



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

CERTIFIED

August 15, 2014

Mr. Stephen Vasse
Spring Grove Resource Recovery, Inc.
4879 Spring Grove Avenue
Cincinnati, OH 45232

RE: Spring Grove Resources Recovery, Inc.
Director Initiated Corrective Action
Modification Final Permit
Hazardous Waste
Hamilton County
OHD000816629

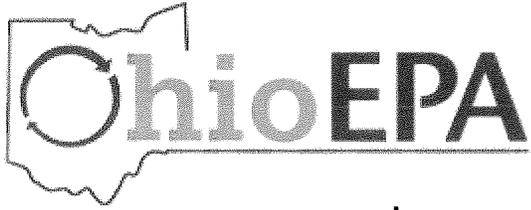
Dear Mr. Vasse:

The director of Ohio EPA issued a Director Initiated Corrective Action Modification Final Permit to Spring Grove Resource Recovery, Inc. to select and implement site-wide corrective measures to reduce contaminant concentrations in ground water to acceptable levels.

A public notice concerning the issuance of the final permit modification will appear on August 28, 2014, in The Cincinnati Enquirer newspaper. A copy of the draft permit modification package can be reviewed at any of the following locations:

Ohio EPA - Southwest District Office
Division of Materials and Waste Management
401 E. Fifth Street
Dayton, Ohio 45402
(937) 285-6357

Ohio EPA-Central Office
Division of Materials and Waste Management
50 West Town Street, Suite 700
Columbus, Ohio 45215
(614) 644-2621



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If you have any questions concerning the draft permit modification, please call Cathy Altman of the Southwest District Office at (937) 285-6093.

Sincerely,

Demitria Crumiell-Hagens

Demitria Crumiell-Hagens, Administrative Professional II
Division of Materials and Waste Management

cc: Brad Mitchell, DMWM, CO
Scott Hester, DMWM, CO
Ed Lim, DERR, CO
Cathy Altman, DMWM, SWDO
George Strobel, DMWM, SWDO
Katie Rader, DDAGW, CO
Greg Brown, DDAGW, CO

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GENERAL DIRECTOR'S JOURNAL

OHIO ENVIRONMENTAL PROTECTION AGENCY

OHIO EPA - DMWM

MODIFIED OHIO HAZARDOUS WASTE FACILITY
INSTALLATION AND OPERATION PERMIT

AUG 15 2014

Date of Issuance: **AUG 15 2014**

Effective Date: **AUG 15 2014**

U.S. EPA ID No.: OHD000816629

Ohio Permit No.: 05-31-0012

Name of Permittee: Spring Grove Resource Recovery, Inc

Mailing Address: 4879 Spring Grove Avenue
Cincinnati, Ohio 45232

Facility Location: 4879 Spring Grove Avenue
Cincinnati, Ohio 45232

Person to Contact: Mr. Stephen Vasse

This Modified Ohio Hazardous Waste Facility Installation and Operation Permit is issued pursuant and subject to Section 3734.05(I) of the Ohio Revised Code and Rule 3745-50-51(J) of the Ohio Administrative Code.

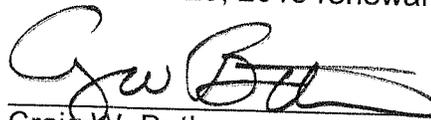
The Ohio Hazardous Waste Facility Installation and Operation Permit with the above-referenced permit number as issued by the Ohio Environmental Protection Agency and journalized on March 26, 2013, is hereby incorporated by reference in its entirety, except as it may be modified herein.

This modification of the permit shall remain in effect until such time as the Ohio Hazardous Waste Facility Installation and Operation Permit is renewed, modified, withdrawn, suspended or revoked.

The Permittee shall comply with all requirements of the modified Part B permit application as amended or supplemented by Ohio EPA. The information contained in the modified Part B permit application is incorporated herein by reference. Specifically, all written statements regarding the specifications, locations or capabilities of the processes, equipment, containment devices, safety devices or programs or other matters made by Ohio EPA are hereby incorporated as express, binding terms and conditions of this modified permit.

The modified Terms and Conditions of this permit are attached hereto and are incorporated herein by reference. The modified Terms and Conditions supersede and replace the corresponding pages found in the March 26, 2013 renewal permit.

I certify this to be a true and accurate copy of the official documents as filed in the records of the Ohio Environmental Protection Agency.



Craig W. Butler
Director

By: Steph Vasse Date: 8-15-14

MODULE E - CORRECTIVE ACTION REQUIREMENTS

The goals of the Corrective Action program are to evaluate the nature and extent of releases of hazardous substances from facilities, and to develop and implement appropriate corrective measures to protect human health and the environment. On December 20, 1996, the United States Environmental Protection Agency issued a Resource Conservation and Recovery Act (RCRA)/Hazardous and Solid Waste Amendments (HSWA) permit to Spring Grove Resource Recovery, Inc. (SGRR), requiring Corrective Action activities at the facility. Upon issuance of the state renewal permit on September 30, 2002, Ohio EPA assumed authority for conducting regulatory oversight of all RCRA Corrective Action activities required at this facility, as detailed in Conditions E.5 through E.12.

SGRR submitted to U.S. EPA the Workplan for Phase 1 of the RCRA Corrective Action Facility Investigation (RFI) on June 30, 1999. The purpose of an RFI is to obtain information to fully characterize the nature, extent and rate of migration of releases of hazardous waste or constituents and to interpret this information to determine if interim corrective measures and/or a Corrective Measures Study may be necessary. According to the Workplan, the initial investigation focused on affirming suspected site conditions in a manner and using methods in accordance with U.S. EPA approved quality assurance measures. Based upon the results of the initial investigation, a Phase 2 investigation was initiated to further define the nature and extent of any releases to soil or groundwater.

The first step of the Phase 1 RFI conducted an ecological screening assessment, described in detail in Section 5.7 of the Workplan. The results of the screening assessment were submitted to U.S. EPA in November 2001. On April 29, 2002, U.S. EPA approved the Ecological Site Characterization Report. The action levels, found in Figure 1-1 of the Workplan, were based on the outcome of the ecological screening assessment.

Field work was conducted as detailed in the Phase 1 RFI Workplan in accordance with the approved schedule. Upon completion of field activities and receipt and evaluation of data, SGRR submitted the Phase I Final Report on February 18, 2003, which included both conclusions and recommendations regarding the need for further investigation. On January 7, 2004, Ohio EPA approved the Phase I Final Report. SGRR submitted a Phase 2 RFI Workplan for Ohio EPA review on March 26, 2004.

The Phase 2 Workplan included sections addressing detailed approaches to both human health and ecological risk assessment. The intent of the Phase 2 effort was to complete delineation of releases at the facility and to supply all information necessary to

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both characterize the site and determine the need for Corrective Measures. Upon approval of the Workplan by Ohio EPA on May 8, 2004, field work was conducted as detailed in the plan in accordance with the approved schedule. On August 29, 2005, SGRR submitted the RFI Phase II Final Report, with approval from Ohio EPA on December 9, 2005. Based upon Ohio EPA's review of the Phase I and II RFI activities, SGRR submitted a Supplemental Phase II RFI Workplan on May 12, 2006. The Supplemental Phase II Workplan required additional site characterization activities. Ohio EPA approved the Supplemental Phase II Workplan on July 6, 2006.

On January 31, 2008, SGRR submitted to Ohio EPA the RFI Final Report which included both conclusions and recommendations regarding the need for Corrective Measures. On June 19, 2008, EPA approved the RFI Final Report which determined releases had occurred that require remediation. In accordance with Condition E.8, SGRR submitted a Corrective Measures Study Workplan to Ohio EPA on February 27, 2009. Ohio EPA approved the CMS Workplan on March 11, 2009.

On November 9, 2010, SGRR submitted the CMS Report which summarized the results of the investigations for each remedy studied and included an evaluation of each remedial alternative. Ohio EPA approved the CMS Report on January 3, 2011.

Ohio EPA evaluated the proposed remedy and believes that continuation of the interim measure, along with additional conditions and restrictions, would be protective of human health and the environment.

In brief, Ohio EPA imposes the following measures:

- Integrated Ground Water Monitoring
- Monitored Natural Attenuation Process
- Environmental Covenant to Restrict Ground Water Use

E.1 Corrective Action at the Facility
OAC Rules 3745-50-10 and 3745-54-101

In accordance with OAC Rule 3745-50-10, waste management unit means any discernible unit at which solid waste, hazardous waste, infectious waste (as

those terms are defined in ORC Chapter 3734), construction and demolition debris (as defined in ORC Chapter 3714), industrial waste, or other waste (as those terms are defined in ORC Chapter 6111), has been placed at any time, irrespective of whether the unit was intended for the management of waste or hazardous waste. Such units include any area at a facility at which wastes have been routinely and systematically released. For the purpose of Corrective Action, facility is defined as all contiguous property under the control of the owner or operator seeking a permit under Subtitle C of RCRA. The terms Interim Measure (IM), RCRA Facility Investigation (RFI), Corrective Measures Study (CMS) and Corrective Measure Implementation (CMI) are defined in U.S. EPA's Corrective Action Plan (CAP) (OSWER Directive 9902.3-2A, May 1994).

The Permittee must institute Corrective Action as necessary to protect human health and the environment for all releases of hazardous wastes or hazardous constituents from any waste management units (WMUs) at the Facility, regardless of the time at which waste was placed in such units.

E.2 Corrective Action Beyond the Facility Boundary
OAC Rule 3745-54-101

The Permittee must implement Corrective Action beyond the Facility property boundary, where necessary to protect human health and the environment, unless the Permittee demonstrates to the satisfaction of Ohio EPA that, despite the Permittee's best efforts, the Permittee was unable to obtain the necessary permission to undertake such actions. The Permittee is not relieved of all responsibility to clean up a release that has migrated beyond the Facility boundary where off-site access is denied. On-site measures to address such releases will be addressed under the RFI, CMS, and CMI phases, as determined to be necessary on a case-by-case basis.

