

ATLANTIC RBCA IN 2005



Annual Report of the Atlantic Partnership in RBCA Implementation

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The Atlantic Partnership in Risk Based Corrective Action Implementation (Atlantic PIRI) is a forum for discussion of issues and approaches to contaminated site management in Atlantic Canada. It is the group of people whose mandate it is to develop and maintain the technical tools required to manage the risk based corrective action process, harmonization of management processes and best practices among the four provinces and implementation within the region. Members of Atlantic PIRI include regulators from the environmental protection departments of the four Atlantic Provinces, and representatives from Environment Canada, the national petroleum industry, and regional environmental and communications consultants.

Atlantic Risk Based Corrective Action (Atlantic RBCA) is an approach for the remediation of contaminated sites, based on the science of risk-analysis and risk-management. This approach, combined with management tools developed by Atlantic PIRI, has been used to manage petroleum contaminated sites in Atlantic Canada since 1998.

Scientifically Defensible Objectives

The heart of the contaminated sites approach in Atlantic Canada is the Atlantic RBCA software tool. This software model incorporates exposure pathway analysis and Health Canada toxicology standards to develop remediation targets that are rooted in science. Atlantic PIRI has committed to maintaining the software tool in order to produce results that are equal or more protective of human health and the environment than the 2001 Canada-Wide Standards for Petroleum Hydrocarbon Contaminants in Soils (CWS-PHC), developed by the Canadian Council of Ministers of the Environment (CCME). In 2005, two third-party studies comparing aspects of Atlantic RBCA with the CWS-PHC were conducted showing that, in almost all cases, this objective is reached.

During 2005, Atlantic PIRI members participated in the CCME review of the CWS-PHC guidelines and reviewed numerous Health Canada projects undertaken as part of the Federal Contaminated Sites Action Plan. Members of Atlantic PIRI also participated in CCME sub-task groups, reviewing modeling parameters and toxicology, and making recommendations for CCME review in Feb 2006.

Continuous Improvement

With the philosophy of continuous improvement, Atlantic PIRI Task Groups are discussing and/or updating:

- the use the Atlantic RBCA software model for risk assessment from non-petroleum contaminants, such as metals in soil, which can now only be analyzed on a site-specific basis;
- the ecological risk assessment process;
- the indoor air pathway analysis; and
- the laboratory protocol that supports the Atlantic RBCA process.

Technical Flexibility

The Atlantic RBCA software tool is used in conjunction with management processes developed by each province. Together, these tools are designed to facilitate the clean-up of sites, by providing clear guidance that is responsive to local conditions. Efficiency in remediation and management returns properties to full and active use faster, whether the site experienced a spill or historical contamination. To ensure site professionals optimize the application of the Atlantic RBCA tools, two advanced level training sessions were held in 2005. These sessions provided “hands-on” instruction and enhanced the problem- solving skills of 65 professionals in the Atlantic region.

One of the indicators of the usefulness of a tool is that it helps to get a job done more efficiently. The purpose of Atlantic RBCA software is to facilitate significant improvements to environmental quality of contaminated sites. The use of the software and accompanying Provincial guidelines have also resulted in significant reductions in the time required to manage remediation of these sites. Improvement has been observed on the regulatory side, in shortened times for file review and closure. This translates into reduction of remediation costs and expedited return of impacted properties to productive uses.

Harmonized Approach

The flexibility and implementation of the Atlantic RBCA tools is enhanced by the four Atlantic regulators sharing best practices. This forum of Atlantic PIRI provides input on management processes and practices, review of pending legislation and advice on policy. The provincial regulatory members of Atlantic PIRI are currently reviewing their guidance documents to identify areas that can be handled consistently in the four provinces, and areas where each jurisdiction exercises discretion. Harmonization at this level will result in clearer guidelines and fewer “gray” areas to raise questions for site professionals and property owners.

