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April 26, 2011

Ms. Susan Hedman
Regional Administrator
United States Environmental Protection Agency
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Subject: Request for Additional Information, Risk-Based Disposal Approval – Filter Cake, Lower Fox River Remediation Project, Waste Management of Wisconsin, Inc. Ridgeview Recycling and Disposal Facility, Whitelaw, Wisconsin (WDNR License No. 4292; FID No. 436003260) -- AECOM Project No. 60194322

Dear Ms. Hedman:

On behalf of Waste Management of Wisconsin, Inc., AECOM Technical Services, Inc., is submitting the additional information requested by U.S. EPA, specifically clarifications of 40 CFR 761.75(c) (landfill requirements for Toxic Substances Control Act [TSCA] disposal). This information is being submitted as part of the request for approval dated March 24, 2011, of the risk-based disposal of filter cake from the Lower Fox River Remediation Project.

Yours sincerely,

AECOM Technical Services, Inc.

Michael Ruetten, P.E.
Principal Engineer

Paula Leier-Engelhardt, P.G., C.P.G.
Senior Project Geologist

Attachments:
TSCA-Related Waste Plans for Ridgeview RDF, Whitelaw, Wisconsin dated April 26, 2011

K:\PROJECTS\60194322\In_Progress\Finals_w_WM_comments\Master Cover letter.docx

Ms. Karen Kirchner — one copy
United States Environmental Protection Agency
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Mr. James Zellmer — one copy
Wisconsin Department of Natural Resources
2984 Shawano Avenue
Green Bay, Wisconsin 54307-0448

Mr. Jamie J. Aulik — one copy
Manitowoc County Courthouse
1010 S. 8th Street
Manitowoc, Wisconsin 54220

Mr. John Steimle — one copy
Town of Franklin
11308 Reifs Mills Road
Whitelaw, Wisconsin 54247

Ms. Terry Blackmar — one copy
Tetra-Tech
1611 State Street
Green Bay, Wisconsin 54304

Mr. Jeffery Lawson — one copy
Project Control Companies, Inc.
20 Trafalgar Square
Nashua, New Hampshire 03063

Mr. Gerard Hamblin — one copy
Waste Management of Wisconsin, Inc.
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Mr. Michael Wolter — one copy
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Ms. Ghia Rossi — one copy
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Mr. Raymond Seegers — one copy
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6207 Hempton Lake Road
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April 26, 2011

Mr. Ray Seegers
Ridgeview Recycling and Disposal Facility
PO Box 227
Whitelaw, Wisconsin 54247

Subject: TSCA-Related Waste Plans for Ridgeview RDF, Whitelaw, Wisconsin -- AECOM Project No. 60194322

Dear Mr. Seegers:

AECOM Technical Services, Inc (AECOM) has attached to this letter the responses to the US EPA request to describe how the Ridgeview Southern Expansion Landfill complies to 40 CFR 761.75(c). Based on the information reviewed in the original application to US EPA and the information attached to this letter, we feel that all the applicable parts of 761.75 have been addressed.

Sincerely,

AECOM Technical Services, Inc.

Michael Ruetten, P.E.
Principal Engineer

Paula Leier-Engelhardt, P.G., C.P.G.
Senior Project Geologist

Attachments:
Attachment 1 - 40 CFR - 761.75(c) Responses with Figures
PO-4 - Base-Grades
PO-7 - Final-Cover
PO-12 - Details
Attachment 2 - 40 CFR - 761.75(b) Responses
Attachment 3 -- Original Operation Plan
Operation Plan - TSCA-Level Waste
Attachment 4 – Conditional Plan of Operation Approval Modification dated August 13, 2008

Attachment 1 -

40 CFR 761.75(c) Responses with Figures

PO-4 - Base-Grades

PO-7 - Final-Cover

PO-12 - Details

40 CFR 761.75(c)

(c) *Approval of chemical waste landfills.* Prior to the disposal of any PCBs and PCB Items in a chemical waste landfill, the owner or operator of the landfill shall receive written approval of the Agency Regional Administrator for the Region in which the landfill is located. The approval shall be obtained in the following manner:

(1) *Initial report.* The owner or operator shall submit to the Regional Administrator an initial report which contains:

(i) The location of the landfill;

RESPONSE: The Ridgeview Recycling and Disposal Facility Southern Expansion landfill is located in portions of the SE ¼ and the SW ¼ of Sec. 26, T20N, R22E, Town of Franklin, Manitowoc County, Wisconsin.

(ii) A detailed description of the landfill including general site plans and design drawings;

RESPONSE: The Southern Expansion landfill is approximately 60.3 acres and is an approved NR 500 landfill under the Wisconsin Administrative Code. The landfill complies with the requirements of Subtitle D landfills as implemented under NR 500, Wisconsin Administrative Code. The landfill Plan of Operation and related submittals contain the details for the landfill design and engineering drawings. Figures show the landfill base grades, final cover grades, and typical landfill liner details.

The base liner is a composite which includes a four-foot compacted clay liner with a hydraulic conductivity of $1x10^{-7}$ cm/sec, and a 60-mil HDPE geomembrane. The leachate collection and removal system lies directly above the base liner and consists of a one-foot-thick granular drainage layer with a hydraulic conductivity greater than $1X\ 10^{-2}$ cm/sec and a series of collection pipes and sumps in individual cells. The final cover design consists of: a grading layer; two feet of recompacted clay liner with a hydraulic conductivity of $1X10^{-7}$ cm/sec; a 40-mil geomembrane; a geocomposite drainage layer; 30 inches of rooting zone; and six inches of topsoil. The engineering design calculations, material and installation specifications, and construction quality assurance plan were included in the Plan of Operation for the Southern Expansion dated October 2007. This and associated submittals were approved by Wisconsin Department of Natural Resources (WNDR) in a letter dated April 2008.

(iii) An engineering report describing the manner in which the landfill complies with the requirements for chemical waste landfills specified in paragraph (b) of this section;

RESPONSE: See attachment 2 for a listing of the subparts to 40 CFR 761.75(b) requirements.

(iv) Sampling and monitoring equipment and facilities available;

RESPONSE: The surface water, groundwater, and leachate sampling requirements and procedures are described in Section 4 of the Plan of Operation report. These procedures and the list of parameters to be monitored, along with the monitoring frequencies were approved by the WDNR in the permit issuance for the site.

(v) Expected waste volumes of PCBs;

RESPONSE: The Southern Expansion has an approved waste disposal capacity of 10.16 million cubic yards. On Page 2 of the original application dated March 10, 2011, there is information on expected volumes of Lower Fox River sediments. This section stated that the remaining in-place volume of impacted sediments above Toxic Substances Control Act (TSCA)-level concentration is estimated at 110,000 cubic yards. The exact conversion from cubic yards in the river to cubic yards being delivered to the landfill is not known due to operational aspects of the dredging and pressing. However, it is safe to say that the Ridgeview Southern Expansion has sufficient capacity for the entire amount resulting from these identified deposits.

(vi) General description of waste materials other than PCBs that are expected to be disposed of in the landfill;

RESPONSE: The landfill was constructed under, and is currently operating in compliance with NR 500, Wisconsin Administrative Code. It is approved to accept municipal, industrial, and commercial waste. Industrial waste includes foundry sand and slag, paper mill sludge, and other materials deemed non-hazardous under current regulations. Some remediation wastes are accepted at the site under the Special Waste Approval process. The remediation wastes that contain petroleum wastes will be segregated from the TSCA dredge solids.

(vii) Landfill operations plan as required in paragraph (b) of this section;

RESPONSE: The landfill operation plan as approved by the permit is included in Attachment 3. Attachment 3 also contains a brief description of the operational aspects related to handling the TSCA dredge solids.

(viii) Any local, State, or Federal permits or approvals; and

RESPONSE: WM obtained all required local, state, and federal permits and approvals under the permitting of the Southern Expansion landfill. In addition, the site received approval for the acceptance of PCB impacted waste in a modification to the site permit and Special Waste Handling Plan dated August 13, 2008. A copy of this approval is included in Attachment 4.

(ix) Any schedules or plans for complying with the approval requirements of these regulations.

RESPONSE: WM intends to comply with the requirements of 40 CFR 761.75 as approved by the US EPA Region 5. The compliance will be initiated upon the receipt of TSCA regulated material.

(2) *Other information.* In addition to the information contained in the report described in paragraph (c)(1) of this section, the Regional Administrator may require the owner or operator to submit any other information that the Regional Administrator finds to be reasonably necessary to determine whether a chemical waste landfill should be approved. Such other information shall be restricted to the types of information required in paragraphs (c)(1) (i) through (ix) of this section.

RESPONSE: No other information has been requested at this time.

(3) *Contents of approval.*

(i) Except as provided in paragraph (c)(4) of this section the Regional Administrator may not approve a chemical waste landfill for the disposal of PCBs and PCB Items, unless he finds that the landfill meets all of the requirements of paragraph (b) of this section.

(ii) In addition to the requirements of paragraph (b) of this section, the Regional Administrator may include in an approval any other requirements or provisions that the Regional Administrator finds are necessary to ensure that operation of the chemical waste landfill does not present an unreasonable risk of injury to health or the environment from PCBs. Such provisions may include a fixed period of time for which the approval is valid.

The approval may also include a stipulation that the operator of the chemical waste landfill report to the Regional Administrator any instance when PCBs are detectable during monitoring activities conducted pursuant to paragraph (b)(6) of this section.

RESPONSE: WM intends to comply with the approval requirements upon receipt.

(4) *Waivers.* An owner or operator of a chemical waste landfill may submit evidence to the Regional Administrator that operation of the landfill will not present an unreasonable risk of injury to health or the environment from PCBs when one or more of the requirements of paragraph (b) of this section are not met. On the basis of such evidence and any other available information, the Regional Administrator may in his discretion find that one or more of the requirements of paragraph (b) of this section is not necessary to protect against such a risk and may waive the requirements in any approval for that landfill. Any finding and waiver under this paragraph will be stated in writing and included as part of the approval.

RESPONSE: WM requests four waivers with this application. First, the requirement in 761.75(b)(3) for a 50 foot separation to groundwater. The documentation for this request is contained in Attachment 2 of this submittal. Second, the requirement in 761.75(b)(9) for a 6-foot fence, wall or similar device for the restriction of unauthorized access. The documentation for this request is also contained in Attachment 2. Third, a slightly modified groundwater monitoring system based on early detection monitoring is proposed. And the fourth request is a waiver to modify the parameters to be monitored in leachate. The documentation for this request is contained in Attachment 2.

(5) *Persons approved.* Any approval will designate the persons who own and who are authorized to operate the chemical waste landfill, and will apply only to such persons, except as provided by paragraph (c)(7) of this section.

RESPONSE: As indicated in the original application submittal, Waste Management of Wisconsin, Inc., is the owner and operator of the Ridgeview Recycling and Disposal Facility and intends to be the approved owner for the operation and disposal of waste under this approval.

(6) *Final approval.* Approval of a chemical waste landfill will be in writing and will be signed by the Regional Administrator. The approval will state all requirements applicable to the approved landfill.

RESPONSE: No TSCA-level waste will knowingly be accepted at the site until written approval is received from the Regional Administrator. WM will comply with the approval conditions and requirements.

(7) *Transfer of property.* Any person who owns or operates an approved chemical waste landfill must notify EPA at least 30 days before transferring ownership in the property or transferring the right to conduct the chemical waste landfill operation. The transferor must also submit to EPA, at least 30 days before such transfer, a notarized affidavit signed by the transferee which states that the transferee will abide by the transferor's EPA chemical waste landfill approval. Within 30 days of receiving such notification and affidavit, EPA will issue an amended approval substituting the transferee's name for the transferor's name, or EPA may require the transferee to apply for a new

chemical waste landfill approval. In the latter case, the transferee must abide by the transferor's EPA approval until EPA issues the new approval to the transferee.

