B.8. Capability certification/compliance schedule

B.10. Construction certification (new, altered, enlarged, or expanded)



GRETCHEN WHITMER

GOVERNOR

STATE OF MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

LANSING



July 21, 2021

VIA E-MAIL

Ms. Sylwia Scott, Environmental Manager US Ecology 49350 North I-94 Service Drive Belleville, Michigan 48111

Dear Ms. Scott:

SUBJECT: Approval; Master Cell VI-G3 Construction Quality Assurance Report; Wayne Disposal, Inc. (WDI); Belleville, Michigan; MID 048 090 633; Waste Data System Number 395812

The Michigan Department of Environment, Great Lakes, and Energy (EGLE), Materials Management Division (MMD), has reviewed the Master Cell VI-G3 Construction Quality Assurance Report (Report) submitted on June 11, 2021, and subsequent revisions provided on June 14, 2021, and July 12, 2021, pursuant to Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451 as amended, and the administrative rules.

Based on this review, the MMD has determined that the Report is hereby approved.

Upon receipt of this approval, the MMD understands that the leachate collection system will be connected, and a Leachate Collection System Certification Report (Certification Report) shall be submitted to the MMD. The Certification Report must be approved by the MMD prior to use.

If you have any questions or comments, please contact Ms. Christine Matlock, Senior Environmental Engineer, Permit and Corrective Action Unit, Hazardous Waste Section, MMD, at 517-290-4612; MatlockC2@Michigan.gov; or EGLE, P.O. Box 30241, Lansing, Michigan 48909-7741.

Sincerely,

berly m. Super

Kimberly M. Tyson, Manager Hazardous Waste Section Materials Management Division 517-388-2797

cc: Mr. Phil Tannian, Environmental Director, US Ecology Dr. Dan Qian, EGLE Mr. Dale Bridgford, EGLE Ms. Mary Carnagie, EGLE Mr. Joseph Rogers, EGLE Mr. Michael Busse, EGLE Ms. Christine Matlock, EGLE Mr. Todd Zynda, EGLE Mr. Shaun Shields, EGLE Operating License File

11.0 CERTIFICATION

The observations and tests performed by CTI as described in this report during the construction of Master Cell VI-G3 indicate that the materials tested conform to the requirements of and construction was performed in compliance with the reference documents listed in Section 2.1.

I certify that this document and all attachments were prepared under our direction or supervision in conformance with a system designed to ensure that qualified personnel properly gathered and evaluated the information submitted. Based on our inquiries of the persons who were directly responsible for gathering the information, the information submitted is, to the best of our knowledge, true, accurate, and complete.

Ninda has

Xianda Zhao, Ph.D., P.E. CTI Certifying Engineer Michigan Professional Engineer No. 6201043923





Sylwia Scott

From:	Matlock, Christine (EGLE) <matlockc2@michigan.gov></matlockc2@michigan.gov>
Sent:	Wednesday, October 7, 2020 2:13 PM
То:	Sylwia Scott; Phil Tannian
Cc:	Taylor, Al (EGLE); Tyson, Kimberly (EGLE); Rogers, Joseph (EGLE); Shields, Shaun (EGLE); Kecskemeti, Tracy (EGLE); Michael Takacs; Qian, Xuede (EGLE)
Subject:	MC VI G1 EP2 Approval for Use

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Sylwia,

Based on the review of the MC VI G Phase 1 Subcell G1 East Phase 2 Leachate Collection System Connection to MC VI G Phase 1 Subcell G1 East Report (Report) submitted on September 21, 2020, and subsequent modification submitted on September 22, 2020, MMD has determined that the submitted certification for the leachate collection system connection satisfies the requirements of Part 111 and is hereby approved.

Based on the Report approval and September 12, 2020 email approval of the MC VI G Phase 1 Subcell G1 East Phase 2 Construction Quality Assurance Report, MC VI G1 EP2 is approved for use. Please note that the September 12, 2020 email misstated the landfill cell name, which should have been MC VI G Phase 1 Subcell G1 East Phase 2 or MC VI G1 EP2.

Please let me know if there are any questions.

Thanks, Christine

Christine Matlock Senior Environmental Engineer Materials Management Division Michigan Department of Environment, Great Lakes, and Energy <u>matlockc2@michigan.gov</u> 517-290-4612

Sylwia Scott

From:	Matlock, Christine (EGLE) <matlockc2@michigan.gov></matlockc2@michigan.gov>
Sent:	Saturday, September 12, 2020 10:56 AM
То:	Sylwia Scott; Phil Tannian
Cc:	Taylor, Al (EGLE); Tyson, Kimberly (EGLE); Rogers, Joseph (EGLE); Shields, Shaun (EGLE)
Subject:	Approval for MC VI G2 EP2 CQA Report

