

# DECOMMISSIONING AND CLEANUP OF INDUSTRIAL FACILITIES IN CANADA

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### INTRODUCTION

Due to economic considerations, and in some cases the increasing demand for urban development on industrial lands, industrial facilities may be closed, and the lands sold for reuse. The process of closing, dismantling, remediation of contamination, and reclamation of the industrial lands to render the property suitable for another beneficial purpose is referred to as decommissioning and cleanup.

Concentration of contaminants deposited on or about an industrial site may pose a risk to human health and safety, and the environment if the land is permitted to be used for other purpose prior to decontamination. It is also possible that the level of contaminant cleanup required for a particular land use may not be economically desirable in the short term, but nevertheless necessary for long term environmental concerns.

The decommissioning and cleanup of industrial sites is of increasing importance in Canada. It was decided by the Waste Management Committee (WMC) of the Canadian Council of Ministers of the Environment (CCME) that in Canada a national guideline is required for the decommissioning of industrial sites and site cleanup.

A Decommissioning Steering Committee (DSC) was formed for developing the national guidelines. The DSC membership consists of representatives from the provinces of Alberta, Ontario and Quebec, the Canadian Petroleum Association, the Canadian Chemical Producers Association and the Petroleum Association for Conservation of the Canadian Environment. The Steering Committee is chaired by Environment Canada.

### THE GUIDELINES

The objectives of the national decommissioning and clean up guidelines are to:

- to provide a logical step by step approach which does not pose a risk to human health and safety and environment is adequately protected
- assist industry in planning and implementing the measures required for decommissioning
- develop a standard framework to be used by the regulatory agencies for assessing the decommissioning and cleanup plan proposed by the industry
- recommend a site be cleaned up to a level which will provide long term environmental protection and that will be safe for its intended future use and aesthetically acceptable

## BRIEF OVERVIEW OF PRESENTATION

The presentation describes the federal, provincial and CCME activities related to decommissioning and cleanup criteria for industrial sites. A status of the CCME projects is given plus an overview of the proposed CCME guideline for the decommissioning of industrial sites.

At the present time, few jurisdictions have established acceptable soil concentrations. In June 1987, Environment Canada awarded a contract to a consortium of consultants headed by Monenco Consultants Limited. One of the goals of the consortium was to produce a computer model that can be used to derive clean-up guidelines for industrial sites where redevelopment is being considered or planned. The result is the "demonstration" version of the AERIS model which will also be discussed during the presentation. The acronym AERIS (Aid for Evaluating the Redevelopment of Industrial Sites) was chosen to help users remember its intended use, that of being an aid for evaluating industrial sites.

A paper presented at the 1990 Annual spring conference, of Ontario section of the Air and Waste Management Association on the AERIS model is attached.