E.3 Identification of WMUs
OAC Rules 3745-50-44(D) and 3745-54-101

The table below describes the WMUS at SGRR. Please refer to Figure Z.1 (attached) for a map of the WMUS.

RFI ACTIVITIES AND FINDINGS

WMU #	RFI Activities	RFI Findings
#1 Rear Yard	Soil sampling	Polynuclear aromatic hydrocarbons (PAHs), antimony and lead were detected in samples containing fill material comprised of fly ash and foundry sand – typical sources of PAHs, antimony and lead. Arsenic was also detected in soil samples with fill material and without. Samples that did not contain fill material were within natural background levels. PAHs exceeded threshold levels indicating a potential cancer risk to commercial/industrial workers therefore necessitating a soils management plan and environmental land use restriction.
#2 Flammables Pad/Solidification Room	Soil sampling	PAHs and lead were detected in samples containing fill material comprised of fly ash and foundry sand – typical sources of PAHs and lead. Arsenic was also detected in soil samples with fill material and without. Samples that did not contain fill material were within natural background levels. PAHs and lead exceeded threshold levels indicating a potential cancer risk to commercial/industrial workers therefore necessitating a soils management plan and environmental land use restriction.
#3 Tank Farm	Soil sampling	PAHs and lead were detected in samples containing fill material comprised of fly ash and foundry sand – typical sources of PAHs and lead. Arsenic was also detected in soil samples with fill material and without. Samples that did not contain fill material were within natural background levels. Levels detected were not in excess of the threshold value, excluding the unit from a soils management plan and environmental land use restriction.
#4 Tanker Unloading Area	Soil sampling	PAHs, cadmium, lead, zinc, and arsenic were detected in samples containing fill material consisting of foundry sand, brick, asphalt and coal – typical sources of PAHs and metals. Arsenic detected was within natural background levels. PAHs, lead, and arsenic exceeded threshold levels indicating a potential cancer risk to commercial/industrial workers therefore necessitating a soils management plan and environmental land use restriction.

WMU #	RFI Activities	RFI Findings
#5 High Bay	Soil sampling	Arsenic was detected in samples that did not contain fill material, but were within natural background levels. Levels detected were not in excess of the threshold value, excluding the unit from a soils management plan and environmental land use restriction.
#6 Maintenance Building (formerly #38)	Review file information	No documented spill history and limited activity in unit – no further investigation required.
#37 Bone Yard (now part of #1)	Review file information	No documented spill history and limited activity in unit – no further investigation required.

E.4 Reserved

E.5 RCRA Facility Investigation (RFI)
OAC Rule 3745-54-101

In the event of a newly discovered unit, the Permittee must conduct an RFI to thoroughly evaluate the nature and extent of the release of hazardous wastes and hazardous constituents from all applicable WMUs identified in Permit Condition E.3 above and Permit Condition E.10. The major tasks and required submittal dates are shown below. The scope of work for each of the tasks is found in U.S. EPA's CAP.

(a) RFI Workplan

The Permittee must submit a written RFI Workplan to Ohio EPA within ninety (90) days after the effective date of this permit or, in case of a newly discovered waste management unit, on a time frame established by Ohio EPA.

- (i) Within ninety (90) days of receipt of any Ohio EPA comments on the RFI Workplan, the Permittee must submit either an amended or new RFI Workplan that incorporates Ohio EPA's comments.

-
- (ii) Ohio EPA will approve or modify and approve, in writing, the amended or new RFI Workplan. The RFI Workplan, as approved or as modified and approved, shall be incorporated into this permit and become an enforceable condition of this permit. Subsequent changes to the approved RFI Workplan must be authorized by Ohio EPA.

(b) RFI Implementation

The Permittee implemented the RFI Workplan according to the terms and schedule in the approved RFI Workplan.

(c) RFI Final Report

Within ninety (90) days after the completion of the RFI, the Permittee must submit an RFI Final Report to Ohio EPA. The RFI Final Report must describe the procedures, methods, and results of the RFI. The RFI Final Report must contain adequate information to support further decisions concerning Corrective Action at the Facility.

- (i) Within ninety (90) days of receipt of any Ohio EPA comments on the RFI Final Report, the Permittee must submit either an amended or new RFI Final Report that incorporates Ohio EPA's comments.
- (ii) Ohio EPA will approve or modify and approve, in writing, the amended or new RFI Final Report. The RFI Final Report, as approved or as modified and approved, shall be incorporated into this permit and become an enforceable condition of this permit. Subsequent changes to the approved RFI Final Report must be authorized by Ohio EPA.

E.6 Interim Measure (IM)

Based on the RFI Final Report the Permittee was not required to develop and implement an IM.

In the event of a future release of hazardous waste or constituents to the environment, Ohio EPA may require (or the Permittee may propose) the development and implementation of an IM (this may include an IM Workplan) at any time during the life of the permit to mitigate or eliminate a threat to human health or the environment. The Permittee must implement the IM upon a time frame established by Ohio EPA.

E.7 Determination of No Further Action

(a) Permit Modification

If, based upon review of the Permittee's request for a permit modification, the results of the completed RFI, and other information, Ohio EPA determines that releases or suspected releases which were investigated either are nonexistent or do not pose an unacceptable risk to human health and the environment, Ohio EPA will approve the requested modification. Decisions regarding the completion of RCRA corrective action and no further action may be made for the entire facility, for a portion of the facility, or for a specific unit or release.

(b) Periodic Monitoring

A determination of no further action shall not preclude Ohio EPA from requiring continued or periodic monitoring of air, soil, ground water, or surface water, if necessary to protect human health and the environment, when site-specific circumstances indicate that a potential or an actual release of hazardous waste or constituents exists.

(c) Further Investigations

A determination of no further action shall not preclude Ohio EPA from requiring further investigations, studies, or remediation at a later date, if new information or subsequent analysis indicates that a release or potential release from a WMU at the Facility may pose an unacceptable risk to human health or the environment. In such a case, Ohio EPA shall initiate a modification to the terms of the permit to rescind the determination made in accordance with Permit Condition E.7(a). Additionally, in the event Ohio EPA determines that there is insufficient information on which to base a determination, the Permittee, upon notification, is required to develop a Work Plan and upon Ohio EPA approval of that Work Plan, perform additional investigations as needed.

E.8 Corrective Measures Study (CMS)

If Ohio EPA determines, based on the results of the RFI and any other relevant information, that corrective measures are necessary, Ohio EPA will notify the Permittee in writing that the Permittee must conduct a CMS either as described below or as described in Ohio EPA's notification to the Permittee. The purpose of the CMS will be to develop and evaluate the corrective action alternative(s)

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and to outline one or more alternative corrective measure(s) that will satisfy the performance objectives specified in Permit Condition E.9.

(a) CMS Workplan

(b) CMS Workplan Implementation

The Permittee implemented the CMS Workplan according to the terms and schedule in the approved CMS Workplan.

(c) CMS Final Report

The Permittee must submit a written CMS Workplan to Ohio EPA within ninety (90) days from the notification by Ohio EPA of the requirement to conduct a CMS.

(i) Within ninety (90) days of receipt of any Ohio EPA comments, the Permittee must submit either an amended or new CMS Workplan that incorporates Ohio EPA's comments.

(ii) Ohio EPA will approve or modify and approve, in writing, the amended or new CMS Workplan. The CMS Workplan, as approved or as modified and approved, must be incorporated into this permit and become an enforceable condition of this permit. Subsequent changes to the approved CMS Workplan must be authorized by Ohio EPA.

E.9 Corrective Measures Implementation (CMI)

Based on the results of the CMS, the Permittee must implement one or more of the Corrective Measures authorized by Ohio EPA. Ohio EPA will authorize one or more of the Corrective Measures in the CMS, and will notify the Permittee in writing of the decision. The Corrective Measure selected for implementation must: (1) be protective of human health and the environment; (2) attain media cleanup standards; (3) control the source(s) of releases so as to reduce or eliminate further releases of hazardous waste(s) (including hazardous constituent[s]); and (4) comply with all applicable standards for management of wastes.

If two or more of the Corrective Measures studied meet the threshold criteria set

out above, Ohio EPA will authorize the Corrective Measures Implementation by considering remedy selection factors including: (1) long-term reliability and effectiveness; (2) the degree to which the Corrective Measure will reduce the toxicity, mobility or volume of contamination; (3) the Corrective Measure's short-term effectiveness; (4) the Corrective Measure's implementability; and (5) the relative cost associated with the alternative.

- (a) The Permittee must implement the corrective measures as described below:
 - (i) Integrated Ground Water Monitoring Program: see Module Z of this permit.
 - (ii) Monitored Natural Attenuation to achieve the corrective action clean-up goals.
 - (iii) Soil Management Plan to assure protection of human health and the environment for required operation and maintenance and future construction activities.
 - (iv) Environmental Covenant to restrict the facility to industrial use and restrict ground water use.

