

June 21, 2012

Honourable Sterling Belliveau, Minister
Nova Scotia Department of Environment
5151 Terminal Road
Halifax, NS, B3J 2T8

Dear Minister Belliveau ;

We are pleased to submit for your consideration the fourth annual report of the Remediation Monitoring Oversight Board (RMOB).

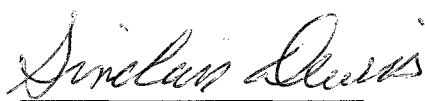
To begin, the RMOB members (Edwin, Colin and I) would like to thank you for our reappointment to the Remediation Monitoring Oversight Board and for your continued confidence and support of the RMOB members and our role in the Tar Ponds project.

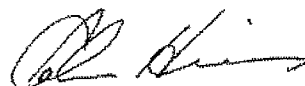
As you are aware, the RMOB was established January 1, 2008, by the then Environment Minister Mark Parent in response to Recommendation # 53 of the Joint Review Panel for the Sydney Tar Ponds and Coke Oven Sites Remediation Project. Over the past year we have convened three meetings with NSE staff, participated in several site tours, participated in two EMC meetings, conducted a number of interviews with project partners and reviewed a number of documents to assess the progress and effectiveness of Nova Scotia Environment's regulatory management process in relation to this project. Our primary purpose has been to assure the public that the remediation of the Sydney Tar Ponds and Coke Oven Sites is being appropriately regulated by NSE and the project is proceeding in compliance with the provincial regulatory guidelines, permits and approvals.

On behalf of the Board I would again like to express our appreciation to your NSE staff and the other organizations involved in this project for their hospitality, advice and candid comments. Their professionalism and support have enabled us to convene a number of productive discussions.

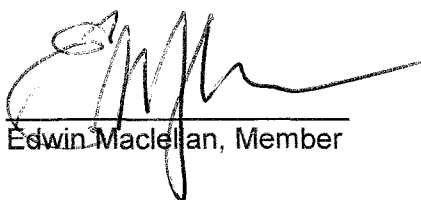
We trust you will find the information provided in this report constructive. We would be pleased to meet with you at your convenience to discuss our activities and findings in further detail.

Respectfully Submitted,
RMOB Members


Sinclair Dewis, Chair



Colin Hines, Member


Edwin Maclellan, Member

Sydney Tar Ponds and Coke Ovens Sites Remediation Project

Fourth Annual Report to the Minister, Nova Scotia Environment

Submitted by;

The Remediation Monitoring Oversight Board

June 21, 2012



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Executive Summary

The Sydney Tar Ponds and Coke Ovens Sites Remediation Project continues to maintain a high profile, receiving a great deal of public and media attention. This being said the focus of this attention has changed, as most of the project planning is in place and many of the project elements have been completed or are well underway.

Over the past five years, the Remediation Monitoring Oversight Board has been active in developing an understanding of the project and, in particular, evaluating the role and activities of NSE as the primary regulator for the Tar Pond and Coke Oven Remediation Project. This, our fourth RMOB report, focuses on NSE's activities and is provided for the consideration of Minister Sterling Belliveau.

In this report we have identified six key findings:

- It is the opinion of the RMOB that NSE has appropriate staff in place and has developed Part V approvals appropriate to ensure the project proceeds in an environmentally responsible manner.
- It is the opinion of the RMOB that NSE is adequately monitoring the various project components and when required initiates appropriate follow-up and enforcement actions.
- The RMOB feels that the process employed to make modifications to the Tar Pond cap was a positive example of the regulatory regime's ability to learn and expand their capacity as the project progresses. A risk-based approach was used to make this adjustment to the project design and associated Part V approval. This change will satisfy criteria while saving money (estimate \$2 M) which may be available for other project components.
- The RMOB feels that the development of the PCB standard operating procedures is another positive example of the project partners working with the regulators to develop acceptable standard operating procedures which satisfy environmental protection requirements.

- It is the opinion of RMOB that odour remains an important issue and a public measure of the progress of the project. This being said, we feel that NSE has taken appropriate action to ensure that the STPA employs suitable management practices to address odours.
- RMOB feels that it is incumbent on the province to ensure that all the project components are properly completed prior to taking ownership of the property. In addition it is essential that NSE ensures that comprehensive plans and funding are in place for the long term management, maintenance and monitoring of the site after the remediation has been completed and that the future land use of the site is carried out such that it protects and does not adversely impact the work which has been completed.

