

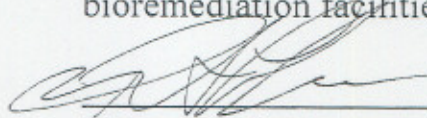


GOVERNMENT OF  
NEWFOUNDLAND AND LABRADOR

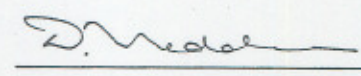
**Department of Government Services & Lands**  
Pollution Prevention Division

**Guidance Document**

Title: Application, processing, approval and inspection, for  
bioremediation facilities

Prepared by:   
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Issue Date: May 1, 2003

Approved By:   
Derrick Maddocks, Director

Bioremediation Facilities

~~GDI PPD-04~~

G.D.PPD - 003

## **1.0 Subject:**

Ex-Situ Bioremediation Facilities

## **2.0 Objective:**

To outline the process of application, processing, approval and inspection, for bioremediation facilities

## **3.0 Background:**

In 2001, the Government of Newfoundland and Labrador implemented an island-wide ban on the disposal of petroleum hydrocarbon contaminated soil at landfill and other waste disposal facilities (no ban presently in place for Labrador). In order to properly deal with soils contaminated in this manner, the Department of Environment (DOE) adopted an approach which encouraged contaminated soil processing within the private sector. The industry responded by proposing and eventually developing a network of bioremediation facilities, which were designed to accept, and treat petroleum hydrocarbon contaminated soil.

## **4.0 Legislative:**

### **Environmental Protection Act**

#### **Authority**

#### **Discussion**

The May 1998 *Memorandum of Understanding* between the DOE and the Government Service Centre (GSC) specifies a number of specific duties for each Department. The overall administrative process pertaining to the application, processing, approval, and inspection of bioremediation facilities is provided in Guidance Documents. As such, the DOE provided a guidance document (GD-PPD-013 rev.1) entitled "*Guidelines for Construction and Operation of Facilities Using Ex-Situ Bioremediation for the Treatment of Petroleum Contaminated Soil*". This guidance document was intended to provide direction on many of the aspects associated with Bioremediation facilities. Included with this document, (in Appendix A - Regulatory Inspections), was a **suggested** inspection frequency. The suggested inspection frequency called for construction phase inspections in accordance with the builder's construction schedule and critical milestones, as well as operational inspections, which in the first two years of operation were to be conducted bi-weekly with a minimum of 12 detailed, bi-monthly site inspections. It became quickly apparent that this suggested inspection frequency was beyond the capability of the resources of the GSC. In light of the inspection frequencies that were in place for other facilities under the Environmental Program, it was felt, that the suggested inspection frequency could be construed as harassing to these facility operators. In order to clarify these issues, this policy has been provided to give Environmental Protection Officers (EPOs) with the

GSC a framework for dealing with these facilities and to outline operationally achievable goals.

#### **5.0 New Applications / Proposals:**

(Page 3) of the May 1998 *Memorandum of Understanding* between the DOE and the GSC, outlines that one of the specific duties of the DOE is to "issue approvals for special waste treatment facilities." As such, applications received at GSC Offices for new bioremediation facilities shall be forwarded to the DOE for application processing and issuing of the new Certificate of Approval. As soil treatment facilities are subject to the Environmental Assessment Regulations, the DOE will initially refer the application to the Environmental Assessment Division.

EPOs should, however, conduct an initial screening of the application to ensure that sufficient preliminary information is included in the proposal package. This information should at least include an Application for a Certificate of Approval, a business plan outlining the proponent's contact information and development intentions, a site location map and a set of drawings showing the details of all proposed structures and works.

Historically, both DOE and GSC have worked in close consultation regarding issues surrounding bioremediation facilities. In this regard, the DOE may consult with the GSC while it processes application packages and will then approve or refuse the proposal.

#### **6.0 Existing Facilities / Renewals:**

Similar to new bioremediation facilities, the DOE shall remain responsible for the preparation and issuing of all renewal and amended Certificates of Approval. As existing Certificate of Approvals expire, as facilities change ownership, or as other circumstances may dictate, bioremediation facility owners / operators should be directed to request a renewal or amended Certificate of Approval from the DOE. Many of the Certificate of Approvals that have been issued recently, set a date by which renewal requests shall be made to the DOE. EPOs with the GSC shall, during the course of inspections, notify owners / operators of the need to maintain a valid Certificate of Approval and shall inform DOE of any such facilities operating without a valid C of A. EPOs will recommend appropriate changes to Certificate of Approval renewals.

#### **7.0 Inspections:**

EPOs will be responsible for the inspection of bioremediation facilities. During the construction phase, inspections shall be carried out at the discretion of the EPO in accordance with the builder's construction schedule and critical construction milestones (ie. liner installation...). Once operational, bioremediation facilities shall be checked on a quarterly basis, and as such, shall be visited by an EPO at least once during each four month period per fiscal year. Of these checks, at least two shall be comprised of a full, detailed inspection of the facility, which will include the completion of an inspection report. EPOs shall record all details of these inspections on the form prescribed, which is entitled "*Bioremediation Facility Inspection Report*" (Appendix A). One

copy of the inspection form shall be provided to the site owner / operator, one copy shall be forwarded to the DOE, and the final copy shall be kept on file at the GSC.

