

**RR-999****Management of Contaminated Soils and Other Waste Materials Under s. NR 718 Wis. Adm. Code**

Wisconsin Department of Natural Resources

(November, 2014)

The attached document, “Management of Contaminated Soils and Other Waste Materials Under s. NR 718 Wis. Adm. Code”, provides guidance to persons undertaking construction projects where contaminated environmental media (e.g., soil) or a combination of contaminated soil and other solid waste materials (e.g., historic fill) at environmental response action sites are encountered. These situations can include sewer, water or natural gas pipeline installation and repair projects, as well as building construction, demolition, or road construction in public right of way. This guidance was developed to assist people in understanding how to safely manage such materials in compliance with state law.

Management of contaminated soil or other solid wastes encountered during construction or utility projects are considered “response actions” as defined in s. NR 700.03(50), Wis. Adm. Code, Sections NR 718.12(1) and (2), and s. NR 718.15 Wis. Adm. Code, specify the requirements for managing these materials.

This guidance lays out the steps that should be followed by persons responsible for utility or construction projects where excavation or trenching activities involve the management of contaminated media (e.g., soil) or solid waste materials. The process described in this guidance assumes that the contaminated media or waste materials are neither defined as a hazardous waste nor contain a hazardous waste.

This guidance was prepared to parallel the Low Hazard Exemption process guidance prepared by the Waste and Materials Management Program.

Once the 21 day notice period is complete, all comments will be considered, revisions will be made to the guidance as needed, and final guidance will be made available to the appropriate internal and external stakeholders.

Comments related to this draft guidance document should be sent to Judy Fassbender, [Judy.Fassbender@wisconsin.gov](mailto:Judy.Fassbender@wisconsin.gov); (608)266-7278.

# Management of Contaminated Soil and Other Waste Material

under s. NR 718 Wis. Adm. Code

November 2014

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## Background

This document provides guidance to persons undertaking construction<sup>1</sup> projects where contaminated environmental media (e.g., soil) or a combination of soil and other solid waste materials (e.g., historic fill) at environmental response action sites are encountered. Construction as referenced in this guidance also includes utility projects including excavations to install or repair communication lines, sewer, water or natural gas pipeline installation and repair projects, in addition to building construction, demolition, or road construction in public right of way. This guidance was developed to assist people in understanding how to safely manage soil and other solid waste materials in compliance with state law. Management of contaminated soil or a combination of soil and other solid wastes encountered during construction or utility projects are considered “response actions” as defined in s. NR 700.03(50), Wis. Adm. Code, s. NR 718.12(1) and (2), and s. NR 718.15 Wis. Adm. Code, specify the requirements for managing these materials.

[Attachment A](#) provides a table that outlines the management options and other responsibilities when contaminated soil or a combination of soil and other solid wastes are encountered during construction or utility projects. The table also identifies the governing regulatory authority, whether DNR approval is necessary prior to initiating the work, and identifies which DNR program has oversight responsibilities.

## Applicability

This guidance lays out the steps that should be followed by persons responsible for utility or construction projects where excavation, trenching, or directional boring activities involve the management of contaminated media (e.g., soil<sup>2</sup>) or a combination of soil and other solid waste materials. The process described in this guidance assumes that the contaminated media or waste materials are neither defined as a hazardous waste nor contain a hazardous waste.

Steps 1, 2, 3 and 4A of this guidance should be followed when utility or construction work is contemplated at any of the following situations:

- At known response action sites/properties that have not yet received case closure approval from the DNR (i.e. “open sites”);

<sup>1</sup> The reference to “construction” in this guidance does not include designing, implementing and operating an “interim action” or “remedial action” as those terms are defined in ch. NR 700, Wis. Adm. Code. If the construction relates to an interim or remedial action, then s. NR 718.12(2), Wis. Adm. Code, should be followed.

<sup>2</sup> If the source and/or the characteristics of the contamination raise questions regarding the regulatory status of the material, refer to the document: [Guidance for Hazardous Waste Remediation \(RR-705\)](#) to determine whether the soil meets the definition of a hazardous waste if managed. If the source of the contamination is from PCBs, please consult the guidance [PCB Remediation in Wisconsin under the One Cleanup Program Memorandum of Agreement \(RR-786\)](#).