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Sylwia,

Based on the review of the MC VI G Phase 1 Subcell G2 East Phase 2 Construction Quality Assurance Report, MMD has determined that the submitted certification for MC VI G2 EP2 satisfies the requirements of Part 111 and is hereby approved. The following hazardous waste landfill design drawings for MC VI G2 EP2 are hereby incorporated into Attachment 7 of WDI's Hazardous Waste Management Expansion Operating License approved on May 22, 2012:

- 1. Drawings G-01 and P-04 from the August 21, 2020, submission will be added to Attachment 7.
- 2. Drawings G-02, P-01, P-02, P-06, C-01, D-01, D-04, and D-05 from the August 11, 2020 submission will be added to Attachment 7.
- 3. Drawings P-03, P-05, D-02, D-03, and D-06 from the August 28, 2020 submission will be added to Attachment 7.

MMD requests that the supplemental photos submitted on August 21st and August 28th and response document submitted on August 28th be incorporated in the Construction Photo Log.

We understand that the leachate collection system will be connected with this approval and a Leachate Collection System Certification shall be submitted and approved prior to use.

Please let me know if there are any questions.

Thanks, Christine

Christine Matlock Senior Environmental Engineer Materials Management Division Michigan Department of Environment, Great Lakes, and Energy <u>matlockc2@michigan.gov</u> 517-290-4612

10.0 CERTIFICATION

The observations and tests performed by CTI personnel as described in this report during the construction of Master Cell VI-G Phase 1 Subcell G1-East Phase 2 indicate that the materials tested conform to the requirements and construction was performed in compliance with the reference documents listed in Section 2.1.

I certify that this document and all attachments were prepared under our direction or supervision in conformance with a system designed to ensure that qualified personnel properly gathered and evaluated the information submitted. Based on our inquiries of the persons who were directly responsible for gathering the information, the information submitted is, to the best of our knowledge, true, accurate, and complete.

Minda Mas

Xianda Zhao, Ph.D., P.E. CTI Certifying Engineer Michigan Professional Engineer No. 6201043923





Sylwia Scott

From:	Matlock, Christine (EGLE) <matlockc2@michigan.gov></matlockc2@michigan.gov>
Sent:	Monday, January 6, 2020 6:18 PM
То:	Sylwia Scott
Cc:	Taylor, Al (EGLE); Qian, Xuede (EGLE); Rogers, Joseph (EGLE); Phil Tannian
Subject:	MC-VI G Phase 1 Subcell G-East Phase 1 Construction Quality Assurance Report Approval

Hi Sylwia,

EGLE has reviewed and approves the *MC-VI G Phase 1 Subcell G-East Phase 1 Construction Quality Assurance Report* submitted on December 6, 2019. WDI may start the leachate pipe connection work, however, please provide a survey to ensure the pipe connection sections have adequate slope and photos of the work within the leachate collection system certification.

Please let me know if there are any questions.

Thanks, Christine

Christine Matlock Senior Environmental Engineer Materials Management Division Michigan Department of Environment, Great Lakes, and Energy <u>matlockc2@michigan.gov</u> NEW Phone #: 517-290-4612

Sylwia Scott

From:	Matlock, Christine (EGLE) <matlockc2@michigan.gov></matlockc2@michigan.gov>
Sent:	Monday, March 2, 2020 9:28 AM
То:	Sylwia Scott
Cc:	Taylor, Al (EGLE); Dailey, Daniel (EGLE); Qian, Xuede (EGLE); Rogers, Joseph (EGLE); Phil Tannian
Subject:	RE: WDI MC-VI G1 East Phase 1 Construction Conditional Approval

Hi Sylwia,

EGLE has reviewed and approves the updated temperature profile submitted on February 28, 2020. Based on this review, MC VI Phase 1 Subcell G East Phase 1 is hereby approved for use.

Please note that if waste is to be placed in the cell starting after March 4, 2020, a new updated temperature profile needs to be submitted to MMD to accurately reflect temperatures. Please let me know if there are any questions.

Thanks, Christine

Christine Matlock Senior Environmental Engineer Materials Management Division Michigan Department of Environment, Great Lakes, and Energy <u>matlockc2@michigan.gov</u> 517-290-4612

From: Sylwia Scott <Sylwia.Scott@usecology.com>
Sent: Friday, February 28, 2020 3:36 PM
To: Matlock, Christine (EGLE) <MatlockC2@michigan.gov>
Cc: Taylor, AI (EGLE) <TAYLORA@michigan.gov>; Dailey, Daniel (EGLE) <DAILEYD@michigan.gov>; Qian, Xuede (EGLE)
<QIANX@michigan.gov>; Rogers, Joseph (EGLE) <ROGERSJ5@michigan.gov>; Phil Tannian
<phil.tannian@usecology.com>
Subject: RE: WDI MC-VI G1 East Phase 1 Construction Conditional Approval

Christine- Attached is the revised calculation sheet for the temperature profile calculation of the compacted clay liner for WDI's MC VI-G1 East Phase 1. The updated data did not change the conclusion of this calculation. The temperature profile does not indicate freezing temperatures (minimum temperature on the top of the CCL was 2.4 degrees Celsius or 36 degrees Fahrenheit on February 15) within the CCL during the modeled time history. The recorded hourly air temperature data available is up to February 26, 2020. Therefore, CTI ran the model through February 29 using synthetic hourly air temperature data for February 27 to 29. The forecasted air temperature is increasing and will therefore not change the results of the model.