RESPONSE: No transfer is anticipated. If a transfer were to occur, the appropriate notification listed above will be followed.

SUMMARY

This submittal, in conjunction with the original application dated March 24, 2011, and the approvals for the Southern Expansion landfill are intended to fulfill the requirements for determination of a complete application as required under 761.75.

SCALE IN FEET
100' 0 100'

LEGEND

- PREVIOUS SOIL BORING LOCATION
- FALL 2002 SOIL BORING LOCATION
- EXISTING GROUNDWATER MONITORING WELL LOCATION
- FALL 2002 GROUNDWATER MONITORING WELL LOCATION
- FALL 2003 GROUNDWATER MONITORING WELL LOCATION
- WINTER 2004 SOIL BORING LOCATION
- WINTER 2004 GROUNDWATER MONITORING WELL LOCATION
- BEDROCK WELL LOCATION
- APPROXIMATE SECTION LINE
- GROUND SURFACE CONTOUR
- EXISTING FENCE
- EXISTING DITCH
- EXISTING DRAIN TILE
- EXISTING ROAD
- PROPOSED LIMIT OF WASTE
- 920 PROPOSED GRADE
- PROPOSED SILT FENCE
- LANDFILL ZONING BOUNDARY
- EXISTING STRUCTURE
- EXISTING WETLANDS DELINEATED IN 2001
- EXISTING POWER POLE
- EXISTING TREES AND/OR BRUSH
- EXISTING STAFF GAUGE
- WETLANDS STS DELINEATED IN 2004
- EXISTING GAS PROBE
- PROPOSED LINER ANCHOR TRENCH
- SURVEY MONUMENT
- PROPOSED PERIMETER DITCH
- PROPOSED LYSIMETER

LEACHATE TANK
ACCESS ROAD MAY BE MODIFIED BY OWNER AT TIME OF CONSTRUCTION
LEACHATE TANKS
MAINTENANCE BUILDING
GAS PLANTS
36" DIA. HDPE PIPE
24" DIA. CONCRETE REINFORCED CULVERT
PERIMETER DITCH SEE DETAIL 5/14
BASE LINER ANCHOR TRENCH SEE DETAIL 5/12
PROPOSED LIMIT OF WASTE
SIDESLOPE SEE DETAIL 6/12
WETLAND LIMITS
ORDINARY HIGH-WATER MARK
SURVEYED SETBACK
SILT FENCE SEE DETAIL 1/16
LEACHATE COLLECTION SUMP SEE SHEET P00-15
BASE LINER SYSTEM SEE DETAIL 7/12
LEACHATE COLLECTION TRENCH SEE DETAIL 4/12
CELL 1
CELL 2
CELL 3
CELL 4
PROTECT WELL NEST TO PREVENT DAMAGE TO WELLS (TYP)
LANDFILL ZONING BOUNDARY
EAST OUTLET STRUCTURE
WEST OUTLET STRUCTURE
SEDIMENTATION BASIN B
LIMIT OF 2001 WETLAND DELINEATION
BASE LINER ANCHOR TRENCH SEE DETAIL 5/12
SIDESLOPE SEE DETAIL 6/12
LANDFILL ZONING BOUNDARY

NOTES:

1.) THIS MAPPING HAS BEEN PRODUCED ACCORDING TO PROCEDURES THAT HAVE BEEN DEMONSTRATED TO COMPLY WITH THE NATIONAL STANDARD FOR SPATIAL DATA ACCURACY (NSSDA) FOR A TARGET HORIZONTAL SCALE OF 1"=100' AND A SPECIFIED CONTOUR INTERVAL OF TWO FEET. FIELD CHECKING OF THIS MAP IS RECOMMENDED BEFORE USE.

2.) TWO FOOT CONTOUR INTERVAL BASED ON MEAN SEA LEVEL DATUM. HORIZONTAL DATUM BASED ON WISCONSIN STATE PLANE SOUTH (NAD 83).

3.) DASHED CONTOURS INDICATE APPROXIMATE ELEVATIONS AS DEFINED IN PARAGRAPH 7.1.3.6 OF THE MANUAL OF PHOTOGRAMMETRY, 4TH EDITION.

4.) AERO-METRIC, INC. PROJECT NO. 1020909 AND 1040210, DATE OF PHOTOGRAPHY: 9-26-02

5.) TO CONVERT TO PREVIOUS LOCAL GRID: -N 799,986.21, -E 2,528,444.48

6.) PROPOSED GRADES SHOWN INSIDE LIMITS OF WASTE ARE TOP OF

NO.	DESCRIPTION	DATE	BY
1	REVISED NUMBERING OF CELLS 1 & 3	11/07	KJC
2	ADDED LYSIMETERS & BEDROCK WELLS	12/07	JJC
3	REVISED NORTHEAST EXTERIOR SLOPE	12/07	JJC

RELEASED FOR REGULATORY REVIEW

DRAWN BY KJC DATE 8/06
CHECKED BY MGR DATE 8/06
APPROVED BY MGR DATE 8/06

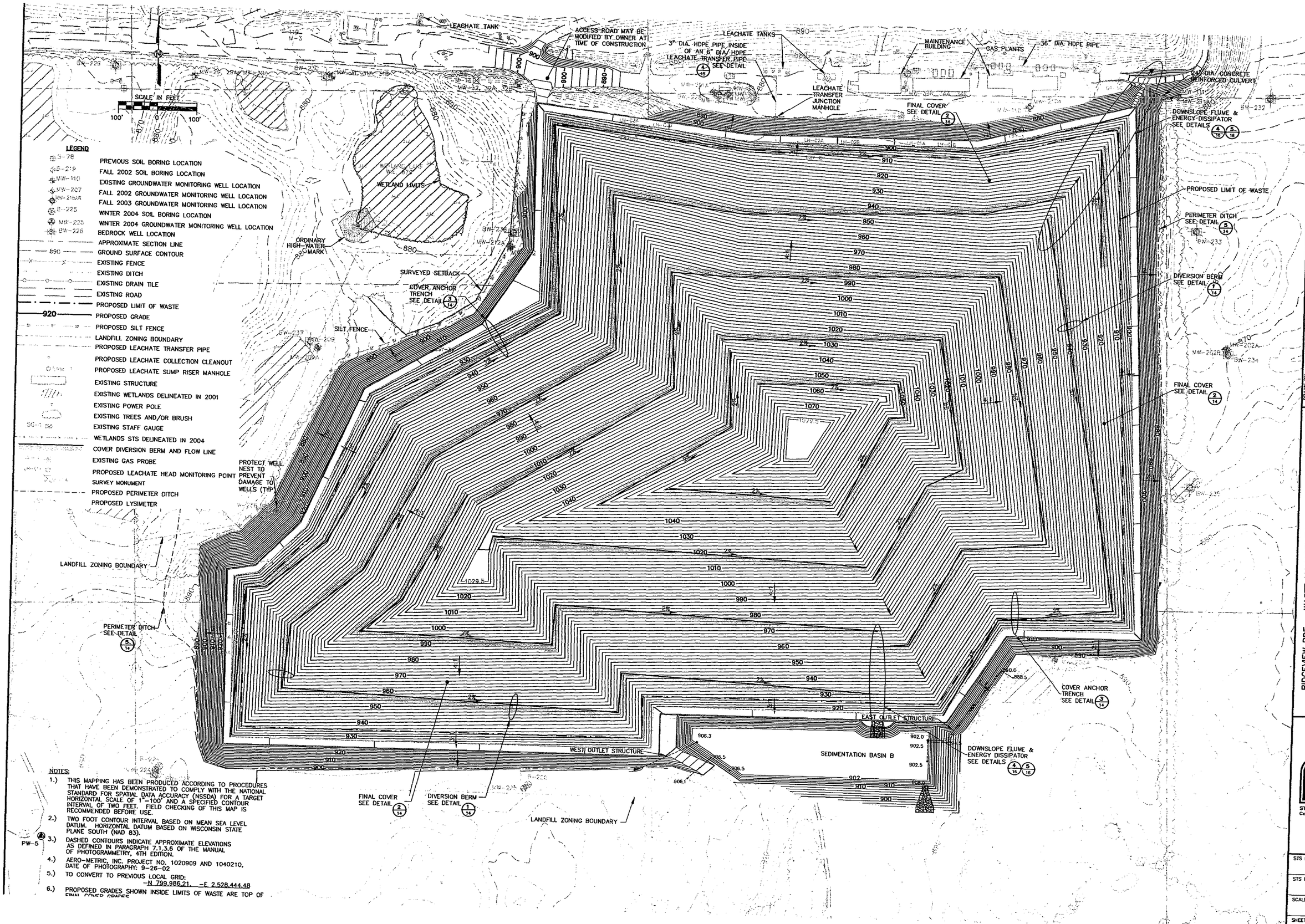
CADFILE \\PROJECTS\RIDGEVIEW\dwg\P00\P0-4_BASE-GRADES.dwg
07/31/2006 15:

RIDGEVIEW RDF - WASTE MANAGEMENT OF WISCONSIN, INC.
PLAN OF OPERATION - SOUTHERN EXPANSION
MANITOWOC COUNTY, WISCONSIN

BASE GRADES

STS Consultants Ltd.
Consulting Engineers

STS PROJECT NUMBER 29383
STS PROJECT FILE P0-4_BASE-GRADES.dwg
SCALE 1"=100'
SHEET NUMBER P00-4



NOTES:

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5.) TO CONVERT TO PREVIOUS LOCAL GRID: -N 799,986.21, -E 2,528,444.48

6.) PROPOSED GRADES SHOWN INSIDE LIMITS OF WASTE ARE TOP OF FINAL COVER GRADES

NO.	REVISION	DATE	BY
1	REVISED NUMBERING OF CELLS 1 & 3	11/07	KJC
2	ADDED LYSIMETERS & BEDROCK WELLS	12/07	JJC
3	REVISED NORTHEAST EXTERIOR SLOPE	12/07	JJC

RELEASED FOR REGULATORY REVIEW

DRAWN BY JLC DATE 8/06
CHECKED BY MGR DATE 8/06
APPROVED BY MGR DATE 8/06
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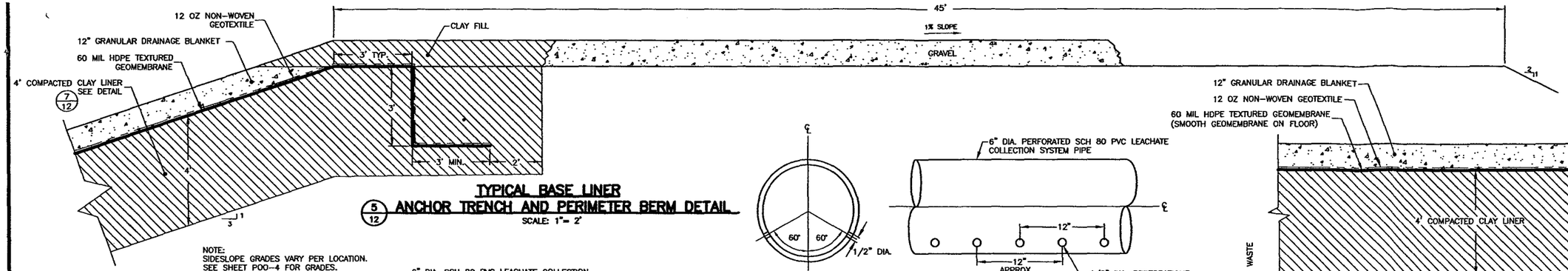
RIDGEVIEW RDF - WASTE MANAGEMENT OF WISCONSIN, INC.
PLAN OF OPERATION - SOUTHERN EXPANSION
MANITOWOC COUNTY, WISCONSIN

