

Applicants should ensure that they:

- are familiar with the *Contaminated Sites Regulation* (under the *Yukon Environment Act*).
- complete all applicable sections, legibly printing or typing all information.
- complete the signature block at the end of the form.
- submit all required attachments.

A pre-permit inspection may be conducted prior to the issuance of any permit.

This application form, when completed as directed, satisfies the requirement for a land treatment facility plan under subsection 18(2) of the *Contaminated Sites Regulation*.

Payment of a technical review fee may be required prior to issuance of this permit

The original completed and signed application form should be mailed or delivered to your local government office or:

Environmental Programs Branch (V-8)
 Department of Environment
 Government of Yukon (located at 10 Burns Road, Whitehorse)
 Box 2703, Whitehorse, Yukon Y1A 2C6

For additional information:
 Phone: (867) 667-5683 or 1-800-661-0408 ext. 5683 • Fax: (867) 393-6205
 Internet: www.env.gov.yk.ca/air-water-waste/pesticides_regs.php
 E-mail: envprot@gov.yk.ca

ALL APPLICANTS SHOULD BE AWARE OF THE FOLLOWING:

Applicants for a land treatment facility with a capacity of 3000 m³ or greater or for a land treatment facility that will accept highly contaminated material must conduct a hydrogeological assessment. Applicants are required to cover the cost to have a third-party expert review the hydrogeological assessment. Please consult the “Technical Reviews” document for more information or contact the Environmental Programs Branch.

Please note that a Land Treatment Facility may not be located on a site that:

- Has a slope greater than 6%;
- Has a seasonal high water table of less than 3 metres below the surface;
- Is within 100 metres of a surface water body;
- Is on land identified as being within a 25 year floodplain;
- Is within 60 metres of a residence or residential property boundary.

PLEASE READ CAREFULLY AND FILL OUT ALL APPLICABLE SECTIONS. ATTACH ADDITIONAL PAGES AS NEEDED.

PART 1 - CONTACT AND SITE INFORMATION

1. Name and address of applicant

The applicant is the person filling out this application, and whose name is to appear on the permit.

CONTACT NAME AND POSITION TITLE PHONE #

BUSINESS NAME OR GOVERNMENT AGENCY/BRANCH/DEPARTMENT FAX #

MAILING ADDRESS POSTAL CODE

EMAIL ADDRESS

NAME (PERSON OR BUSINESS) TO APPEAR ON PERMIT

2. Who will be operating the Land Treatment Facility?

same as (1) above, or (for multiple site locations, list on a separate sheet):

CONTACT NAME AND POSITION TITLE PHONE #

BUSINESS NAME OR GOVERNMENT AGENCY/BRANCH/DEPARTMENT FAX #

EMAIL ADDRESS

3. Where will the Land Treatment Facility be located? (For multiple site locations, list on a separate sheet).

STREET ADDRESS _____

LEGAL ADDRESS _____

GEOGRAPHIC COORDINATES (CENTRE OF SITE IN LAT/LONG, UTM (SPECIFY ZONE) OR YUKON ALBERS) _____

4. Who owns the land on which the Land Treatment Facility will be located?

same as (1) above, or (for multiple site locations, list on a separate sheet): _____

Applicants not owning the land on which the facility is to be located, including when the applicant is leasing the land from another party, must include with this application a letter from the landowner authorizing the intended activity on their property.

5. Is the land leased? If so, by whom?

same as (1) above, or (for multiple site locations, list on a separate sheet): _____

6. If the land is within municipal boundaries, what is the zoning of that land? (For multiple site locations, list on a separate sheet.)

Applicants must comply with municipal bylaws and ensure they are aware of any restrictions on activities in zoned areas.

PART 2 - FACILITY DETAILS

7. Please indicate the nature of the operation:

The facility will be used to treat contaminated material generated by the applicant only.

The facility will be used on an ongoing basis to treat contaminated material generated by others.

Other: _____

8. What type of contaminated material will be treated at the facility?

Contaminated soil Contaminated water

9. What are the contaminants to be remediated? (e.g. petroleum hydrocarbons, pentachlorophenol, etc.)

10. What sources of contaminated material have been identified? (e.g. locations, spill events)

11. Will any of the contaminated material treated at the facility be highly contaminated?

No

Yes – please elaborate (attach additional pages if needed): _____

12. What volume of soil is the facility designed to store and treat? _____ m³

13. What are the proposed dimensions of the facility, measuring along the inside edge of the berms, and to what height will the soil be piled? (This information is used to determine whether the Yukon Environmental and Socioeconomic Assessment Act applies to the facility.)