- (b) Within ninety (90) days after the effective date of this permit modification, the Permittee must submit to Ohio EPA for its review and comment a Corrective Measures Implementation (CMI) Work Plan for the above selected corrective measures. The CMI Work Plan must be developed in conformance with Module Z of this permit.
 - (i) Within thirty (30) days of receipt of Ohio EPA's comments on the CMI Work Plan, the Permittee must submit a new or revised CMI Work Plan that incorporates Ohio EPA's comments.
 - (ii) Ohio EPA will approve or modify and approve, in writing, the amended or new CMI Work Plan. The CMI Work Plan, as approved or as amended and approved, shall be incorporated in and made an enforceable part of this permit. The approved CMI Work Plan must be implemented in accordance with the terms, conditions, and schedules contained herein. Subsequent changes to the approved CMI Work Plan must be authorized by Ohio EPA

- (c) Soil Management Plan

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- (i) Within ninety (90) days of the effective date of this permit modification, the Permittee must submit to Ohio EPA for its review and comment a Soil Management Plan (SMP). The SMP will provide procedures that ensure worker health and safety protection and proper soil management for onsite activities that involve excavation and movement of contaminated soil required by operation and maintenance activities for the facility.
- (ii) Within forty-five (45) days of receipt of Ohio EPA comments on the SMP, the Permittee must submit a new or revised SMP that incorporates Ohio EPA's comments.
- (iii) Ohio EPA will approve or modify and approve, in writing, the amended or new SMP. The SMP, as approved or modified and approved, must be incorporated into this permit and become an enforceable condition of this permit. Subsequent changes to the SMP must be authorized by Ohio EPA

(d) Additional Work:

Ohio EPA may determine that, in addition to the tasks defined in the CMI Work Plan, additional work may be necessary to accomplish the objectives of this permit.

Within thirty (30) days after receipt of written notice from Ohio EPA that additional work is necessary; the Permittee must submit a Work Plan for the performance of the additional work. The Work Plan, as approved by Ohio EPA, must be incorporated in and made an enforceable part of this permit. Upon approval of the work plan by Ohio EPA, the Permittee must implement the work plan in accordance with the schedules contained therein.

(e) Environmental Covenant

The permittee must initiate entering into an Environmental Covenant (Ohio Revised Code 5301.80 through 5301.92) within sixty (60) days of issuance of this permit modification. The Environmental Covenant will restrict the property to industrial use. The Environmental Covenant will also prohibit the extraction of ground water for the entire facility for any purpose other than sampling, monitoring or remediation pursuant to a ground water remedial action. Excavation of any or all of the affected areas shall be prohibited except: (i) as may be required in furtherance of corrective action activities ordered by any governmental entity with jurisdiction over such

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matters, (ii) as may be authorized by the Operation and Maintenance Plan approved by Ohio EPA, or (iii) as may be otherwise approved in writing by Ohio EPA.

(f) Financial Assurance
OAC Rule 3745-54-101

Within 30 days after receiving approval of the CMI, the Permittee must provide financial assurance in the amount necessary to implement the corrective measure(s) as required by OAC Rule 3745-54-101 (B) and (C).

E.10 Newly Identified WMUs or Releases
OAC Rule 3745-54-101

(a) General Information

The Permittee must submit to Ohio EPA, within 30 days of discovery, the following information regarding any new WMU identified at the Facility by Ohio EPA or the Permittee:

- (i) The location of the unit on the site topographic map;
- (ii) Designation of the type of unit;
- (iii) General dimensions and structural description (supply any available drawings);
- (iv) When the unit was operated; and
- (v) Specification of all waste(s) that have been managed at the unit.

(b) Release Information

The Permittee must submit to Ohio EPA, within 30 days of discovery, all available information pertaining to any release of hazardous waste(s) or hazardous constituent(s) from any new or existing WMU.

E.11 Corrective Action for Newly Identified WMUs and Releases
OAC Rule 3745-54-101

If Ohio EPA determines that an RFI is required for newly identified WMUs, the Permittee must submit a written RFI Workplan to Ohio EPA upon a time frame established in written notification by Ohio EPA in accordance with Permit

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Condition E.5. This determination will be made based on the information submitted in accordance with Permit Condition E.10.

Further investigations or corrective measures will be established by Ohio EPA.

The Permittee must make such submittal in accordance with time frames established by Ohio EPA.

E.12 Completion of Corrective Action
OAC Rule 3745-54-101

After completing Corrective Action as necessary to protect human health and the environment for all releases of hazardous wastes or hazardous constituents from any WMUs at the Facility, the Permittee shall submit a Corrective Measures Completion of Work (CMCW) Report. The CMCW Report shall document that Corrective Action construction is complete, cleanup objectives and standards have been met, and any releases of hazardous waste or constituents no longer pose an unacceptable risk to human health and the environment. The CMCW Report may be submitted for any part of the Facility for which corrective measures are complete, or for the entire Facility. The CMCW Report must be submitted as a request for permit modification pursuant to OAC Rule 3745-50-51.

E.13 Documents Requiring Professional Engineer Stamp
ORC Section 4733.01

Preparation of the following Corrective Action documents constitutes the "practice of engineering" as defined by ORC Section 4733.01:

Final Interim Measures Report

Corrective Measures Final Design

Corrective Measures Construction Completion Report

Corrective Measures Attainment of Groundwater Performance Standards Report

Corrective Measures Completion of Work Report

As such, the Permittee must ensure that these documents, as submitted to Ohio EPA, are stamped by a Professional Engineer licensed to practice in the State of Ohio.

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MODULE Z - INTEGRATED GROUND WATER MONITORING OAC RULES 3745-54-101

This module presents permit conditions addressing the requirements for an integrated monitoring program at **Spring Grove Resource Recovery, Inc. (SGRR)** facility. Ground water contamination has been found adjacent to waste management units (WMUs) which are regulated under OAC Rule 3745-54-101. It is not practical to separate WMUs either for ground water monitoring purposes or remedial efforts. A more efficient approach is to combine the ground water monitoring program for the WMUs. This combined approach is hereafter referred to as the Integrated Ground Water Monitoring Program or IGWMP and will be regulated under 3745-54-101.

Z.1. Applicability

OAC Rule 3745-54-101

- (a) The Permittee must comply with the applicable requirements in OAC Rule 3745-54-101 and institute corrective action as necessary to protect human health and the environment for all releases of hazardous wastes or constituents from any waste management unit/area at the facility, regardless of the time at which waste was placed in such unit/area for the following units/areas:

Waste Management Unit (WMU)
1 Rear Yard / 37- Portion of Bone Yard
2 Flammables Pad / Solidification Room
3 Tank Farm
4 Tanker Unloading Area
5 High Bay
6 Maintenance Building (formerly #38)

The final RFI and CMS reports have been submitted and accepted by Ohio EPA. As detailed in Module E, Ohio EPA has selected corrective measures for the site which includes these units in a site-wide ground water monitoring program. These units are shown in attached Figure Z-1.

(b) The Permittee must implement corrective actions within and beyond the facility property boundary, where necessary, as defined in Permit Condition Z.9(d) to protect human health and the environment, unless the Permittee demonstrates to the satisfaction of the director that, despite the Permittee's best efforts, the Permittee was unable to obtain the necessary permission to undertake such actions off property. The Permittee is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. On-site measures to address such releases will be determined on a case-by-case basis. Assurances of financial responsibility for such action must be provided.

Z. 2. Ground Water Attenuation Compliance Indicator (GWACI)

The Permittee must ensure that the hazardous constituents or constituents listed in this Permit Condition detected in the ground water from a unit/area do not exceed the GWACI in the uppermost aquifer underlying the units/areas beyond the point of compliance during the permit period. The Permittee must respond with any necessary corrective action to bring the ground water back into compliance with those standards. The GWACI has been established in this Permit due to hazardous constituents being detected in the ground water.

(a) List of Hazardous Constituents and GWACI

The Permittee must monitor the ground water to determine whether units/areas are in compliance with the GWACI. The site specific hazardous constituents are those listed in the Appendix to OAC Rule 3745-54-98 detected in the ground water above their respective PQLs underlying a unit/area, and reasonably expected to be contained in or derived from the waste contained in the unit/area to which the GWACI applies. The site-specific hazardous constituents and their GWACI are listed below:

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Table Z-1 Hazardous Constituent GWACI

Parameter	CAS Number	GWACI (ug/L)
Tetrachloroethylene	127-18-4	25.0 ¹
Trichloroethylene	79-01-6	25.0 ¹
Cis 1,2-Dichloroethylene	156-59-2	70.0 ²
Trans 1,2-Dichloroethylene	156-60-5	100 ²
1,1,1-Trichloroethane	71-55-6	200 ²
1,1-Dichloroethylene	75-35-4	7.0 ²
Vinyl Chloride	75-01-4	2.0 ²

¹ – Site specific GWACI; ² – U.S. EPA Maximum Contaminant Level (MCL)

In addition to the hazardous constituents listed above, the Permittee must monitor the following parameters:

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Table Z-2 Ground Water Quality or Field Parameters:

Parameter	Stabilization Criteria / Preservation	Target PQL (mg/L)
Temperature	$\pm 0.5^{\circ}$ Celsius ¹	Field Measurement
pH	± 0.2 standard units ¹	Field Measurement
Conductivity	$\pm 3\%$ ¹	Field Measurement
Dissolved Oxygen	$\pm 10\%$ of reading value or ± 0.2 mg/L, whichever is greater ¹	Field Measurement
Oxidation-reduction potential (ORP)	± 20 milivolts ¹	Field Measurement
Turbidity	less than or equal to 10 NTUs, or $\pm 10\%$ if turbidity is > 10 NTUs ¹	Field Measurement
Alkalinity	Cool 0-6°C ¹	10.0
Iron	HNO ₃ to pH <2, at least 24-hours prior to analysis ¹	0.050
Sulfate	Cool 0-6°C ¹	5.0
Nitrate	Cool 0-6°C ¹	0.1
Chloride	None required ¹	5.0

¹ – 1995 Ohio EPA Technical Guidance for Ground Water Investigations (Chapter 10 Revised. May 2012).

(b) Point of Compliance

The Permittee has integrated the ground water monitoring programs site-wide due to their close proximity to each other. The combined point of compliance (POC) at which the GWACI applies is the property boundary

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as indicated on attached Figure Z-1. The Permittee must monitor the following wells, MW-1A, MW-4, MW-5, MW-6, MW-7 and MW-8 representing the quality of ground water passing the point of compliance.