- At properties or in right of way (ROW) *adjacent to* response action sites (regardless of response action site's open/closed status);
- At properties or in ROW where contamination is newly discovered either as part of pre-construction activities or during construction.

Steps 1, 2, 3 and 4B of this guidance should be followed when utility or construction work is contemplated at sites that have received case closure from the DNR (i.e. "closed sites"), but the proposed construction and utility work will:

- Involve the management of contaminated soil or a combination of soil and other solid waste at the site or
- Impact a continuing obligation(s) (e.g., soil cover or barrier) at the site.

### **Step 1: Determining the Property's Environmental Status**

Persons that are undertaking a construction or utility project should check the Department's [Bureau of Remediation and Redevelopment Tracking System \(BRRTS\) on the Web \(BOTW\) and the Remediation and Redevelopment \(RR\) Sites Map](#) databases for environmental information concerning sites located at or near the area where they will be working. If the database search reveals that work will take place on or near a property listed on BOTW, then determining the regulatory status of the source property is imperative.

Response Action is listed as "open" – response action ongoing - For sites where the property is still undergoing a response action, the person undertaking the excavation work should contact the DNR's RR project manager (RRPM) assigned to the site. RRPM assignments are listed in BOTW. The RRPM can assist in clarifying options for moving ahead with the project.

Response Action is listed as closed - If the site is listed as "closed" on BOTW, there may be restrictions regarding excavation and construction activities. Most DNR "case closure" letters can be found on BOTW, and are downloadable. The closure letters should specify whether there are any notification requirements and limitations on conducting work at or near the property. For sites that received a case closure letter prior to 2006, letters may not always specify the exact limitations on conducting excavation work at a site. In those cases, the DNR recommends that you contact the DNR RRPM listed for the site after familiarizing yourself with the available information to determine your options for conducting the proposed work. See Step 4B for further information on utility/construction projects at "closed sites."

Unknown BRRTS site or evidence of contamination is discovered during construction - Even if no contamination sites are identified at the project location or nearby, it is recommended to conduct pre-excavation sampling prior to the construction or utility work in order to determine whether contamination will be encountered. The property you are working on may have had historic discharges, been impacted by contamination from a neighboring property, or contain waste fill. Sometimes contamination is discovered during construction excavation even if due diligence pre-excavation sampling did not identify contamination. In the event that waste fill, discolored or stained soil, or soil with an odor is discovered during excavation, you, as the generator, are responsible for properly managing that material; this involves taking samples to properly characterize the soil or historic waste materials. If there is evidence that groundwater has been impacted, additional site characterization including groundwater sampling may be necessary.

## **Step 2: Reporting Discharges**

Any time contamination is discovered during a construction or excavation project, state law requires that the discharge of a hazardous substance be “immediately” reported to the DNR, in accordance with ch. NR 706, Wis. Adm. Code. Legally, the owner of the property and the person who contracted for the excavation or construction work must report the discharge to the DNR. The DNR will accept one notification from either party to document the discharge; however, one of the two parties must notify the DNR. It is important to note that activities associated with excavating or managing contaminated materials is considered “possession or control” of a hazardous substance under the Spill Law, – regardless of whether the person owns the property. As a result, persons undertaking these construction/utility actions have a responsibility to ensure the DNR is notified that a hazardous substance discharge has occurred, and are responsible for proper management of the materials. The person is not otherwise responsible for investigation or cleanup of residual contamination that may be present at the site.

## **Step 3: Determining Legal Obligations**

If historic contamination is newly discovered and reported to the DNR as a result of the excavation or construction actions, the RR Program staff will then determine whether or not a new RR site will be opened and if so, will identify the responsible party and assign a new BRRTS case number. If the site is already listed on BOTW and has not received case closure, then assignment of a new BRRTS case number may not be necessary prior to construction or utility work.

If the person who contracted for the excavation, construction, or utility work is not the owner of the property and did not cause the discharge, they are only responsible to ensure that the DNR is notified of the discharge and that any contaminated media (e.g., soil) or waste materials generated as a result of the activities at the property are properly managed. The person is not otherwise responsible for investigation or cleanup of residual contamination that may be present at the site.