FINAL COVER GRADES

STS Consultants Ltd.
Consulting Engineers

STS PROJECT NUMBER 29383
STS PROJECT FILE PO-7.dwg
SCALE 1"=100'
SHEET NUMBER



TYPICAL BASE LINER ANCHOR TRENCH AND PERIMETER BERM DETAIL

5/12 SCALE: 1"= 2'

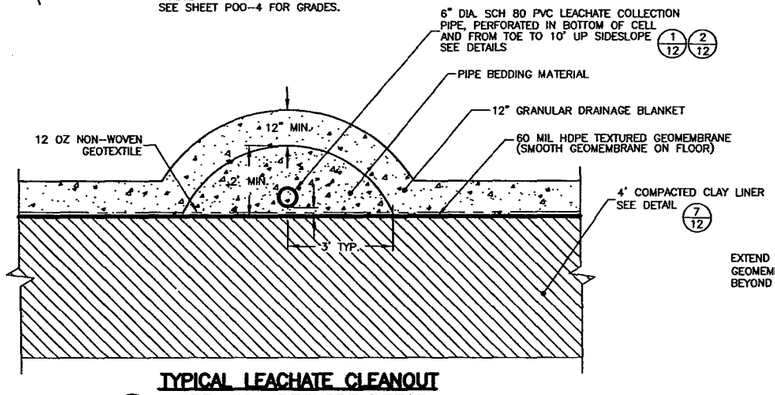
TYPICAL 6" DIA. PERFORATED SCH 80 PVC PIPE PERFORATION DETAIL

2/12 NOT TO SCALE

TYPICAL LINER SYSTEM DETAIL

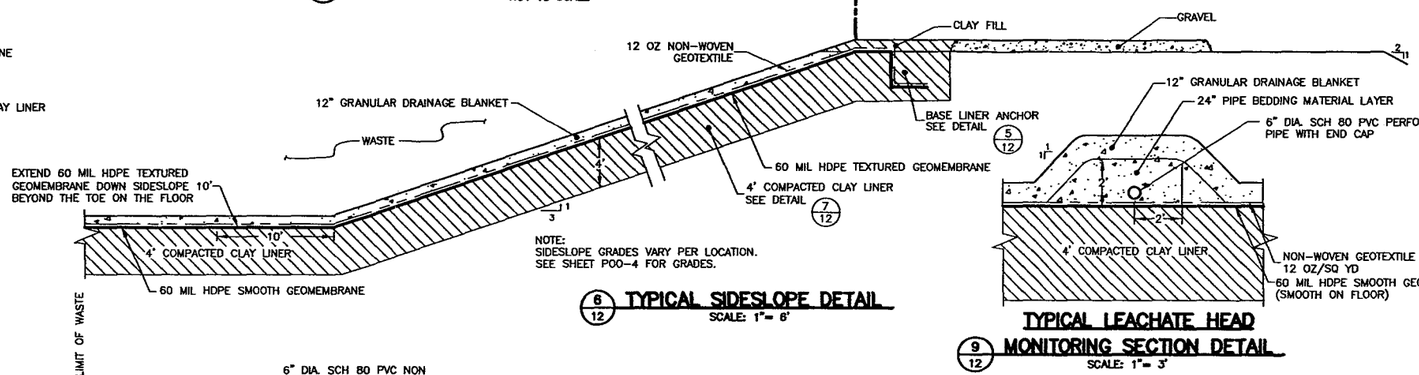
7/12 SCALE: 1"=2'

NOTE:
SIDESLOPE GRADES VARY PER LOCATION.
SEE SHEET P00-4 FOR GRADES.



TYPICAL LEACHATE CLEANOUT PIPE ON SIDESLOPE DETAIL

3/12 SCALE: 1"=2'



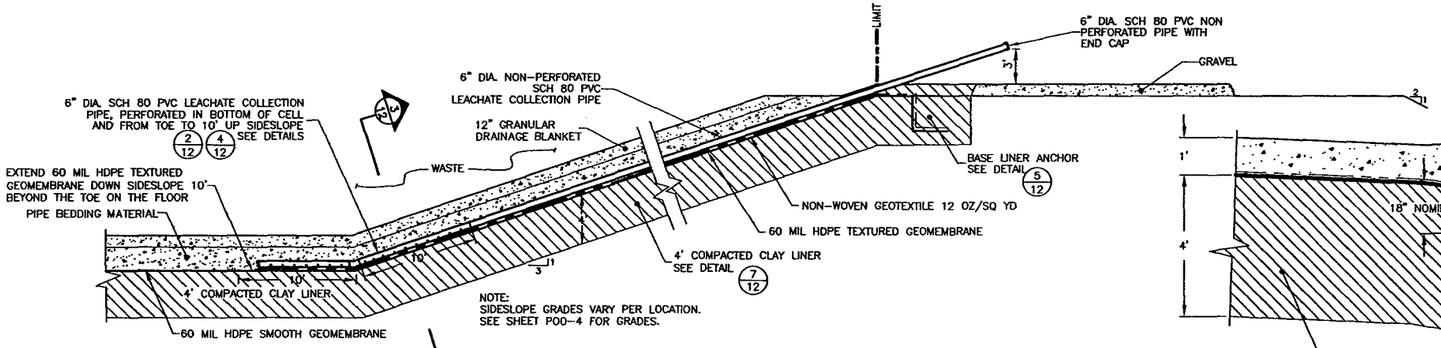
NOTE:
SIDESLOPE GRADES VARY PER LOCATION.
SEE SHEET P00-4 FOR GRADES.

TYPICAL SIDESLOPE DETAIL

6/12 SCALE: 1"= 6'

TYPICAL LEACHATE HEAD MONITORING SECTION DETAIL

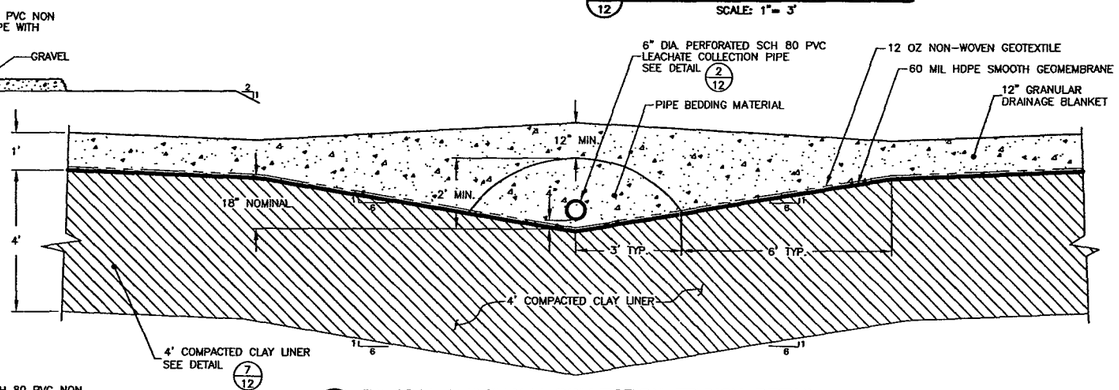
9/12 SCALE: 1"= 3'



NOTE:
SIDESLOPE GRADES VARY PER LOCATION.
SEE SHEET P00-4 FOR GRADES.

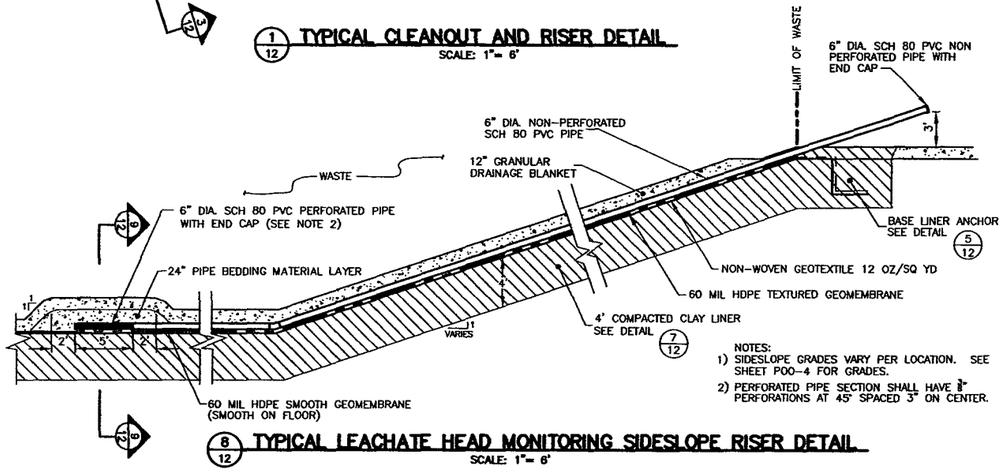
TYPICAL CLEANOUT AND RISER DETAIL

1/12 SCALE: 1"= 6'



TYPICAL LEACHATE COLLECTION TRENCH DETAIL

4/12 SCALE: 1"=2'



NOTES:
1) SIDESLOPE GRADES VARY PER LOCATION. SEE SHEET P00-4 FOR GRADES.
2) PERFORATED PIPE SECTION SHALL HAVE 8 PERFORATIONS AT 45° SPACED 3" ON CENTER.

TYPICAL LEACHATE HEAD MONITORING SIDESLOPE RISER DETAIL

8/12 SCALE: 1"= 6'

REVISION NO.	DESCRIPTION	DATE	BY

RELEASED FOR REGULATORY REVIEW

	DATE	
DRAWN BY	JLC	8/08
CHECKED BY	MGR	8/08
APPROVED BY	MGR	8/08

CADFILE X:\PROJECTS\RIDGEVIEW\dwg\P00\P0-12.dwg 08/01/2008 11:

RIDGEVIEW RDF – WASTE MANAGEMENT OF WISCONSIN, INC.
PLAN OF OPERATION – SOUTHERN EXPANSION
MANITOWOC COUNTY, WISCONSIN

LINER DETAILS

STS Consultants Ltd.
Consulting Engineers

STS PROJECT NUMBER	29383
STS PROJECT FILE	P0-12.dwg
SCALE	AS SHOWN
SHEET NUMBER	P00-12

Attachment 2 -

40 CFR 761.75(b) Responses

40 CFR 761.75(b) Technical Requirements. Requirements for chemical waste landfills used for the disposal of PCBs and PCB Items are as follows:

(1) Soils. The landfill site shall be located in thick, relatively impermeable formations such as large-area clay pans. Where this is not possible, the soil shall have a high clay and silt content with the following parameters:

(i) In-place soil thickness, 4 feet or compacted soil liner thickness, 3 feet;

(ii) Permeability (cm/sec), equal to or less than $1X10^{-7}$;

(iii) Percent soil passing No. 200 Sieve, >30;

(iv) Liquid Limit, >30; and

(v) Plasticity Index >15

RESPONSE: As stated in the March 24, 2011 submittal, the base liner for the Ridgeview Southern Expansion landfill consists of four feet of recompacted clay with a hydraulic conductivity equal to or less than $1X10^{-7}$ cm/sec and a 60-mil HDPE geomembrane. Therefore, the four-foot portion alone exceeds the liner thickness requirement. The clay liner material also meets or exceeds the NR 504.06 (2)(a) Wisconsin Administrative Code, requirement for a minimum of 50% by weight passing the No. 200 sieve. The average liquid limit and plasticity index values for recent construction on the site are approximately 27 and 15, respectively. These values are at, or slightly below, the stated requirements. The tested hydraulic conductivity for the base liner averaged approximately $3X10^{-8}$ cm/sec which far exceeds the requirement. In addition, the base liner consists of a four-foot thick recompacted clay layer with a geomembrane which exceeds the standard.

(2) Synthetic membrane liners. Synthetic membrane liners shall be used when, in the judgment of the Regional Administrator, the hydrologic or geologic conditions at the landfill require such a liner in order to provide at least a permeability equivalent to the soils in paragraph (b)(1) of this section. Whenever a synthetic liner is used at a landfill site, special precautions shall be taken to insure that its integrity is maintained and that it is chemically compatible with PCBs. Adequate soil underlining and soil cover shall be provided to prevent excessive stress on the liner and to prevent rupture of the liner. The liner must have a minimum thickness of 30 mils.