Dimensions: _____ Max pile height: _____

14. Is the site cleared? Yes No

15. Is the site used by wildlife on a regular basis? Yes No

16. How far is the site from the nearest surface water body (creek, pond, etc.)? _____ m

17. How far is the site from the nearest drinking water source? _____ m

18. Is the site located on a floodplain?

Yes No

If "Yes", is the site within the: 25-yr floodplain 50-yr floodplain 100-yr floodplain

19. What is the depth of the seasonal high water table? (in metres below the surface) _____ m

20. What is the slope of the site? _____ percent grade or _____ degrees

21. What is the distance to the nearest residential property? _____

22. What are the predominant soil types at the site? (Include approximate depths of each stratum, where known.)

NOTE that an impermeable synthetic liner (geomembrane) or natural compacted liner with a minimum permeability of equal to or less than 10^{-5} cm/sec (10^{-6} cm/sec for facilities accepting highly contaminated material) and a thickness of a minimum of 1 metre is required for all facilities.

23. Will an impermeable synthetic liner be used beneath all treatment cells?

- Yes – go to 25 below No – go to 24 below.

24. If not using an impermeable synthetic liner, provide (as an attachment) information demonstrating that the natural liner and berm source material has a permeability of equal to or less than 10^{-5} cm/sec (10^{-6} cm/sec for facilities accepting highly contaminated materia). This information shall include:

- (a) Characterization sampling results of the liner and berm source material at a rate of one sample per 500 m³, or at a greater frequency if visual changes in soil type are observed at the source location, for the following parameters: particle size analysis, calculated hydraulic conductivity, moisture density proctor test (minimum 5-point curve) and moisture content.
- (b) Laboratory hydraulic conductivity test results of the liner and berm source material at a rate of one sample per 1500 m³, or at a greater frequency if visual changes in soil type are observed at the source location, using a minimum 90% modified proctor density or 95% standard proctor density.
- (c) Proposed methodology for installation of the natural liner including excavation, screening and compaction of the liner and berm material.

25. If using an impermeable liner, provide as attachments:

- (a) the manufacturer’s specifications for the impermeable liner,
- (b) a description of the proposed liner installation methods, including welding techniques, and
- (c) cross-sectional diagrams showing the proposed liner and installation design, indicating the location of the liner in relation to berms, cushioning layers, sumps, and other design features.

26. Provide a detailed design drawing of the facility which includes both a plan view and cross sectional view.

27. Provide a clear, well-marked diagram showing the location of the facility, structures on the site (including those to be built), and features such as the nearest residential property, adjacent properties (and their uses), surface water bodies, wells, etc.

28. Describe contingency and emergency plans which will be implemented in the event of a breach of the facility or a release of contaminated material, including a list of any equipment to be used.

29. Describe the training workers at the facility will have in handling contaminated material, spill prevention, emergency procedures, and health and safety.

30. Describe the methods to be used to determine that contaminated soil is sufficiently treated to be removed from the facility.

31. Describe the features of the site designed to control access and secure the facility (e.g. fencing, signage).

32. Describe the operating and maintenance plans and schedules to be used to treat contaminated soil, including the tillage or turning schedule, equipment to be used, and watering and/or nutrient addition schedule.

33. Describe plans for decommissioning and abandoning the facility and site, including the location to which the remediated soil will be removed, if applicable.

PART 3 – GROUNDWATER ASSESSMENT AND MONITORING

All applicants planning to construct or operate a facility that will accept highly contaminated material or that will have a capacity of 3,000 m³ or greater must complete this Part. Such facilities must undergo a hydrogeological assessment and undertake ongoing groundwater monitoring. The hydrogeological assessment will be reviewed by an independent third-party qualified hydrogeologist and the applicant must cover the cost of this review.

34. Please provide (as an attachment) the report of a hydrogeological assessment of the proposed site location, conducted by a qualified hydrogeologist, which:

- (a) determines the direction and rate of groundwater flow;
- (b) identifies potential receiving environment(s);
- (c) assesses travel times for potential contaminant pathways, and
- (d) is based on data from a minimum of one well upgradient of the facility and two wells downgradient of the facility, at locations chosen by the qualified hydrogeologist, and which are installed in such a way as to allow their use for ongoing monitoring of groundwater for contamination. Additional wells must be installed if they are found to be necessary to characterize the groundwater flow regime and/or to effectively monitor potential impacts to groundwater quality downgradient of the facility. Please note that larger facilities will most likely require the installation and monitoring of additional wells.

I, _____, am the authorized representative		
<small>PRINT NAME CLEARLY</small>		
of _____, and I certify that the information		
<small>BUSINESS PERSON RESPONSIBLE FOR SOURCE OR ACTIVITY</small>		
provided on this application form is correct and complete to the best of my knowledge.		
_____	_____	_____
Signature of applicant	Date	No. of attachments