislature.

The decision-making processes by which the regulations are revised has been under considerable scrutiny and pressure for change, especially in the direction of consultation and economic impact assessments. The decision-making processes have been undergoing significant change and experimentation during this four year period of time; and there is a growing body of knowledge regarding the experiences of each of these attempts and changing attitudes and expectations on the part of the external client groups. The highlights of these decision-making processes employed in the development of Bill 70 and the regulations subordinate to that bill would appear to be the following:

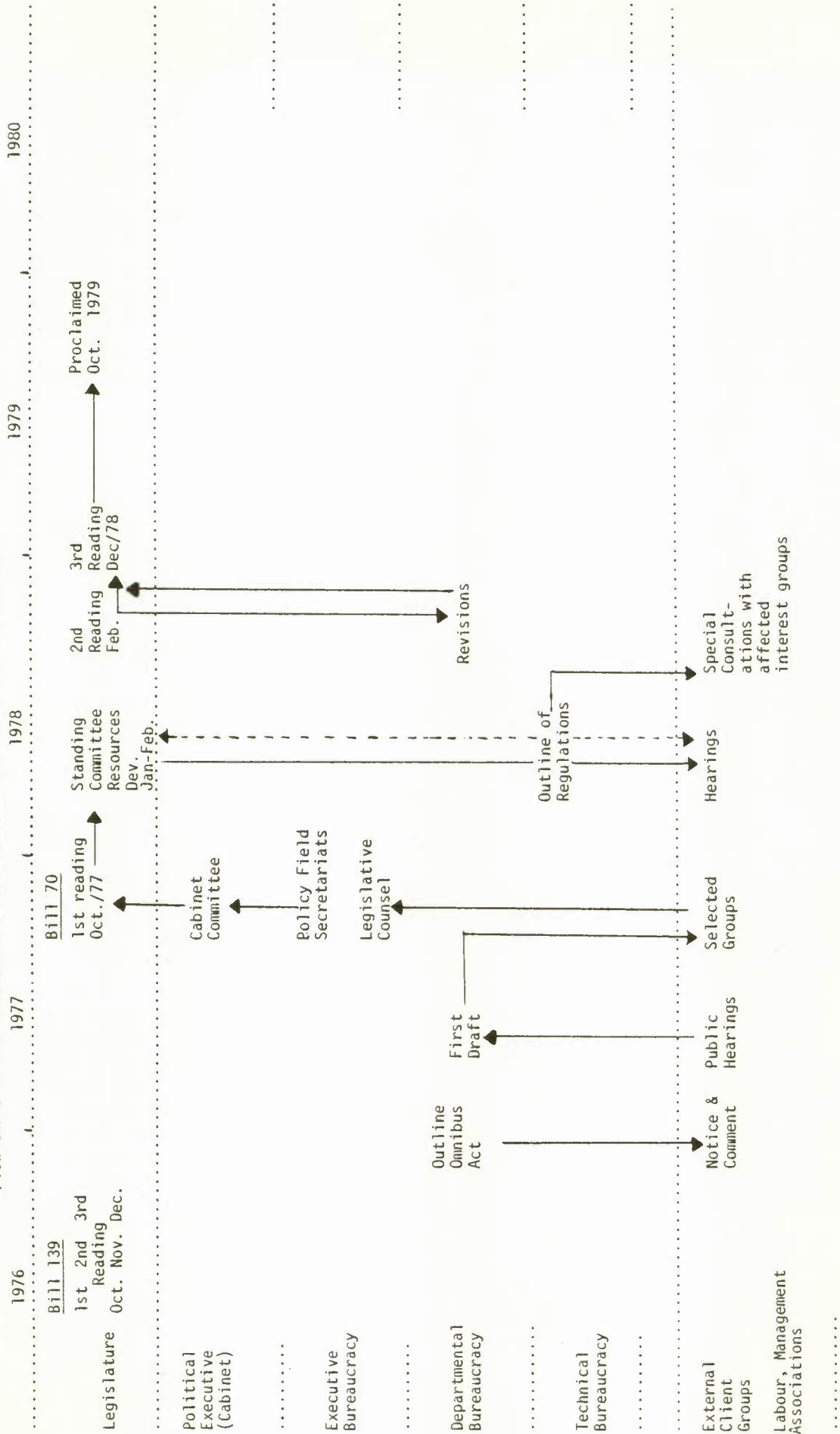
1. Formal provision in the statute for both notice of intent to change the designated substances regulations and sixty-day notice and comment provision on the actual draft regulations for designated substances; 69.

2. Formal use of the Standing Committee on Resources Development of the Legislature for public hearings on the revisions to the act and regulations;
3. The tabling of the draft regulations subordinate to Bill 70 at the same time that Bill 70 was being reviewed by the Legislature's Standing Committee on Resources Development;
4. The extensive use of public meetings throughout the province to review basic philosophy and approach of the statutory framework for controlling exposure to occupational health and safety hazard as opposed to the traditional review of only the individual clauses in the draft legislation;
5. Extensive use of consultation meetings with the full range of external organizations and associations formally involved in occupational health and safety;
6. The extensive and ongoing dialogue with an increased number of interested parties on the major shifts in the legislated responsibility system which increase worker participation in occupational health and safety on the shop floor.

The following schematic diagram titled "Figure 16: Flowchart of the Amendments to the Occupational Health and Safety Omnibus Act (Bill 70)-Ontario", attempts to illustrate the basic sequence of events that took place in Ontario between 1976 and the proclamation of Bill 70 in October 1979. By way of preface, it should be mentioned that the Omnibus Act (Bill 70) was preceded by an interim act titled Bill 139 which was intended to be just that -- interim legislation to assist in bringing legislative responsibility for all occupational health and safety legislation under the Ministry of Labour. As well, it made significant changes in the right of workers to participate in their occupational health and safety related matters. Bill 139 was introduced in the legislature in October 1976 and was subsequently passed in December 1976. This relatively short period of time was accompanied by a fairly significant reaction on the part of most external client groups, the employer groups in particular. The changes in the right to refuse unsafe work and the provision of ministerial discretion to order mandatory joint health and safety committees in high risk establishments were major sources of contention. The unanticipated reaction of a number of external client groups set the tone for what was to become a decision-making process. As Figure 11 points out, the actual process began in the early spring of

Figure 16:

Flow Chart of the Amendments to OH&S Omnibus Act (Bill 70) -- Ontario



1977 with a series of public meetings in major centres throughout the province on the basic philosophical approaches to occupational health and safety. In many respects, this attempt to seek input on the underlying principles on which the Omnibus Act was subsequently structured, was unique in its attempt to begin at first principles. However, the client groups and the policy actors were frustrated given their traditional orientation to actually reviewing specific drafts of pending legislation. As a number of respondents indicated, they weren't sure what would result from their reactions to the "nine questions asked" and therefore felt a bit intimidated and threatened less their answers be used inappropriately. This lack of understanding as to what was going to happen with the answers to the "nine questions" and increased the turbulence within this time period and tended to exacerbate the concerns about Bill 139 from the previous December.

Once Bill 70 was introduced in the Legislature, the Standing Committee on Resources Development took the step of establishing public hearings in January and February of 1978 to seek both formal and verbal input on the various client groups. This extended process of presentation and questioning provided both an open opportunity to debate the issues as well as review the results and proceedings of each submission in the formal Hansard transcripts.

Bill 70 ran into substantial problems and was not presented for the third reading until December 1978, in which time it was passed. However, in view of the difficulties in getting the appropriate regulations developed to accompany the new statute, the bill was not proclaimed until ten months later, in October 1979, along with its revised regulations.

In reviewing the comments of the respondents, many of the groups felt that they had ample opportunity to provide input and make their opinions known regarding the various versions of the draft legislation. However, the almost unanimous reaction was that they would have preferred or appreciated a little more time in preparing their responses (more than the often 30 to 60-day deadlines.) Nevertheless, and apart from the fact that there is a fairly wide range of opinions regarding the adequacy of the decisions themselves, people felt that the opportunities for consultation were greatly improved over those normally available and that it established a baseline on which to build.

Regulations

As a result of the restructuring of Bill 70 to extend coverage to previously uncovered occupations and work places, the intent to designate the occupational health standards and the restructuring of worker participation in occupational health and safety matters on the shop floor, it created a base for a whole range of previously untried regulations. The existing regulations under the Industrial Safety Act and the Construction Safety Act had to be supplemented by these new needs and expanded to cover previously unregulated hazards.

We have examined two separate but parallel decision-making processes involving regulations; one is the so-called general occupational health and safety regulations which are the traditional ones pursuant to the former Industrial Safety Act and the Construction Safety Act. The regulations developed for the mining sector were part of a three year planning exercise designed to separate from the statute (with Part IX of the Mining Act included, as in B.C.) all the traditional regulations as part of the statute itself.