(c) Permit Period

The permit period, during which the GWACI applies, is equal to 10 years from the permit renewal date of March 26, 2013. The permit must continue to be renewed until all contaminants of concern in ground water are below the final clean-up standards found in Table Z-4 for four consecutive semi-annual sampling events (see Permit Condition Z.9(d)(v)). During the permit period, the Permittee must establish and implement a monitoring program that will detect, respond, and report as necessary to protect human health and the environment all releases of hazardous constituents above the GWACI in Table Z-1 at the point of compliance.

Z.3. Well Location, Installation, Maintenance, and Removal

- (a) The Permittee's ground water monitoring system must consist of a sufficient number of wells, installed and screened at appropriate locations and depths, to yield ground water samples from the sand and gravel lenses which are considered to be the uppermost aquifer. Please refer to Section 4.0 Geology, Hydrogeology and Physical Conditions of the facility's RFI report for a description of this aquifer zone. The samples must:
- (i) Represent the quality of background water that has not been affected by leakage from the units/areas;
 - (ii) Represent the quality of ground water passing the point of compliance, between the point of compliance and the down gradient property boundary, and beyond the property boundary, where necessary, to protect human health and the environment;
 - (iii) Allow for the detection and measurement of contamination for all potential release pathways to the uppermost aquifer from the waste management units/areas based on site-specific hydrogeologic characterization when hazardous constituents have migrated from the unit/area to the uppermost aquifer; and
 - (iv) Demonstrate the effectiveness of any corrective action program. The well system should be effective in determining compliance with the GWACI and in determining the success of the corrective action

program.

- (b) The monitoring system consists of the ground water wells as specified in Table Z-3 and shown on the ground water elevation map in attached Figure Z-2.

Table Z-3 Ground Water Monitoring Wells

Well	Gradient	Purpose
MW-1A	Side gradient	Potentiometric Map, Concentrations
MW-2A	Up gradient	Potentiometric Map, Concentrations
MW-4	Down gradient	Potentiometric Map, POC ¹ , Concentrations
MW-5	Down gradient	Potentiometric Map, POC ¹ , Concentrations
MW-6	Down gradient	Potentiometric Map, POC ¹ , Concentrations
MW-7	Down gradient	Potentiometric Map, POC ¹ , Concentrations
MW-8	Down gradient	Potentiometric Map, POC ¹ , Concentrations

¹ – Point of compliance.

- (c) Wells identified in Permit Condition Z.3(b) must be cased in a manner that maintains the integrity of the monitoring well bore hole and complies with the detailed plans and specifications presented in Appendix Z. The casing must be screened and packed with gravel or sand, where necessary, to enable collection of ground water samples. The annular space above the sampling depth must be sealed to prevent contamination of samples and the ground water.
- (d) The Permittee must remove or replace any monitoring well in Permit

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Condition Z.3(b) in accordance with the Appendix to OAC Rule 3745-50-51 permit modification process. Each change must be accompanied by a revised map as specified on Figures Z-1 and Z-2.

- (e) Whenever any of the wells specified in Permit Condition Z.3(b) are replaced, the Permittee must demonstrate to Ohio EPA that the ground water quality at the replacement well meets the criteria in Permit Condition Z.3(a) within a 365 day period of the date of replacement.

Z.4. Sampling and Analysis Procedures

- (a) The Permittee must implement an IGWMP as presented in the Quality Assurance Project Plan (QAPP) found in Appendix Z. This program includes procedures designed to ensure monitoring results that provide a reliable indication of ground water quality below the units/areas and are in compliance with this Permit Condition.
- (b) The Permittee must implement the Sampling and Analysis Plan (SAP), as presented in Appendix Z, SOP - 5006, which includes sampling and analytical methods (Table Z-1A in Appendix Z) that are appropriate for ground water sampling and that accurately measure hazardous constituents in ground water samples.
- (c) Field and analytical data must be validated in accordance with the procedures specified in the data validation procedures that are outlined in Appendix Z – SOP- 5006.
- (d) Ground water sample purge water must be sent to an appropriate facility for disposal and/or treatment according to the sampling results.

Z.5. Ground Water Surface Elevation

The Permittee must determine the ground water surface elevation at each well identified in the table in Permit Condition Z.3(b) each time ground water is sampled using the methods in the Standard Operating Procedure found in Appendix Z, SOP- 5006 of the Permit Application.

Z.6. Sampling Frequency

Data on each hazardous constituent specified in Permit Condition Z.2(a) will be collected from all wells listed in Permit Condition Z.3(b). Frequency of sampling is to be on a semiannual basis for wells MW-1A, MW-5, MW-6, and MW-7, and quarterly for MW-4 and MW-8. Wells are identified in attached Figures Z.1 and

Z.2.

Z.7. Statistical Procedures

- (a) The Permittee must submit statistical analytical methods to be used in evaluating ground water monitoring results for each hazardous constituent in Permit Condition Z.2(a) in each well in Permit Condition Z.3(b) that would identify increasing trend(s). Movement to corrective action shall be based upon a confirmed single exceedance of a site-specific GWACI as specified in Table Z-1:

The Permittee shall submit to Ohio EPA the Statistical Plan within 45 days after receipt of the permit modification approval.

- (b) The Permittee's statistical procedures must be protective of human health and the environment. The statistical procedures must comply with the following performance standards:
- (i) The statistical evaluation of ground water monitoring data must be conducted separately for each hazardous constituent specified in Permit Condition Z.2 (a) in each well.
- (ii) The statistical method must be in accordance with the U.S. EPA Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance March 2009 (EPA 530/R-09-007) appropriate for the distribution of the data used to establish background or clean-up standards. If the distribution of the constituents differs, more than one statistical method may be needed.
- (c) For each of the constituents identified Table Z-1, following the first four sampling events and annually thereafter, the Permittee shall present a graph of analysis results versus time using all historical analysis results. The Permittee shall provide a qualitative discussion concerning any anomalies, trends, or changes in ground water.

Z.8. Operating Record and Reporting

OAC Rules 3745-54-73, 3745-54-75, and 3745-54-77

(a) Operating Record

The Permittee must enter all of the following information obtained in accordance with Permit Module Z in the operating record:

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- (i) Ground water monitoring data collected in accordance with this permit including actual levels of constituents.
- (ii) The laboratory results from each of the wells and their associated qualifiers including the laboratory sheets for the full volatile and semi-volatile analyses (must include method codes, method detection limits, and units of measurement);
- (iii) The date each well was sampled (tabulated);
- (i) The date, time, and identification of all blanks and duplicates;
- (ii) Any field log documentation of deviation from the procedures in Appendix Z, including documentation of parameter omissions during the sampling event;
- (iii) The date the Permittee received the results from the laboratory;
- (iv) The date the Permittee completed their review of the analytical laboratory's verification of the accuracy and precision of the analytical data and determined its quality.
- (v) The results of the data validation review per Permit Condition Z.8(a)(vii) including: report completeness, chain of custody, sample receipt form, signed statement of validity, technical holding time review, data qualifiers including their definitions, dilutions, blank data, spikes, spike percent recovery, surrogate recovery, and an explanation of any rejected results;
- (vi) Results of all blanks and duplicates (trip, field, equipment, and method);
- (vii) Results of the field parameters;
- (viii) The statistical evaluation of the data (must include all computations, results of statistical tests, and date the statistical evaluation was completed) as specified in the Statistical Plan required in Permit Condition Z.7;
- (ix) Any change in well status (i.e., going from unaffected to affected status and vice versa);

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- (x) Ground water surface elevations taken at the time of sampling of each well;
 - (xi) Data and results of the annual determination of the ground water flow rate and direction per Permit Condition Z.9(c)(vi);
 - (xii) The results of the last three years of all inspections required under OAC Rule 3745-54-15(D) related to ground water monitoring and equipment as required under OAC Rule 3745-54-73(B)(5).
 - (xiii) Evaluation of the efficiency of any corrective actions performed to bring the ground water quality into compliance with the GWACI per Permit Condition Z.2. Reports will be due 75-days after each quarterly or semiannual sampling event and must include a potentiometric map (including water levels from MW-2A), laboratory analytical results, field sample and stabilization forms, summary tables, and data evaluation including any documentation of deviations.

(b) Annual and Other Periodic Required Reporting

(i) Required Annual Reporting

The Permittee must submit a Supplementary Annual Ground Water Monitoring Report to the Director by March 1st of the following year. This annual report must reference the titles and dates of any other periodic reports required by the permit or any updates to those reports, but generally does not need to include duplicates of hard copies previously submitted.

The Supplementary Annual Ground Water Monitoring Report must include, at a minimum, the analytical results required by Permit Conditions Z.6 and Z.9, the ground water elevation data required by Permit Condition Z.5 and Z.8 (a)(xiii) and (xiv), and the results of any statistical analyses required by Permit Condition Z.7 and Z.9. Submittal of all ground water and blank data will use the Ohio EPA Supplementary Annual Ground Water Reporting electronic format (GWData.dbf). In addition, a hard copy of well-specific information (location (latitude and longitude), depth, construction, etc.) for any new/replacement wells, and any other information specified in the instructions for the Supplementary Annual Ground Water Report not addressed in this Permit Condition must be submitted as part of this report.

For each of the constituents identified in Table Z-1, following the first four sampling events and annually thereafter, the Permittee shall present a graph of analysis results versus time using all historical analysis results. The Permittee shall provide a qualitative discussion concerning any anomalies, trends, or changes in ground water.

(ii) Required Semiannual Reports

Reports will be due 75 days after each semiannual sampling event and must include a potentiometric map (including water levels from MW-2A), laboratory analytical results, field sample and stabilization forms, summary tables, and comparisons to GWACI in Table Z-1. The previous quarter's sampling data for wells MW-4 and MW-8 will be combined within the next semiannual report.