#### **8.0 Deficiencies:**

Deficiencies identified during the course of inspection shall be noted on the "***Bioremediation Facility Inspection Report***" and shall be reviewed at the end of the inspection by both the EPO and the site owner / operator. In order to follow-up all noted deficiencies, the EPO shall ensure that the owner / operator is made aware of the results of the inspection, any directives issued, and shall ensure that the compliance date specified on the inspection report is acknowledged. This will be accomplished by obtaining the signature of the owner / operator (or site supervisor) on the inspection report form. The EPO shall then schedule a follow-up visit to the bioremediation facility to coincide with the compliance date established, but should not normally be greater than one week past that compliance date.

#### **9.0 Enforcement and Compliance:**

All deficiencies previously identified during the inspection of a bioremediation facility shall be re-checked during a compliance inspection. This inspection is normally conducted within one week of the date specified on the previous inspection report form. If upon completion of the follow-up compliance inspection, deficiencies and directives have still not been met and the owner / operator cannot provide a reasonable explanation to condone the continued non-compliance, EPO's shall initiate the enforcement process for non-compliance, which may include the preparation of further correspondence, case summaries, briefing notes, and legal documentation. At this point, as with other program areas, EPOs shall consult with their Manager of Operations for advice and direction on further action that may be required.

**MISCELLANEOUS**

	Yes	No	Comments
Were photos taken of the site? If Yes, # taken: _____	<input type="checkbox"/>	<input type="checkbox"/>	
Is there heavy equipment / machinery onsite?	<input type="checkbox"/>	<input type="checkbox"/>	
Were there any samples collected by EPO during this visit?	<input type="checkbox"/>	<input type="checkbox"/>	

**COMMENTS / DIRECTIVES**

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**COMPLIANCE**

<b>Compliance Date*</b>	
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*\*(The above noted deficiencies and directives are expected to be corrected by this compliance date. Failure to do so, may result in further legal action being initiated. You may contact your local Government Service to discuss any concerns you may have with items noted above.)*

_____	_____
<b>Environmental Protection Officer</b>	<b>Date</b>
_____	_____
<b>Facility Manager / Supervisor</b>	<b>Date</b>

<b>FOR OFFICE USE ONLY</b>	<b>COMMENTS</b>



# BIOREMEDIATION FACILITY INSPECTION REPORT

### Regional Offices

St. John's	(709) 729-3084
Clareville	(709) 466-4060
Gander	(709) 256-1420
Corner Brook	(709) 637-2680
GrandFalls - Windsor	(709) 292-4206
Happy Valley / Goose Bay	(709) 896-2661

### GENERAL INFORMATION

Company Name	Telephone Number
Address	Postal Code
City / Town	
Facility Manager / Contact Person	Telephone Number

### CERTIFICATE OF APPROVAL

	Yes	No	Comments
Is a copy of the Certificate of Approval Posted onsite?	<input type="checkbox"/>	<input type="checkbox"/>	
Certificate of Approval #			
Expiry Date			

### OPERATIONS

	Yes	No	Comments
<b>Shipping And Receiving</b>			
Are all soils from Newfoundland & Labrador?	<input type="checkbox"/>	<input type="checkbox"/>	
Are all soils contaminated with petroleum hydrocarbons only?	<input type="checkbox"/>	<input type="checkbox"/>	
Are all soils received, accompanied with a lab analysis outlining BTEX and TPH concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	
Have the appropriate number of pre-delivery soil samples been taken for each load? (1 for each 100m <sup>3</sup> of contaminated soil).	<input type="checkbox"/>	<input type="checkbox"/>	
Are received soils placed on receiving / treatment pad(s)?	<input type="checkbox"/>	<input type="checkbox"/>	
Have hazardous wastes been accepted at the facility for treatment and/or storage?	<input type="checkbox"/>	<input type="checkbox"/>	
Has any free product been accepted onto the site?	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Record Keeping (Is the following information recorded for each load of soil ?):</b>			
Date and time of arrival	<input type="checkbox"/>	<input type="checkbox"/>	
Source name and address	<input type="checkbox"/>	<input type="checkbox"/>	
Quantity (tonnes or cubic meters)	<input type="checkbox"/>	<input type="checkbox"/>	
Client name	<input type="checkbox"/>	<input type="checkbox"/>	
Lab analysis	<input type="checkbox"/>	<input type="checkbox"/>	
Trucking Company	<input type="checkbox"/>	<input type="checkbox"/>	
Name of project manager or on site supervisor authorizing the shipment	<input type="checkbox"/>	<input type="checkbox"/>	