RESPONSE: The 60-mil high density polyethylene geomembrane in the base liner for the landfill is in addition to the recompacted clay and not a substitution. Therefore, the composite base liner meets the state requirements and exceeds the chemical waste landfill requirements.

(3) Hydrologic conditions. The bottom of the landfill shall be above the historical high groundwater table as provided below. Floodplains, shorelands, and groundwater recharge areas shall be avoided. There shall be no hydraulic connection between the site and standing or flowing surface water. The site shall have monitoring wells and leachate collection. The bottom of the landfill liner system or natural in-place soil barrier shall be at least fifty feet from the historical high water table.

RESPONSE: The bottom of the base liner for the Southern Expansion is at least 10 feet above the seasonal high groundwater table recorded for the site based on the existing groundwater monitoring wells. This is less than the 50-foot separation required and therefore a waiver of this requirement is requested. The basis for the waiver request includes the following:

- **The composite base liner for the landfill exceeds the requirements for a chemical waste landfill.**

- **The Toxic Substances Control Act (TSCA)-level waste is only a small fraction of the total landfill capacity.**

- **The landfill has a base lysimeter for the detection of potential leakage through the base liner and the liquid from the lysimeter is tested regularly.**

- **The site has a network of groundwater wells surrounding the landfill for the detection of potential impacts to groundwater quality.**

- **There is a special casing requirement of 250 feet for private or public water supply wells in this area due to previous groundwater contamination from sources not associated with the Southern Expansion or Waste Management. This provides a casing depth of approximately 200 feet below the landfill proposed base grades.**

- **The soils below the landfill contain significant quantities of clays and silts with the ability to attenuate contaminants.**

Therefore the reduction in separation is not a reduction in the protection provided at the site.

The Southern Expansion is not located in a floodplain or in a designated shoreland zone. The site does provide for some groundwater recharge, however it is extremely limited due to the presence of glacial till containing a significant fraction of clay and silt overlying the limestone bedrock. It was determined that the landfill design would not appreciably impact local or regional groundwater recharge during the evaluation performed under the NR 500, Wisconsin Administrative Code permitting process.

The landfill is not directly connected to standing or flowing water. All runoff from the landfill that contacts waste is managed as leachate and noncontact water is managed in the stormwater system. The stormwater system consists of terraces on the landfill which connect to piping and ditches that empty into onsite retention/detention basins. These basins periodically discharge following rain events into a series of ditches across agricultural land before reaching the Branch River.

The landfill does have numerous groundwater monitoring wells approved by the state permit on the upgradient and downgradient sides of the landfill. The Southern Expansion base liner system design includes a leachate collection and removal system described more fully in following sections.

(4) Flood protection. (i) If the landfill site is below the 100-year floodwater elevation, the operator shall provide surface water diversion dikes around the perimeter of the landfill site with a minimum height equal to two feet above the 100-year floodwater elevation.

RESPONSE: No portion of the landfill is located in a floodplain.

(4) Flood Protection. (ii) If the landfill site is above the 100-year floodwater elevation, the operations shall provide diversion structures capable of diverting all of the surface water runoff from a 24-hour, 25-year storm.

RESPONSE: The Southern Expansion landfill has a perimeter berm completely around the waste limits. This berm is at least 20 feet wide and is no less than 10 feet above surrounding land grades. This effectively prevents the runoff from a 25-year, 24-hour storm event from entering the landfill.

(5) Topography. The landfill site shall be located in an area of low to moderate relief to minimize erosion and to help prevent landslides or slumping.

RESPONSE: The topographic relief in the area of the landfill is slight with gradual slopes of 2-15%. The original design evaluated the landfill during construction, operation, and closure for stability against sliding or slumping and adequate factors of safety exist for all design conditions.

(6) Monitoring systems-(i) Water sampling. (A) For all sites receiving PCBs, the ground and surface water from the disposal site area shall be sampled prior to commencing operations under an approval provided in paragraph (c) of this section for use as baseline data.

RESPONSE: The site has an existing surface water and groundwater monitoring system in place for the landfill. No sampling for PCBs has occurred at the site. At this time no background samples are proposed to be taken and analyzed for PCBs as there is no evidence to suggest that there are or have been operations in the area contributing to PBC impacts. The background values assumed for all the wells and surface water points on the site are non-detection of PCBs.

(6)(i)(B) Any surface watercourse designated by the Regional Administrator using the authority provided in paragraph (c)(3)(ii) of this section shall be sampled at least monthly when the landfill is being used for disposal operations.

RESPONSE: WM will monitor any water course identified and designated by the US EPA in their approval of this application. There is no water course in proximity to the landfill that has a direct connection to the landfill. A small pond adjacent to the landfill will receive runoff of non-contact water from the landfill perimeter berm, but there should not be any waste associated with the exterior of the landfill so no monitoring should be required.

6(i) (C) Any surface watercourse designated by the Regional Administrator using the authority provided in paragraph (c)(3)(ii) of this section shall be sampled for a time period specified by the Regional Administrator on a frequency of no less than once every six months after final closure of the disposal area.

RESPONSE: See response above for 261.75(6)(i)(B).

(6)(ii) Groundwater monitoring wells (A). If underlying earth materials are homogenous, impermeable, and uniformly sloping in one direction, only three sampling points shall be necessary. These three points shall be equally spaced on a line through the center of the disposal area and extending from the area of highest water table elevation to the area of the lowest water table elevation on the property.

RESPONSE: The approved groundwater monitoring system for the landfill includes four upgradient wells, four sidegradient wells and six downgradient wells. These wells are appropriately designed to intersect the groundwater table for the site.

(6)(ii) (B) All monitor wells shall be cased and the annular space between the monitor zone (zone of saturation) and the surface shall be completely backfilled with Portland cement or an equivalent material and plugged with Portland cement to effectively prevent percolation of surface water into the well bore. The well opening at the surface shall have a removable cap to provide access and to prevent entrance of rainfall or stormwater runoff. The well shall be pumped to remove the volume of liquid initially contained in the well before obtaining a sample for analysis. The discharge shall be treated to meet applicable State or Federal discharge standards or recycled to the chemical waste landfill.

RESPONSE: The groundwater monitoring wells at the landfill were constructed in accordance with the state requirements (NR 141, Wisconsin Administrative Code) under the Subtitle D regulations. All wells have appropriate annular space seals and surface seals. Each well has an individual cap

and the protector pipe installed over each well is locked. The wells are purged before each sampling event. The water evacuated from the well is handled in accordance with state guidance documents and the approved sampling protocol for the facility.

(6) (iii) Water analysis. As a minimum, all samples shall be analyzed for the following parameters, and all data and records of the sampling and analysis shall be maintained as required in §761.180(d)(1). Sampling methods and analytical procedures for these parameters shall comply with those specified in 40 CFR part 136 as amended in 41 FR 52779 on December 1, 1976.

(A) PCBs.

(B) pH.

(C) Specific conductance.

(D) Chlorinated organics.

RESPONSE: Under the conditional approval of the special waste plan, once materials with PCBs are accepted at the landfill, there will a change in the sampling plan for the landfill leachate to include PCB congeners. There will not be any analysis of groundwater or surface water samples for PCB initially. The procedure will be: if there is waste in the landfill the leachate will be tested; if the leachate is shown to have PCBs, the water from the lysimeter will be tested for PBCs; if the lysimeter water is shown to have PCBs then groundwater samples from the monitoring wells will be analyzed for PCBs. There has been a significant amount of PCB-impacted river sediment disposed of in Wisconsin landfills and the leachate has not shown any PCBs. The reason there are no PCB detections in the leachate is because of the confinement of the sediment to the fill. No migration of particles is occurring in the landfill and there is little to no soluble fractions of the PCBs left after time in the river and processing. Therefore it does not make sense to start analyzing wells until there is evidence of PCBs in the leachate.

The groundwater monitoring program is established as a detection groundwater monitoring program, and currently includes the parameters pH and specific conductance. Background groundwater monitoring was completed as part of the Feasibility Report for the Ridgeview Southern Expansion under NR 512, Wisconsin Administrative Code. We are requesting a waiver for the analyses of PCBs and chlorinated organics in groundwater until they are detected in the leachate and the lysimeter as previously discussed.

(7) Leachate Collection. A leachate collection monitoring system shall be installed above the chemical waste landfill. Leachate collection systems shall be monitored monthly for quantity and physiochemical characteristics of leachate produced. The Leachate should be either treated to acceptable limits for discharge in accordance with a State of Federal permit or disposed of by another State or Federally approved method. Water analysis shall be conducted as provided in paragraph (b)(6)(iii) of this section. Acceptable leachate monitoring/collection systems shall be any of the following designs, unless a waiver is obtained pursuant to paragraph (c)(4) of this section.

RESPONSE: The Ridgeview southern expansion landfill is constructed with a leachate collection system. The quantity of leachate is monitored monthly. The leachate is analyzed for various parameters at frequencies ranging from weekly, monthly, quarterly and semiannually. In accordance with the approval of the Special Waste Plan for Ridgeview, once materials known to contain PCBs are accepted in the landfill, WM will begin sampling and testing the leachate for congeners of PCBs semi-annually. If PCBs are detected, the leachate will be either treated to acceptable limits for discharge in accordance with a state or federal permit or disposed of by another state or federally approved method. We request a waiver for the analyses of chlorinated organics in leachate as these compounds have typically not been part of this waste stream.

(7) (i) Simple leachate collection. This system consists of a gravity flow drainfield installed above the waste disposal unit liner. This design is recommended for use when semi-solid or leachable solid wastes are placed in a lined pit excavated into a relatively thick, unsaturated, homogenous layer of low permeability soil.

RESPONSE: The Southern Expansion landfill has a leachate collection layer installed directly above the base liner system. A system of granular material and piping allows gravity drainage of leachate to a collection sump. A submersible pump delivers the leachate from the sump to a leachate storage tank. The liquid level in the sump is continuously monitored to allow control of pumping.

(7)(ii) Compound Leachate collection. This system consists of a gravity flow drainfield installed above the waste disposal unit liner and above a secondary installed liner. This design is recommended for use with semi-liquid or leachable solid wastes are placed in a lined pit excavated into relatively permeable soil.

RESPONSE: The liner system for the Southern Expansion is not a double liner system, therefore there is not a compound leachate collection system.

(7) (iii) Suction lysimeter. This system consists of a network of porous ceramic cups connected by hoses/tubing to a vacuum pump. The porous ceramic cups or suction lysimeters are installed along the sides and under the bottom of the waste disposal unit liner. This type of system works best when installed in a relatively permeable unsaturated soil immediately adjacent to the bottom and/or sides of the disposal facility.

RESPONSE: This type of installation for detection leakage from the landfill is not applicable to the Southern Expansion landfill. However, four lysimeters are included in the design of the Ridgeview southern expansion landfill.

(8) Chemical waste landfill operations. (i) PCBs and PCB Items shall be placed in a landfill in a manner that will prevent damage to containers or articles. Other wastes placed in the landfill that are not chemically compatible with PCBs and PCB Items including organic solvents shall be segregated from the PCBs throughout the waste handling and disposal process.

RESPONSE: The anticipated waste is river dredge spoils and will be placed in the landfill using typical earth moving and compaction equipment. There is no danger of damage to containers as the material is delivered in bulk by trucks. The operation plan and management of the placement of the PCB impacted material will prevent the mixing with incompatible waste. Refer to the attached Operation Plan.