1. Background / Introduction

The Sydney Tar Pond and Coke Ovens Remediation Project is a very large-scale project with a budget of \$400 million dollars and a proposed completion date of April 2014. It is our understanding that the project is proceeding on schedule and within budget.

The project continues to maintain a high profile receiving a great deal of public and media attention. This being said the focus of this attention has changed as most of the project planning is finished, many of the project elements have been completed or are well underway and attention is shifting to future land use and site monitoring.

As identified in our Terms of Reference the RMOB continues to monitor the project to ensure that the remediation is being appropriately regulated by Nova Scotia Environment, is proceeding within regulatory guidelines, permits and approvals, and that public input is taken into account.

This is the fourth report we have prepared for the Minister's consideration and we trust it provides an overview and scope of our oversight activities and findings over the past year.

Since our last report the Board has carried out the following activities;

- met with senior NSE staff in Halifax in June 2011 to review our third report,
- convened three meetings in Sydney with various project staff (August 23-24, December 5-6, 2011 and April 19-20, 2012),
- conducted interviews with NSE staff and project partners from PWGSC, STPA, the Independent Engineer (with new manager Jeroen Winterink) and the Community Liaison Committee,
- participated in two Environmental Management Committee (EMC) meetings,
- conducted several site tours,

- reviewed regulatory issues including NSE enforcement actions and the associated response to potential violations; public complaints and concerns, and
- reviewed a number of project documents and press articles posted by PWGSC and the local media.

We continue to make ourselves available to receive comments from the public however to date have had very limited feedback. We received several calls from the local media following the release of our last report.

2. Findings

a) NSE as Regulator

Based on our evaluation we feel that NSE continues to be committed to this project. As you are likely aware there has been a shift in the demands on staff from that of reviewing plans and preparing approvals to one of monitoring on-site activities, addressing any problems which may arise and planning for the ongoing management, maintenance and monitoring activities which will be required for the site. It is our understanding that NSE has now finished reviewing and approving all of the required Part V applications for the various project components with the exception of those for future activities. Amendments have been made to the project approvals over the past year as the need has arisen.

We continue to be impressed with the level of oversight of the project by NSE, the Independent Engineer, AECOM and other partners. We feel that this project likely receives more monitoring and oversight than any other project in Canada.

It is the opinion of the RMOB that NSE has appropriate staff in place and has developed Part V approvals appropriate to ensure the project proceeds in an environmentally responsible manner.

Potential staff changes at NSE and the other partner organizations (e.g. AECOM, IE, STPA,) represent a risk to the ongoing efficiency of the project. As this remediation project begins to wind down staff may be

tempted to migrate to longer-term jobs on other projects. Such a loss of experience and background in the project, although not critical to the success of the project, could potentially have an impact on the efficiency of operations.

b) Compliance Monitoring

As mentioned, NSE staff closely monitors the project activities for compliance with their Part V approvals, regulations and guidelines. As a part of the monitoring program, Inspection staff typically conducts two on-site visits and Engineering staff conduct one visit each week. In addition, staff continues to closely monitor any complaints which are received from the public.

A brief summary of NSE's compliance and enforcement activities during the past year include:

- One non-compliance issue was documented during the 2011 reporting period, with a Directive issued in December relating to erosion and sediment control on the Coke Ovens Site. The Directive required STPA to take immediate action and provide an appropriate management plan. The management plan was received and NSE continues to monitor this situation.
- NSE received 19 odour complaints from the public during the 2011 construction period (as compared to 39 during the same period in 2010). In each case NSE contacted the individual making the complaint and initiated appropriate follow-up actions with the STPA.
- One air exceedance was reported by the Ambient Air Monitoring Program between October 1, 2011 and March 31, 2012. NSE reviewed this result with STPA.

It is our understanding that all of the other compliance samples tested in the past year have satisfied the NSE criteria, with the exceptions of the turbidity in the Coke Ovens Brook and one air exceedance mentioned above. This includes samples of the leachate, air (e.g. PIDs, GC, dust track, and ambient network samples), water toxicity (LC 50), and water analysis from the CO treatment facility.