The development of regulations for the seven designated toxic substances was precipitated by the concept of developing specific standards for only those substances formally designated under Bill 70. The decision-making processes for revising the general regulations began prior to 1976 with the ongoing input from various client groups on possible changes to the existing regulations. The procedure regarding revisions to regulations was to accumulate these letters, briefs, and submissions from both the external clients and the inspectorates and, on the basis of an annual review, determine the relative merits and magnitude of proposed changes. As a result of this catch basket approach, a first draft of the regulations was created in response to a request from the Standing Committee on Resources Development in January 1978. As mentioned in the earlier section on the decision-making process for Bill 70, this was an unusual request on the part of the Standing Committee of the Legislature to request the tabling of the regulations concurrently with the draft statute. This first draft of the general regulations was a result of a number of internal task forces established within the new Occupational Health and Safety Division. Internal task forces created these preliminary drafts on the basis of their catch baskets or suggestion files as well as through a range of meetings with external experts particularly in the field of occupational health. This first draft was tabled with the Legislature's Standing Committee as well as circulated to a wide range of external client groups for their formal comments and submissions. At

the conclusion of the Standing Committee on Resources Development hearings, an extensive range of some seventy-five special consultation meetings were held with key organizations and associations in the field of occupational health and safety in Ontario. These consultations resulted in discussions of the practicality, feasibility, and acceptability of the draft regulation. The reactions and responses of these groups in the spring of 1978 was subsequently internalized and resulted in formal publication of a second draft in the spring of 1979. This second draft was again circulated for comment to a wide range of client groups and the subsequent comments were reviewed, the draft revised and a final draft proclaimed in October 1979 as part of the proclamation of Bill 70. This process is illustrated in "Figure 17: Flow Chart of the Revisions to General OH&S Regs. Under Bill 70 - Ontario."

The designated substances regulations were run parallel to these general regulations. We felt it appropriate to review the designated substances regulation in a parallel fashion. As mentioned earlier, Bill 70 was a significant departure from the traditional statutory approach to regulating toxic substances. It attempted to reduce the need to regulate individual standards for each toxic substance by providing a general provision in the Bill which would allow enforcement when a particular substance was found to be hazardous without requiring the traditional naming and identification of all the toxic substances in the ACGIH list of hazardous substances. This general provision was supplemented by the provision to designate specific toxic substances for full blown regulation treatment (e.g., asbestos, mercury). And it is these regulations of toxic substances to provide full blown treatment that have commonly been called the designated substances regulations. The background research on the designated substances regulations began in 1977 when the concept of designation was first developed. With the naming of seven specific substances to be considered for designation in the late fall and early winter of 1977, preliminary work began with the Occupational Health and Safety Division on a first draft of the designated substances. These first drafts were designed by internal task forces in consultation with the leading occupational health and safety experts in the province on these particular toxic substances. These first drafts were subjected to the notice and comment provisions proposed in Bill 70 and were formally Gazetted in July of 1978 for preview and comment by the various client groups. The sixty day comment provisions were extended and ongoing dialogue and consultation continued throughout the later part of 1978 and early part of 1979. The following schematic diagram titled "Figure 18: Flowchart of Draft Designated Substances Regulations (re: Bill 70) Ontario" illustrates the preliminary steps undertaken to date in the development of these regulations. And as is noted, the process is yet to be concluded. It is our understanding that discussions are still underway internally and externally regarding the finalization of these designated substances.

Figure 17:

Flow Chart of the Revisions to General OH&S Regulations under Bill 70 -- Ontario

1980

1979

1978

1976

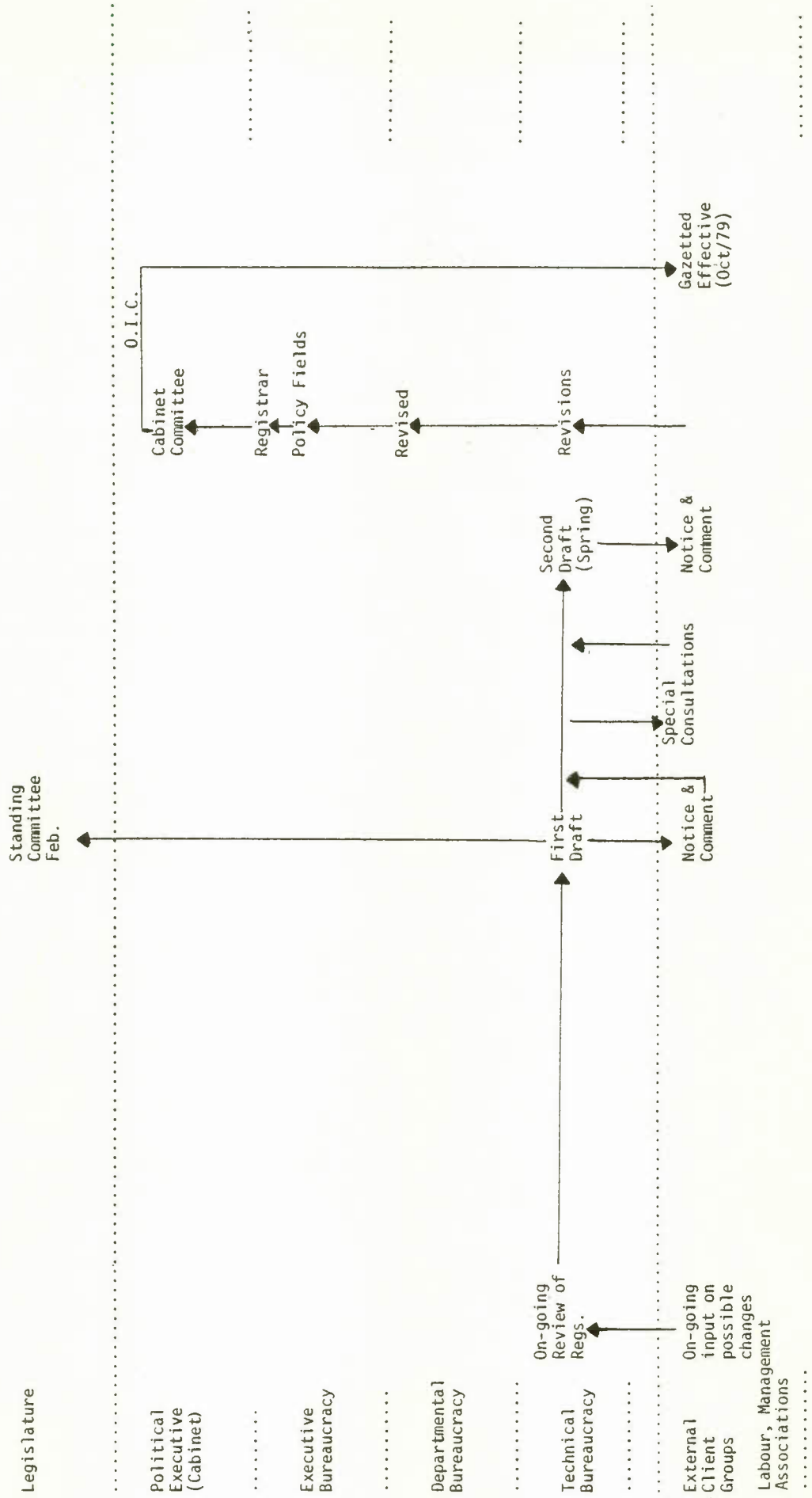
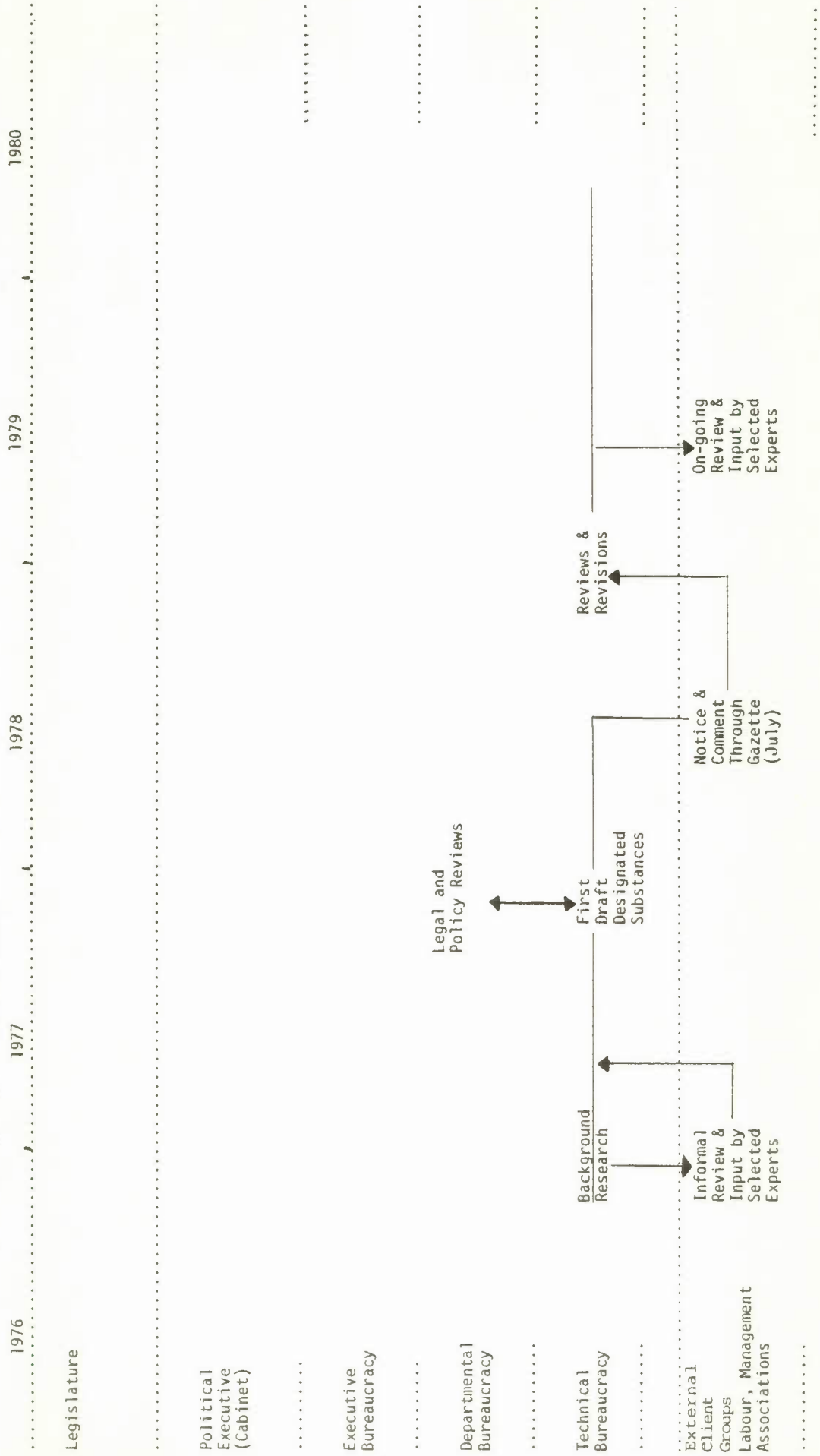