(8)(ii) An operation plan shall be developed and submitted to the Regional Administrator for approval as required in paragraph (c) of this section. This plan shall include detailed explanations of the procedures to be used for recordkeeping, surface water handling procedures, excavation and backfilling, waste segregation burial coordinates, vehicle and equipment movement, use of roadways, leachate collection systems, monitoring wells, environmental emergency contingency plans, and security measures to protect against vandalism and unauthorized waste placements. EPA guidelines entitled "Thermal Processing and Land Disposal of Solid Waste" (39 FR 29337, Aug. 14, 1974) are useful reference in preparation of this plan. If the facility is to be used to dispose of liquid wastes containing between 50 ppm and 500 ppm PCB, the operations plan must include procedures to determine that liquid PCBs to be disposed of at the landfill do not exceed 500 ppm PCB and measures to prevent the migration of PCBs from the landfill. Bulk liquids not exceeding 500 ppm PBCs may be disposed of provided such waste is pretreated and/or stabilized (e.g., chemically fixed, evaporated, mixed with dry inert absorbent) to reduce its liquid content or increase its solid content so that a non-flowing consistency is achieved to eliminate the presence of free liquids prior to final disposal in a landfill. PCB containers of liquid PCBs with a concentration

between 50 and 500 ppm PCB may be disposed of if each container is surrounded by an amount of inert sorbent material capable of absorbing all of the liquid contents of the container.

RESPONSE: No liquid PCB waste are to be accepted at the landfill, however if the dredge sediments are of insufficient strength due to moisture content, WM may use ash, absorbents, soil or waste to stabilize the sediment to a degree acceptable for disposal. Refer to the attached Operation Plan.

(8)(iii) Ignitable wastes shall not be disposed of in chemical waste landfills. Liquid ignitable wastes are wastes that have a flash point less than 60 degrees C (140 degrees F) as determined by the following method or an equivalent method: Flash point of liquids shall be determined by a Pensky-Martens Closed Cup Tester, using the protocol specified in ASTM D 93-90, or the Setaflash Closed Tester using the protocol specified in ASTM Standard D 3278-89.

RESPONSE: No ignitable waste will be disposed of in the Southern Expansion landfill as hazardous waste is not allowed to be disposed of in the approved landfill.

(9) Supporting facilities. (i) A six foot woven wire fence, wall, or similar device shall be placed around the site to prevent unauthorized persons and animals from entering.

REPSONSE: The Ridgeview facility disposal area is surrounded by a fence varying in height and construction. A waiver from the 6-foot height is requested as the past history has shown that the site fencing and security procedures prevent unauthorized entrance to the disposal area. Litter fencing around the disposal area also restricts access to the disposal site.

(9)(ii) Roads shall be maintained to and within the site which are adequate to support the operation and maintenance of the site without causing safety or nuisance problems or hazardous conditions.

RESPONSE: The site has designed and constructed all weather roads to allow proper operation of the landfill. Temporary roads will be constructed to the disposal site as the landfill is developed. The temporary roads will be maintained to prevent tracking of PCB material out of the landfill. Refer to the Operation Plan.

(9)(iii) The site shall be operated and maintained in a manner to prevent safety problems or hazardous conditions resulting from spilled liquids and windblown materials.

RESPONSE: The Operation Plan describes the methods to be used to minimize the hazards of blowing material. As the PCB impacted material is sediments, the site will use soil cover or watering to prevent windblown dust.

Attachment 3 -

Original Operation Plan

Operation Plan - TSCA-Level Waste

AECOM

Original Operation Plan

5.0 SITE OPERATIONS AND PHASED DEVELOPMENT

5.1 Operations

5.1.1 Hours of Operation

Ridgeview RDF will be closed and locked when an attendant is not on duty. Ridgeview RDF is open for waste disposal Monday through Friday from 6:30 am to 4:30 pm and on Saturday from 6:30 am to 12:00 noon. Hours of operation may vary.

5.1.2 Waste Types

Waste intended for filling the southern expansion will consist of the same waste material currently approved and being filled at the existing Ridgeview RDF, this includes non-hazardous municipal waste, commercial waste, industrial waste, and special waste as described in Section 2.1 and the Special Waste Plan dated August 2005 (Appendix J.) Records will be maintained on site or through accessible electronic means.

Incoming waste loads will be weighed at the landfill scale, the appropriate fees collected, and the loads directed to the disposal area. Random inspections (per s. NR 506.16) shall be made of incoming solid waste. Inspections shall be conducted on every 5,000 tons of solid waste or one inspection per month, whichever occurs more often; but no more than one inspection per week is required. Records of the inspections shall be prepared per S. NR 506.16(2). If unauthorized waste is observed, the driver will be instructed not to dispose of the waste load. If waste acceptability is questionable, site personnel will consult with the Site Manager. No salvaging will occur at the site.

5.1.3 Traffic Routing

Site personnel are responsible for the routing of traffic. Pylons, barricades, and traffic signs will be used to direct traffic as needed. Refer to Drawing POO-2 for access roads within the facility.

5.1.4 Lines and Grades

The horizontal and vertical control system will be maintained as shown on the drawings. The site surveyor will provide the intermediate lines and grades needed for operations. The site may hire and direct a qualified surveyor to stake grades if on-site personnel do not have the time. The landfill design is presented in State Plane coordinates and USGS elevations. On-site

benchmarks and global positioning systems (GPS) are available to the surveyor to verify instruments.

5.1.5 Nuisance Factors

Control of nuisance factors will be performed through proper maintenance of the site. Four important factors are addressed for nuisance free operation: odors, dust, vectors, and litter.

As described below, a key factor in control is the proper use of daily cover. The site will continue the practices established on the existing landfill, which were found to be effective. Soil from on-site excavations or stockpiles may be used as daily cover. In addition, alternative daily cover (i.e. tarping), use of designated wastes (i.e. paper mill sludge, foundry byproducts, power plant ash), or treated contaminated soils could be used.

5.1.5.1 Odor Control

Odors will be minimized through use of good landfill management practices as follows:

- One controlled active area with maximized operation of the gas collection system
- Cover areas stripped "just in time" to minimize odor sources
- Daily cover placed at the end of the operating day

NSPS for municipal solid waste landfills have developed requirements as to when an active gas collection system needs to be installed. These regulations require that the system collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of five years or more, if active; or two years or more, if closed or at final grade. Recognizing the need to comply with this requirement, WMWI has initiated the installation of the gas collection system early in the site life of many of their facilities and is proposing the same for the southern expansion. The specific timing of the installation of the initial phase and all subsequent phases of the gas collection system will be dependent on when the site is approved for waste acceptance and the rate at which waste is received.

5.1.5.2 Dust Control

Dust raised as a result of vehicular movement on gravel surfaced roads will be controlled by wetting with water or commercially available compounds. The site currently has pavement from

the entrance to the access road onto the active landfill. This same paved road system will be used for the expansion.

5.1.5.3 Vector Control

Vectors will be controlled through the use of daily, intermediate, and final cover placement at appropriate times. In the past, birds have, at times, been a concern. The site has a bird management program and appropriate permits dealing with bird concerns. These practices may continue on the expansion.

5.1.5.4 Litter Control

Litter will be controlled through daily maintenance of the site at the working face as is currently being done. In addition, the following will be done to minimize litter problems:

- Maintain a small working face
- Apply daily cover
- Position temporary fencing around the working face to intercept blowing debris
- When possible, take advantage of prevailing wind directions and orient daily operations accordingly

5.1.6 Police and Fire Protection

Police, fire protection, and emergency services are available from Manitowoc County and surrounding cities. On-site vehicles have some fire equipment, and the water truck or leachate tankers could be implemented if needed. Soil stockpiles are available on site for use in addition to water from on-site sediment basins.

5.1.7 Recordkeeping

Operational and maintenance activities will be recorded, including waste volumes, leachate volumes handled, and monitoring results. A written record shall be maintained at the site during the life of the landfill and the 40-year long-term care period as specified by s. NR 506.17.

5.1.8 Public Access

Public access to the site will be limited to public disposal areas, as directed by the landfill operator. Parking is available at the existing facility for visitors and employees. The active landfill

is currently fenced and the expansion is also enclosed by a new fence. No salvaging will be allowed at the landfill.

5.1.9 Adverse Weather - Wet, Cold, and Windy

Operational disruptions due to adverse weather will be minimized through proper maintenance of the site and good operating procedures.

Roads leading to the working face will be kept passable in all weather conditions, if possible. If roads should become impassable due to wet conditions, a disposal area closer to the module entrance will be used for the duration of the wet weather.

Vehicular movement within the fill area during wet conditions can cause rutting and disruption of cover layers, which may cause ponding. As soon as weather permits, areas disturbed during wet weather will be regraded.

Swales will be maintained in all weather to minimize disruptions of surface water flow.

During cold weather, a snow plow or other heavy equipment will be used to clear roads. In freezing weather, a sufficient quantity of cover soils will be protected so that daily cover can continue to be applied.

Initially, a fluff lift of waste will be placed across a newly constructed cell. This lift will be placed using waste, which minimizes the potential to damage the leachate collection system and base liner. From there, the waste will generally be placed in horizontal lifts and compacted. No equipment will be allowed to drive directly on the leachate drainage blanket. All temporary haul roads will be built on top of the waste.

The operation area will be kept to an area as small as practical and allow safe access by haul trucks. The operator will be responsible for overseeing all waste placement and when necessary, documenting locations of specific loads. Generally, waste will be spread immediately after a truck in unloaded. After spreading, the waste will be compacted in lifts that are generally 2 to 4 feet in thickness. Multiple lifts may be compacted in one day to achieve a daily placement of a 10- to 15-foot thick layer.

5.1.10 Staffing

Ridgeview RDF employs personnel including certified facility managers, certified facility operators, scale attendant, gas plant operator, yard maintenance personnel, and the site operator. The Site Manager and Site Engineer will generally be present or in contact with the site during hours of operation. The Site Manager and Site Engineer are certified as outlined in ch. NR 524.

Personnel responsible for the proper performance of the landfill will be knowledgeable of this PLAN. Competent individuals will inspect and establish site grades and perform other engineering modifications using the information shown on the drawings and instructions in this PLAN.

5.1.11 Refuse Filling Procedures

5.1.11.1 General

Refuse filling at the site will occur in four development phases, as shown on the phase drawings. During windy weather operation, the operators will position windscreens to potentially catch wind-blown debris. When possible in the landfill development, operations will be directed to lower elevation filling during windy weather. The site manager may shut down operations, if necessary, during extremely windy weather. Wind-blown debris and paper will be collected from areas outside the active area as soon as practical following an extremely windy event.

An initial lift of at least 4 feet of waste will be placed across the entire base and lower 10 feet of sideslope following construction. This lift will be placed prior to December 1 of the year that follows the clay liner documentation, when possible, based on waste receipts.

5.1.11.2 Special Waste

The site will continue to implement procedures on the new landfill associated with the permit for stabilization of waste and biopiles in accordance with those permits. This generally applies to processing of ash and to petroleum-impacted soils as presented in those permits. In addition, the site will continue to use approved alternative daily cover materials, which may be waste streams (i.e. foundry sand, treated contaminated soils, ash, or paper mill waste) in accordance with past approvals. Beneficial reuse of waste (i.e. the grading layer for cover system construction or in the berm along the waste limits) will be continued under this application.

5.1.12 Surface Water and Erosion Control

The proposed surface water and erosion control plan consists of perimeter drainage swales, intermediate sideslope swales and downslope pipes, culverts, and sedimentation basins. These features are shown on Drawing POO-7. This system of swales will route water as quickly as possible minimizing erosion by limiting the length of overland flow of rain water. The sedimentation basins will allow settlement of particles before discharging off site.

The following activities will be performed to maintain surface water and erosion control in accordance with s. NR 504.09(1):

- Keep off-site water from entering the landfill by maintaining the perimeter drainage swales.
- Place silt fence around stockpile areas until vegetated if needed to limit erosion.
- Re-vegetate stockpile with temporary seed mix if not to be used that construction season.
- Route on-site water away from the active fill area.
- Maintain a good vegetative cover on areas to prevent erosion, except those areas required for landfill operations.
- Maintain drainage swales and culverts; remove debris that would hinder the flow of water; remove such material if found.
- Use ditchchecks (silt fencing or hay bales) for erosion control in swales if needed until vegetation is established.
- Clean sedimentation basins when sediment reaches 2 feet in depth.