WDI needs and is prepared to place waste in the cell as soon as possible. Your email requested the submission of this data 5 days in advance of anticipated use of the cell. This is interpreted to mean once your approval is obtained, WDI

must place waste in the cell no later than Wednesday, March 4, 2020 and that you will provide approval in advance of this date. Please provide clarification if I misunderstood your email.

Sylwia Scott

Environmental Compliance Manager

sylwia.scott@usecology.com p: 734.699.6294

49350 North I-94 Service Drive Belleville, MI 48111

Emergency Response: 800.839.3975 Customer Service: 800.592.5489



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From: Matlock, Christine (EGLE) [mailto:MatlockC2@michigan.gov]
Sent: Wednesday, February 26, 2020 1:34 PM
To: Sylwia Scott <<u>Sylwia.Scott@usecology.com</u>>
Cc: Taylor, AI (EGLE) <<u>TAYLORA@michigan.gov</u>>; Dailey, Daniel (EGLE) <<u>DAILEYD@michigan.gov</u>>; Qian, Xuede (EGLE)
<<u>QIANX@michigan.gov</u>>; Rogers, Joseph (EGLE) <<u>ROGERSJ5@michigan.gov</u>>; Phil Tannian
<<u>phil.tannian@usecology.com</u>>
Subject: WDI MC-VI G1 East Phase 1 Construction Conditional Approval

Hi Sylwia,

EGLE, Materials Management Division has completed our review and approved the following reports: *MC VI Phase 1* Subcell G-East Phase 1 Construction Quality Assurance Report, Temperature Profile in Liner System at WDI MC VI G1 EP1, and

MC VI G Phase 1 Subcell G1 East Phase 1 Leachate Collection System Connection to MC VI G Phase 1. The reports are in compliance with Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, and its administrative rules. Based on this review, MC VI Phase 1 Subcell G East Phase 1 is hereby approved for use with the following condition:

 Prior to use, CTI must continue to calculate the worst-case scenario that may occur with the clay liner before the waste enters the site to demonstrate that freezing and thawing of the clay liner will not happen with time in this winter and submit the calculation results based on the actual temperature changes to Michigan EGLE MMD. Submit the updated temperature profile 5 days in advance of anticipated use of the cell.

Please note that the Temperature Profile in Liner System email approval on 02/10/2020 stated MC IV instead of MC VI. Please let me know if there are any questions.

Thanks, Christine Christine Matlock Senior Environmental Engineer Materials Management Division Michigan Department of Environment, Great Lakes, and Energy <u>matlockc2@michigan.gov</u> 517-290-4612

9.0 CERTIFICATION

The observations and tests performed by CTI personnel as described in this report during the construction of Master Cell VI-G Phase 1 Subcell G1-East Phase 1 indicate that the materials tested conform to the requirements and construction was performed in compliance with the reference documents listed in Section 2.1.

I certify that this document and all attachments were prepared under our direction or supervision in conformance with a system designed to ensure that qualified personnel properly gathered and evaluated the information submitted. Based on our inquiries of the persons who were directly responsible for gathering the information, the information submitted is, to the best of our knowledge, true, accurate, and complete.

Minde That

Xianda Zhao, Ph.D., P.E. CTI Certifying Engineer Michigan Professional Engineer No. 6201043923





Sylwia Scott

From:	Matlock, Christine (EGLE) <matlockc2@michigan.gov></matlockc2@michigan.gov>
Sent:	Tuesday, August 6, 2019 4:36 PM
То:	Sylwia Scott; Phil Tannian
Cc:	Taylor, Al (EGLE); Tyson, Kimberly (EGLE); Rogers, Joseph (EGLE)
Subject:	WDI MC-VI G Phase 2 Subcell G2 Construction Approval

Hi Sylwia,

EGLE has reviewed and approved the following reports: *MC-VI G Phase 2 Subcell G2 Construction Quality Assurance Report, MC-VI G Phase 2 Subcell G2 Leachate Collection System Certification,* and *MC-VI G Phase 2 Subcell G2 Leachate Collection to Master Cell VI-VI G Phase I.* WDI is certified to start using Master Cell VI G Phase 2 Subcell G2. A formal letter will be coming in the near future.

Please let me know if there are any questions.