Figure 18:

Flow Chart of Draft "Designated Substances" Regulations (Re: Bill 70) -- Ontario



Again, as with the general regulations, extensive consultation, through notice and comment procedures, has been provided for and appears to be revolving into an ongoing form of day-to-day consultation. Although a number of the directly affected industrial sectors have welcomed the opportunity to increase the frequency and quality of participation in these discussions, their concerns are for ensuring that adequate time is provided them to facilitate proper responses. This is of particular concern to a number of the industry associations who require minimums of three to six months lead time in order to organize their responses through their various coordinating committees and ensure that differences of opinion within their own organization have time to be resolved adequately before presentation to the government.

In view of the evolutionary stage of the legislative framework and the regulatory framework the Occupational Health and Safety Division has only now been able to begin the work of developing its new operating policies and procedures for the compliance program, as well as the refinements to the expanded non-regulatory programs. At this stage, we have omitted any detailed consideration of these decision-making processes in view of the limited applicability and information available.

APPENDIX F

Quebec: The Prelude to Bill 17

This chapter on Quebec is not a detailed historical analysis of various studies and government initiatives in the area of occupational health and safety regulation. Rather, we focus specifically on Bill 17 (an Act respecting occupational health and safety) which was assented to on the 21st of December, 1979.

Factors Influencing Process

The process followed by the Government of Quebec in the development of Bill 17, however, has its roots in the approaches developed and applied in many earlier studies, as well as in the evolution of commitments and relationships established by the governments of Quebec during the 1970's.

Other interdependent factors influencing the process were the existence of strong centralized interest groups representing a convenient point of focus for dialogue, as well as the strong level of commitment on the part of the Labour Movement to pressuring the government into reforms that were long considered overdue. The expressed desire of Labour and Management to be actively involved in the definition of proposed changes in the area was also a factor.

In the early 1970's, the previous government regime established a Joint Consultative Committee on Labour and Manpower comprising senior Labour and Management representatives. Labour as represented by five union representatives, two from each of the respective trade union federations, the Quebec Federation of Labour (QFL), 70. the National Federation of Trade Unions (CNTU) 71. and one representative from the Centrale des Enseignants du Quebec -- the teachers. (This latter group withdrew their representation from the consultative committee two years after it was established.) The employer representatives, of which there were five, were selected from members of the Conseil du Patronat 72. and the Canadian Manufacturers Association.

This Joint Consultative Committee was established to advise the Minister of Labour on all matters relating to the responsibilities of his portfolio including the effects of other government policies and legislation on the clients and programs of the ministry.

The expectation of Labour and Management at the time the Consultative Committee was established was that the government would act on proposals which could be jointly agreed to by the Labour and Management interests represented on the committee. It was thus perceived as having the potential to play more than simply an advisory role to government in the making of decisions relating to both regulatory and non-regulatory programs in the "labour field."

The retrospective assessment of Labour and Management is that the committee was never used in this way. It was suggested that on more than one occasion, where Labour and Management were in agreement, the government chose not to act on that agreement and to act unilaterally.

While the "white paper" on occupational health and safety traces the history of the major events leading up to Bill 17, it does not cover all of the various mechanisms and studies which had been established at one point or another to advise the government on the subject of occupational health and safety.

Previous Studies: 1970 - 1976

One example, preceding the establishment of the Joint Consultative Committee on Labour and Manpower, was the Consultative Committee on Industrial Accidents established in November, 1970, which had a very broad mandate to look at all matters within the competence of "La Commission des Accidents du Travail" including prevention, the inspection function and Workmen's Compensation. Despite the broad terms of reference and the creation of various sub-committees, the review never really got off the ground in a serious way and ceased to exist as such in the fall of 1971. The only explanation which has been offered is that the rather far-reaching changes which were being suggested were seen to seriously threaten the existing internal infrastructure within government which, in turn, ensured its demise.

Between 1970 and 1975, there were at least five separate initiatives aimed at dealing with mounting external pressures from the Labour Movement and internal problems of program coordination. These included the Consultative

Committee on Industrial Accidents referred to earlier, the Castonguay-Nepveu Report of 1972, the report of the consulting firm, Mineau, Allard et Associés, which studied the objectives and operations of the Commission des Accidents du Travail (this report made one hundred and twenty-five recommendations and twenty months following the report, the Quebec Federation of Labour was claiming that the government had not acted on the report), the report of the consulting firm, Pouliot, Guerard, Castonguay Associates Inc., which was completed in early January, 1975, and the establishment of an internal interministerial committee (Comité d'Hygiene et de Sécurité du Travail) with representation from the inspection function of the Ministry of Labour and Manpower, the mines inspection function of the Ministry of Natural Resources, the industrial environment function of the Ministry of Municipal Affairs, the planning secretariat of the Ministry of Social Affairs, a representative of the Commission des Accidents du Travail and a representative of the Ministry of Justice.

In February, 1975, a regulation respecting the quality of the Occupational Environment was being proposed under the Environment Quality Act. Because of the requirements for notice and comment when the proposed regulation was published in the Quebec Gazette, it was noticed that it was in conflict with a 1972 regulation concerning industrial and commercial establishments. The Joint Consultative Committee on Labour and Manpower, to whom the proposed regulations had been referred in accordance with established practice, referred the matter to the Interministerial Consultative Committee.

With limited employer and labour consultation, this interministerial committee produced a composite unified code of existing regulations from the different ministries. However, it became apparent that in order to rationalize the regulations from the various ministries, basic legislative changes would be required to the actual statutes for which the individual departments were responsible.

At the time the interministerial committee was looking at this matter, the Quebec Federation of Labour began to increase its profile on the health and safety issue. At a convention held in December, 1975, the Federation developed a comprehensive position paper on occupational health and safety with very specific directions to the government as to what Labour felt should be done.

The Beaudry Commission

Also in 1975, the previous Liberal Government appointed a three-man commission under the chairmanship of Mr. Justice Beaudry to study health conditions in the asbestos industry.

This was a most significant study, both in terms of process and in terms of providing an illumination of the occupational health issue generally. While its mandate was related to asbestos, Beaudry's recommendations in effect called for major reform of the whole occupational health and safety system.

The fact that the report of the Beaudry Commission was not recognized in the White Paper as having a significant impact on its own conclusions was probably less a reflection on the Commission and more a reflection on the fact that Beaudry's report was submitted at the end of October, 1976 -- a month before the Government in Quebec changed hands.

It is worthwhile looking a bit closer at the Beaudry Commission because there is no doubt that it had a significant impact on the process and content relating to Bill 17.

The Commission was appointed in 1975, following a four-month strike in the asbestos industry. Comparisons were being drawn with the bitter strike of 1949 and there was a great deal of public support for the strikers.

The Government felt itself to be under considerable pressure and, accordingly, asked the Mines Inspectorate in the Ministry of Natural Resources to make a report on the asbestos situation. Upon receiving the report, the government realized it had a problem. Its guidelines were acknowledged internally to be inadequate and unenforceable. Beaudry's Commission was appointed to diffuse the issue.

The Commission was a full public enquiry. It travelled extensively across the Province, received between 50 and 60 briefs and listened to testimony from anyone who wanted to appear before it.

It is both interesting and significant to note the role of the media. Because of the interest of the general population in the issue, the Commission had extensive press coverage. This reinforced the Commission's credibility and, just as importantly, increased worker, employer, government and general public awareness of occupational health as an issue. It exposed the inadequacies of the existing system -- particularly in the definition of responsibilities -- and

their execution by employers and the government. Its recommendations for a complete overhaul of the occupational health and safety system received broad coverage.