5.1.13 Leachate Control

The proposed leachate control system consists of leachate collection lines which collect leachate over the base of the liner system and conveys it to sumps containing sideslope leachate extraction risers. Leachate collected in the sumps will be pumped up the sidewalls into manholes where a gravity conveyance line will transport the leachate to on-site storage tanks. The leachate may be used on site through leachate recirculation in the waste mass or disposed of off site at the City of Manitowoc POTW. Leachate removal will typically be performed from the tanks into trucks during normal operation hours. The site may truck on weekends or holidays if needed to keep leachate quantities under control.

5.1.14 Leachate Recirculation

The southern expansion has been designed to accommodate the recirculation of leachate or other liquids. This has been done in anticipation of meeting the criteria for organic stability as proposed by the WDNR. At this time, only on-site leachate generation will be used within the expansion. The gas collection and transmission piping has been designed to accommodate an increase in gas flow that my result from leachate recirculation. The leachate collection system, sumps, and extraction systems have been designed for a possible increase in volume that may result due to recirculation. In addition, the sump pumps have been sized to allow pumping to the storage tank or into distribution lines.

WMWI is proposing the option to use one or more methods of leachate recirculation depending on the stage of filling within the expansion and current operations. These methods include surface application, vertical systems, and horizontal distribution as briefly described herein.

Surface Application: Leachate will be hauled to the active area of the landfill and applied to the surface of the waste before placement of the daily cover. The application will be limited to volumes and distribution methods, which will not generate runoff or erosion. The distribution method will limit wind-blown dispersion and evaporation of leachate.

Vertical System: Vertical pipe and granular media columns may be used for leachate recirculation. These will not be the gas extraction wells.

Horizontal System: Horizontal distribution may occur via a pipe network or a porous bed distribution system. The pipe network may consist of perforated pipe installed in granular material trenches. Pipe will be SDR 17 HDPE and have 0.5-inch perforations at 12-inch intervals. Trenches will start a minimum of 100 feet from an outboard slope and be a minimum of 20 feet above the leachate collection layer. Pipe spacing and length will vary with the amount of space available in each landfill phase of development.

The leachate recirculation will be performed from the sideslope riser or the leachate storage tank for the horizontal or vertical systems. The sideslope riser vaults can be equipped to allow the leachate to flow to the transfer header or the recirculation forcemain. The drawings show the

option for piping directly from the vaults. Appendix D-3 discusses the pump sizing for straight extraction or extraction/recirculation.

5.1.15 Recirculation Operation Controls and Reporting

The recirculation of leachate will be performed in accordance with this application and NR 506.135. The organic stability regulation may cause these procedures to be modified and, if so, the site-specific plan will address those changes. In General, the recirculation of leachate shall be limited as follows:

- Distribution systems shall be a minimum of 100 feet from exterior slopes.
- Application shall be greater than 20 feet above leachate collection system unless applied by truck.
- Leachate recirculation shall not occur in areas without active gas extraction systems installed.
- Recirculation shall be suspended if any warning signs of problems are noted by operators. The operator will notify the department within seven days if recirculation is stopped due to operational problems.
- The gas system shall be operated during recirculation as necessary to minimize the potential for emissions or odors.
- The landfill operator shall maintain written record of the liquid mass balance for each drainage basin in accordance with NR 507.215.
- Leachate will not be recirculated where daily cover is clay unless the low permeable soil is removed or scarified prior to placement of new waste.
- Measures shall be taken to prevent cold weather freezing such as draining lines and providing sufficient cover to distribution lines.

5.2 Phase Development

5.2.1 General Coordination of Sequence

During filling operations, it will be the responsibility of the site operator and on-site personnel to monitor proper waste placement, daily cover placement, and intermediate cover removal. The Site Manager must identify and coordinate future construction activities such as the preparation of subsequent cells for filling. New construction will occur when waste depths and slopes in the current phase have reached or are scheduled to reach design grades before a construction season will pass. The maximum waste height is discussed under the stability analysis section.

These items will be performed in a timely manner, with consideration given to completion of construction within the construction season, such that the filling operation is not affected. The southern expansion generally will be constructed in four development phases (Phases I through IV) as shown on the drawings. Phases 2 and 3 may be instructed as needed and divided at the high point. Filling of the southern expansion will be completed in a vertical phasing process typical of current landfill filling operations, and provides intermediate slope stability for the liner design. Refer to Drawings POO-19 through POO-22 and cross-sections on Drawings POO-10 and POO-11 for the horizontal and vertical phasing scheme for the site. These plans are conceptual in nature. Actual conditions may vary somewhat (e.g. an adjacent cell may be constructed prior to depicted waste fill grades are reached).

5.2.2 Phase I

Phase I construction includes the entire west side perimeter berm, some of the perimeter road along the northwest corner of the expansion, the north perimeter berm only along the phase, and the entire leachate conveyance line along the north side. Refer to Drawing POO-19. Construction of the south sedimentation basin will also occur during Phase I construction activities. Initial grading activities will begin with routing of on-site runoff from the southwest and rerouting of the off-site drainage from the south. Parts of Cells 2 and 4 will be graded to subbase elevations at this time. Upon completion of the Cell I base liner system and leachate collection system, refuse filling will commence in the southern expansion. Proposed filling will occur in the cell until the entire length and width of the base of the granular blanket drainage layer is covered with the first lift of refuse.

5.2.3 Phase II

Phase II construction includes the excavation of Cell 2 and extension of the north berm to the east. The south berm adjacent to the sediment basin will be extended also. Cell 2 liner system and leachate collection system will be completed. Cell 2 is designed to accommodate construction as both modules or individually. In addition, the south end may be left undeveloped to allow drainage from Cell 4. Following construction approval, waste placement will continue and additional filling on the south will be limited adjacent to Cell 4 until Cell 4 is finished and filled. At that time, additional vertical filling can occur in Cells 1 and 2.

5.2.4 Phase III

Phase III construction will essentially complete the eastern limits of the expansion by completing Cell 3. The construction sequence and options will essentially follow the steps for Cell 2.

5.2.5 Phase IV

Phase IV construction will complete the southwest portion of the expansion designated Cell 4. The south and west perimeter berms will be completed and a leachate forcemain extended from Cell 1 riser vault. The liner system of Cell 4 will follow the steps of the other cells and waste placement will bring the final portion of the expansion to final cover grades.

AECOM

Operation Plan – TSCA Level Waste

Contents

1.0 Site Operations

1.1 General

This section outlines the operating procedures to be employed that are associated with the disposal of Toxic Substances Control Act (TSCA)-level waste in Southern Expansion landfill in accordance with NR 506 and 514 WAC and the applicable sections of 271. Descriptions of control measures, personnel and equipment, general waste filling procedures, waste stabilization requirements, and leachate and gas management. In addition, the operation of the landfill to receive municipal and industrial waste will continue in accordance with the site permit and local conditions.

It is anticipated that the disposal of TSCA-level waste will occur simultaneously with the other site operations. Therefore the personnel, equipment and support features are in place to accommodate the expected waste volumes. In accordance with the site Special Waste Plan, the TSCA-level waste may be co-disposed in the normal waste stream or mono-filled. This decision will be made based on the volume of material received and the material strength.

1.2 Control Measures

The various control measures to be implemented to insure the operation of an environmentally sound solid waste disposal facility are discussed in the following sections.

1.2.1 Hours of Operation

Normal gate hours for receiving waste will be from 6:30 am to 4:30 pm, Monday through Friday, and from 6:30 am to 12:00 pm on Saturday. Operation hours may be adjusted to accommodate the dredging operations or special circumstances. An operator will be on duty during all hours of operation. Activities such as intermediate cover placement and leachate handling may extend beyond gate hours to accommodate the operator.

1.2.2 Traffic Routing

Access to the landfill will be from Hempton Lake Road as with all waste traffic. An all-weather access road will be constructed to the designated disposal area. The road will be a gravel surface and of sufficient width for two-way truck traffic.

Truck drivers will stop at the landfill office to submit manifest for the current load and to be weighed. Personnel at the field office will direct trucks to waste acceptance area and queuing. At the queue point drivers will uncover the loads and await directions on where to dump.

Trucks will enter the Southern Expansion from the paved road that extends from the scale to the landfill limits. The trucks will travel separate temporary roads to the designated disposal area. The dumping pad will be maintained to keep the trucks tires as clean as practical. As the landfill is filled the road and dumping pad will move to maintain the trucks above the sediments. This will help minimize tracking of disposed material by the haul trucks.

After dumping, the trucks will secure the box and travel along the temporary access road to the tire wash pad, which will be located within the lined area. When needed, the truck tires and under-carriage will be washed with a low-volume, high-pressure water wash. A truck has been sufficiently washed after a close visual inspection of the tires and undercarriage are free of soils or sediments. After washing the trucks, the drivers will proceed to the temporary field office to be checked out before leaving the site.

Signs identifying the office and disposal area access will be used as needed to control traffic flow. Regular waste disposal activities will be directed as needed to prevent traffic problems with the TSCA-level waste trucks.

1.2.3 Lines and Grades

Existing permanent survey control monuments exist at the site and the site personnel use GPS surveying equipment to document special waste placement. Elevations will be based on mean sea level datum, and coordinates will be based on the site grid which is based on the Wisconsin State Plane Coordinate System. Survey crews will provide line and grade control as necessary to assist operators during cell construction, waste placement, and closure construction.

1.2.4 Nuisance Control

Nuisance-free operation depends on sound maintenance policies that are practiced throughout the life of the site. The factors to be addressed for nuisance-free operation are identified in the following paragraphs.

1.2.4.1 Road Maintenance

Dust may be generated from the placement of cover material, the grading of waste, the vehicular traffic on the access roads, and by wind over barren areas. Dust may be controlled by wetting roads with water or commercially available compounds. Leachate or water will be used sparingly on waste areas if dusting becomes evident.

The access road within the landfill will be graded and surfaced with gravel to provide full season access. This road may be used by current operations. The temporary access road within disposal area will be surfaced with gravel to allow all weather access. The road will be periodically graded to eliminate ruts and remove any impacted soils, thus keeping the road as a clean road.

1.2.4.2 Disease Vectors

Proper waste compaction and placement of river sediments should not be associated with general vectors associated with landfills. Proper drainage will be maintained which will minimize breeding habitat for mosquitoes.

1.2.4.3 Odor

It is anticipated that daily cover will not be required for the sediments. However, if odors become a concern, temporary daily cover may be employed to reduce odors. In addition, a gas control system and leachate collection system will be properly maintained to minimize the potential for odors.

1.2.4.4 Noise

The equipment used on site will have the proper mufflers and will be maintained in good operating condition to limit noise.

1.2.5 Police and Fire Protection

Police, fire protection, and other emergency care services available to the site are provided primarily by Manitowoc County and local townships. Fire extinguishers will also be available on the site equipment. Since the TSCA-level material is sediments, there will be little to no danger of fires associated with the waste.

1.2.6 Public Access

Access to the site is controlled by a perimeter fence and a lockable gate at the entrance. Access to the site will be limited to the site operator, engineer, Waste Management personnel, and approved waste hauler. Visitors are required to arrange visitation to the site through the site office and are required to be accompanied by WM personnel while on site.

1.2.7 Inclement Weather Operations

Various measures will be taken in the event of inclement weather to ensure minimal disruption to landfill operations.

1.2.7.1 Wet Weather

In the event of wet weather, truck tires will be inspected and washed if necessary to prevent the tracking of mud from the cell onto the access roads. Wash water will be handled as leachate. If necessary, waste placement will be halted due to wet weather.

