

DEPARTMENT OF NATURAL RESOURCES
AND ENVIRONMENTAL CONTROL

DIVISION OF WASTE AND HAZARDOUS SUBSTANCES

Remediation Section



**Hazardous Substance Cleanup Act
Guidance for Notification Requirements**

And

HSCA Reporting Level Table

Updated October 2024

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1.0 Introduction

- 1.1 The purpose of this document is to provide guidance for Section 3.1 of the Regulations Governing Hazardous Substance Cleanup and to help owners or operators understand how and when to notify the State of contamination.
- 1.2 This regulation and guidance is designed to provide notification to the State of Delaware of hazardous or potentially hazardous conditions that exist on property that is planned for development.
- 1.3 The notification is intended to facilitate possible remedial actions that will limit exposure to the public, provide cost-effective oversight, and limit potential liability for property owners.
- 1.4 Notification, in and of itself, does not mean that remediation will be initiated; however, it does mean that the Department of Natural Resources and Environmental Control, Remediation Section (DNREC-RS) will review the available information and decide if further action is warranted.

2.0 Releases and Potential Releases which Require Notification

- 2.1 Any exceedance of the reporting level table will be subject to the notification requirement if the owner or operator is planning on undertaking land disturbing activities at a facility.
 - 2.1.1 Land disturbing activities include, but are not limited to, digging, drilling, excavating, grading, clearing, earth moving, filling, or performing any subsurface work. Land disturbing activities do not include environmental investigation, planning, designing, or engineering work related to the facility.
 - 2.1.2 Example – A facility owner has a Phase II Environmental Site Assessment (ESA) performed and analytical data is obtained. One of the data points exceeds the reporting level, and it is in an area where they are planning to develop the property or dig a new utility trench. The owner must notify DNREC-RS at least 30 days in advance of the land disturbing activity, so DNREC-RS has enough time to review the report and determine what further action is appropriate.
- 2.2 Any evidence of a release during land disturbing activities will require notification within 24 hours to the Department's 24 Hour Release Hotline (800-662-8802). Land disturbing activities may continue on another part of the property as long as it is not immediately adjacent to the area where there is evidence of a release. This will prevent situations where all work must stop because the workers can move to another area on the facility and continue to work; however, if they find evidence of a release at the new area, they must continue moving until they can complete their task without finding evidence of a release.
 - 2.2.1 Evidence of a release includes, but is not limited to, appearance of a sheen, soil staining, or odors characteristic of hazardous substances; buried materials that may contain hazardous substances; or, presence of free product.
 - 2.2.2 Example – A facility owner starts developing a facility without performing a Phase I or Phase II ESA and discovers evidence of a release. The owner must call

the 24 Hour Release Hotline within 24 hours of the discovery. The DNREC Emergency Prevention and Response Section (DNREC-EPRS) may handle the response or they may refer it to DNREC-RS. Once DNREC-RS is notified of the situation, DNREC-RS will determine what further action may be appropriate.

- 2.2.3 Example – A facility owner has a Phase II ESA performed and analytical data is obtained. None of the data points exceed the reporting levels, so the facility owner does not need to notify DNREC-RS. However, when they begin digging for the new development or utility trench, they notice free product. The owner must call the 24 Hour Release Hotline within 24 hours of the discovery. The DNREC-EPRS may handle the response or they may refer it to DNREC-RS. Once DNREC-RS is notified of the situation, DNREC-RS will determine what further action may be appropriate.

3.0 Who is Required to Notify

- 3.1 The owner or operator is required to notify DNREC-RS if (1) he is planning on undertaking land disturbing activities and he knows that the land has concentrations of hazardous substances at or above the reporting levels; or (2) he became aware of a release while land disturbing activities were taking place at the facility.
- 3.1.1 An owner or operator is anyone who owns or operates a facility or who previously owned or operated a facility. For example, a facility manager is an operator because he is involved in operating the facility and is more likely to be aware of possible contamination.
- 3.2 A Brownfield Developer, prospective purchaser, or a person acting on behalf of the Brownfield Developer, the prospective purchaser, or the owner or operator can report a release to DNREC-RS if they are aware of (1) contamination that is at or above the reporting levels; or (2) evidence of a release that becomes apparent during land disturbing activities.
- 3.3 Any person who is aware of (1) contamination that is at or above the reporting levels; or (2) evidence of a release that becomes apparent during land disturbing activities is encouraged to notify DNREC-RS, but is not required to do so.

4.0 How Owners or Operators Notify DNREC

- 4.1 Notification prior to land disturbing activities
- 4.1.1 The owner or operator should submit a letter, via email or hard copy, that includes the current address and tax parcel of the property, current and future use, a copy of a Phase I and/or Phase II ESA report, including laboratory data in an editable format (Excel or EDD), and any anecdotal evidence to DNREC-RS at least 30 days prior to undertaking land disturbing activities. This will provide DNREC-RS with enough time to review the information, meet with the owner or operator, and determine what future actions are appropriate.