In essence, Beaudry's greatest contribution was in taking the lid off occupational health as a major public and political issue. It made continued tolerance of the status quo out of the question for any political regime.

In addition to creating an awareness of the problem and acceptance of the need for change, he provided a new sense of legitimacy to the case being taken to the government by the Trade Union movement.

1976: Change of Government

In 1976, the government changed. In the spring of 1977, the government convened a major tri-partite economic conference to discuss with employers and unions the major economic issues and opportunities facing Quebec. The consensus of opinion at the time was that something had to be done about the subject of health and safety in the workplace. Immediately following the economic summit, the government made a public commitment to address the issue in close cooperation with Labour and Management.

Designation of Mr. Marois

In the wake of an interdepartmental committee which had been perceived as unable to affect the kind of change which the government had now openly committed itself to, the decision was taken to assign the responsibility for a major review of occupational health and safety to a minister who was not directly associated with any of the existing programs or organizations. The task was given to Mr. Pierre Marois, the Minister of State for Social Development.

Because of the complexity of issues and interests, the minister opted for the development of a "white paper" on occupational health and safety.

Furthermore, because of the public commitment to a cooperative approach, it was also decided to have employers and workers collaborate on the "process" of how the "white paper" would be developed as well as on the substantive recommendations for change as they would ultimately affect the legislation and organization of programs.

Establishment of Sub-Committee of the Joint Consultative
Committee on Labour and Manpower

In the fall of 1977, a sub-committee of the Joint Consultative Committee on Labour and Manpower was struck. It was a bi-partite sub-committee reporting through the Consultative Committee to the Minister of State, Mr. Marois.

This sub-committee on occupational health and safety comprised five employers and the four representatives from the two trade union federations. It was chaired by the government appointed President of the Joint Consultative Committee and reported to the Minister of State.

It represented a source (but not an exclusive source) of information to be used as a basis of analysis by a secretariat attached to the Minister's office. It was also a vehicle for coordinating consultation with the major Labour and Management constituencies on proposals developed by the secretariat for change.

The process was essentially as follows. A number of issue-specific working papers -- mini-drafts of approximately thirty pages -- were prepared by the internal secretariat and distributed in advance to sub-committee members. They, in turn, coordinated the development of responses based on more elaborate consultation with their respective memberships.

It is significant to note that both Labour and Management representatives on the sub-committee felt that relations between themselves were positive. Neither of them, however, felt very comfortable about the process or, more specifically, about the relative openness of the government.

It was alleged by some, for example, that documents provided for members were essentially descriptive of past activities, but little, or no documentation, on specific proposals for action.

The image one has is of a sub-committee which meets to consider historical data, with some debate, particularly by the employers, as to its merits. But, generally, there is agreement around the table that there is a problem. On the other hand, the unions are using the historical data and the general agreement that there is a problem, to discuss the major principles and issues which arise therefrom.

No specific information is being fed into or developed from within the sub-committee on recommendations for specific future action. They, it appears, are being developed internally within the government.

As one management representative expressed, "Relations between management and labour were excellent because there was no risk to either side. We were talking past experience; they were talking policy and ideology. We never got to the real issues of 'what' and 'how', just points of view and attitudes relating to 'why' there was a need for change and general directions for the future."

Informal Process

Supplementing the formal process of consultation was an informal process. This represented a series of direct consultations between the minister and specific organizations and individuals such as union leaders, Workmen's Compensation Board members, representatives of the Fédération des médecins omnipraticiens du Québec, and the corporation professionnelle des médecins du Québec and others who were thought to be major "stakeholders" or "influencers" who should or could influence the outcome of the review process.

The purpose of these "off-the record" sessions was to exchange information and to allow the minister to test, without prejudice, the boundaries of the "formal" positions stated by the interest groups, as well as the proposals for change being generated by his staff and the sub-committee. It also provided an opportunity to sell or condition the individual or organization in respect to changes which were being contemplated. In addition, they also served as follow-up sessions with individual interests on issues which the sub-committee could not achieve agreement on.

The Issue of the Physicians

At this point, some reference must be made to the government's relations with the physicians, and in particular, the occupational health physicians.

With occupational health becoming more visible as an issue and the shortcomings of the existing system better documented through studies such as the Beaudry Commission, there were bound to be substantial differences between the strongly, free-enterprise-oriented, physicians and an essentially socialist government, as to what might constitute an appropriate prescription for the problem. The various organizations representing physicians were excluded from the formal consultation process despite requests to participate. It is not quite clear why they were excluded; however, there has been some suggestion that they were perceived as being too

closely aligned with employers and employer representatives on the sub-committee; and secondly, their private sector orientation was inconsistent with the pre-disposition of the new government to incorporate the delivery of occupational health services within the context of its community health development system.

The government could argue that the pressure from the unions was so strong and so critical of the old system that it had no choice but to make it clear both in law and practice that the occupational health physician was part of an overall public occupational health services system whose primary role was to protect and ensure the health and safety of Quebec workers.

In addition to the bi-partite sub-committee of the Joint Consultative Committee, two other committees were established which also reported to the minister. One was an "Inter-ministerial Committee" comprising representatives of the interests most directly affected such as the inspection, community health and compensation functions, as well as representatives from the Ministry of Industry and Commerce who were concerned about the broader economic aspects of the review. The other was a "Scientific Committee" comprising external technical resource people. This last committee was short lived, as its functions, related to planning and evaluation of technical research papers, were handled directly by the minister's own secretariat. These committees were chaired by the Coordinator of the Secretariat.

The final draft of the "white paper" was received by the members of the bi-partite subcommittee at the beginning of August, 1978 with a deadline to present final comment by the beginning of September. The short period for response was considered adequate given the elaborate process of consultation leading up to the "white paper".

At the end of August, 1978, the employers convened a meeting of approximately thirty members to consider a proposed brief. There were several more meetings of the bi-partite sub-committee during September and the early part of October immediately preceding the publication of the "white paper" on the 19th of October, 1978.

Between March, 1977, when Mr. Marois received his mandate and publication of the "white paper" in October, 1978, the sub-committee, as such, had met approximately twelve times. It is virtually impossible to give a detailed account of all of the formal and informal consultations, including both written and oral exchanges, which were carried on by the

government with various interest groups and by and within the interest groups themselves.

Labour and Management Perceptions of Sub-Committee Process

Labour's view of the effectiveness of the bi-partite sub-committee was positive. While the parties maintained their official positions for public consumption, the meetings were generally perceived as productive and carried out in a cooperative atmosphere. Another reason which might be suggested for Labour's satisfaction with the consultative process has nothing to do with the process itself, but rather with the proposals which were put forward by the government which largely reflected the positions which Labour had been pressing for some time.

Management's view, on the other hand, was that while the process of consultation was extensive, one should not confuse cooperation with resignation to what was felt to be an inevitable conclusion based on a perceived impermeable alliance between the government and certain segments of organized labour. For some representatives of management, the process was, and was seen to be, a charade. They felt they had to go through it to demonstrate their commitment to the issues and to protect their specific interests in that forum. It was perceived as having some general benefit in improving Labour and Management communications, but it was not an effective vehicle for bringing the two parties closer together on specific solutions related to the occupational health and safety problem.

Bill 17

The Bill (Bill 17 -- an Act respecting occupational health and safety) was introduced on the 20th of June, 1979 for first reading.

In early July of 1979, the Conseil du Patronat struck a small committee of management representatives to review the Bill clause by clause. At the beginning of August, a brief was prepared and subsequently reviewed and endorsed by a general assembly of employer associations of the Conseil and some individual companies were represented when the brief was officially presented before a parliamentary committee in September, 1979.

Management's official reaction to the proposed Bill was seen by Labour and the government as stronger and more critical than its position taken during the discussions leading up to the "white paper". Underlying Management's strong reaction to the Bill itself.

Among those most unhappy with, and indeed surprised by, the Bill were the physicians. In their view, they were taken for a ride -- appeased by subtle assurances that the Bill would be "reasonable" and perceived as reasonable within the medical fraternity.

Because of the fragmentation among the organizational interests representing doctors, they were not able to mount an effective lobby after the Bill had been introduced. They were also rather unhappy with the Opposition Party's apparent lack of interest in or appreciation of the issues and implications of the Bill.

All told, sixty-nine briefs were presented to the government on the proposed legislation. Of these, sixty-three were heard by a Commission of the National Assembly (Committee of the House).