1.2.7.2 Cold Weather

In the event of snow cover, the edges of roadways, culverts, and monitoring wells will be marked by stakes or flags, if required, due to snow depths and plowing needs. Snow plows or other heavy equipment will be used to clear the access roads.

1.2.7.3 Windy Weather

In the event of dry and windy weather dust will be suppressed by wetting roads with water or commercially available compounds.

1.2.7.4 Dry Weather

The dust generated as a result of dry conditions will be controlled by wetting roads with water or commercially available compounds.

1.2.8 Drainage and Erosion Control

Operational aspects of drainage and erosion control include proper management of surface water and maintenance of permanent drainage control facilities. The perimeter berms will limit offsite surface water from entering the cell. Diversion berms will be used to contain runoff from the active disposal area. Minimum slopes of 1% will be used on completed waste lifts to maintain positive drainage and prevent ponding. Completed or interim areas that will remain inactive at least six

months will be covered with a cover layer to minimize erosion. Temporary erosion control measures will be implemented as needed while filling to maintain sand drainage layer on side slope vegetation.

Surface water runoff from daily and interim cover areas will be directed by temporary and permanent drainage ditches to the sides of the landfill to infiltrate into the leachate collection system.

Surface water that has contacted waste will be collected and disposed as leachate. During initial waste filling operations below grade, top slopes will be maintained to direct contact surface water to the sidewall or to the leachate collection layer.

1.2.9 Recordkeeping

Records will be maintained of waste amounts received by waste category, by volume, and weight. All monitoring results, leachate collection, and disposal quantities will be recorded.

During TSCA-level waste disposal operations, a set of records will be maintained at the site office. A waste disposal log will be maintained at the landfill office on a daily basis. Once operation ends for the site the records will be maintained WM for the appropriate amount of time.

In accordance with the landfill permit, WM will prepare an annual tonnage report including and TSCA-level waste operations. A copy at this report and portions pertaining to TSCA-level waste will be submitted to the US EPA.

Records will be maintained by WM for the operating period of the Southern Expansion landfill and through 40 years following closure.

1.3 Personnel and Equipment

WM bears the responsibility for the environmentally sound and efficient operation of the site. They will ensure that adequate personnel and equipment area available. Staffing requirements for the operation of TSCA-level waste disposal may include the following personnel:

- Certified site manager/operator
- Staff engineer and technician(s)
- office attendant
- Equipment operators
- Mechanic

Many variables dictate staffing levels, such as singular or multiple responsibilities, experience, full or part-time employment, in-house or contract labor, etc. Employees will be equipped with the appropriate training and personal protective equipment for the waste handled in accordance with TSCA and OSHA.

Typical equipment requirements for operation and maintenance of the landfill are similar to the existing operations. Generally the following types of equipment are available:

- Utility dozer

- Haul truck
- Compactor
- Tracked backhoe
- Water truck
- Grader

- Miscellaneous (pumps, generators, mowers, compressors, etc.)

Essential equipment requiring back up includes the following:

- Dozer
- Haul trucks
- Compactor
- Water truck

Back-up equipment will be maintained on site or will be available from area equipment suppliers. Leased or rental equipment is also available in the area.

Employees working on the disposal site will park vehicles adjacent to the field office or maintenance buildings as designated by WM. Regulatory personnel will be allowed to park near the office when visits are pre-arranged.

1.4 General Waste Filling Procedures

Daily operations will be contained to the smallest area as possible and in accordance with the site normal landfilling procedures. The waste slopes will be maintained as flat as possible while maintaining a positive drainage to the leachate collection system. The minimal slopes will help to reduce erosion potential.

1.5 Waste Placement

The sediments will be pushed into place in what is expected to be approximately 4-foot thick lifts when the material is disposed in a monofil. Lifts may vary due to material properties. Construction equipment requirements will be determined by the operator once the dredge sediments arrive on site. Initially, the sediments will be pushed and leveled with low ground pressure equipment to assure full access. Compactors will be used if the sediment is of sufficient strength to further consolidate the fill.

The sediments arriving at the site will be required to have a minimum undrained shear strength of 600 pounds per square foot. Because the sediments are going to be mechanically dewatered and stabilized prior to disposal, this shear strength will allow standard construction and landfilling practices to be employed. As part of the operational controls at the site, a truck tire wash station will be constructed below the crest of the slope on the access road inside the landfill. The wash station will be operated on an as needed basis with wash water being handled as leachate. It is expected that the all weather access road will reduce the potential of tracking PCB-contaminated sediments outside the limits of the cell.

1.6 Landfill Gas Management

Large volumes of landfill gas are not expected to be generated by the stabilized sediments. The operation of the designed landfill gas system will control gas from adjacent areas of the landfill.

1.7 Leachate Management

Leachate and contact water are expected to be generated during operations while the TSCA-level waste disposal area is open. Upon final closure of the area, leachate production is expected to taper off because of the composite final cover system. Initially, leachate generated will be pumped to the existing leachate tanks. Leachate will either be trucked to an approved off-site disposal plant. If leachate testing shows non-detection of PCBs the leachate may be used for leachate recirculation as approved under the site permit.

1.8 Environmental Monitoring

Environmental monitoring will be in accordance with Section 6.0 of the Plan of Operation and WDNR approvals.

1.9 Environmental Monitoring Contingency Plan

The environmental monitoring contingency plan will remain unchanged for the site. Actions to be taken in the event that groundwater, surface water, gas migration, or total suspended particulate air emission impacts are detected are detailed in the associated state regulations and the site permit. If PCB impacts are detected outside the limits of the landfill liner and cover system, US EPA will also be notified.

Attachment 4 -

Conditional Plan of Operation Approval Modification dated August 13, 2008

WISCONSIN
DEPT. OF NATURAL RESOURCES

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor
Matthew J. Frank, Secretary
Ronald W. Kazmierczak, Regional Director

Northeast Region Headquarters
2984 Shawano Ave., P.O. Box 10448
Green Bay, Wisconsin 54307-0448
Telephone 920-662-5100
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TTY Access via relay - 711

AUG 13 2008

AUG 14 2008

Mr. Ray Seegers, P.E.
Ridgeview Recycling & Disposal Facility
6207 Hempton Lake Road
Whitelaw, WI 54247-0227

FILE REF: FID #436020530
Manitowoc CO
SW
APPR

Subject: Conditional Plan of Operation Approval Modification at the Ridgeview Recycling & Disposal Facility, Manitowoc County, Wisconsin, License NO. 03041

Dear Mr. Seegers:

The requested modification to your plan of operation for the following four (4) items at the WMWI Ridgeview RDF has been reviewed and approved:

1. Redesign of the final cover tie-in from a previously closed area to a newly closed area;
2. Inclusion in the Special Waste Plan of a new special waste category, A-28, for dredge sediments containing PCBs and heavy metals with concentrations of less than 50 ppm.
3. Placing the replacement gas header lines above the geomembrane within the rooting zone; and,
4. Allowing the termination of gas wells when a layer of wet black slime is encountered near the base of the landfill.

As a requirement to accept dredge sediment for disposal, the Department is required by sec. 289.54(2), Wis. Stats., to hold a public meeting in the city, town, or village where the disposal facility is located to explain the proposal and solicit public comment. This requirement was satisfied with a meeting that was held on Thursday, June 4, 2008, at the Town of Franklin Town Hall.

You are reminded that approval by the Department does not relieve you of obligations to meet all other applicable federal, state, and local permits, zoning and regulatory requirements.

Please call Leland Archiquette at 608-267-0542 if you have any questions regarding this approval.

Sincerely,

Len Polczinski
Waste Program Team Leader
Northeast Region

CC: Jerold Korinek - Town Chairman
John Steimle - Town of Franklin
Terry Hegeman - NER
Leland Archiquette /File – WA/5

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

CONDITIONAL PLAN OF OPERATION APPROVAL MODIFICATION
FOR THE
RIDGEVIEW RECYCLING & DISPOSAL FACILITY
LICENSE # 3041

FINDINGS OF FACT

The Department finds that:

1. Waste Management of Wisconsin (WMWI) owns and operates a non-hazardous solid waste disposal facility, Ridgeview Recycling & Disposal Facility (RDF) located in the E½ of the NW¼ and the W½ of the NE¼ of Section 26, T20N, R22E, Town of Franklin, Manitowoc County, Wisconsin.

2. The Department issued a conditional plan of operation approval for the existing facility on August 8, 1984, and subsequent modifications, under which the landfill is currently operating.

3. The Department issued a conditional plan of operation approval for the Southern Expansion of the Ridgeview RDF on April 28, 2008.

4. On April 15, 2008, the Department received a request titled, "Ridgeview Plan Modification Request." The report was prepared by WMWI and dated May 25, 2007.

5. On June 3, 2008, the Department requested additional information for the plan modification request to address the Special Waste Plan.

6. On June 4, 2008, the Department held a public meeting at the Town of Franklin Town Hall garage and explained the proposed plan to accept dredge sediments and to solicit comments. The meeting was required by s. 289.54(2), Stats.

7. On June 5, 2008, the Department received the $1,650 plan review fee from WMWI.

8. On June 12, 2008, the Department received the certification page with the Professional Engineer's seal from Mr. Ray Seegers of WMWI.

9. On June 27, 2008, the Department received a response to the requested information for the Special Waste Plan. The letter was dated June 20, 2008.

10. Additional documents were considered in connection with the review of the modification request include the following:

    a. The September 6, 2001, Plan of Operation Approval Modification for the Superior Hickory Meadows Landfill;

    b. The September 29, 2005, Plan of Operation Approval Modification for the Superior Hickory Meadows Landfill;

    c. Department files for the Ridgeview RDF.

d. Code Of Federal Regulations, Title 40--Protection of Environment, Chapter I--Environmental Protection Agency; Subchapter R--Toxic Substances Control Act, Part 761--Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution In Commerce, And Use Prohibitions. Available at: http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&tpl=/ecfrbrowse/Title40/40cfr761_main_02.tpl

e. Abstract of an article titled: Reductive Dechlorination of Polychlorinated Biphenyls In Landfill Leachate; Carmen L. Royal, David R. Preston, Andrew M. Sekelsky and Gina S. Shreve; International Biodeterioration & Biodegradation; 2003, vol. 51, no1, pp. 61-66. Abstract available at: http://cat.inist.fr/?aModele=afficheN&cpsidt=14004252.

f. A publication titled: A Risk Management Strategy for PCB-Contaminated Sediments, Appendix F, Methods of Analysis of PCBs in Sediments, Water, and Biota; 2001; The National Academies, Committee on Remediation of PCB-Contaminated Sediments, Board on Environmental Studies and Toxicology; Division on Life and Earth Studies, National Research Council; National Academy Press, Washington, D.C. Available at: http://books.nap.edu/catalog.php?record_id=10041#toc.

g. A publication titled: Planar PCB Hazards To Fish, Wildlife, and Invertebrates: A Synoptic Review; Biological Report 31, Contaminant Hazard Reviews; August 1996; Ronald Eisler and André A. Belisle; Patuxent Wildlife Research Center; U.S. National Biological Service, Laurel, MD. Available at: www.pwrc.usgs.gov/infobase/**eisler**/chr_31_planar_pcbs.pdf.

h. A publication titled: Final PCB Analysis And Risk Assessment At Navy Installations, Part A: Overview of PCB Mixtures; 2005; Richard L. DeGrandchamp and Mace G. Barron; for Navy Environmental Health Center,Portsmouth, VA; available at: http://web.ead.anl.gov/ecorisk/issue/pdf/PCBAnalysisPartA.pdf.