On the other hand, if the person who contracted for the excavation, construction or utility work is also the property owner, then that person would be considered a responsible party under the state’s Spill Law. This means that they will need to take any necessary response actions, for both the excavated material and the material remaining in place, if the discharge originated on their property. In some cases, the DNR may work with the property owner to determine if the person(s) who caused the original discharge (responsible party) can be identified and held responsible under the Spill Law, and whether the responsible party has the financial means to deal with the contamination. In the event that the contamination is shown to have originated on a neighboring property, an off-site exemption under s. 292.13, Wis. Stats., may be an option to address the impacted property.

## **Step 4A: Management options for contaminated soil or a combination of soil and other solid wastes encountered during utility or construction work on known response action sites that have not received closure, on properties adjacent to known response action sites, or on properties where contamination is newly discovered**

Management options for excavated contaminated soil or a combination of soil and other solid wastes are summarized in Table 1 of Attachment A and described in more detail below. If contaminated soil will be or is likely to be encountered during construction or excavation, the person contracting for the work should develop a plan for characterizing the material, handling the material once its excavated, and a

record of that plan must be kept. There are two general options for managing contaminated soil<sup>3</sup> or other solid waste material that is newly discovered or on open response action sites and the applicable regulatory requirements are dependent on the material requiring management:

### **Option 1: Management at an Off-site Location**

If the excavated material consists of contaminated soil, then the responsible party can either pursue approval from the RR Program under s. NR 718.12(2), Wis. Adm. Code, or choose to manage the contaminated soil at a licensed solid waste facility. The provisions in s. NR 718.12(2), Wis. Adm. Code, require DNR approval of a written soil management plan; the proposal must be protective of human health, safety, welfare, and the environment. Management at a licensed solid waste facility may be advantageous at sites where contamination levels are high, where the soil cannot be placed in a location that already has contamination at levels similar to or higher than the soil itself, the planned placement area does not meet the setbacks and locational criteria specified in NR 718.12(1)(c), Wis. Adm. Code, there are liability issues, or characterization/sampling is too costly.

If the contaminated materials consist of solid wastes other than contaminated soil, then these materials must be managed in accordance with the requirements of the NR 500 rule series. Management of contaminated soil/waste mixtures that are generated as part of a response action will generally be overseen by the RR Program regardless of whether the material is being managed on-site or off-site. Typically, the provisions in s. NR 718.12(2), Wis. Adm. Code, will be used to help determine whether the proposed management option will be protective of human health and the environment.

### **Option 2: Management On-site**

Responsible parties may proceed to manage contaminated soil without DNR approval if the criteria in s. NR 718.12(1), Wis. Adm. Code, are met. These criteria include the locational standards in s. NR 718.12 (1)(c), Wis. Adm. Code, and sampling requirements in s. NR 718.12 (1)(e)<sup>4</sup>, Wis. Adm. Code. Under s. NR 718.12 (1)(b), Wis. Adm. Code, the action must be conducted in accordance with all applicable requirements in the ch. NR 700 rule series. Sampling and analysis of all contaminated soil in accordance with s. NR 718.12(1)(e), Wis. Adm. Code, is required, unless otherwise directed by the DNR. Soil must be stored in accordance with s. NR 718.05, Wis. Adm. Code. If the person managing contaminated soil is not the property owner, the soil manager should notify and obtain approval of their plan for on-site soil relocation from the property owner. The person undertaking the construction or utility action may not create a situation where the soil poses a threat to public health, safety, welfare or the environment. The contaminated soil should not be placed in a location that has no contamination or lower levels of contamination than the soil itself without notifying and obtaining the prior approval of the plan from the DNR. Placement in such locations could be considered a new discharge or illegal waste disposal and may not be protective. In order to comply with s. NR 718.12(1)(c)7, Wis. Adm.

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<sup>3</sup>For contaminated soil, the options available to the responsible parties either to use ch. NR 718, Wis. Adm. Code or to manage the material at a licensed site or facility. In these cases, s. NR 718.12(2), Wis. Adm. Code, is the regulatory mechanism for obtaining an exemption from the requirements of chs. NR 500 to 538, Wis. Adm. Code.