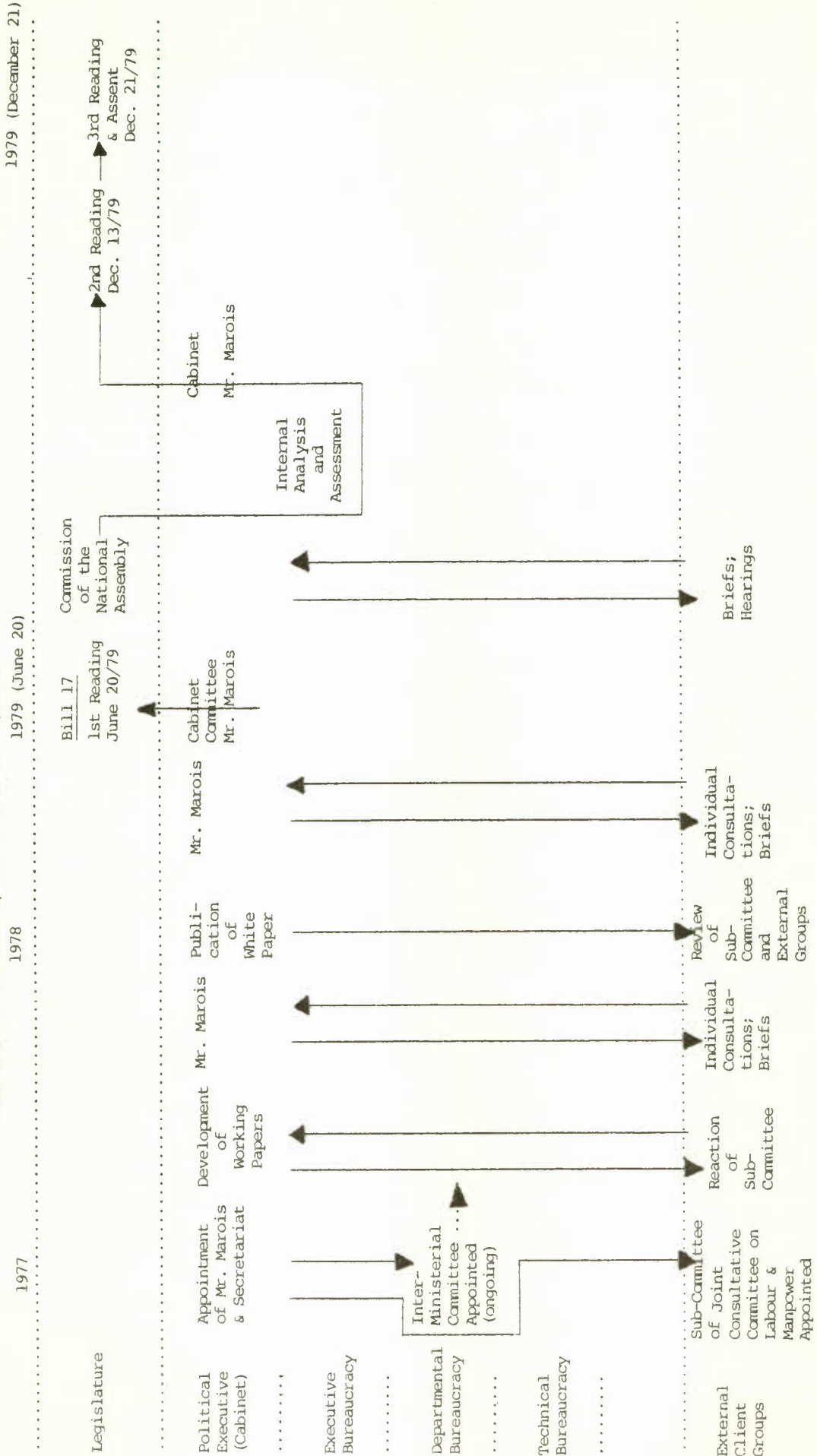
The fact that the Committee heard the number of briefs it did, is offered as testimony by the government of the importance attached, not only to the subject matter, but to an open process of decision-making.

An elaborate internal process was established to analyse and evaluate all of the briefs to ensure that no points had been overlooked. The observations were examined in relation to specific sections of the Bill and were evaluated in relation to the supporting arguments presented.

The actual passage of the Act itself through the Legislature was seen to go smoothly for the government. For the interest groups outside government, this could be explained by a reasonable feeling of satisfaction on the part of the Labour Movement, a general feeling of resignation on the part of employers and an inadequate base of support for the physicians. All of this was reinforced by the absence of any challenge from the Opposition in the Legislature on what were considered to be the main points of contention.

Figure 19:

Flow Chart of the Development of Bill 17 - Quebec



The Act Itself

The Act itself represents a significant development in occupational health and safety regulation in Canada, particularly in light of the emphasis given to process and structure.

This is supported by the opening paragraph of the explanatory notes to the Act which states that:

"The objective of the Bill is to provide mechanisms for the participation of workers and employers in the elimination of the cause of work accidents and occupational diseases."

For example, the Act calls for the establishment of a Commission which will be run by a bi-partite executive board of fifteen members with equal representation from Labour and Management. The government-appointed chairman will also hold the office of director-general of the commission. There is also provision for an executive committee consisting of the chairman and one employer and worker representative designated from their respective members on the commission.

Thus, in the structure of the commission, the government, in theory at least, is committing itself to acting upon whatever Labour and Management can agree upon within the scope of the statute. While their role is essentially to guide the government with respect to the setting of priorities, they have the power to determine what sections of the Act shall be operative or not. Under the regulations which can be made pursuant to the Act, they can determine the standards for the regulation of toxic substances or exempt any category of workers, employer or establishment from the application of the Act or certain of its provisions.

It is interesting to note, however, that the government backed off the recommendation in the "white paper", which incidently was supported by both Labour and Management, that full-time representatives for Labour and Management be appointed to a small executive committee of the Board of the Commission which was to be responsible for day-to-day administration. The way the Act is currently structured, de facto administrative control clearly resides with the government. Section 154 of the Act clearly states that "The director general of the commission is responsible for the administration and direction of the commission".

This is reinforced by the part-time and representational nature of the Labour and Management appointments provided for in the Bill.

Similar to trends in other jurisdictions, Bill 17 also calls for the establishment of joint health and safety committees in certain circumstances and for joint sector-based associations for the purpose of "providing the workers and employers of each sector they represent with training information and counselling services in matters of occupational health and safety".

Quebec goes beyond other jurisdictions, however, in legislating occupational health programs and effectively placing the services of the occupational health physicians under the control of the Community Health Department and the Health and Safety Committees within specific establishments.

The objective of the government in the process it used for the development of the Bill, as well as the Bill itself, is to facilitate the assumption of responsibilities by workers and employers for health and safety in the workplace. To this end, the Bill provides for:

1. Access to information and occupational health services;
2. Educational opportunities, particularly for workers and their leaders; and
3. More detailed elaboration of duties, rights and responsibilities of the respective interest groups.

By ensuring better access to information, services and educational opportunities and, at the same time, regulating a more effective "balance of power" between the employer and the worker, the government is hoping that it has found the formula to self-compliance and self-reliance.

Conclusion

In conclusion, it is still too early to assess the process and structure outlined in the new Act. Certainly, one can say that the process leading up to the development of the "white paper" and the Act itself has given rise to certain expectations on the part of Labour and Management regarding their ongoing role in the planning and evaluation of all programs, regulatory and non-regulatory, relating to occupational health and safety.

The fact that full-time Labour and Management appointments to the Executive Committee of the commission was not endorsed in Bill 17, and that the government proceeded with the reorganization of policies and programs even before the appointment of the Board, has led some Labour and Management representatives to feel that there has been a retrenchment from the principle of bi-partism established in the "white paper". They see the bureaucracy quickly moving to establish or reestablish its control over process, policy and program development.

In retrospect, the Quebec Government has provided a reasonably open structure for ensuring dialogue with its major Labour and Management constituencies. It would appear that it has been less open in its process by controlling the timing, content and flow of information between itself and its external publics. It appears to have carefully balanced its inherited legacy of commitment to a consultative approach with its own internal political and bureaucratic assessment of what was required to correct the deficiencies in the regulation and administration of occupational health and safety in Quebec.

The real test of the government's expressed commitment to a consultative process aimed at facilitating and being responsible to Labour and Management agreement in this area will come as it moves to the issues which really determine the ultimate impact of the Legislation. These are the specific regulation including health and safety standards and the administrative policies and procedures governing their enforcement.

Nevertheless, since the machinery for implementation is still in the formulation stage, one can still say that on the surface at least, the developments in Quebec leading up to and including Bill 17 represent a significant attempt to achieve a cooperative approach to decision-making between government and the key private sector interests.

Respondents Interviewed

Government	4
Labour	2
Management	4
Physicians	3
Former Commission Head	1

(Four key respondents were interviewed twice to verify initial findings and ensure a reasonable balance of perspectives)

APPENDIX G

Overview of Standards Development in Canada

Quietly and subtly underlying all this discussion, consultation and evaluation of legislated minimum standards is a massive program and network of organizations constantly revising, up-dating and creating new non-legislated or voluntary standards. It is these non-legislated or voluntary standards or guidelines that often end up as legislated minimum standards (e.g. the T.L.V.'s of the ACGIH, wire rope standards for cables on mine hoists, material strength standards to reduce risk of equipment failures) or are indirectly given the force of law by the technique of "referencing".

Since our investigation is of the decision-making processes used to determine, among other things, legislated minimum standards (i.e. standards included in the statutes, regulations and/or operating policies of the compliance programs), it is critical to examine briefly the decision-making processes used in the development of these so-called non-legislated or initially voluntary standards. As one respondent said:

"Most legislated standards have their roots or origins in some former voluntary standard. We've relied on this on-going development of technical voluntary standards to prevent the problem, if possible and where this has not worked, to convert it into a legislated standard with the force of the law behind it."