Thanks, Christine

Christine Matlock Senior Environmental Engineer Materials Management Division Michigan Department of Environment, Great Lakes, and Energy 517.284.6577 | matlockc2@michigan.gov

16.0 CERTIFICATION

The observations and tests performed by CTI personnel as described in this report during the construction of MC-VI G Phase 2 Subcell G2 indicate that the materials tested conform to the requirements and construction was performed in compliance with the reference documents listed in Section 2.1, except as noted in this report and agreed to by EGLE.

We certify that this document and all attachments were prepared under our direction or supervision in conformance with a system designed to ensure that qualified personnel properly gathered and evaluated the information submitted. Based on our inquiries of the persons who were directly responsible for gathering the information, the information submitted is, to the best of our knowledge, true, accurate, and complete.

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Xianda Zhao, Ph.D., P.E. CTI Certifying Engineer Michigan Professional Engineer No. 6201043923







STATE OF MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY LANSING



DAN WYANT DIRECTOR

December 12, 2014

Mr. Michael L. Porath Operations Manager EQ, A US Ecology Company Wayne Disposal, Inc. 49350 North I-94 Service Drive Belleville, Michigan 48111

Dear Mr. Porath:

SUBJECT: Approval of Recertification Master Cell VI-G Phase 1 East; Wayne Disposal, Inc. (WDI), Site No. 2; MID 048 090 633

The Department of Environmental Quality (DEQ), Office of Waste Management and Radiological Protection (OWMRP), has reviewed the November 21, 2013, MC VI G Phase 1 Recertification Wayne Disposal Site 2 letter provided by Mannik and Smith Group, Inc. (MSG), pursuant to Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.

Based on that review, the OWMRP has determined that the submitted recertification for the eastern portion of Master Cell VI-G Phase 1 satisfies the requirements of Part 111 and is hereby approved.

We understand that the contact water management pond in the northeast corner of Master Cell VIG and associated piping will need to be constructed and the certification approved prior to the cell being put into use.

Should you require further information, please contact Mr. Peter Quackenbush of the Hazardous Waste Section at 517-284-6568; quackenbushp@michigan.gov; or DEQ, P.O. Box 30241, Lansing, Michigan 48909--7741.

Sincerely

DeLores Montgomery, Chief Hazardous Waste Section Office of Waste Management and Radiological Protection

cc: Mr. Mike Takas, WDI Mr. Ibraheem Alshunnar, MSG Mr. Mike Busse, DEQ Mr. Leo Parks, DEQ Dr. Dan Qian/Mr. Peter Quackenbush, DEQ Operating License File

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STATE OF MICHIGAN



GOVERNOR

DEPARTMENT OF ENVIRONMENTAL QUALITY

LANSING



DAN WYANT DIRECTOR

October 12, 2015

Mr. Michael L. Porath Operations Manager EQ, A US Ecology Company Wayne Disposal, Inc. 49350 North I-94 Service Drive Belleville, Michigan 48111

Dear Mr. Porath:

SUBJECT: Approval of Recertification Master Cell VI-G Phase 1 West; Wayne Disposal, Inc., Site No. 2; MID 048 090 633

The Department of Environmental Quality (DEQ), Office of Waste Management and Radiological Protection (OWMRP), has reviewed the September 15, 2015, Master Cell VI-G Phase 1 Recertification Wayne Disposal, Inc. (WDI), Site No. 2 letter provided by Mannik and Smith Group, Inc. (MSG), pursuant to Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.

Based on that review, the OWMRP has determined that the submitted recertification for the western portion of Master Cell VI-G Phase 1 cell floor satisfies the requirements of Part 111 and is hereby approved.

We understand that the leachate discharge, leak detection discharge, and leachate clean-out piping at the western end of the cell will have to be straightened and recertified prior to use and the side slopes will be certified prior to placement of sand on the slopes.

Should you require further information, please contact Mr. Peter Quackenbush of the Hazardous Waste Section at 517-284-6568; quackenbushp@michigan.gov; or DEQ, OWMRP, P.O. Box 30241, Lansing, Michigan 48909--7741.

Sincerely.

DeLores Montgomery, Chief Hazardous Waste Section Office of Waste Management and Radiological Protection

cc: Ms. Slywia Scott, WDI Mr. Ibraheem Shunnar, MSG Mr. Mike Busse, DEQ Mr. Leo Parks, DEQ Dr. Dan Qian/Mr. Peter Quackenbush, DEQ Operating License File

6.0 STATEMENT OF CERTIFICATION

During the construction of Master Cell VI-G, Phase 1 at Site No. 2 of Wayne Disposal Inc., located in Van Buren Township, Wayne County, Michigan; staff of the Mannik & Smith Group, Inc. (MSG), monitored all aspects of the earthwork and geosynthetics construction operations including the placement of compacted and structural fills, secondary and primary clay liners, secondary and primary geomembranes, leak detection, collection and removal system, and leachate collection and removal system.