Environment Canada's participation in Atlantic PIRI provides a positive link between federal and provincial interests, processes and projects. The Federal Contaminated Sites Action Plan has a mandate to assess and remediate thousands of federally owned contaminated sites across the country. Tools such as Atlantic RBCA will figure prominently, especially in the Atlantic region. With representation on Atlantic PIRI, both Health Canada and Environment Canada are kept aware of the advances in Atlantic RBCA, ensuring that accurate expert advice and support can be provided to federal custodial departments. Currently, Environment Canada's representative is leading the task group that will re-evaluate and upgrade the ecological screening portion of the Atlantic RBCA process.

A Tool for Brownfield Redevelopment

Brownfields are a particular category of contaminated site. These possibly contaminated, and therefore under-utilized properties, are unproductive gaps in a community's social and economic fabric. In 2003, the National Round Table on the Environment and the Economy released *Cleaning up of the Past, Building Our Future: A National Brownfield Redevelopment Strategy for Canada*. This report discusses the barriers to brownfield redevelopment and recommends actions for all three levels of government. Atlantic PIRI supports the recommendations of the *Strategy*. With Atlantic RBCA, the four provinces already have established two of the policy-related *Strategy* recommendations: allowing for site-specific assessment and remediation; and a process of regulatory approvals.

Even with the technical strength and flexibility of Atlantic RBCA tools, barriers remain to remediation and redevelopment of brownfields. The *Strategy* identifies termination of civil and regulatory environmental liability as a key barrier, one that has been raised with Atlantic PIRI by stakeholders in the Atlantic Canada. New Brunswick has taken the lead on behalf of Atlantic PIRI by establishing a *Brownfield Liability Stakeholder Working Group*. A number of Atlantic PIRI members have participated in the discussions with national and regional stakeholders. A report from this group is expected in 2006.

Other issues raised in the *Strategy*, again reflecting what Atlantic PIRI has heard from stakeholders, relate to financial, insurance and tax barriers that can stall a redevelopment project on a contaminated site before remediation even begins. In response to these issues, Atlantic PIRI commissioned a gap analysis of existing legislation in all four Provinces, to identify which aspects support or inhibit redevelopment of brownfields and other contaminated sites.

Objectives for 2006

Updating the Technical Tool

The anticipated CCME release of an update to the CWS-PHC in late 2006 may include changes in the science and toxicology on which Atlantic RBCA is based. Atlantic PIRI will review the implications of the results in both of these areas and determine if an update or revision of the model and associated guidance documents is required, to maintain the scientific integrity of the Atlantic RBCA software tool.

Reporting from Technical Task Groups

Task Group recommendations for implementation in 2006 or incorporation in a future version of the Atlantic RBCA software expected in 2006 include: the Laboratory Task Group update to the laboratory protocol that supports the Atlantic RBCA process; recommendations to update and improve the ecological screening assessment tool in the current Atlantic RBCA guidance document is expected in early 2006; a final report from the Soil Vapour and Indoor Air Pathway Analysis Task Group; and results from the Metals Risk Assessment Task Group on practicality of modeling risk assessment for metals in soil.

Enhancing Harmonization

Inter-provincial harmonization of management strategies and programs will continue to be a focus for 2006. This focus enhances the sharing of best practices and maximizes the benefits each Province realizes from its engagement in the Atlantic PIRI process.

Promoting Options to Address Liability

The report from the New Brunswick Liability Working Group is expected in 2006. While each Province will make its own response to liability issues, Atlantic PIRI is working with its regulatory members to start discussion in each province on the options for addressing contaminated site liability issues. This effort will be focused on internal stakeholders, such as departments of finance, justice and economic development, and key private sector stakeholders.

Brownfield Redevelopment Programs

As solutions are proposed for dealing with the liability issues associated with redevelopment of brownfield and other contaminated sites, Atlantic PIRI will maintain contact with interested stakeholders to support the implementation of these solutions. Contact with Federal Government agencies, municipalities and industry will be initiated during 2006.