



Number: 600-01-06  
REGIONAL DISTRICT OF CENTRAL KOOTENAY  
**Policy Manual**

**Chapter:** Environmental Services

**Section:** Solid Waste Management

**Subject:** Soil Acceptance

**Board Resolution:** 126/20

**Established Date:** November 24, 2011

**Revised Date:** February 20, 2020

## **POLICY:**

### **PURPOSE:**

To finalize the Regional District of Central Kootenay's (RDCK) policy for the acceptance of soil material at RDCK Resource Recovery Facilities for daily or intermediate cover material, depending on the type and level of contamination.

### **SCOPE:**

The policy applies to any person requesting an approval to dispose of soil at an RDCK Resource Recovery Facility.

### **DEFINITIONS:**

**Approval Number** means the number provided by the RDCK to the owner of Waste Soil, granting the owner permission to dispose of the soil at an approved RDCK landfill.

**Contaminated Sites Regulation** means BC Regulation #375/96 and all amendments.

**Director of Waste Management** means an individual employed by the Provincial Government and designated in writing by the minister as a director of waste management or as an acting, deputy or assistant director of waste management.

**Hazardous Waste Regulation** means B.C. Regulation #63/88 and all amendments.

**Hydrocarbon Contaminated Soil** means soil, sediment or fill material contaminated with a petroleum product, including but not limited to, gasoline, diesel, fuel oil, hydraulic oil and lubricating oil. Hydrocarbon Contaminated Soil must not have concentrations that would classify the soil to be a hazardous waste, including but not limited to waste containing polycyclic aromatic hydrocarbon or containing any or all of the parameters listed in the Hazardous Waste Regulation, Section 41.1 table, Column I, in concentrations that exceed the standards specified in Column II.

Odorous soil should be analyzed for soil vapour in accordance with CSR Technical Guidance 4. Should the soil vapour concentrations be greater than CSR Schedule 3.3 Industrial Land (IL) standards, the soil is considered to be hydrocarbon contaminated soil even if the soil concentrations are less than IL standards.



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**Leachable Waste** means soil that is classified as Hazardous Waste and (is) prohibited from disposal as determined by the Toxicity Characteristic Leaching Procedure (TCLP) referenced in US EPA 40 CFR261 Appendix II Method 1311. Metals contaminant concentrations in the extract produced by the Modified Leachate Extraction process (MLEP) or TCLP must not exceed those identified in the Hazardous Waste Regulation, Schedule 4, Part 3, Table 1, Column 2.

The total contaminant concentration may be used as a screening tool for determining when leachability testing is required:

Using Mercury as an example:

0.1 mg/L (Mercury TCLP criteria) x 20 L/kg (TCLP extraction ratio) = 2 mg/kg total mercury

If the total concentration of a parameter exceeds the leachate quality standards by a factor of 20, then TCLP leachability testing is required. This is also referred to as the TCLP trigger concentration.

**Manager** means the Regional District of Central Kootenay Resource Recovery Manager, or his or her appointed designate.

**Metals Contaminated Soil** means soil, sediment or fill material which contains metals contamination in concentrations exceeding the lowest applicable Industrial Land (IL) use standard in the Contaminated Sites Regulation, Schedule 3. Metals Contaminated Soil must not have concentrations that would classify the soil to be a leachable waste (hazardous waste).

**Qualified Professional or QP** means a person who is an applied scientist or technologist, who is registered in British Columbia with a professional organization's code of ethics and is subject to disciplinary action by that organization, and through suitable education, experience, accreditation, and knowledge respecting soil and sediment management, may reasonably be relied on to provide advice within their area of expertise. For the purpose of this Policy, appropriate designations are P. Ag., P. Eng, P. Geo, PTech, RTMgr, ASCT, and CTech.

**Small Load** means one regular sized, pick-up truck load of Uncontaminated Soil per customer per day. Self-dumping vehicles are not considered Small Loads. RDCK site staff will determine acceptability.

**Soil Questionnaire** means the series of pre-determined questions asked by the RDCK to determine the necessity of a Waste Soil Application.

**TCLP Trigger Concentration** means should concentrations of a parameter be greater than a factor of 20 from the Table 1 Leachate Quality Standards, Schedule 4 of the BC Hazardous Waste Regulation, then TCLP leachability testing is required.