I, Ibraheem S. Shunnar, a Professional Engineer registered in the State of Michigan, hereby certify that representatives from MSG have monitored the construction activities associated with earthwork and geosynthetic construction operations for Master Cell VI-G Phase 1 including the placement of compacted and structural fills, secondary and primary clay liners, secondary and primary geomembranes, leak detection, collection and removal system, and leachate collection and removal system. To the best of my knowledge and belief, the construction at the aforementioned facility has been completed in conformance with the project specifications, subject to the modifications described in this report.

TOFESSION

Ibrahan Shuma Ibraheem S. Shunnar, P.E. **IBRAHEEM** ALSHUNNAR State of Michigan Professional Engine Registration No. 39106 C **ENGINEER** No. 39106



STATE OF MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

LANSING



KEITH CREAGH DIRECTOR

May 13, 2016

Mr. Michael L. Porath Operations Manager EQ, A US Ecology Company Wayne Disposal, Inc. 49350 North I-94 Service Drive Belleville, Michigan 48111

Dear Mr. Porath:

SUBJECT: Approval of Master Cell VI-G Phase 1 Sand Certification; Wayne Disposal, Inc., Site No. 2; MID 048 090 633

The Department of Environmental Quality (DEQ), Office of Waste Management and Radiological Protection (OWMRP), has reviewed the May 5, 2016, Master Cell VI-G Phase 1 Sand Certification, Wayne Disposal, Inc. (WDI), Site No. 2 letter provided by Mannik and Smith Group, Inc. (MSG), pursuant to Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.

Based on that review, the OWMRP has determined that the submitted certification for the leachate sand for the southern and western side slope portion of Master Cell VI-G Phase 1 satisfies the requirements of Part 111 and is hereby approved.

Should you require further information, please contact me at 517-284-6568; quackenbushp@michigan.gov; or DEQ, OWMRP, P.O. Box 30241, Lansing, Michigan 48909-7741.

Sincerely,

Peter Quackenbush Senior Environmental Engineer Hazardous Waste Section Office of Waste Management and Radiological Protection

cc: Ms. Sylwia Scott, WDI Mr. Ibraheem Shunnar, MSG Mr. Mike Busse, DEQ Mr. Leo Parks, DEQ Dr. Dan Qian, DEQ Operating License File





DEPARTMENT OF ENVIRONMENTAL QUALITY

LANSING



C. HEIDI GRETHER DIRECTOR

July 28, 2017

Mr. Michael L. Porath Operations Manager US Ecology Wayne Disposal, Inc. 49350 North I-94 Service Drive Belleville, Michigan 48111

Dear Mr. Porath:

SUBJECT: Approval of Master Cell VI-G Phase 1 Sand Certification; Wayne Disposal, Inc., Site No. 2; MID 048 090 633

The Department of Environmental Quality (DEQ), Waste Management and Radiological Protection Division (WMRPD), has reviewed the June 19, 2017, Master Cell VI-G Phase 1 Sand Certification, Wayne Disposal, Inc. (WDI), Site No. 2 letter provided by Mannik and Smith Group, Inc. (MSG), pursuant to Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.

Based on that review, the WMRPD has determined that the submitted certification for the leachate sand for the northern and western side slope portion of Master Cell VI-G Phase 1 satisfies the requirements of Part 111 and is hereby approved.

Should you require further information, please contact me at 517-284-6568; quackenbushp@michigan.gov; or DEQ, WMRPD, P.O. Box 30241, Lansing, Michigan 48909-7741.

Sincerely,

Peter Quackenbush Senior Environmental Engineer Hazardous Waste Section Waste Management and Radiological Protection Division

cc: Ms. Sylwia Scott, WDI Mr. Ibraheem Shunnar, MSG Mr. Mike Busse, DEQ Mr. Leo Parks, DEQ Dr. Dan Qian, DEQ Operating License File





GOVERNOR



LANSING



C. HEIDI GRETHER DIRECTOR

July 16, 2018

Ms. Sylwia Scott Environmental Manager US Ecology Wayne Disposal, Inc. 49350 North I-94 Service Drive Belleville, Michigan 48111

Dear Ms. Scott:

SUBJECT: Approval of Master Cell VI-Cell G Phase 1 Sand Certification; Wayne Disposal, Inc., Site No. 2; MID 048 090 633

The Department of Environmental Quality (DEQ), Waste Management and Radiological Protection Division (WMRPD), has reviewed the June 25, 2018, Master Cell VI-Cell G Phase 1 Sand Certification, Wayne Disposal, Inc. (WDI), Site No. 2, letter provided by CTI and Associates (CTI), pursuant to Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.

Based on that review, the WMRPD has determined that the submitted certification for the leachate sand for the northern, southern, and western side slope portions of Master Cell VI-Cell G Phase 1 satisfies the requirements of Part 111 and is hereby approved.