A standard has been defined by the Standards Council of Canada as a set of "approved rules for an orderly approach to a specific activity". Standards documents, the physical manifestation of standardization, play an important role in the social and economic development of a country. They provide means to enhance commerce, trade and open communication; they provide an avenue for achieving a higher quality of life through improving levels of health and safety; and they make routine activities systematized so that creative energies may be turned in more innovative directions.

Standards are to be found in all areas of our lives, from standards governing the manufacture of bicycles, to standards applied to the thickness of writing paper, to standards governing safety equipment in the workplace and standards related to Threshold Limit Values (TLV's) of toxic substances in the workplace.

Voluntary vs. Mandatory Standards

The majority of standards in operation today are said to be voluntary. This term applies both to the process of development and the subsequent application of the standard. The

standards are accepted voluntarily by the private sector or the public sector or both because they believe that the standards in fact meet the needs of the Canadian economy by "reducing unwarranted variety".

When a standard is referred to in government regulations or in a statute it becomes what is termed a mandatory or legislated standard. Standards created by such bodies as the Canadian Standards Association (CSA) may be referenced in their entirety by the particular form of legislation. On the other hand, the drafters of this legislation may choose to embody a standard in the legislation in the form of the detailed standards document.

There are problems however, with referencing standards in legislation. Many questions have arisen around this issue: If the standard is amended, does the standard automatically become part of the law? What happens with obsolete standards such as the one requiring all moving vehicles to carry buggy whips? Related more to the issue of mandatory standards generally is the question of who decides that compliance has been achieved? Some system of third party testing is obviously needed. Finally, at the present time there is no provision for automatic revision of standards referenced in Federal legislation. This relates to the question of amendments. No satisfactory answers have been provided to these questions as yet.

The Development of a Voluntary Standard

The activities which go into development of a standard are worthy of comment. Initially a need is expressed in some way or form. This need can be expressed by individuals, consumer groups, associations, manufacturers, government or existing standards-writing committees. Inquiries are then made as to whether such a standard already exists. Directories listing Canadian standards and standards in other countries are usually checked. If no acceptable standard exists then the process for developing a new standard will begin.

Normally this involves the formation of, or assignment to, a technical committee. Members of these committees express diverse viewpoints which must be adequately represented in the preparation of any new standard. The composition of such committees is a very delicate matter, particularly because proper balance must be maintained amongst those who, for example, have specific interest in the production of the particular material in question, those who are going to use it, and those having no special interests, but whose specialized knowledge in setting out the technical requirements is essential.

In the committee meetings all relevant information and criteria required for the development of the standard will be presented. A draft document will then be constructed, presented, and discussed. The process may take four or five meetings with accompanying drafts before a final agreement and a final draft is worked out. In this situation the word "consensus" is well used to describe the work of such committees. For all standards which will affect the public, the public itself is encouraged to make comment. For example, the National Building Code of Canada is revised every five years, with drafts of the proposed revisions available to the public and announced through the appropriate trade press and news media.

When all comments have been considered and the draft is amended accordingly, the standard is completed and made ready for promulgating. Arrangements are made for distribution of the final copies as well as the publicity associated with it.

There are many objections to this decision-making process -- the most obvious one being the length of time it takes to develop a standard. Sometimes it can take up to five years to develop a standard. Since the committees are voluntary, their committee work does tend to take second place to their every day professional activities. In addition, members of technical committees tend often to be representatives of special interests. Thus a manufacturer may be there because he wants to have his own standard adopted, thereby avoiding national standardization; individuals may sit on the committee and be indifferent to the majority of items being discussed because their interest is directed only to one; all contrasted with people who are earnestly striving to reach a rational and reasoned conclusion. Finally, difficulty and time may be added to the standards-writing process by the semi-legal character of the wording.

These issues were addressed in an editorial in The Engineer, a British technical weekly, which appeared in the February 13, 1959 issue. An anonymous editorialist described the process thus:

"But what really slows things down even more than the inevitable gradualness of drawing a number of individual minds into agreement is the periodic need for someone to do something instead of merely talking about it.

"To prepare a new draft of a specification, only partly agreed already, it may be necessary to examine the minutes in order to try to make some sense out of the proposals agreed to in the past, which may turn out to be conflicting in the present; to make calculations and to

prepare drawings. This work is usually done by a committee member (or his staff) as an unrewarded addition to his normal duties. It cannot be given high priority. The 'atom' of time for it is usually three months or so. Very often a volunteer must sadly say that it may take six months and would it not be more efficient to accept his own standard which he can let the committee have tomorrow? Failing the alternative (which is rarely accepted) the years may roll by so that when a standard is eventually published the committee nominally responsible for it may include but few of the original members."

Quite apart from the logistical difficulties of drawing together a number of individuals with different interests, investments, levels of knowledge and amount of time to devote to the project is the question of criteria. It is only up to a certain point that committee decision-making on a standard can be based on rational and scientific criteria. After this, emotional and political factors, social and economic factors, come into play. These factors are particularly noticeable in the development of standards in the areas of occupational health and safety. In occupational health, for instance, the determination of time-dose relationships and the setting of these limits is clearly an area where the decision-making process becomes difficult and prolonged.

Clearly humans cannot be used in experiments designed to determine dose-response relations. Other alternatives must be considered and very often these data do not exist. Attempts have been made to relate the pattern of disease in humans to the level of exposure to harmful substances in the workplace, as a guide to determining dose-response relations. Chemical analogue data have been gathered -- that is, based on the assumption that chemically similar substances produce biologically similar effects -- but there are difficulties here as can be seen when the validity of this assumption is questioned. Finally the use of animal data in predicting human disease response presents probably the most problems.

In the final analysis, the question of setting limits and developing a standards document on an occupational health or safety-related problem is usually made with limited and incomplete data. The work of these committee members representing their diverse interests, becomes the most difficult at this point.

In Canada, the problem has been by-passed to a certain degree by the adoption of these limits and criteria as set by the technical committees of the American Conference of Governmental Industrial Hygienists. Very often, a standard developed in the United States will be taken up by a Canadian standards-writing organization. A Canadian committee

will be formed to "translate" the standard so as to adapt it adequately to the Canadian situation. In occupational health and safety, one American standards-writing organization stands out -- the American Conference of Governmental Industrial Hygienists (ACGIH). In particular, the ACGIH's system of TLV's (Threshold Limit Values) has been recognized and adopted by a number of provincial governments.

Besides the ACGIH, there exists a number of other laboratories and learned organizations in the United States which develop standards frequently purchased by Canadian groups. The American Society for Testing Materials (ASTM) and Underwriters Laboratory of America (ULA) are prominent amongst these. The ACGIH and the ASTM are the organizations most often associated with standards-writing in occupational health and safety. Their standards-writing activities are monitored, like the Canadian system, by the American National Standards Institute (ANSI).

Voluntary Standards Development in Canada

Standards have been developed in Canada since the early 1920's. The first standard was developed by the Canadian Engineering Standards Association, which later changed its name to the Canadian Standards Association (CSA). Between 1919 and 1970 a number of other standards-writing organizations were founded and became engaged in testing, certification, and standards-writing. These organizations tended to specialize in different subject areas of certification, testing and standards-writing, although there was some overlap.

The CSA, incorporated in 1919, is involved in standards-writing, certification, testing and also provides an inspection service, for many sectors of the Canadian economy. The Underwriters Laboratory of Canada (ULC), founded in 1920, provides certification and testing services, issues standards, specifications and classifications related to life, fire and casualty hazards or crime prevention. The Canadian Gas Association (CGA) began a testing, certification, and standards-writing program for fuel-firing equipment in 1956. The Canadian Government Specifications Board (CGSB) was formed in 1934, to deal with standard requirements outside the engineering field. This body is designed solely to write standards and does not provide certification and testing facilities. Finally, the Bureau de normalisation du Quebec (BNQ) was founded in 1962 to provide standards for the Province of Quebec. It does not provide certification or testing facilities.

With the exception of the CGSB, these standard-writing organizations are mainly not-for-profit organizations. They obtain revenue from the sale of standards, from memberships, and from government grants. Until 1970, these organizations were writing and selling standards within Canada. Canadians were linked with the international standards-writing network to the extent that we were represented by the CSA on the International Organization for Standardization (ISO) and on the International Electrotechnical Commission (IEC), under various auspices including the CSA.