(iii) Required 3-year Reports

Every three years, the Permittee must report, in writing, to the Director on the effectiveness of the Monitored Natural Attenuation (MNA) corrective action monitoring program. This report should discuss the progress in meeting the final clean-up standards listed in Table Z-4, the projected time frame for meeting the final clean-up standards and a summary of newly acquired data since the last report. An evaluation section must be presented that discusses the effectiveness of the institutional controls, a trend analysis for constituents listed in Table Z-1, and a statistical evaluation in accordance with Permit Condition Z.7 on whether MNA remains a timely and effective remediation strategy. This includes modeling (i.e., BIOCHLOR or others) to confirm results and suggest enhancements so that remediation goals are met. Any changes to enhance the performance of the selected remedy should be presented in a recommendation section. Ohio EPA will evaluate the recommendations and determine whether MNA remains a timely and effective remediation strategy. If reduction goals are not being met, the Permittee will be required to perform a specific MNA scientific study using select wells to determine whether MNA can effectively reduce concentrations to meet remediation goals and/or determine what enhancements to the remedy can be effective. The Permittee will identify and provide a list of the wells, test parameters and evaluation criteria selected for this investigation to Ohio EPA for review prior to implementation.

(iv) Other Reports

The Permittee must comply with any other reporting requirements that become necessary under Permit Condition Z.9 in accordance with the schedules covered by that permit condition and as required by OAC Rule 3745-54-77(C).

Z.9. Integrated Ground Water Monitoring Program
OAC Rule 3745-54-101

- (a) The Permittee is required to establish and implement a ground water corrective action program under OAC Rule 3745-54-101 and must take corrective action, as necessary, to ensure that units/areas are in compliance with the GWACI as specified in Permit Condition Z.2.
- (b) The Permittee must implement, as necessary, a corrective action program that prevents hazardous constituents specified in Permit Condition Z.2(a) from exceeding their respective GWACI specified in Table Z-1 at the compliance point specified in Permit Condition Z.2(b) which is the down gradient property boundary, and beyond the property boundary during the permit period specified in Permit Condition Z.2(c) by removing the hazardous constituents or by treating them in place.
- (c) The Permittee must establish and implement a ground water monitoring program to fully characterize the contaminated ground water as required by OAC Rule 3745-50-44(B)(8)(a) and to demonstrate the effectiveness of the corrective action program. Ground water monitoring must be effective in determining compliance with the GWACI in Permit Condition Z.2 and in determining the success of any corrective action program in this condition. The ground water monitoring program must include:
- (i) Installation and maintenance of a ground water monitoring system at the compliance point as defined in Permit Condition Z.2(b), and, as necessary to protect human health and the environment, beyond the property boundary. The ground water monitoring system must comply with the requirements in Permit Condition Z.3.

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- (ii) Collection, preservation, and analysis of samples pursuant to Permit Conditions Z.4, Z.5, and Z.6. Statistical analysis must be conducted pursuant to Permit Condition Z.7
 - (iii) The Permittee must conduct a semiannual sampling program for each chemical parameter and hazardous constituent specified in Permit Condition Z.2(a) from each well (background and compliance) specified in Permit Condition Z.3(b) during the permit period and any extensions due to corrective action implementation.

Additional quarterly sampling will be conducted at MW-4 and MW-8. Modifications to this frequency will be considered after trend analyses have been conducted.

- (iv) The Permittee shall compare the concentration of each hazardous constituent measured at each well at the compliance point specified in Permit Condition Z.2(b) to its GWACI specified in Table Z-1 each time water quality is determined in accordance with procedures specified in Permit Condition Z.7.
 - (v) The Permittee must maintain a record of ground water analytical data as measured and in a form necessary for the determination of statistical significance under Permit Conditions Z.7 and Z.8 for the permit period.
 - (vi) The Permittee must determine the ground water flow rate and direction in the uppermost aquifer at least annually using the procedures specified in Appendix Z of the Permit Application.
- (d) Response Action
- (i) Based on the results of the Permittee's ground water monitoring program, if the GWACI detailed in Table Z-1 have not been exceeded, then the Permittee shall continue under routine IGWMP monitoring. OR
 - (ii) Based on the results of the Permittee's ground water monitoring program, if the GWACI in Table Z-1 have been exceeded or an increasing trend is determined, then the Permittee must implement corrective actions to remove or treat in place any hazardous

constituents specified in Permit Condition Z.2(a) that exceed their respective GWACI in ground water within 180 days from the time the GWACI was exceeded.

- (a) Wells beyond the property boundary shall be installed and sampled where necessary when an increasing trend is observed or GWACI is exceeded at any compliance point monitoring well specified in Permit Condition Z.3(b) to protect human health and the environment, unless the Permittee demonstrates to the Agency that, despite the Permittee's best efforts, the Permittee was unable to obtain the necessary permission to undertake such action. The Permittee is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. On-site measures to address such releases will be determined on a case-by-case basis.
- (b) If results from on-site wells MW-1A and MW-5 exceed GWACI or show increasing trends, then an on-site investigation shall be initiated.
- (iii) Within 90 days from the date of determination of exceedance, corrective action measures required under Permit Condition Z.9(d)(ii) must be initiated and a schedule submitted of detailed plans and an engineering report describing the corrective actions to be taken and a description of how the ground water monitoring program will assess the adequacy of the corrective action. The corrective action must be implemented within 180 days from the date of determination of exceedance
- (iv) The Permittee must continue corrective action measures during the permit period to the extent necessary to ensure that the GWACI is not exceeded and for as long as necessary to achieve compliance with the final clean-up standards in Table Z-4.

Table Z-4 Site-Specific Final Clean-up Standards

Hazardous Constituent	CAS Number	Final Clean-Up Standards (ug/L)	Target PQL (ug/L)
Tetrachloroethylene	127-18-4	5.0 ¹	1.0
Trichloroethylene	79-01-6	5.0 ¹	1.0
Cis 1,2-Dichloroethylene	156-59-2	70.0 ¹	1.0
Trans 1,2-Dichloroethylene	156-60-5	100 ¹	1.0
1,1,1-Trichloroethane	71-55-6	200 ¹	1.0
1,1-Dichloroethylene	75-35-4	7.0 ¹	1.0
Vinyl Chloride	75-01-4	2.0 ¹	1.0
Chloroethane	75-00-3	21,000 ²	5.0

¹ – U.S. EPA Maximum Contaminant Level (MCL); ² – USEPA Combined Regional Screening Level – Tap Water Standard.

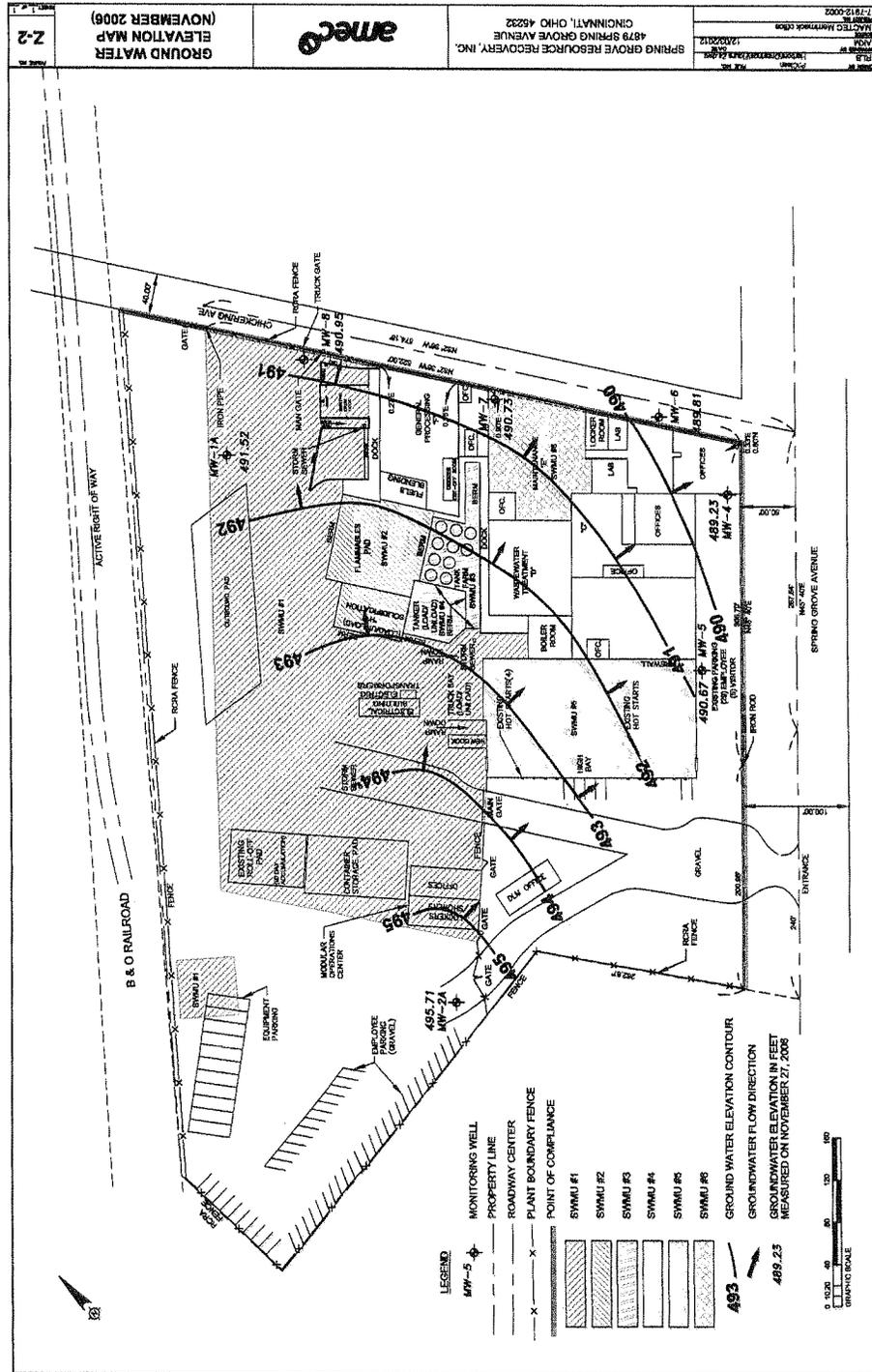
- (v) If the Permittee has not met the Site-Specific Final Clean-up Standards specified in Permit Condition Z.9(d)(iv) by the end of the permit period listed in Permit Condition Z.2(c), the Permittee must continue implementation of the IGWMP for as long as necessary until compliance with Permit Condition Z.9(d)(iv) has been achieved.
- (e) Every three years the Permittee must report in writing to the Director on the effectiveness of the MNA corrective action monitoring program according to Permit Condition Z.8(b)(iii).
- (f) If the Permittee determines the corrective action program established by this permit no longer satisfies the requirements of OAC Rule 3745-54-101, the Permittee must, within ninety (90) days of that determination, submit an application for a permit modification per OAC Rule 3745-50-51 to make any appropriate changes to the program.