4.2 Notification during land disturbing activities

- 4.2.1 The owner or operator, or any person acting on his behalf, must notify the 24 Hour Release Hotline (800-662-8802) within 24 hours of noticing the evidence of release. The DNREC-EPRS will determine the next appropriate action.

5.0 How DNREC-RS notifies an owner or operator of a release

- 5.1 If DNREC-RS learns of a release at a facility, DNREC-RS will contact the owner or operator via phone call and follow up with a letter, via email or hard copy, to obtain any necessary information, including whether they are planning to undertake land disturbing activities.

6.0 Reporting Levels

- 6.1 Reporting levels are the concentrations of hazardous substances in the environment that are at or above the levels established by the Department, except for groundwater for which the reporting level shall be equivalent to the levels contained in the Delaware and federal drinking water standards. Reporting levels are indicated in the reporting level table in Appendix A of this guidance and on the RS webpage.
- 6.2 Reporting levels are only used for notification purposes and should not be used for cleanup purposes. They are not the same as cleanup levels and they should not be used as default cleanup levels. They do not take the place of a human health or ecological risk assessment. There may be a risk to human health or the environment at concentrations in soil or groundwater less than the concentrations listed in the table of reporting levels. Reporting levels do not adequately account for cumulative risk to human health or the environment.
- 6.3 Reporting levels for Soil
- 6.3.1 Hazardous Substance Cleanup Act (HSCA) reporting levels for soil are primarily based on the United States Environmental Protection Agency (EPA) Regional Screening Levels (RSLs) for residential soil, with several exceptions. Regardless of the current or future land use (i.e., residential, commercial, or industrial) at a facility, soil sample results at all facilities should be compared to the HSCA soil reporting level for the particular chemical(s) analyzed.
- 6.3.2 DNREC-RS recommends analysis of EPA's Target Analyte List (TAL) and Target Compound List (TCL) of chemicals, and any other chemicals that may be present because of the operational history of the facility.
- 6.4 Reporting levels for Groundwater
- 6.4.1 HSCA reporting levels for groundwater are primarily based on the Delaware or federal Maximum Contaminant Level (MCL) for drinking water. Some contaminants have a Delaware MCL, a federal MCL, or both. In the instances where there is both a Delaware and federal MCL, the more conservative level is listed in the HSCA reporting level table. Groundwater sample results should be compared to the groundwater reporting level for the particular chemical(s) analyzed.

6.4.2 DNREC-RS recommends analysis of EPA’s TAL and TCL of chemicals, and any other chemicals that may be present because of the operational history of the facility.

6.5 Comparing sample results to reporting levels

6.5.1 After soil and/or groundwater samples are collected from a facility, the individual sample results should be compared to the reporting levels listed in the most recent table provided by DNREC-RS in Appendix A of this guidance and on the RS webpage.

6.5.2 In general, samples that are field-screened only should be compared to the reporting levels and DNREC-RS should be notified if there is an exceedance of a reporting level and if land disturbing activities will occur. If a sample or samples were field-screened and exceed a reporting level, the owner or operator has the option to send those samples to a HSCA-approved laboratory for confirmatory analysis. If the results from the HSCA-approved laboratory do not exceed the reporting level, then DNREC-RS does not need to be notified of these sample results.

6.5.3 Below are two examples comparing sample results to HSCA reporting levels:

6.5.3.1 Example 1 – A Phase II ESA was conducted and soil and groundwater samples were collected from the property. Table 1A and 1B show some of the soil and groundwater sample results from the Phase II ESA, as compared to HSCA reporting levels for soil and groundwater, respectively. Based on this data, one or more soil samples exceed the reporting level for trichloroethylene, benz(a)anthracene, and benzo(a)pyrene. One groundwater sample is equal to the reporting level for trichloroethylene. Prior to undertaking any land disturbing activities, the owner or operator must notify DNREC-RS in writing that these particular hazardous substances are at or above the reporting level for soil and groundwater.