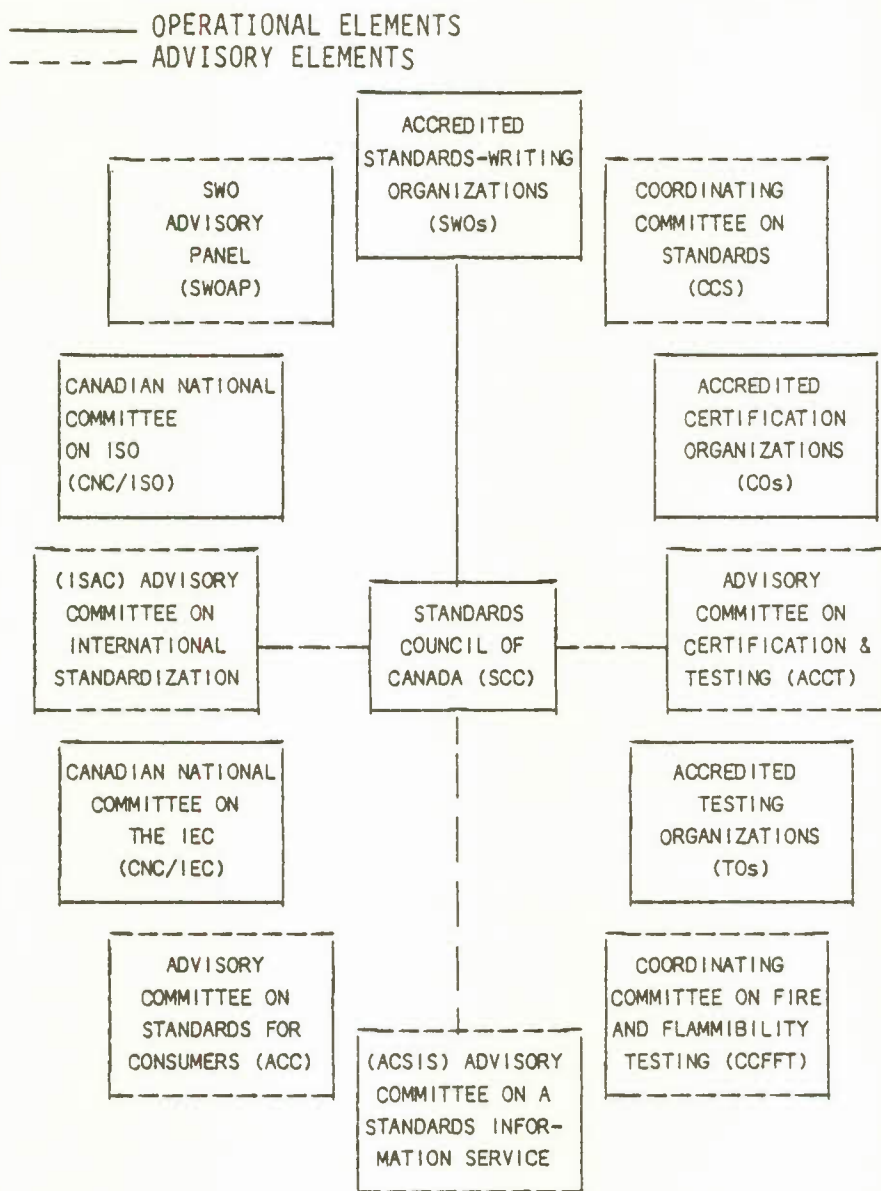
In October 1970, Royal Assent was given to the Standards Council of Canada Act. This Act of Parliament set up the Standards Council of Canada (SCC) as the national standards coordinating institution concerned with voluntary standardization. Its mandate was "to foster and promote voluntary standardization". In its role as a coordinating institution, the SCC took the overall responsibility for the development of standards in Canada from the individual standards writing organizations. In fact, in what some might have called an imperious manner, the SCC granted "accreditation" to five organizations who had collectively been writing standards for up to fifty years. The SCC also took over the responsibility of representing Canada on the two major international standards organizations.

As might be expected, there was some opposition to the creation of the SCC. There was some feeling, as demonstrated by the relevant Parliamentary debates, that the already-existing organizations were doing an adequate job of writing standards and serving this need in the Canadian economy. Despite this opposition, the Bill was passed, the SCC was set up, and soon after its inception, developed the National Standards System, aimed at embracing all elements in Canada active in areas of standardization, certification and testing. As can be seen in the figure on page 74, the SCC plays a central role in the National Standards System. Canadian representation on the two international organizations has been assigned to two Canadian National Committees, one for the ISO and one for the IEC.

One of the areas of concern for the already existing standards-writing organizations was that of the division of subject area. When the SCC came into being, agreement amongst the (now) accredited standards-writing organizations was reached on the division of standardization responsibilities on eighty per cent of their current activities. The remaining twenty per cent of the areas are still being discussed, as are the assignment of new areas which become the object of standards-writing.

Figure 21:

The National Standards System



* The standards-writing organizations (SWOs) accredited to the National Standards System are: Canadian Gas Association (CGA); Canadian Government Specifications Board (CGSB); Canadian Standards Association (CSA); Underwriters' Laboratories of Canada (ULC); Bureau de normalisation du Quebec (BNQ).

** The Canadian National Committee on the International Organization for Standardization (CNC/ISO) and the Canadian National Committee of the International Electrotechnical Commission (CNC/IEC).

INTERNATIONAL MEMBERSHIPS: The International Organization for Standardization (ISO); The International Electrotechnical Commission (IEC); The Pacific Area Standards Congress (PASC).

ORGANIZATIONS IN LIAISON: The Associate Committee on the National Building Code (ACNBC); The Associate Committee on the National Fire Code (ACNFC).

A major objective of setting up a National Standards System was to work towards achieving some sense of conformity in standards across the country. Consistent with this objective, the National Standards System has created and defined the National Standard of Canada (NSC) as "a consensus standard approved by the Standards Council of Canada". The SCC regards these National Standards as being essential in the move toward increased interprovincial as well as international trade. The economic advantages of this approach are clear. The Massey-Ferguson Company in Canada for example, manufactures four or five different kinds of tractors, so as to conform with the different mandatory standards which have been imposed by different provincial governments. Encouraging manufacturers and governments to use voluntary consensus standards will save time, increase conformity, and enhance trade across Canada.

Again, in an effort to "foster and promote" cooperation, harmonization and voluntary standardization, the Standards Council of Canada created the Standards Information Service in January of 1978. This information service is in the process of building up a database of standards and related documentation. Contained therein are standards published by accredited standards-writing organizations. The service, by maintaining a toll-free telephone service, can provide information on standards to anyone who wishes to request this information.

Our links have been strengthened with the international standards network. A document has been compiled by Mr. R. P. Preston in collaboration with the SCC entitled Directory of Standards Referenced in Canadian Federal Legislation. This document is a step in the direction of fulfilling our commitment to the General Agreement on Tariffs and Trade (GATT) signed in 1979 which was the result of the 1975 Tokyo round of talks. The aim of this agreement is to reduce trade tariffs internationally on a quid pro quo basis. The GATT agreement, however, was signed only by the Federal Government in Canada, and the mission of the SCC now is to attempt to persuade provinces to participate in this agreement. By being made aware of the standards which have been referenced in Federal legislation, steps are being taken toward simplification and rationalization of these standards.

The point of this overview is to countersink the characteristics of the decision-making processes used by the Provinces to set legislated or mandatory standards within the larger and generally invisible decision-making processes used to determine a wider range of voluntary standards.

Appendix H

Figure 21:

Sample List of Participants (Stakeholders) in Occupational Health and Safety Decision-Making Processes

<ul style="list-style-type: none"> . Internal to Provincial Government . Caucus . Cabinet . Cabinet Committees on Legislation, Regulations, Policy, Resources . Central Agencies - Policy groups, resource group (i.e. Treasury Boards) . Sr. Officials policy committees, breakfast clubs . Inter-departmental coordinating mechanisms (where jurisdictions split) . Minister of Dept. or Agency responsible for occupational health and safety . Deputy Minister or Chief Executive Officer . Assistant Deputy Minister . Program Administrators . Departmental policy group . Departmental legal group . technical experts/professionals in occupational health and safety (engineers, scientists, physicians, etc. . inspectorate . other program delivery staff . External to Provincial Government . MLA's . Party Research organizations . Royal Commissions and other public policy review bodies 	<ul style="list-style-type: none"> . Labour organizations .. locals .. international's research organization .. provincial federation .. national federation . Employer Organizations .. Provincial organizations .. National organizations (CMA, Chamber, etc.) .. Industrial Sectors (Mining industry, etc.) . Occupational Health and Safety Agencies and Assoc. .. National (Can. Centre on Occupational Health & Safety, Can. Safety Council, Can. Standards Assoc) .. Provincial (Advisory Councils, Boards, Education and Training Assocs, Compensation Boards) .. Can. Medical Assoc., Assoc. of Professional Engineers, Occupational Health Nurses Assoc. etc. 	<ul style="list-style-type: none"> . Independent professionals and experts in the field (on the staff of individual employers, universities, union research organizations, etc. . Provincial Departments (related due to overlaps or joint responsibilities Health, Fisheries, Transport, National Resources, Environment, etc. . Other Provinces (because of their similar responsibilities. . Federal Departments - National Health and Welfare, Transport Canada, AECB, Canada Labour, Environment Canada. . individual employers . individual unions, occupational groups or individual workers 	<ul style="list-style-type: none"> Technical Expert Groups Other Government Ultimate Clients 	<p>155</p>
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Footnotes

1. Manes Specter, "Involving Clients and the public in Federal Administration through Advisory Committees," in Federal Contributions to Management. Edited by David S. Broom. New York: Praeger Publishers, 1971, p.16.
2. For a detailed description of the Regulation Reference Research Study Areas see Responsible Regulation: An Interim Report by the Economic Council of Canada, November, 1979, pp.xi-xvi.
3. P. Manga, R. Broyles, Occupational Health and Safety: Principle Issues and Dimensions of the Problems, preliminary manuscript for Regulation Reference Study, Economic Council of Canada, February, 1980, pp. 1-2.
4. Ibid, p.2.
5. Responsible Regulation: An Interim Report by the Economic Council of Canada, op. cit, p.30.
6. Ibid, p.30.
7. Ibid, p.31.
8. Ibid, p.31.
9. Ibid, p.31.
10. Manes Specter, op. cit, p.21.
11. Victor A. Thompson, "Bureaucracy in a Democratic Society", in R.C. Martin (Ed.) in Public Administration and Democracy: Essays in Honour of Paul H. Appleby, Syracuse University Press: Syracuse, N.Y., 1965, p.210 - 208.
12. Ibid, p.211.
13. Alvin M. Weinberg, "Science and Trans-science." Minerva, 1972, X(2), p.210.
14. Edward Shils, Minerva, 1972, X(1), p.109.
15. Improving Government Regulations -- A Progress Report, United States, Office of Management and Budget, Sept. 1979, p.13.