Should you require further information, please contact me at 517-284-6577; matlockc2@michigan.gov; or DEQ, WMRPD, P.O. Box 30241, Lansing, Michigan 48909-7741.

Sincerely,

Christine Matlock Senior Environmental Engineer Hazardous Waste Section Waste Management and Radiological Protection Division

cc: Dr. Xianda Zhao, CTI Mr. Joshua Guy, CTI Mr. Allan Taylor, DEQ Ms. Virginia Himich, DEQ Dr. Dan Qian, DEQ Mr. Mike Busse, DEQ Mr. Leo Parks, DEQ Operating License File



STATE OF MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY LANSING



NNIFER M. GRANHOLM GOVERNOR

May 23, 2008

Mr. Kerry Durnen, P.E. **Director of Operations** The Environmental Quality Company Wayne Disposal, Inc. 49350 North I-94 Service Drive Belleville, Michigan 48111

Dear Mr. Durnen:

SUBJECT: Construction Certification Master Cell VI-E Phase 2 West; Wayne Disposal, Inc. (WDI), Site No. 2; MID 048 090 633

The Department of Environmental Quality (DEQ), Waste and Hazardous Materials Division (WHMD), has reviewed the March 2008 "Construction Certification Master Cell VI-E Phase 2 West," submitted on your behalf by NTH Consultants, Ltd., on March 17, 2008, and the revised Panel Layout Drawings G-1 and G-2 provided on April 25, 2008, pursuant to Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.

Based on that review, the WHMD has determined that the submitted certification for Master Cell VI-E Phase 2 West satisfies the requirements of Part 111 and is hereby approved.

Should you have any questions regarding this information, please contact Mr. Peter Quackenbush, Hazardous Waste Section, WHMD, at 517-373-7397.

Sincerely

Georde W. Bruchmann, Chief Waste and Hazardous Materials Division 517-373-9523

Mr. Scott Maris, WDI cc: Mr. David Andersen, WDI Mr. Michael Porath, WDI Mr. Timothy Tilotti, WDI Mr. Robb B. Moore, NTH Consultants, Ltd. Mr. Ibraheem Alshunnar, NTH Consultants, Ltd. Mr. JengHwa Lyang, NTH Consultants, Ltd. Mr. Jim Sygo, Deputy Director, DEQ Mr. Steve Buda, DEQ Mr. Larry AuBuchon/Mr. Mike Busse, DEQ Ms. Christine Grossman, DEQ Dr. Xuede (Dan) Qian, DEQ Mr. Leo Parks, DEQ Mr. Peter Quackenbush/Operating License File, DEQ



GOVERNOR

VIFER M. GRANHOLM

STATE OF MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY LANSING



STEVEN E. CHESTER DIRECTOR

February 6, 2007

Mr. Kerry Durnen, P.E., Director of Operations The Environmental Quality Company Wayne Disposal, Inc. 49350 North I-94 Service Drive Belleville, Michigan 48111

Dear Mr. Durnen:

CC:

SUBJECT: Construction Certification Master Cell VI-E Phase 2 SE; Wayne Disposal, Inc. (WDI), Site No. 2; MID 048 090 633

The Department of Environmental Quality (DEQ), Waste and Hazardous Materials Division (WHMD), has reviewed the December 2006 "Construction Certification Master Cell VI-E Phase 2 SE," submitted on December 29, 2006, pursuant to Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.

Based on that review, the WHMD has determined that the submitted certification for Phase 2 SE of Master Cell VI-E satisfies the requirements of Part 111 and is hereby approved. However, please be advised that the WHMD anticipates resolution of the compliance issues addressed under the draft polychlorinated biphenyl order transmitted to WDI on October 6, 2006, and the draft Master Cell IX order transmitted on November 17, 2006, prior to the issuance of a renewed Part 111 operating license to WDI.

Should you have any questions regarding this information, please contact Mr. Peter Quackenbush, Hazardous Waste Section, WHMD, at 517-373-7397.

Sincerely

George W. Bruchmann, Chief Waste and Hazardous Materials Division 517-373-9523

Mr. Scott Maris, WDI Mr. Michael Porath, WDI Mr. Timothy Tilotti, WDI Mr. Robb B. Moore, NTH Consultants, Ltd. Mr. Ibraheem Alshunnar, NTH Consultants, Ltd. Mr. Jim Sygo, Deputy Director, DEQ Mr. Steve Buda/Operating License File, DEQ Mr. Larry AuBuchon/Mr. Mike Busse, DEQ Ms. Christine Grossman, DEQ Mr. Xuede (Dan) Qian, DEQ Mr. Peter Quackenbush, DEQ Mr. Leo Parks, DEQ