<sup>4</sup> Section NR NR 718.12(1)(e), Wis. Adm. Code, requires sample collection and analysis of contaminated soil including analysis of one sample for each 100 cubic yards of contaminated soil for the first 600 yards with a minimum of 2 samples being collected. For volumes of contaminated soil that exceed 600 cubic yards, one sample for each additional 300 cubic yards shall be collected for analysis. Samples shall be analyzed for all contaminants that were detected during a site investigation..

Code, to determine whether the action is protective, please see the section later in this guidance entitled, “*General Guidelines to Consider When Evaluating Whether Contaminated Soil or other Solid Wastes can be Managed at a Location other than a Licensed Solid Waste Facility.*”

At the conclusion of the actions, the responsible party must send the sampling results to the DNR, per s. NR 718.12(1)(e), Wis. Adm. Code. Anyone planning to conduct work in and around known contamination is strongly encouraged to contact the RR PM to discuss the potential regulatory requirements that could apply, even if they can proceed without the DNR’s approval.

If the circumstances of the situation do not meet the criteria in s. NR 718.12(1), Wis. Adm. Code, the responsible party can pursue management of the contaminated soil in accordance with the provisions in s. NR 718.12(2), Wis. Adm. Code. As discussed above, this option requires submittal of a soil management plan for DNR approval.

If the contaminated materials consist of solid wastes other than contaminated soil, then these materials must be managed in accordance with the requirements of s. NR 718.15, Wis. Adm. Code. Contaminated soil/waste mixtures that are generated as part of a response action will generally be overseen by the RR Program regardless of whether the material is being managed on-site or off-site. Typically, the provisions in s. NR 718.12(2), Wis. Adm. Code, will be used to help determine whether the proposed management option will be protective of human health and the environment.

**Step 4B: Responsibilities and management options for contaminated soils or a combination of soil and other solid wastes encountered during construction or utility work on response action sites that have received case closure**

In the event that a construction or utility project is planned on a site that has been granted “case closure” by the State pursuant to the NR 700 administrative rule series, the person contracting for the work should access the case closure letter from the DNR’s BOTW site to determine the site conditions, including any continuing obligations at the property. That person is required to notify the DNR prior to taking any actions if those actions would:

- involve the management of contaminated soil or a combination of soil and other solid waste at the site or
- impact the continuing obligation(s) (e.g., soil or cover barrier) at the site thereby triggering the notifications requirements specified in s. NR 727.07<sup>5</sup>, Wis. Adm. Code.

There are two general options for handling contaminated soil or a combination of soil and other solid waste material at response action sites that have received case closure and the applicable regulatory requirements are dependent upon the material requiring management:

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<sup>5</sup> Section NR 727.07, Wis. Adm. Code, requires notification to DNR in the event that actions will occur on the site, including but not limited to: removal of a portion or all of an engineering control or cover; construction of a building over volatile organic compounds; change in property use from non-residential to residential; removal of a structural impediment; and other factors identified in that section of the rule.

### **Option 1: Management at an Off-site Location**

The off-site management options for contaminated soils or other solid wastes encountered during construction or utility work on response action sites that have received case closure are identical to those noted in Step 4.A., option 1 noted above.

### **Option 2: Management On-site**

If the action would not impact an existing continuing obligation, the person undertaking the construction or utility work may proceed to manage contaminated soil *with DNR pre-approval* if the criteria in s. NR 718.12(2), Wis. Adm. Code, are met. This requires the person undertaking the work to notify the DNR, *in writing*, at least 7 days prior to initiating the soil excavation activities. Management of solid wastes other than contaminated soil would require prior written approval from the DNR under s. NR 718.15, Wis. Adm. Code.

Where the proposed actions would trigger s. NR 727.07, Wis. Adm. Code, (see footnote 5) the person undertaking the work must notify the DNR in writing at least 45 days in advance. Such notification should include how that person will comply with s. NR 727.07, Wis. Adm. Code, the case closure letter(s) and any continuing obligations, and ss. NR 718.12(2) or 718.15, Wis. Adm. Code.

A soil management plan must be prepared and submitted to the RR Program, in accordance with s. NR 718.12(2), Wis. Adm. Code. The plan must provide details on how the contaminated soil and other solid waste will be characterized and ultimately managed. It should include sampling data and documentation as to why the contaminated soil is eligible to be managed under s. NR 718.12, Wis. Adm. Code. In addition to sampling, soil management plans should always include the utilization of visual observations and the presence of odors as two supplemental methods for identifying contamination. The "Other Technical Assistance" review fee required under ch. NR 749, Wis. Adm. Code, should accompany the plan for non self-implementing options (NR 718.12(2) and NR 718.15, Wis. Adm. Code). Soil must be stored in accordance with s. NR 718.05, Wis. Adm. Code.