**Uncontaminated Soil** means native or clean soil with no signs or indications of contamination, typically sourced from a non-commercial, residential site, or undisturbed land, and which if analyzed for contaminants would yield results in concentrations less than the lowest applicable Industrial Land (IL) use standard in the Contaminated Sites Regulation, Schedule 3.1.

**Waste Containing Polycyclic Aromatic Hydrocarbon** means waste containing polycyclic aromatic hydrocarbons (PAH) in a total concentration greater than 100 parts per million calculated from adding the products of the measured concentrations of each listed PAH in Column 1 of Schedule 1.1 of the Hazardous Waste Regulation, multiplied by the toxicity equivalency factor (TEF). The concentration of the PAH constituents multiplied by the TEF summed together is also referred to as the PAH Toxicity Equivalence Quotient (PAH TEQ).

**Waste Oil** means any refined petroleum based oil or synthetic oil where the oils are in the waste in a total concentration greater than 3% by weight as determined by the Special Waste Oil and Grease (SWOG) analysis, and the oils through use have become unsuitable for their original purpose. As a screening tool, when the summation of the concentration for light extractable petroleum hydrocarbons (LEPH) and heavy extractable petroleum hydrocarbons (HEPH) in soil is greater than 30,000 ug/g then a SWOG analysis must be completed to determine if the soil will be classified as waste oil. A waste oil concentration up to 10% may be permitted for on-site treatment should prior written notification of treatment be provided to the Director of Waste Management and the treatment be carried out in accordance with the BC HWR hydrocarbon contaminated soil treatment requirements.

**Waste Soil** means contaminated soil, Hydrocarbon Contaminated Soil or Metals Contaminated Soil, that is not suitable for any land use specified in the Contaminated Sites Regulation. Soil that meets specifications defined by the Hazardous Waste Regulation is Hazardous Waste and not Waste Soil.

**Waste Soil Disposal Application or Application** means the document by which an owner of soil requests disposal of the soil, communicates information about the soil for disposal, and receives information back from the RDCK regarding its acceptance or rejection for disposal. The document must be completed in full and signed by the owner, a Qualified Professional, and the RDCK Manager.

Based on the above definitions, soils accepted at RDCK landfills are summarized in the following table:

Soil Description	Description / Site Destination
Uncontaminated Soil	Soil has been determined to be Uncontaminated Soil by the RDCK Soil Acceptance Policy, and from answers resulting from the Soil Questionnaire or by analysis resulting from the completion of the Waste Soil Disposal Application. Uncontaminated Soil may be stockpiled for final cover or placed as needed on site.
Hazardous Waste Soil	Not accepted.
Waste Soil	Soil is determined through analysis provided with a Waste Soil Disposal Application to be Hydrocarbon Contaminated Soil or Metals Contaminated Soil. Soil may be directed for either burial or cover material in accordance with this policy.



## **POLICY:**

### ***Soil Acceptance Parameters***

- a) All Waste Soil disposal requests shall be directed to the Resource Recovery Manager or designate.
- b) Acceptable materials are dictated by legislation and RDCK policy. The RDCK shall accept for disposal only soils that are proven to be Uncontaminated Soil or Waste Soil.
- c) Uncontaminated Soil and Waste Soil originating outside of RDCK boundaries shall not be accepted unless approved by the Resource Recovery Manager.
- d) The RDCK reserves the right to reject any soil for any reason.
- e) Waste Soil shall be accepted for disposal only with advance permission in the form of issuance of an Approval Number from the RDCK Manager after satisfactory environmental documentation is submitted.
- f) Small Loads of Uncontaminated Soil shall be exempt from the requirement to obtain advance written permission.
- g) Transfer stations shall accept only Small Loads of Uncontaminated Soil.
- h) The RDCK reserves the right to refer Waste Soil Disposal Applications to its own Qualified Professional for verification of results.
- i) Loads of material not meeting the definition of a Small Load shall not be accepted at Resource Recovery Facilities without a completed Waste Soil Disposal Application.
- j) The Questionnaire fee is established in the RDCK's Resource Recovery Bylaw No. 2694 (as amended from time to time), to be paid at the time of disposal.
- k) The Waste Soil Disposal Application fee is established in the RDCK's Resource Recovery Bylaw No. 2694 (as amended from time to time), to be submitted with the Application to RDCK Head Office.
- l) The tipping fees for Cover Soil, Waste Soil and Hydrocarbon Contaminated Soils are established in the RDCK's Resource Recovery Bylaw No. 2694 (as amended from time to time).
- m) The RDCK shall attempt to accommodate soil disposal at the landfill nearest the source of the Waste Soil, subject to operational needs and RDCK policy.
- n) Any information submitted in relation to the Waste Soil Disposal Application will become part of the public record and may be made available to the public through a Freedom of Information request.