End Conditions

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Attachments

Figure Z-1. Facility diagram showing WMUs...



ATTACHMENT A
CORRECTIVE MEASURES IMPLEMENTATION
SCOPE OF WORK

PURPOSE

This Scope of Work (SOW) sets forth the requirements for the implementation of the design, construction, operation, maintenance, and monitoring of the corrective measure or measures pursuant to the Permittee's part B Permit to which this SOW applies. The work performed under this permit modification will implement the corrective measures that have been selected by Ohio EPA in the Statement of Basis and any amendments thereto. The Permittee will furnish all personnel, materials, and services necessary for the implementation of the corrective measure or measures.

SCOPE

The Corrective Measures Implementation consists of four tasks:

Task I: Corrective Measures Implementation Work Plan

- A. Project Management Plan
- B. Preliminary CMI Design Plan
- C. Public Involvement Plan

Task II: Corrective Measure Design

- A. Design Plans and Specifications
- B. Operation and Maintenance Plan
- C. Health and Safety Plan
- D. Sampling and Analysis Plan/Performance Monitoring Plan
- E. Cost Estimate

Task III: Corrective Measure Construction and Construction Completion Report

Task IV: Reports and Submissions

- A. Quarterly Progress Reports of Corrective Measures Implementation
- B. Annual Progress Reports
- C. 5-Year Report

D. Attainment of Ground Water Performance Standards Report

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E. Corrective Measures Completion of Work (CMCW) Report

Further specifications of the work outlined in this SOW will be provided in the Corrective Measures Implementation Work Plan and subsequent plans to be reviewed and approved by Ohio EPA. Variations from the SOW will be made, if necessary, to fulfill the objectives of the Corrective Measures set forth in the Statement of Basis and any amendments thereto.

Additional studies may be necessary as part of the Corrective Measures Implementation to supplement the available data. At the direction of Ohio EPA for any such studies required, the Permittee shall furnish all services, including field work, materials, supplies, labor, equipment, investigations, and superintendence. Sufficient sampling, testing and analysis shall be performed to optimize the operation of the required treatment, disposal, containment and/or monitoring system.

TASK I: CORRECTIVE MEASURE IMPLEMENTATION WORK PLAN

The Permittee shall prepare a Corrective Measure Implementation ("CMI") Work Plan. The CMI Work Plan shall outline the design, construction, operation, maintenance and monitoring of all actions taken to implement the Corrective Measures as defined in the Statement of Basis and any amendments thereto. This CMI Work Plan will include the development and implementation of several plans, which require concurrent preparation. It may be necessary to revise plans as necessary during corrective measures implementation.

The CMI Work Plan shall include the following:

- A. Project Management Plan: The Permittee shall prepare a Project Management Plan which will address the following items, as necessary and appropriate:
 - 1. Documentation of the overall management strategy for performing the design, construction, operation, maintenance, and monitoring of corrective measure(s);

2. Description of the responsibility and authority of all organizations and key personnel involved with the implementation;
3. Description of the qualifications of key personnel directing the CMI, including contractor personnel;
4. An outline of proposed field activities necessary to complete the CMI Design including proposed locations of groundwater monitoring wells and air monitoring stations;
5. A description of how the conceptual design is expected to meet the technical requirements of the Statement of Basis and any amendments thereto; and
6. Schedule of work including sequence of activities to be performed during the CMI and proposed timing for submittals required during the CMI.

B. Public Involvement Plan: A Public Involvement Plan will be developed to describe the community relations program to be implemented by the Respondent during the design and construction. At the request of Ohio EPA, the Permittee may participate in the preparation of information disseminated to the public and in providing information for public meetings that may be held or sponsored by Ohio EPA.

TASK II: CORRECTIVE MEASURE DESIGN

The Permittee shall prepare a Final Design Report including specifications and a construction plan to implement the corrective measures at the facility as set forth in the Decision Document and any amendments thereto.

A. Design Plans and Specifications: The Permittee shall develop clear and comprehensive design plans and specifications which include, but are not limited to, the following:

1. Discussion of the design strategy and the design basis, including: (a) compliance with all applicable or relevant environmental and public health standards; (b) minimization of environmental and public health impacts, and; (c) updated schedules, if necessary, from commencement through completion of construction of the CMI.
 2. Discussion of the technical factors of importance including: (a) use of currently accepted environmental control measures and technology; (b) the constructability of the design, and; (c) use of currently accepted construction practices and techniques.
 3. Description of models and assumptions made and detailed justification of these assumptions.
 4. Detailed drawings of the proposed design.
 5. Tables listing equipment and specifications;
 6. Appendices including: (a) sample calculations (one example presented and explained clearly for significant or unique design calculations); (b) results of laboratory or field tests; (c) list of specifications to be provided in full in the Final Design submittal, and; (d) list (an outline/table of contents) of documents and plans to be prepared and submitted with Final Design.
 7. Real Estate Easements, Environmental Covenant, and permit requirements. When preparing the Environmental Covenant(s), the Permittee shall use the template in Attachment A.2.
- B. Operation and Maintenance Plan: The Permittee shall prepare an Operation and Maintenance ("O&M") Plan to cover both the implementation and long term maintenance of the corrective measure(s). The O&M Plan shall identify and describe the processes to occur, submissions required during O&M, and schedule for O&M activities consistent with remedial objectives set forth in the Statement of Basis and any amendments thereto. The O&M Plan shall include, but not be limited to, the following elements:

1. Description of routine O&M including tasks required to operate and maintain treatment systems or other components of corrective measures and a schedule showing frequency and duration of each O&M task.
2. Description of potential operating problems including the procedures to be used to analyze and diagnose potential operation problems, sources of information regarding problems, and common or anticipated trouble-shooting steps and remedies.
3. Description of routine monitoring and laboratory testing including a description of specific monitoring tasks required for the corrective measures, a description of required laboratory tests and their interpretation/reporting, a description of required QA/QC activities, and a schedule of monitoring frequency and date, if appropriate, and a description of what conditions may allow monitoring to cease or the frequency of monitoring to change.
4. Safety plan including description of precautions for specific equipment, etc., level of personal protection and type of monitoring for site personnel, and safety tasks required in the event of systems failure.
5. Description of equipment including the identification, layout and installation of monitoring components, maintenance of site equipment, and replacement schedule for equipment and installed components.
6. Records and reporting mechanisms including operating logs, inspections, laboratory records and test results, operating and maintenance cost records, mechanism for reporting emergencies, personnel and maintenance records, and progress reports to State and Federal agencies.

- C. Health and Safety Plan: The Permittee shall prepare a Health and Safety Plan to address all work to be performed at the facility to implement the corrective measures set forth in the Statement of Basis. This document will be submitted to Ohio EPA for review although it does not require approval by Ohio EPA. The Health and Safety Plan shall be designed to protect on-site personnel and area residents from physical, chemical and other hazards posed by the CMI, including pre-design studies if applicable.

The major elements of the Health and Safety Plan should include but not be limited to: facility description; description of known hazards and an evaluation of risks; list of key personnel responsible for site safety, delineation of work area, description of protective clothing; procedures to control access; description of decontamination procedure for personnel and equipment; site emergency procedures; and procedures for protecting workers from weather-related problems.

The Health and Safety Plan, as appropriate, shall be consistent with U.S. EPA. (1992) Standard Operating Safety Guides; U.S. EPA (2000) Hazardous Materials Incident Response Operations (165.5); OSHA regulations such as 29 CFR Section 1910.120 (Hazardous Waste Operations and Emergency Response); 29 CFR Section 1910.132 through 1910.138 (Personnel Protective Equipment); 29 CFR Section 1910.1000 (Air Contaminants); and 29 CFR Part 1926 (Safety and Health Regulations for Construction); and, U.S. Department of Health and Human Services (1985) Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities.

- D. Sampling and Analysis Plan/Performance Monitoring Plan: The Permittee shall update the Sampling and Analysis Plan, including the QAPP as necessary and appropriate, to reflect changes in the following:

responsibility and authority; personnel qualifications; inspection activities; sampling requirements; and documentation and reporting. Additional revisions shall be made, or a separate document prepared (Performance Monitoring Plan) to describe the performance monitoring program that will be used to measure the effectiveness of the corrective measures set forth in the Statement of Basis. The performance monitoring plan shall describe all sampling, monitoring, data analysis and reporting activities that will be completed to demonstrate the effectiveness of the corrective measures.

- E. Cost Estimate: Permittee shall refine the cost estimate developed in the CMS to reflect the more detailed/accurate design plans being developed and specifications being developed. The cost estimate shall include both capital and O&M costs.