Table 1A: Soil Sample Results compared to HSCA Reporting Levels for Soil

Sample Name		SB01S	SB01D	SB02S
Sample Date		4/7/2013	4/7/2013	4/7/2013
Unit		mg/kg	mg/kg	mg/kg
Chemical Name	Soil Reporting Level (mg/kg)			
Tetrachloroethylene	86	ND	ND	ND
Trichloroethylene	4.4	2	6	ND
Anthracene	17,000	1.7	ND	0.46
Benz[a]anthracene	1.5	1.9	ND	1
Benzo[a]pyrene	0.15	1.9	ND	1.1

ND = not detected; Bold and Shaded = meets or exceeds reporting level; mg/kg = milligrams per kilogram

Table 1B: Groundwater Sample Results compared to HSCA Reporting Levels for Groundwater

Sample Name		MW01	MW02	MW03
Sample Date		4/17/2013	4/17/2013	4/17/2013
Unit		ug/l	ug/l	ug/l
Chemical Name	Groundwater Reporting Level (ug/l)			
Benzene	5	2	ND	1.1
Tetrachloroethylene	1	ND	ND	ND
Trichloroethylene	1	3.2	5	1

ND = not detected; Bold and Shaded = meets or exceeds reporting level; ug/l = micrograms per liter

6.5.3.2 Example 2 – A limited soil investigation was conducted and soil was analyzed for metals using a field XRF instrument. Table 2A shows some of the results of screening the soil samples with a field XRF instrument. These results were compared to HSCA reporting levels and all three samples exceeded the reporting level for arsenic. These exceedances would need to be reported to DNREC-RS prior to undertaking land disturbing activities. However, all of the same samples were also sent to a lab for confirmatory analysis (Table 2B), which revealed that none of the soil samples exceeded the reporting level for arsenic (or any other analyte). Results from the XRF instrument were biased high. Therefore, DNREC-RS does not need to be notified of these sample results.

Table 2A: Soil Sample Results, field-screened with XRF, compared to HSCA Reporting Levels for Soil

Sample Name Sample Date Unit		SO-01 4/7/2013 mg/kg	SO-02 4/7/2013 mg/kg	SO-03 4/7/2013 mg/kg
Chemical Name	Soil Reporting Level (mg/kg)			
Antimony	31	2.3	ND	ND
Arsenic	11	15	28	19
Barium	15,000	1119	1320	1282
Iron	74,767	47,800	53,000	52,000
Lead	400	73	37	66.1

ND = not detected; Bold and Shaded = meets or exceeds reporting level; mg/kg = milligrams per kilogram

Table 2B: Soil Sample Results, sent to confirmatory laboratory, compared to HSCA Reporting Levels for Soil

Sample Name Sample Date Unit		SO-01 4/7/2013 mg/kg	SO-02 4/7/2013 mg/kg	SO-03 4/7/2013 mg/kg
Chemical Name	Soil Reporting Level (mg/kg)			
Antimony	31	ND	ND	ND
Arsenic	11	6.7	10	9.6
Barium	15,000	273	298	307
Iron	74,767	47,800	53,000	52,000
Lead	400	26	10.5	24.6

ND = not detected; mg/kg = milligrams per kilogram

6.6 Updates to the Reporting Level Table

- 6.6.1 The reporting level table will be updated as significant changes occur, and the updated table will be available on the RS webpage (<https://dnrec.delaware.gov/waste-hazardous/remediation/laws-regs-guidance/>). Analytes may be added or deleted from the table. Therefore, please ensure that you are using the most current version of the reporting level table, available in Appendix A of this guidance and on the RS webpage. The analytes with concentrations that have been updated between the previous version and the current version of the reporting level table will be indicated. The date of the most recent revision will be listed in the heading of the table.

7.0 Procedure after the Department Receives Notification

The course of actions that the Department will take after notification will vary based on the way the notification was received and are described separately.

7.1 Notification Prior to undertaking land disturbing activities

7.1.1 If the owner or operator, Brownfield developer, or his representative, notified DNREC-RS in writing, of a release of a hazardous substance with concentrations at or above the reporting levels, at least 30 days before undertaking land disturbing activities in any area(s) potentially affected by the release at the property, then the following steps are taken:

- Step 1: DNREC-RS performs a preliminary review of the available information for the site, including Phase I and Phase II ESA, and determines that (1) no action under HSCA is needed; (2) further action under HSCA is needed; or (3) the facility needs to be referred to a different program.
- Step 2: If no action is needed, DNREC-RS sends a letter to the owner or operator stating that he can proceed with the land disturbing activities and no action under HSCA is needed. If the facility needs to be referred to a different program, DNREC-RS sends a letter notifying the owner or operator of the program under which the facility will be addressed.
- Step 3: If further action is needed, DNREC-RS assigns a tracking number (DE number) and a project officer for the site.
- Step 4: DNREC-RS enters into a letter agreement with the owner or operator.
- Step 5: DNREC-RS performs a full review of the available information for the site and determines whether the Phase II ESA is equivalent to a Facility Evaluation and if adequate data is present to perform an initial screening or if additional data is needed.
- Step 6: If there is adequate data, DNREC-RS and the owner or operator will agree that an initial screening will be performed by a HSCA certified consultant or DNREC-RS.
- Step 7: If additional data is needed, DNREC-RS will require the owner or operator to collect additional data and perform an initial screening using a HSCA certified consultant under the letter agreement. The owner or operator may choose to bypass this step and proceed through the HSCA process to receive a Certificate of Completion of Remedy (COCR) for the facility under the Voluntary Cleanup Program (VCP) or Brownfields Development Program (BDP).
- Step 8: If the initial screening indicates that the release does not exceed acceptable risk, then DNREC-RS issues a Conditional No Further Action. If the initial screening exceeds the acceptable risk, then the owner or operator must enter into a settlement agreement with DNREC-RS and the facility will proceed through the HSCA process to receive a COCR under the VCP or BDP.