EMC prepared an excellent report (entitled Environmental Management Committee, Co-Chair Report To the Project Management Committee, October 1, 2011 to March 31, 2012), which describes the committee's mandate and operations. As mentioned the RMOB members participated in two meetings and feel the committee is functioning efficiently.

It is the opinion of the RMOB that NSE is adequately monitoring the various project components and when required initiates appropriate follow-up and enforcement actions.

c) Modifications to Tar Pond Cap

In early 2011 NSE received a letter from the Independent Engineer, on behalf of PWGSC, relating to the redesign of the TP 6B cap, which involved reducing or eliminating the use of the Geosynthetic Clay Liner (GCL) cover in certain areas. A study was undertaken by the IE which indicated that proposed changes would still result in a permeability which satisfied or exceeded the Part V criteria. NSE reviewed this request and the supporting information and accepted the recommendation for removal of the GLC.

The RMOB feels this was a positive example of the regulatory regime's ability to learn and expand their capacity as the project progresses. A risk-based approach was used to make this adjustment to the project design and associated Part V approval. This change will satisfy criteria while saving money (estimate \$2 M) which may be available for other project components.

d) PCB Management

Several areas of PCB contaminated material were identified in the Phase II area of operation and large areas of contamination were identified in the Phase III area. A sampling program was undertaken to delineate the areas suspected of containing PCB's. In January 2010 NSE received a letter from Environment Canada identifying the federal concerns and requirements for testing and management of these PCB contaminated materials.

Following from this the STPA issued a contract in 2011 for the development of Standard Operating Procedures for handling the PCB contaminated material in the North Pond. This SOP was prepared to comply with the Federal PCB Regulations as well as the Nova Scotia PCB Management Regulations.

Subsequent negotiations between EC, STPA, PWC, IE, and others, resulted in NSE accepting and approving these procedures in September 2011. All PCB materials encountered to date have been handled accordingly.

The RMOB feels this is another positive example of the project partners working with the regulators to develop acceptable standard operating procedures which satisfy environmental protection requirements.

e) Odour Issue

During the 2011 construction period there was a significant decrease in the number of complaints from the public in relation to odour emanating from the Tar Ponds project. As mentioned the number of complaints decreased from 39 in 2010 to 19 in 2011. The cause of the odour was primarily due to the sediment exposure and reworking activities associated with the TP 6B solidification and stabilization and was further exacerbated by weather conditions and high temperatures experienced at the time.

A number of steps have been taken to minimize potential odours including better management of exposed soil and control measures at the work site and an enhanced air monitoring program in the surrounding community. NSE has also required that weekly meetings be held to discuss and plan control measures for the various planned activities.

It is the opinion of RMOB that odour remains an important issue and a public measure of the progress of the project. This being said, we feel that NSE has taken appropriate action to ensure that the STPA employs suitable management practices to address odours.

The various partners have learned from experience how to better manage the site to minimize and reduce this problem. It is our understanding that

odour should be less of a problem during the work on the North Pond as a result of these revised management and control procedures.

f) Long Term Monitoring and Future Land Use

As outlined in the EIA (Recommendation # 17) the Province of Nova Scotia will take ownership and ongoing management of the property starting in April, 2014. NSE staff are very aware of the importance of developing comprehensive documents which will guide the future use of the property and deal with ongoing management, maintenance and monitoring (including long term water management). NSE is in the initial stages of working with partners to negotiate and develop appropriate requirements and documents.

The approach currently being considered is to develop two Part V approvals, the first to address the future management, maintenance and monitoring requirements for the subsequent ten years and a second to address future land use requirements. These approvals would replace the need to develop legislation as referenced in the EIA. Initial documents have been developed to scope out the issues and act as a starting point for planning and consultations.

The RMOB feels that it is incumbent on the province to ensure that all the project components are properly completed prior to taking ownership of the property. In addition, it is essential that NSE ensures that comprehensive plans and funding are in place for the long term management, maintenance and monitoring of the site after the remediation has been completed and that the future land use of the site is carried out such that it protects and does not adversely impact the work which has been completed.