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UNNIFER M. GRANHOLM

GOVERNOR

STATE OF MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY LANSING



STEVEN E. CHESTER DIRECTOR

September 20, 2006

Mr. Kerry Durnen, P.E. Director of Operations The Environmental Quality Company Wavne Disposal, Inc. 49350 North I-94 Service Drive Belleville, Michigan 48111

Dear Mr. Durnen:

SUBJECT: Reinforcement of Leak Detection Riser at Subcell A-North of Master Cell VI; Wayne Disposal, Inc. (WDI), Site No. 2; MID 048 090 633

The Department of Environmental Quality (DEQ), Waste and Hazardous Materials Division (WHMD), has reviewed the September 11, 2006, Certification of the Reinforcement of Leak Detection Riser at Subcell A-North of Master Cell VI, submitted on WDI's behalf by NTH Consultants, Ltd. (NTH), pursuant to Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.

Based on our review, the WHMD agrees that the leak detection system for Subcell A-North is fully functional and hereby approves the certification. WDI's plan to begin placing waste in the tie-in trench between Subcell A-North and Subcell E is consistent with WDI's "Recommended Action for Cleanouts" as proposed in the Evaluation of Leachate Collection System Cleanouts for Master Cell VI and may proceed.

Should you have any questions, please contact Mr. Peter Quackenbush, Hazardous Waste Section, WHMD, at 517-373-7397.

Sincerely

George W/Bruchmann, Chief Waste and Hazardous Materials Division 517-373-9523

Mr. JengHwa Lyang, NTH CC: Mr. Michael Porath, WDI Mr. Scott Maris, WDI Mr. Timothy Tilotti, WDI Mr. David Andersen, The Environmental Quality Company Mr. Steve Buda, DEQ Mr. Larry AuBuchon/Mr. Mike Busse, DEQ Mr. David Slayton/C&E File, DEQ Ms. Christine Grossman, DEQ Mr. Xuede Qian, DEQ Mr. Peter Quackenbush, DEQ Mr. Leo Parks, DEQ



NTH Consultants, Ltd. Infrastructure Engineering and Environmental Services 38955 Hills Tech Drive Farmington Hills, MI 48331 248.553.6300 248.324.5178 Fax

September 11, 2006 NTH Proj. No. 13-030550-01

Mr. Peter Quackenbush MDEQ - WHMD Constitution Hall, Atrium North PO Box 30241 525 W. Allegan Street Lansing, Michigan 48909

RE: Reinforcement of Leak Detection Riser at Subcell A-North Wayne Disposal, Inc., Site No. 2, Master Cell VI Belleville, Michigan

Dear Mr. Quackenbush:

On behalf of Wayne Disposal, Inc., NTH Consultants, Ltd. submits the attached certification letter for the reinforcement of the secondary riser at subcell A-North in Master Cell VI. Reinforcement of the subcell A-North riser was completed in substantial conformance with the "Leak Detection Riser Sliplining Work Plan" dated January 19, 2006 and revised on March 16, 2006 with modifications stated in the certification letter.

We understand that waste placement in the tie-in trench between subcell A-North and subcell E is authorized to begin following submittal of the attached certification letter.

Please contact Mr. Kerry Durnen of Wayne Disposal, Inc. at 734-699-6265 or me at 248-324-5312 if you have any questions or comments regarding this submittal.

Sincerely,

NTH Consultants, Ltd.

JengHwa Lyang, Ph.D., P.E. Managet, Engineer Group

JHL/pb

Attachment

cc: Xuede Qian (MDEQ) Kerry Durnen (WDI) Michael Porath (WDI) David Andersen (EQ)



WAYNE DISPOSAL, INC.

June 14, 2006

Mr. Peter Quackenbush Michigan Department of Environmental Quality 525 West Allegan Lansing, MI 48933

RE: Wayne Disposal Inc. (WDI), MID 048090633 MCVI – E Phase II Cell Construction

Dear Mr. Quackenbush:

WDI is currently installing a portion of the Phase II cell of Master Cell VI E. This portion of the Phase II construction is being installed in accordance with the "Engineering Report on Basis of Design – Master Cell VI Design Modification" prepared by NTH Consultants, Ltd dated March 2001. Upon completion of construction, WDI will provide for your review a Construction Documentation Report pursuant to Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended.

If you have any questions regarding this information or need extra copies of any of the drawings provided, please feel free to call me at 734-699-6297 or Kerry Durnen at 734-699-6265.