If the implementation of the soil management plan will result in the need for a continuing obligation at the site or another property, the requirements in s. NR 718.12(2), Wis. Adm. Code must be followed.

### **General Guidelines to Consider When Evaluating Whether Contaminated Soil or other Solid Wastes can be Managed at a Location other than a Licensed Solid Waste Facility:**

In determining the appropriate management requirements for contaminated soil or combinations of soil and other solid wastes, certain code provisions need to be followed. In particular, any action taken by a person under s. NR 718.12(1), Wis. Adm. Code, or approved by the DNR under s. NR 718.12(2), or s. NR 718.15 Wis. Adm. Code, *may not pose a threat to public health, safety, welfare and the environment*. All the applicable criteria in s. NR 718.12, Wis. Adm. Code, should be followed and these additional factors should also be considered:

- for contaminated soil, the type and concentration of contaminants at the site in comparison to the residual contaminant levels (RCLs) for all pathways of concern in ch. NR 720, Wis. Adm. Code
- the length of time until a final cleanup would occur at the property
- ownership and control of the replacement area
- depth to groundwater

- the volume of contaminated material requiring management
- the proximity of receptors and sensitive environments
- soil type
- whether the actions would require an engineering control or cover, including a continuing obligation on the property the date of the discharge

The contaminated soil and other solid waste should not be placed in a location that has no contamination or lower levels of contamination than the soil and other solid waste itself without notifying and obtaining the prior approval of the plan from the DNR. Ultimately, any actions taken under ch. NR 718, Wis. Adm. Code, may not pose a threat to public health, safety, welfare or the environment as a result of the soil or waste management activities.

### **Special Guidelines for Utility Projects**

Each utility excavation project will be unique due to the diverse nature of this type of work. Listed below are some general guidelines to consider in determining whether or not it is appropriate to manage contaminated soil or a combination of soil and other solid wastes under s. 718.12 or s. NR 718.15, Wis. Adm. Code:

- At sites where a site investigation has not been completed, management of the contaminated soil or other solid wastes at a location other than a licensed solid waste facility is not generally appropriate.
- At sites where a remedial action is imminent or being taken, replacement of the contaminated soil or other solid waste back into the excavation from which it was removed may be an option, given the provisions in s. NR 718.12 and s. NR 718.15, Wis. Adm. Code.
- Regardless of either of the two previous situations, where highly contaminated soil or solid wastes are encountered, disposal of the materials at a licensed solid waste facility is appropriate. No action under ch. NR 718, Wis. Adm. Code, may pose a threat to public health, safety, welfare or the environment.
- For any utility work within highway ROW, ensure that a permit has been received from the maintaining authority of that highway under s. 86.07(2). The permit should include any correspondence, directives, permits, etc, from the DNR that documents what a utility shall do if contaminated soil or a combination of soil and other solid wastes are or will be encountered in the ROW.

### **Management of Contaminated Groundwater**

Contaminated groundwater from dewatering or other construction activities must be managed in accordance with the DNR's Water Quality Bureau Wastewater Program requirements. Typically, this means a Wisconsin Pollution Discharge Elimination System (WPDES) General Permit is necessary if the water is to be discharged to surface water or a storm sewer. Water that does not meet the criteria in the General Permit must be discharged to the sanitary sewer in accordance with local sewer system pretreatment requirements. Either option may require the water to be treated to meet discharge requirements. For more information about the general permit see [Informational Document for WPDES General Permit for Discharge of Contaminated Groundwater from Remedial Action Operations](#) and to request coverage under a WPDES wastewater discharge permit see [http://dnr.wi.gov/topic/wastewater/documents/46566\\_rfc.pdf](http://dnr.wi.gov/topic/wastewater/documents/46566_rfc.pdf)

## **Disclaimer**

This document contains information about certain state statutes and administrative rules but does not necessarily include all of the details found in the statutes and rules. Readers should consult the actual language of the statutes and rules to answer specific questions. The Wisconsin Department of Natural Resources provides equal opportunity in its employment, programs, services, and functions under an Affirmative Action Plan. If you have any questions, please write to Equal Opportunity Office, Department of Interior, Washington, D.C. 20240. This publication is available in alternative format upon request. Please call 608-267-3543 for more information.