7.2 Notification during land disturbing activities

7.2.1 If evidence of a release, such as a stained soil, free product or buried materials, was discovered during land disturbing activities, the owner or operator must notify the 24 Hour Release Hotline (800-662-8802) within 24 hours of learning of the evidence of release, and the following steps are taken:

- Step 1: DNREC Emergency Prevention and Response Section (EPRS) visits the site and determines that (1) no action is needed; (2) action under DNREC-RS is needed and refers the facility to DNREC-RS; (3) immediate action is needed and requires the owner or operator to perform the action; (4) residual contamination is present after the immediate action and refers the facility to DNREC-RS; or (5) the site should be referred to a section other than DNREC-RS.
- Step 2: DNREC-RS receives notification from EPRS and performs a preliminary review of the available information for the site, including Phase I and Phase II ESA, and determines that (1) no action under HSCA is needed; (2) further action under HSCA is needed; or (3) the facility needs to be referred to a different program.
- Step 3: If no action is needed, DNREC-RS sends a letter to the owner or operator stating that he can proceed with the land disturbing activities and no action under HSCA is needed. If the facility needs to be referred to a different program, DNREC-RS sends a letter notifying the owner or operator of the program under which the facility will be addressed.
- Step 4: If further action is needed, DNREC-RS assigns a tracking number (DE number) and a project officer for the site. One of the following will occur:
- (1) DNREC-RS enters into a letter agreement with the owner or operator for DNREC-RS to provide oversight of a Facility Evaluation (FE) and an initial screening performed by a HSCA certified consultant.
 - (2) DNREC-RS determines that the action taken by EPRS meets the interim action definition under the Regulations Governing Hazardous Substance Cleanup and the site proceeds through the HSCA process to receive a COCR under the VCP or BDP.
- Step 5: DNREC-RS reviews the FE and the initial screening and approves the report. DNREC-RS determines that (1) the initial screening does not exceed the acceptable risk and issues a Conditional No Further Action; or (2) the initial screening exceeds the acceptable risk and the owner or operator must enter into a settlement agreement with DNREC-RS and the facility will proceed through the HSCA process to receive a COCR under the VCP or BDP.

7.3 Notification by DNREC to the owner or operator

7.3.1 If DNREC-RS becomes aware of a release that exceeds a reporting level or evidence of a release, such as stained soil, free product or buried materials, the following steps are taken:

Step 1: DNREC-RS contacts the owner or operator and collects additional information, including whether the owner is planning on undertaking land disturbing activities.

Step 2: DNREC-RS performs a preliminary review of the available information for the site, including Phase I and Phase II ESA, and determines that (1) no action under HSCA is needed; (2) further action under HSCA is needed; or (3) the facility needs to be referred to a different program.

Step 3: If no action is needed, DNREC-RS sends a letter to the owner or operator stating that he can proceed with the land disturbing activities and no action under HSCA is needed. If the facility needs to be referred to a different program, DNREC-RS sends a letter notifying the owner or operator of the program under which the facility will be addressed.

Step 4: If further action is needed, DNREC-RS assigns a tracking number (DE number) and a project officer for the site.

Step 5: DNREC-RS enters into a letter agreement with the owner or operator for DNREC-RS to provide oversight of a Facility Evaluation (FE) and an initial screening performed by a HSCA certified consultant.

Step 6: DNREC-RS reviews the FE and the initial screening and approves the report. DNREC-RS determines that (1) the initial screening does not exceed the acceptable risk and issues a Conditional No Further Action; or (2) the initial screening exceeds the acceptable risk and the owner or operator must enter into a settlement agreement with DNREC-RS and the facility will proceed through the HSCA process to receive a COCR under the VCP or BDP.

8.0 Penalty for Failure to Notify

8.1 If an owner or operator fails to notify DNREC-RS of hazardous substances at or above reporting levels prior to undertaking land disturbing activities or fails to notify DNREC-RS or EPRS of evidence of a release during land disturbing activities, then a Public Hearing will occur and the Department may issue a Secretary's Order to the owner or operator.

8.2 Under HSCA §9109(f), the Secretary has the authority to issue an order to anyone who fails to report a release as required by the regulations. If an owner or operator fails to comply with the Secretary's order, they may be subject to a civil penalty of up to \$10,000 per day for each day of non-compliance.

Appendix A

HSCA Reporting Level Table