11. Additional facts relevant to the review of the plan of operation approval modification include the following:

a. Fine grained dredge material typically possess high water contents and low hydraulic conductivity, which, without dewatering, and/or modification can result in low shear strength, high compressibility, and difficult handling properties.

b. Department staff has observed the properties and behavior of dredged material and other low strength, high water content solid wastes in disposal facilities, and have observed the beneficial effects of dewatering, physical confinement, and use of reactive admixtures in improving physical properties of this solid waste.

c. Construction and stability of final cover placed over dredged material with high water contents and low hydraulic conductivity can be difficult to impractical, unless the dredged material is handled or treated to reduce compressibility, settlement, and saturation and to enhance shear strength and hydraulic conductivity.

d. Full scale testing of waste disposal methods is a useful technique for documenting and justifying effective long-term operations of specialized landfill operations.

e. Dredge material, including dredged material containing Polychlorinated Biphenyls (PCB) and heavy metals at concentrations of less than 50 parts per million (ppm), is a solid waste.

f. EPA 40 CFR Part 761, Subpart D, s. 761.61(a)(5)(v)(A), allows the disposal of dredged sediments containing PCBs at concentrations of less than 50 parts per million in a facility permitted, licensed, or registered by a State to manage municipal solid waste subject to 40 CFR Part 258.

g. PCB compounds are much less mobile in water or leachate than in nonionic organic solvents.

h. PCB compounds in a matrix of soil or dredged material adhere strongly to active surfaces in both the inorganic soil minerals and the organic matter associated with soil and dredged materials.

i. Leaching or transport of PCBs in soil or dredged material is limited if disposal methods contain dredged material within the lined area of the landfill, thereby preventing the loss of suspended solids and losses of dredged materials due to wind dispersion.

j. There are no economically feasible options besides landfill for disposal of soil or dredged material contaminated with PCBs at concentrations of less than 50 ppm.

k. Modern solid waste landfill liners constructed of recompacted clay and polyethylene geomembranes are effective barriers against movement of PCBs to sub-soils or groundwater.

l. PCBs are a closely related group of 209 chemicals (congeners) each of which is composed of a biphenyl molecule to which hydrogen and one to ten chlorine atoms are attached. The number and location of the chlorine atoms on the biphenyl molecule vary from congener to congener.

m. Commercial PCBs products were manufactured by combining various congeners. These products were called Aroclors sole manufacturer in the United States and most were named based upon the total percentage of chlorine in the mixture (i.e. Aroclor 1242 contained 42% chlorine). Aroclors 1016, 1221, 1232, 1242, 1248, 1254, and 1260 were manufactured and sold for use.

n. PCBs in dredge materials can volatilize and degrade in the environment, resulting in the loss of chlorine atoms and formation of different congeners. As a result the relative abundance and distribution of congeners in a sample of dredge material is often different than that of a technical grade Aroclor. PCBs can also degrade when disposed of in landfills and the resulting congener distribution in leachate will also be different than that of technical grade Aroclors and of the dredge material.

o. Certain laboratory methods identify key congeners in a sample and match the distribution and relative abundance of the key congeners to those of technical grade Aroclors.

p. Use of an Aroclor matching method to analyze leachate samples from landfills containing dredge materials containing PCBs can result in failure to identify the presence of PCBs because the congener distribution in leachate does not match that of the technical grade Aroclors used as references.

q. Research has found that a select list of congeners can account for as much as 70% of the total PCB burden found in environmental samples and represent those congeners of significance to biota, aquatic organisms, and human health.

12. The special conditions in this document are necessary to assure that disposal of dredge material containing less than 50 ppm total PCBs does not cause an increased threat to public health and welfare, or the environment or inhibit compliance with chs. NR 500 through 538, Wis. Adm. Code.

CONCLUSIONS OF LAW

1. The Department has the authority under s. 289.30(6) Stats., to modify a plan of operation approval if the modification would not inhibit compliance with the applicable portions of chs. 280 to 299, Stats., and chs. NR 500-538, Wis. Adm. Code.

2. The Department has the authority under s. 289.30(6), Stats., to approve a modification to the plan of operation with special conditions if the conditions are needed to ensure compliance with the applicable portions of chs. 280 to 299, Stats., and chs. NR 500-538, Wis. Adm. Code.

3. The Department has authority under NR 520, Table 3, Wis. Adm. Code, to charge a review fee for a requested modification to the plan of operation approval.

4. The conditions of approval set forth below are needed to ensure compliance with the applicable portions of chs. 30, 31, 160 and 280 to 299 and ss. 1.11, 23, 40, 59.692, 59.693, 60.627, 61.351, 61.354, 62.231, 62.234, and 87.30, Stats., and chs. NR 500-538, Wis. Adm. Code.

5. In accordance with the foregoing, the Department has the authority under s. 289.30, Stats., to issue the following conditional plan of operation approval modification.

CONDITIONAL PLAN OF OPERATION APPROVAL MODIFICATION

The Department hereby approves the proposed modification to the plan of operation for the WMWI Ridgeview RDF for the redesign of the final cover tie-in from a previously closed area to a newly closed area; the inclusion in the Special Waste Plan of a new special waste category, A-28, for dredge sediments containing PCBs and heavy metals with concentrations of less than 50 ppm, placing the replacement gas header lines above the geomembrane within the rooting zone; and, allowing the termination of gas wells when a layer of wet black slime is encountered near the base of the landfill, subject to the following conditions:

1. The wedge tie-in material for the final cover shall have the Initial Certification form, 4400-197, and any subsequent Annual Certification forms, 4400-198, on file with the Department prior to its use.

2. The modifications to the Special Waste Plan encompassed by this approval are valid for 5 years following the date of this approval, unless the Department renews this approval upon application made by WMWI Ridgeview RDF.

3. All dredged sediments shall be dewatered or solidified, as necessary to pass the paint filter test prior to disposal at the facility. Dredge material shall be transported in leak proof and covered trucks to prevent leakage and air borne transport of sediments.

4. Dredged material may not be used as daily cover. All dredged material shall be disposed of in a manner that prevents particulate matter from becoming airborne in accordance with s. NR 415.04, Wis. Adm. Code, including the placement of intermediate cover or other operational practices as needed to assure that the dredged material is disposed of in a nuisance free manner. Dredge material shall be covered with six inches of daily cover at the end of each day.

5. Dredged material containing PCBs placed in the facility may not be commingled or covered with any potentially incompatible waste (i.e., waste soils containing organic solvents, including petroleum compounds, and other oil- or solvent-containing wastes).

6. Dredged material shall be placed in a manner such that it:

a. supports its own weight;

b. supports the weight of other materials placed over it without slumping; and,

c. maintains stable slopes.

7. Dredged material may not be placed within 10 feet of the liner system on the facility's base or interior sidewalls or within 10 feet of the subbase of the capping layer of the final cover system.

8. WMWI Ridgeview RDF shall take adequate measures to ensure that dredged material is not tracked outside of the limits of waste filling. If vehicle washing is employed, the wash water shall be collected and treated as leachate or allowed to seep into the waste mass. Truck traffic may not be routed over dredged materials and all landfill equipment that contacts dredged materials shall be adequately cleaned when leaving the limits of waste filling.

9. WMWI Ridgeview RDF shall notify the Department's assigned waste management engineer at least 14 days prior to beginning any new project involving disposal of dredge material containing PCBs at this facility. The Department may waive the 14-day notification period. The notification shall include the approximate volume of dredged material to be disposed of, the results of the testing performed to determine the concentrations of PCBs in the dredged material, the planned method of disposal, and any design features needed to accommodate the generation of gas or leachate from the dredged material after disposal or to prevent clogging of the leachate collection system by fine particles. The Department may impose additional handling requirements on a case by case basis if, in the Department's opinion, they are necessary to prevent problems with the landfill's operation or design.

10. WMWI Ridgeview RDF shall limit the amount of dredged material accepted on any day to what can be effectively managed.

11. The environmental monitoring program for the existing facility, summarized in the August 8, 1984, and subsequent modifications, under which the landfill is currently operating and in Condition NO. 24 of the April 28, 2008 Conditional Plan of Approval for the Southern Expansion is hereby modified to include semi-annual testing of leachate for PCBs.

a. This modification becomes effective the first scheduled sampling event after the placement of any dredged material containing PCBs has begun.

b. Analyses shall be performed on representative leachate samples to include, at a minimum, the following specific PCB congeners: Nos. 8, 15, 26, 28, 37, 44, 49, 52, 60, 66, 70, 74, 77, 81, 82, 87, 95, 99, 101, 105, 110, 114, 118, 123, 126, 128, 132, 138, 149, 151, 153, 156, 157, 158, 166, 167, 169, 170, 177, 180, 183, 187, 189, 201, and 206. An alternative list of specific PCB congeners may be approved by the Department in writing.

c. The sum of the congeners found in the leachate samples shall be reported to the GEMS database as Total PCBs. A copy of the analytical results shall be submitted to the Department's Northeast Region and Madison Offices. Upon notification from the Department the results from the congener-specific analyses shall be submitted to the Department's GEMS database.

d. In addition to providing the results of this testing to the Department in accordance with the plan of operation approval, and in addition to the notification requirements contained in the leachate treatment agreement between WMWI Ridgeview RDF and the Manitowoc Wastewater Treatment Plant, WMWI Ridgeview RDF shall provide the PCB test results to all wastewater treatment

facilities receiving the leachate from the landfill within 15 days of receiving the results if the results identify total PCBs at a concentration greater than 1.5 μg/l.

e. Based on the monitoring results, the Department may require pretreatment of the leachate or modify this approval.

12. WMWI Ridgeview RDF shall submit to the Department an annual report with the first report due no later than April 1, 2009 and no later than April 1 of each subsequent year that summarizes the material disposal activities from the previous calendar year. The annual report shall include , at a minimum, the following:

a. Total volumes and tonnages, chemical and physical testing results, and disposal method for materials disposed of during the previous calendar year;

b. Observations of the effectiveness of handling, dumping, spreading, and conditioning of dredged material and any stabilization agents, including photographic views of the operation;

c. Any observation of seeps of water or leachate, slumps, compression, or displacement of dredged material due to placement of additional fill or machinery movements, and other deleterious effects of the dredged material disposal. If monofills are used for disposal, shear strength failures and other deleterious effects of the dredged material monofill shall also be reported;

d. Volume of truck wash water used during the year;

e. Definition of any stabilization agents used, mixing ratios, and mixing methods for the expeditious and usable attainment of improved shear strength, drainage, and control of deformation and displacement of the dredged material;

f. Site specific data from analyses of samples of unamended and amended (if applicable) dredged material for shear strength, hydraulic conductivity, and compressibility;

g. Recommended specifications for stabilization materials and admixture ratios, mixing methods and machinery, lift thickness, use of confining berms and other relevant actions and methods;

h. Observations of effectiveness of dumping, spreading, and compacting waste over dredged material monofill disposal areas, if applicable;

i. A summary and discussion of the results of the PCBs analyses performed on leachate samples; And,

j. Plan sheets and cross-sections of dredged material monofill locations documented by survey coordinates and elevations, if applicable.

The Department reserves the right to require the submittal of additional information and to modify this approval at any time, if in the Department's opinion, modification is necessary. Unless specifically noted, the conditions of this approval do not supersede or replace any previous conditions of approval for this facility.

NOTICE OF APPEAL RIGHTS

If you believe you have a right to challenge this decision made by the Department, you should know that Wisconsin statutes, administrative codes and case law establish time periods and requirements for reviewing Department decisions.

To seek judicial review of the Department's decision, sections 227.52 and 227.53, Stats., establish criteria for filing a petition for judicial review. Such a petition shall be filed with the appropriate circuit court and shall be served on the Department. The petition shall name the Department of Natural Resources as the respondent.

This notice is provided pursuant to section 227.48(2), Stats.

Dated: Aug 13, 08

DEPARTMENT OF NATURAL RESOURCES
For the Secretary

Len Polczinski
Waste Materials & Management Team Supervisor
Northeast Region

Len Polczinski For
Leland Archiquette, P.E.
Waste Management Engineer
Northeast Region