TASK III: CORRECTIVE MEASURES COMPLETION OF WORK (CMCW) REPORT

Following Ohio EPA approval of the Final CMI Design Report, the Permittee shall implement construction in accordance with procedures, specifications, and schedules in the EPA-approved Final CMI Design Report and the EPA approved CMI Work Plan. During the Construction Phase, the Permittee will continue to submit periodic progress reports (Task IV). The Permittee shall also implement the elements of the approved Sampling and Analysis Plan and O&M plan, as necessary and appropriate. Upon completion of construction and an initial period of performance monitoring, and in accordance with the schedule included in the Ohio EPA-approved CMI Work Plan and the Ohio EPA-approved Final CMI Design Report, the Permittee will prepare and submit a CMI Corrective Measures Completion of Work (CMCW) Report.

The CMI CMCW Report shall describe activities performed during construction, provide actual specifications of the implemented remedy, and provide a preliminary

assessment of CMI performance. The CMI CMCW Report shall include, but not be limited to, the following elements:

1. Synopsis of the corrective measure and certification of the design and construction;
2. Explanation of any modifications to the Ohio EPA-approved construction and/or design plans and why these were necessary for the project;
3. Listing of the criteria, established in the Ohio EPA-approved CMI Work Plan, for judging whether the corrective measure is functioning properly, and also explaining any modification to these criteria;
4. Certification by registered professional engineer that the construction is complete, consistent with contract documents and the Ohio EPA-approved Final CMI Design;
5. Signature of a Respondent's responsible official as designated in accordance with Permit Condition A. 13.; and,
6. A summary of the Field log book, any problem identification and correction, photographic records, deviations from design and material specifications (with justifying documentation), and as-built drawings.

TASK IV: PROGRESS REPORTS AND SUBMISSIONS

The Permittee shall prepare plans, drawings, specifications, and reports as set forth in Tasks I through III to document the design, construction, operation, maintenance, and monitoring of the corrective measure. The documentation shall include, but not be limited to the following:

- A. Quarterly Progress Reports of Corrective Measures Implementation: Until the Corrective Measures have been implemented, the Permittee shall provide the Ohio EPA with signed, quarterly progress reports containing:

1. A description of the work performed during the preceding monitoring interval and estimate of the percentage of the Corrective Measures Implementation completed;
2. Summaries of all findings;
3. Summaries of all changes made in the CMI during the reporting period;
4. Summaries of all contacts with representatives of the local community, public interest groups, or State government during the reporting period;
5. Problems encountered and any actions taken to rectify problems;
6. Changes in personnel during the reporting period;
7. Projected work for the next reporting period; and
8. Copies of daily reports, inspection reports, laboratory/monitoring data, etc.

B. Annual Progress Reports: Once the Corrective Measures have been implemented, the Permittee shall provide Ohio EPA with signed annual progress reports and/or Corrective Measures Assessment Reports containing:

1. A narrative summary of principal activities conducted during the reporting period;
2. Graphical or tabular presentations of monitoring data, including but not limited to groundwater levels and flow direction, and groundwater quality;
3. A schedule of sampling and field activities to be performed and reported in the following year; and
4. A Corrective Measures Assessment Report assessing the performance of the corrective measures over time. The Assessment Report shall include:

- a. Summarized data representing corrective measure performance;
 - b. Any proposed changes to the corrective measure and summary of previous changes;
 - c. Iso-concentration maps for each contaminant of concern listed in the CMI Design Plan; and
 - d. Statistical assessment of the progress of the corrective measure towards achievement of media clean-up standards.
- C. Five-Year Report: In lieu of every fifth annual report, the Permittee shall provide Ohio EPA with signed Five-Year Corrective Measures Progress Reports containing:
1. All items required for the Annual Progress Reports; and
 2. In depth analysis of the Corrective Measures Implementation including:
 - a. Complete re-assessment of models, plans and goals used by the CMI process;
 - b. Changes and/or additions to the existing systems that may be required to meet CMI goals.
 - c. Notification that corrective actions media cleanup standards have been achieved, when appropriate.
- D. Attainment of Ground Water Performance Standards Report: Within 30 days after the Permittee concludes that the ground water performance standards have been attained, the Permittee shall submit a written report and certification to Ohio EPA for review and approval. In the report, an independent registered professional engineer and the Permittee's Project Coordinator shall state that the ground water performance standards have been attained in full satisfaction of the requirements of this Permit.

The report shall be signed by a responsible official in accordance with Permit Condition A. 13.

- E. Completion of Work Report: This report shall be submitted by the Permittee when construction is complete, performance standards have been attained, and O&M is complete. Within 30 days after the Permittee concludes that all phases of the work (including O&M and monitoring) have been completed, the Permittee shall schedule and conduct a pre-certification inspection to be attended by representatives of the Permittee and Ohio EPA. After the pre-certification inspection and any pre-final or subsequent final inspections required by Ohio EPA, the Permittee shall submit, within 30 days of a successful final inspection, a written Completion of Work Report to Ohio EPA for approval. In the report, an independent registered professional engineer and the Permittee's Project Coordinator shall state that the Corrective Measures have been completed in full satisfaction of the requirements of this permit. The written report shall include as built drawings stamped by a registered professional engineer, unless there were no modifications to the Corrective Measures after submittal of as-built drawings at the completion of construction. The report shall be signed by a responsible official in accordance with Permit Condition A. 13.
- F. Submittal Summary: A summary of the information reporting requirements is presented in the table in Attachment A.1.

ATTACHMENT A.1

Submittal	Due Date
Draft CMI Work Plan Project Management Plan Preliminary Design Plan Public Involvement Plan	Within 90 days of the signing of the orders.
Final CMI Work Plan (revision of Draft CMI Work Plan)	30 days after receipt of Ohio EPA's comments on Draft CMI Work Plan
Draft Final Design Report Design Plans and Specifications Operation and Maintenance Plan Health and Safety Plan/ Sampling Analysis Plan/Performance Monitoring Plan Cost Estimate	In accordance with the schedule in the Final CMI Work Plan
Final Design Report	30 days after receipt of Ohio EPA's comments on Draft CMI Work Plan
CMI Report Overview of CMI, design certification & construction, Explanation of modifications to approved plan Performance criteria listing Certification by Registered Professional Engineer	In accordance with the approved design schedule
Quarterly Progress Reports	Submitted by the last day of every third month until implementation of corrective measures.
Annual Progress Reports	Submitted in January, annually, except for years requiring a Five-year Report.

Five Year Report	Submitted in January every five years.
Attainment of Ground Water Performance Standards Report	Within 30 days after the Respondent concludes that the ground water performance standards have been attained.
Corrective Measures Completion of Work (CMCW) Report	30 days after Respondent concludes that all phases of the work (including O&M and monitoring) have been completed.

ATTACHMENT A.2**To be recorded with Deed
Records - ORC § 317.08****ENVIRONMENTAL COVENANT**

This Environmental Covenant is entered into by _____ ("Owner") [Also include the identity of any Holders] and the Ohio Environmental Protection Agency ("Ohio EPA") pursuant to Ohio Revised Code ("ORC") §§ 5301.80 to 5301.92 for the purpose of subjecting the Property to the activity and use limitations set forth herein.

Whereas, Owner is the owner of certain real property located at _____ and legally described in Exhibit __ attached hereto (collectively referred to herein as the "Property"); and

Add summary of conditions at the Property, e.g.:

Whereas, as a result of past hazardous waste activities at the Property, certain contaminants were stored and have been released at certain portions on the Property. These contaminants include, but are not limited to, tetrachloroethene (PCE) and trichloroethene (TCE). Potential pathways of exposure from the contaminants located within these portions of the Property include direct contact with groundwater; and

Whereas, as a result of the contaminants identified above, Owner was required to submit to Ohio EPA a corrective measures plan for portions of the Property and to implement the approved plan; and

Whereas, _____ submitted a [describe document, e.g., closure plan, corrective action submittal, etc.] to Ohio EPA and an amended closure plan was approved on April 5, 2006; and

Whereas, Owner is implementing the approved [e.g. closure plan, corrective action document, etc.] on the Property in accordance with Ohio EPA's hazardous waste requirements contained in ORC Chapter 3734. As part of the [closure, corrective action, etc.], Owner has agreed to place certain restrictions on the future use of portions of the Property, as described herein; and

Whereas, the Administrative Record of the [closure, corrective action, etc.] is maintained as the file titled _____ in the Ohio EPA [identify location of the administrative record, including address, e.g., Northeast District Office]; and

Whereas, the implementation of appropriate use restrictions that restrict land and

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ground water use on the Property is required to protect human health and the environment, based upon a human health risk assessment performed for the [describe area, e.g., hazardous waste management units, waste management units, etc.] addressed in the [closure, corrective action, etc.].

Now therefore, Owner and Ohio EPA agree to the following:

1. Environmental Covenant. This instrument is an environmental covenant developed and executed pursuant to ORC §§ 5301.80 to 5301.92.

2. Property. This Environmental Covenant concerns real property _____ and more particularly described in Exhibit __ attached hereto and hereby incorporated by reference herein ("Property").

3. Owner. _____ ("Owner") is the owner of the Property located at _____.

4. Holders. Owner, whose address is listed above, is the holder of this Environmental Covenant. [Also identify all other Holders]

5. Activity and Use Limitations. As part of the [closure, corrective action, etc.] of [hazardous waste management units, waste management units, etc.] on the Property, Owner hereby imposes and agrees to comply with the following activity and use limitations:

- A. The Property shall not be used for residential activities but may be used for industrial activities. The term "residential activities" shall include, but not be limited to, the following:
- (i) Single and multi-family dwelling and rental units;
 - (ii) Day care centers and preschools;
 - (iii) Hotels and motels;
 - (iv) Educational (except as part of industrial activities within the Property) and religious facilities;
 - (v) Restaurants and other food and beverage services (except as a part of industrial activities within the Property);
 - (vi) Entertainment and recreational facilities (except as part of industrial activities within the Property);
 - (vii) Hospitals and other extended care medical facilities; and
 - (viii) Transient or other residential facilities.

The term "industrial activities" shall include manufacturing, processing operations and office and warehouse use, including but not limited to production, storage and sales of durable goods and other non-food-chain products and parking/driveway use.