This guidance is based on requirements found in the NR 700 rule series of the Wis. Adm. Code; the Hazardous Substance “Spill Law”, s. 292.11, Wis. Stats.; and the Environmental Repair Statute, s. 292.31, Wis. Stats.

Contacts and revisions. This guidance will be updated as needed. Please contact Gary A. Edelstein, P.E., at 608/267-7563 or via email at [gary.edelstein@wisconsin.gov](mailto:gary.edelstein@wisconsin.gov) if you have questions, comments or concerns.

## ATTACHMENT A

**TABLE 1 – Management options for contaminated soil<sup>1</sup> or combinations of soil and other solid wastes encountered during construction or utility work**

Material Requiring Management <sup>2</sup>	<i>On-site Management</i>		<i>Off-site Management</i>
	<i>Newly discovered sites or response action (open) cases<sup>3</sup></i>	<i>Response action sites that have received case closure (closed cases)<sup>4</sup></i>	<i>Applies to all cases, including newly discovered open and closed sites</i>
Contaminated Soil	<ul style="list-style-type: none"> <li>• Use the provisions in s. NR 718.12(1) if the criteria in that section are met (self-implementing under RR Program rules)</li> <li>• If the above criteria cannot be met, follow the applicable provisions in s. NR 718.12(2) and any DNR imposed conditions (requires RR Program approval)</li> </ul>	<ul style="list-style-type: none"> <li>• Follow the applicable provisions in s. NR 718.12(2) and any DNR imposed conditions (requires RR Program approval)</li> </ul>	<ul style="list-style-type: none"> <li>• Follow the provisions in s. NR 718.12 (2) and any DNR imposed conditions (requires RR Program approval); or</li> <li>• Manage the contaminated soil at a licensed solid waste facility (self-implementing)</li> </ul>
Solid Waste other than contaminated soil	<ul style="list-style-type: none"> <li>• Follow s. NR 718.15 (requires RR Program approval)</li> </ul>	<ul style="list-style-type: none"> <li>• Follow s. NR 718.15 (requires RR Program approval)</li> </ul>	<ul style="list-style-type: none"> <li>• Manage the wastes in accordance with the requirements of the NR 500 rule series (requires Waste and Materials Management Program approval)</li> </ul>

<sup>1</sup>“Contaminated soil” is defined in s. NR 718.03(5), Wis. Adm. Code, as “soil which contains one or more hazardous substances or environmental pollution and which is not a hazardous waste as defined in s. NR 660.10(52), Wis. Adm. Code, or 42 USC 6901–6991, as amended.

<sup>2</sup>“Contaminated soil/waste mixtures that are generated as part of a response action will generally be overseen by the RR Program regardless of whether the material is being managed on-site or off-site. Typically, the provisions in s. NR 718.12(2), Wis. Adm. Code, will be used to help determine whether the proposed management option will be protective of human health and the environment”.

<sup>3</sup> A “response action” is defined in s. NR 700.03(50) Wis. Adm. Code, as “any action taken to respond to a hazardous substance discharge of environmental pollution, including emergency and non-emergency immediate actions, investigations, interim actions and remedial actions.” A response action site would include sites where a discharge of a hazardous substance is newly discovered and may not yet be in the BRRTS database. It also applies to contaminated soil managed at sites that have received a case closure letter, and management of contaminated soil or a combination of soil and other solid waste (e. g., fill) is proposed post-closure. For the purpose of this guidance, No Action Required (NAR) sites are also included; NR 718 applies if the spill law has jurisdiction, thus sites with low level contamination that require no action if contaminated media remains in place may require action if the material is moved for use as fill elsewhere.

<sup>4</sup> If the construction or utility work will potentially impact an existing continuing obligation as specified in s. NR 727.07, Wis. Adm. Code, the property owner must notify the DNR 45 days prior to taking any action in order to allow for a determination on whether further work is necessary to protect human health, safety, welfare, and the environment.