16. Ibid, p.15.
17. Responsible Regulation: An Interim Report by the Economic Council of Canada, op. cit., p.70
18. Ibid, p.73.
19. Ibid, p.73.
20. Ibid, p.71.
21. Improving Government Regulations -- A Progress Report, op. cit, pp.18-19.
22. Ibid, pp.26-27.
23. Ibid, pp.27-29.
24. Interviews with administrators of occupational health and safety repeatedly mentioned their inability to obtain the necessary resources. They felt OH&S was more important than other policy areas since they dealt with injury and fatalities whereas other programs such as "fish, fur and feathers" appeared to have easier access to government resources.
25. M.J.L. Kirby, H.V. Kroeker and W.R. Teschke, The Impact of Public Policy. Making Structures and Processes in Canada, Canadian Public Administration, 1978, 21(3), p.407.
26. Ibid, p.407.
27. Ibid, pp.412-413.
28. B. Bruce Doern, (Ed.) The Regulatory Process in Canada, Toronto: Macmillan, 1978, p.16.
29. Personal interviews with administrators of occupational health and safety programs.
30. M.J.L. Kirby et al, op. cit., p.416.
31. R. Williams and D.V. Bates, op. cit., p.608.
32. Ibid, p.611.
33. Ibid, p.618.

34. G. Bruce Doern, "The Political Economy of Regulating Occupational Health: The Ham and Beaudry reports." Canadian Public Administration, 1977, 20(1), p.32.
35. Ibid., p.34.
36. G. Bruce Doern, (1978) op. cit., p.16.
37. G. Bruce Doern, (1978) op. cit., p.18-19.
38. G. Bruce Doern, (1978) op. cit., pp.19-20.
39. G. Bruce Doern and V. Seymour Wilson, (Eds.), Issues in Canadian Public Policy. Toronto: Macmillan, 1974, p.339.
40. G. Bruce Doern, op. cit., p.18.
41. For a catalogue of all major reports, commissions and inquiries on each provincial jurisdiction since the turn of the century, see Craig Paterson's unpublished bibliography. The Ham Commission in Ontario, Boudreau Committee in N.B., the Beaudry Commission in Quebec, etc., were all examples of major governmental reviews of occupational health and safety.
42. Several Administrators have commented that generally the changes in programs, regulations, etc. too often follow on the heels of some major catastrophe, multiple fatality or major health scare. Very seldom does this affect the entire legislative framework but rather the specific standard(s) deemed faulty. Often the difficulties of refuting the legislative recommendations of a Coroner's jury are outweighed by the ease and acceptability of implementing these recommendations.
43. For detailed treatment of the major findings and an analysis of the principal causes of safety-related accidents and injuries see the parent study of which this report is a component, Manga, Broyles; Occupational Health and Safety: Principal Issues and Dimensions of the Problems.

44. The major "killers and maimers" on construction sites are falls between levels, electrocutions and cave-ins. The minimum standards approach to these hazards is to require the employer, contractor or owner-client to physically control these hazards by such things as mandatory coverings, guard-rails, prohibition of stilts, shoring, trench angling, lock-outs, etc., the point being that often it appears as if the standards are established in law primarily to place blame after an accident has occurred rather than prevent it in the first place. This raises the larger issue of legislative over-reach and the extent to which administrative law can really be a preventative device.
45. Several occupational health and safety practitioners in the field commented on how the problems had changed in the last twenty years. In past years the problems were termed major or catastrophe potential. Now they find themselves dealing with items such as housekeeping, fire exits, labelling, etc.
46. Representatives in all sample jurisdictions cited the low frequency of prosecutions. Numerous examples were cited where attempted prosecutions were seen as impotent because of what were considered insignificant fines.
47. Responsible Regulation: An Interim Report by the Economic Council of Canada, op. cit, pp.30-31.
48. Ross, P.S. and Partners, Review of Organization and Administration: Workers' Compensation Board of British Columbia, Victoria, 1976.
49. Industrial Health and Safety Commission: Report, (Fred T. Gale - Chairman), Edmonton, Alberta, 1975.
50. Report of the Royal Commission on the Health and Safety of Workers in Mines., (J. Ham - chairman), Toronto: Ontario Ministry of the Attorney General, 1976.
51. Comite D'etude sur la solubrite dans l'industrie de l'amiante, Rapport final, (Rene Beaudry - Chairman), Quebec, Editeris officiel du Quebec, 1976.
52. Interviews with labour, management and government representatives reinforced the opinion that there was an increase in union attention to occupational health and safety and that this was a critical factor in the increased visibility of occupational health and safety generally.

53. Changes in statutes and regulations in occupational health and safety were often preceded by selective consultation with principals of the various client groups. Informally known, these pending changes were, in effect, done through an advance notice system. Where regulation changes of a minimum standard would likely require longer lead time to implement, "the word" was put out that the clients should begin working on the assumption of a more stringent standard for the near future. This informal advance notice was also a pre-conditioning vehicle to facilitate smooth implementation and allowing the client groups time to adjust to the changed standard. British Columbia, Alberta and Ontario were examples of formalizing this advance notice in their latest round of revisions to their regulations (see Appendices for detailed analyses of each of these provinces.)
54. Alberta in its latest round of regulatory revisions asked the Alberta Federation of Labour and the Alberta Chamber of Commerce to manage the process of revising the regulations. The Federation and the Chamber used their organizations to identify participants and to get their participation at the February Regulations Conference. British Columbia, because of its history of formal public hearings on changes to the Regulations of the W.C.B., maintains a cumulative listing of all participants and distributes draft revisions and notices to a current list of 5000 organizations and individuals.
55. British Columbia's W.C.B. has, since its inception in 1917, been required by law to hold formal public hearings on changes in its Regulations on occupational health and safety hazards. In recent years there has been internal and external pressure to expand the accessibility of these hearings. The new approaches of the Board have included expanding the traditional one day - one location hearing to multiple hearings around the province.
56. Ontario established working advisory groups to help draft "first draft" outlines of the designated substances standards. British Columbia has evolved to the state where they formally constitute an advisory committee of revisions to the Regulations and then formally disband the committee prior to the public hearings to allow each committee member to participate in the hearing as a free agent.

57. Multiple-stage comment opportunities can be graphically seen from the flow-charts on B.C., Alberta and Ontario. It should be noted that these flow-charts show only the process of revising or creating a legislated minimum standard. This entire process is preceeded by all the consultative work of the voluntary standards development organizations such as the CSA, ACGIH, etc.
58. British Columbia is the principal example of this. However, Ontario also published transcripts, through Hansard, of the public hearings on the draft Regulations to Bill 70. This is not yet a regular feature of the regulatory process in Ontario.
59. British Columbia and Alberta are the principal experimenters in this field. Alberta used an open Regulations Conference managed jointly by the Alberta Federation of Labour and the Alberta Chamber of Commerce to extend the accessibility and participation of the various client groups.
60. Ontario spent considerable time and internal resources attempting to forecast the costs and benefits of its new Bill 70 and certain aspects of the Regulations.
61. Report of the Committee of Investigation on Workmen's Compensation Laws, Victoria: Queen's Printer, 1916.
62. Revisions to Industrial Health and Safety Regulations, Workers' Compensation Act, 1/1/78, Workers' Compensation Board, Vancouver, B.C.
63. Industrial First Aid Regulations, Workers' Compensation Act, September 1979, Workers' Compensation Board, Vancouver, B.C.
64. Supreme Court of British Columbia, Workers' Compensation Board vs Pulp, Paper and Woodworkers of Canada, Mr. Justice McKay, March 21, 1979.
65. See Appendix H for listing of traditional occupational health and safety "stakeholders".
66. Industrial Health and Safety Commission: Report (Fred T. Gale - Chairman) op. cit.
67. Ibid

68. Report of the Royal Commission on the Health and Safety of Workers in Mines, (J. Ham - Chairman), op. cit.
69. Occupational Health and Safety Act, 1978, Statutes of Ontario 1978, Chapter 83, section 22(a) and (b).
70. The Quebec Federation of Labour is a voluntary umbrella association representing unions which are affiliated with The Canadian Labour Congress. It is predominantly blue collar and represents a membership of over 300,000.
71. The National Federation of Trade Unions (CNTU) includes a number of unions which represent a greater relative percentage of white collar workers, particularly in the social services field.
72. The Conseil du Patronat is an umbrella federation which speaks on behalf of over a hundred employer associations in the Province of Quebec.

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