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[Add any specific restrictions required at the Property. See bold paragraph B below for example]:

- B. Ground water located within or upon the Property shall not be used except for investigation, monitoring or remediation purposes.**
- C. In the event that any activity by the holder of an encumbrance on the Property, identified in paragraph 12 below, constitutes a violation of these activity and use restrictions, Owner or Transferee shall notify Ohio EPA within thirty (30) days of becoming aware of the event, and shall remedy the breach of the covenant within sixty (60) days of becoming aware of the event, or such other time frame as may be agreed to by the Owner or Transferee and Ohio EPA.

6. Running with the Land. This Environmental Covenant shall be binding upon the Owner and all assigns and successors in interest, including any Transferee, and shall run with the land, pursuant to ORC § 5301.85, subject to amendment or termination as set forth herein. The term "Transferee," as used in this Environmental Covenant, shall mean any future owner of any interest in the Property or any portion thereof, including, but not limited to, owners of an interest in fee simple, mortgagees, easement holders, and/or lessees.

7. Compliance Enforcement. Compliance with this Environmental Covenant may be enforced pursuant to ORC § 5301.91 or other applicable law. Failure to timely enforce compliance with this Environmental Covenant or the activity and use limitations contained herein by any party shall not bar subsequent enforcement by such party and shall not be deemed a waiver of the party's right to take action to enforce compliance. Nothing in this Environmental Covenant shall restrict the Director of Ohio EPA from exercising any authority under applicable law.

8. Rights of Access. Owner hereby grants to Ohio EPA, its agents, contractors, and employees and to Holder(s), the right of access to the Property for implementation or enforcement of this Environmental Covenant.

9. Compliance Reporting. Owner and any Transferee shall submit to Ohio EPA and Holder(s) on an annual basis a written certification which complies with the requirements of Ohio Administrative Code rule 3745-50-42(B), (C), and (D) that the activity and use limitations remain in place and are being complied with.

10. Recordation of Environmental Covenant. Within thirty (30) days after the date of the final required signature upon this Environmental Covenant, Owner shall record, in the office of the Hamilton County Recorder, this Environmental Covenant in the same manner as a deed to the Property, pursuant to ORC §

5301.88. Owner shall certify to Ohio EPA that the Environmental Covenant has been filed for recording, and include with the certification a file and date-stamped copy of the Environmental Covenant.

11. Notice upon Conveyance. Each instrument hereafter conveying any interest in the Property or any portion of the Property shall contain a notice of the activity and use limitations set forth in this Environmental Covenant, and provide the recorded location of this Environmental Covenant. The notice shall be substantially in the following form:

THE INTEREST CONVEYED HEREBY IS SUBJECT TO AN ENVIRONMENTAL COVENANT, DATED _____, 20__, RECORDED IN THE DEED OR OFFICIAL RECORDS OF THE HAMILTON COUNTY RECORDER ON _____, 20__, IN [DOCUMENT ____, or BOOK ____, PAGE ____]. THE ENVIRONMENTAL COVENANT CONTAINS THE FOLLOWING ACTIVITY AND USE LIMITATIONS:

The Property shall not be used for residential activities but may be used for industrial activities. The term "residential activities" shall include, but not be limited to, the following:

- (a) Single and multi-family dwelling and rental units;
- (b) Day care centers and preschools;
- (c) Hotels and motels;
- (d) Educational (except as part of industrial activities within the Property) and religious facilities;
- (e) Restaurants and other food and beverage services (except as a part of industrial activities within the Property);
- (f) Entertainment and recreational facilities (except as part of industrial activities within the Property);
- (g) Hospitals and other extended care medical facilities; and
- (h) Transient or other residential facilities.

The term "industrial activities" shall include manufacturing, processing operations and office and warehouse use, including but not limited to production, storage and sales of durable goods and other non-food-chain products and parking/driveway use.

[Include specific restrictions identified in paragraph 5 above. See bold paragraph below for example]

Ground water located within or upon the Property shall not be used except for investigation, monitoring or remediation purposes.

In the event that any activity by the holder of an encumbrance on the Property, identified in paragraph 12 below, constitutes a violation of these activity and use restrictions, Owner or Transferee shall notify Ohio EPA within thirty (30) days of becoming aware of the event, and shall remedy the breach of the covenant within sixty (60) days of becoming aware of the event, or such other time frame as may be agreed to by the Owner or Transferee and Ohio EPA.

Owner shall notify Ohio EPA within ten (10) days after each conveyance of an interest in any portion of the Property. Owner's notice shall include the name, address, and telephone number of the Transferee, a copy of the deed or other documentation evidencing the conveyance, a legal description of the Property being transferred, a survey map of the Property being transferred, and the closing date of the transfer of ownership of the Property.

12. Representations and Warranties. Owner hereby represents and warrants to the other signatories hereto:

- A. that the Owner is the sole owner of the Property;
- B. that the Owner holds fee simple title to the Property which is subject to the interests or encumbrances listed and described in Exhibit ___ attached hereto, which is fully incorporated by reference herein;
- C. that the Owner has the power and authority to enter into this Environmental Covenant, to grant the rights and interests herein provided and to carry out all obligations hereunder;
- D. that the Owner has identified all other persons, identified in Exhibit ___, described above, that hold any interest (e.g. encumbrance) in the Property and notified such persons of the Owner's intention to enter into this Environmental Covenant; and
- E. that this Environmental Covenant will not materially violate or contravene or constitute a material default under any other agreement, document or instrument to which Owner is a party or by which Owner may be bound or affected.
- F. To the extent that any other interests in or encumbrances on the Property conflict with the activity and use limitations set forth in this Environmental Covenant, the persons who own such interests or hold such encumbrances have agreed to subordinate such interests or encumbrances to the Environmental Covenant, pursuant to ORC § 5301.86, and the Waiver of Priority of Mortgage attached hereto as Exhibit ___ and incorporated by reference.

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13. Amendment or Termination. This Environmental Covenant may be amended or terminated by consent of all of the following: the Owner or a Transferee, the Holder, and the Ohio EPA, pursuant to ORC § 5301.90 and other applicable law. Amendment means any changes to the Environmental Covenant, including the activity and use limitations set forth herein, or the elimination of one or more activity and use limitations when there is at least one limitation remaining. Termination means the elimination of all activity and use limitations set forth herein and all other obligations under this Environmental Covenant.

This Environmental Covenant may be amended or terminated only by a written instrument duly executed by the Director of Ohio EPA and the Owner or Transferee and the Holder of the Property or portion thereof, as applicable. Within thirty (30) days of signature by all requisite parties on any amendment or termination of this Environmental Covenant, the Owner or Transferee shall file such instrument for recording with the Hamilton County Recorder's Office, and shall provide a true file and date-stamped copy of the recorded instrument to Ohio EPA.

14. Severability. If any provision of this Environmental Covenant is found to be unenforceable in any respect, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired.

15. Governing Law. This Environmental Covenant shall be governed by and interpreted in accordance with the laws of the State of Ohio.

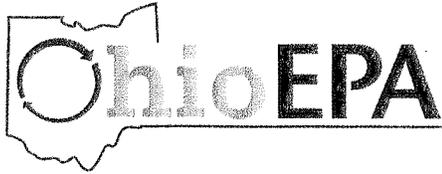
16. Effective Date. The effective date of this Environmental Covenant shall be the date upon which the fully executed Environmental Covenant has been recorded as a deed record for the Property with the _____ County Recorder.

17. Distribution of Environmental Covenant. The Owner shall distribute copies of the recorded Environmental Covenant to: Ohio EPA, any lessee, each person who signed the Environmental Covenant, each person holding a recorded interest in the Property, each unit of local government in which the Property is located, and any other person designated by Ohio EPA.

18. Notice. Any document or communication required by this Environmental Covenant shall be submitted to:

Mr. Jeremy A. Carroll, P.E, Manager
Ohio Environmental Protection Agency
Lazarus Government Center
Division of Materials and Waste Management
P.O. Box 1049
Columbus, Ohio 43216-1049

and



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

Re: Spring Grove Resource
Recovery, Inc.
Permit – Intermediate
Public Response
RCRA C – Hazardous Waste
Hamilton County
OHD000816629

Division of Materials and Waste Management

Response to Comments

**Project: Spring Grove Resource Recovery, Inc.
Director Initiated Permit Modification
Ohio EPA ID #: OHD 000 816 629**

Agency Contacts for this Project

Cathy Altman, Division of Materials and Waste Management, (937) 285-6093,
cathy.altman@epa.ohio.gov

Darla Peelle, Public Involvement Coordinator, (614) 644-2160,
darla.peelle@epa.ohio.gov

Ohio EPA held a comment period beginning on February 20, 2014, regarding a draft Director Initiated Permit Modification for corrective action at Spring Grove Resource Recovery, Inc. (SGRR). This document summarizes the comments and questions received during the comment period, which ended on April 7, 2014.

Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health. Often, public concerns fall outside the scope of that authority. Ohio EPA may respond to those concerns in this document by identifying another government agency with more direct authority over the issue.

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format.

Clarifications

Comment 1: Spring Grove Resource Recovery (SGRR) seeks confirmation from Ohio EPA that resampling an exceedance is the appropriate first step prior to requiring revisions to the Corrective Measures Implementation (CMI) Plan.

Response 1: Ohio EPA concurs that confirmatory resampling is an acceptable first step prior to revising the CMI Plan.

Comment 2: Two submittal dates were required for submittal of the Draft CMI Work Plan (30 days and 90 days). SGRR seeks clarification on the time-frame for submitting the Draft CMI Plan.

Response 2: The CMI Work Plan is due (90) days after the effective date of this permit modification. Attachment A.1 of Attachment A, "Corrective Measures Implementation Scope of Work" has been corrected to reflect this.

End of Response to Comments