### ***Procedure***

1. The Applicant shall request approval for disposal of soil from the RDCK.
2. The RDCK will ask a series of pre-set questions to determine if a Questionnaire or Waste Soil Application will be required.
3. If it is determined that a Questionnaire must be completed, the RDCK will advise the Applicant that the Questionnaire fee will apply which is to be paid at the time of disposal. The RDCK will verbally complete the document with the Applicant.
  - a. If any questions from the Questionnaire result in a “yes” response, then a Waste Soil Disposal Application must be completed, and Section 4.1 of this Policy will be applicable.
    - i. The Questionnaire fee will be replaced by the Waste Soil Application fee.
  - b. If all questions from the Questionnaire result in a “no” response, then no additional investigation is necessary. RDCK will update the Waste Soil Delivery Checklist and an Approval Number will be assigned.
4. If it is determined that a Waste Soil Application must be completed, the RDCK will advise the Applicant that the Application fee will apply, which is to be paid at the time of Application submission.
5. After review and the material is determined to be acceptable as Uncontaminated Soil or Waste Soil the RDCK will update the Waste Soil Delivery Checklist and an Approval Number will be assigned.
6. The Applicant will be issued the Approval Number, and the RDCK will advise the receiving landfill of the approval and expected delivery date.
7. Upon arrival at the receiving landfill, the Applicant will present the Approval Number to the landfill attendant, who will document the number on the scale ticket and charge the Questionnaire fee (where appropriate) along with the disposal fee.

### ***If A Waste Soil Application Is Required***

8. The Applicant shall complete Part I of the Application, including detailed information regarding sampling and analysis activities to characterize the Waste Soil.
9. Sampling of soil shall be in accordance with Ministry of Environment Technical Guidance on Contaminated Sites No. 1: Site Characterization and Confirmation Testing dated January 2009. Chemical analysis must be sufficient in quantity and scope to represent all of the material to be disposed of and all of the suspected contaminants. Samples must be collected, preserved, and submitted for laboratory analysis using standard protocols for soil samples. Samples must be



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analyzed by a Canadian Association for Laboratory Accreditation (CALA) or Standards Council of Canada (SCC) accredited laboratory. The Applicant must provide the sampling plan and an explanation of how it assures the laboratory analytical report provided is representative of the Waste Soil to be disposed of.

10. The Applicant shall retain a Qualified Professional to review the technical aspects of Part I and determine conformity with RDCK criteria. The Qualified Professional shall create a report showing the contaminant analytical results compared to the appropriate criteria (i.e. the lowest applicable Contaminated Sites Regulation Schedule 3.1, Industrial Lands (IL) Column and, in the case of Hydrocarbon Contaminated Soils exceeding these criteria, the Hazardous Waste Regulation Section 41.1 Table Column II, the waste oil content, the PAH Toxicity Equivalency Quotient as applicable). Where hydrocarbon or metal concentrations are greater than TCLP trigger concentration, then the result must be highlighted for TCLP analysis. The Qualified Professional must complete Part II.
11. The Applicant shall sign the Source Site Owner section of Part IV and the Qualified Professional shall sign the Qualified Professional section of Part IV.
12. The Applicant shall submit the Application and the application fee to the RDCK.
13. If the Application is complete and the soil is for cover or disposal, the Manager shall finalize the Waste Soil Disposal Application by signing the Receiving Site Owner/Operator section of Part IV and assigning an Approval Number.
14. If the Soil requested for disposal is unacceptable or rejected for any reason, the Manager shall inform the Applicant in writing.
15. Upon finalization, a copy of the agreement and an Approval Number shall be forwarded to the Applicant and the Qualified Professional.
16. The Applicant shall provide the Approval number with the delivery of Waste Soil at the designated landfill. RDCK site staff shall reject any Waste Soil which is not accompanied by a Waste Soil Disposal Approval number, unless the load qualifies as a Small Load of Uncontaminated Soil.

**RELATED LEGISLATION:**

Contaminated Sites Regulation  
Hazardous Waste Regulation

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