Sincerely,

David Andersen, WDI

Enclosure

CC: Leo Parks, MDEQ Kerry Durnen, WDI Scott Maris, EQ

File: WDI 2.1.3

STATE OF MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY LANSING



STEVEN E. CHESTER

JFER M. GRANHOLM GOVERNOR

April 5, 2006

Mr. Kerry Durnen, P.E. Director of Operations The Environmental Quality Company Wayne Disposal, Inc. 49350 North I-94 Service Drive Belleville, Michigan 48111

Dear Mr. Durnen:

SUBJECT: Reinforcement of Leak Detection Riser at Subcell B of Master Cell VI; Wayne Disposal, Inc. (WDI), Site #2; MID 048 090 633

The Department of Environmental Quality (DEQ), Waste and Hazardous Materials Division (WHMD), has reviewed the March 28, 2006, certification of the Reinforcement of Leak Detection Riser at Subcell B of Master Cell VI, submitted on WDI's behalf by NTH Consultants, Ltd., pursuant to Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Based on that review, the WHMD agrees that the leak detection system for Subcell B is fully functional and hereby approves the certification.

WDI's plan to begin placing waste in the tie-in trench between Subcell B and Subcell E is consistent with WDI's "Recommended Action for Cleanouts," as proposed in the Evaluation of Leachate Collection System Cleanouts for Master Cell VI, and, therefore, may proceed.

Should you have any questions, please contact Mr. Peter Quackenbush, Hazardous Waste Section, WHMD, at 517-373-7397.

Sincerely

George W. Bruchmann, Chief Waste and Hazardous Materials Division 517-373-9523

cc: Mr. James J. Parsons, P.E., NTH Consultants, Ltd.
Mr. Scott Maris, WDI
Mr. Timothy Tilotti, WDI
Mr. Steve Buda, DEQ
Ms. De Montgomery/C&E File, DEQ
Mr. Larry AuBuchon/Mr. Mike Busse, DEQ
Ms. Christine Grossman, DEQ
Mr. Dan Qian, DEQ
Mr. Peter Quackenbush, DEQ
Mr. Leo Parks, DEQ



NTH Consultants, Ltd. Infrastructure Engineering and Environmental Services 38955 Hills Tech Drive Farmington Hills, MI 48331 248.553.6300 248.324.5178 Fax

March 28, 2006 NTH Proj. No. 13-030550-01

Mr. Peter Quackenbush MDEQ - WHMD Constitution Hall, Atrium North PO Box 30241 525 W. Allegan Street Lansing, Michigan 48909

RE: Reinforcement of Leak Detection Riser at Sub Cell B Wayne Disposal, Inc., Site No. 2, Master Cell VI Belleville, Michigan

Dear Mr. Quackenbush:

On behalf of Wayne Disposal, Inc., NTH Consultants, Ltd. submits the attached certification letter for the reinforcement of the secondary riser at subcell B in Master Cell VI. Reinforcement of the subcell B riser was completed in substantial conformance with the "Leak Detection Riser Sliplining Work Plan" dated January 19, 2006 and revised on March 16, 2006.

We understand that, per your telephone conversation with Mr. Kerry Durnen of Wayne Disposal, Inc. on March 28, 2006, waste placement in the tie-in trench between subcell B and subcell E is authorized to begin following submittal of the attached certification letter.

We note that as part of the "Evaluation of Leachate Collection System Cleanouts" report submitted to the Department on January 5, 2006, NTH recommended reinforcement of cleanout riser B1. This letter also serves to reaffirm WDI's proactive and precautionary commitment to reinforce the B1 cleanout riser. Because this riser is currently fully functional and is located near the transfer box, which will not be filled in the near future, immediate reinforcement is not necessary. WDI will complete the recommended reinforcement before waste is placed in the transfer box.

Please contact Mr. Kerry Durnen of Wayne Disposal, Inc. at 734-699-6265 or me at 248-324-5329 if you have any questions or comments regarding this submittal.

Sincerely,

NTH Consultants, Ltd. AUU James J. Parsons

Principal Engineer

JHL/pb

Attachment cc: Xuede Qian (MDEQ) Kerry Durnen (WDI)

S:\proj\2006\13\030550-01\0328-006 Ltr.doc



NTH Consultants, Ltd. Infrastructure Engineering and Environmental Services 38955 Hills Tech Drive Farmington Hills, MI 48331 248.553.6300 248.324.5178 Fax

March 28, 2006 NTH Proj. No. 13-030550-01

Mr. Peter Quackenbush MDEQ - WHMD Constitution Hall, Atrium North PO Box 30241 525 W. Allegan Street Lansing, Michigan 48909

RE: Certification for Reinforcement of Leak Detection Riser at Subcell B Wayne Disposal, Inc., Site No. 2, Master Cell VI Belleville, Michigan

Dear Mr. Quackenbush:

This letter certifies that the reinforcement of the leak detection riser in subcell B of Master Cell VI at Wayne Disposal, Inc. Site No. 2 in Belleville, Michigan has been reinforced in substantial compliance with the "Leak Detection Riser Sliplining Work Plan" dated January 19, 2006 and revised on March 16, 2006.

I, James J. Parsons, a Professional Engineer registered in the State of Michigan, hereby certify that representatives from NTH have monitored the activities associated with reinforcement of the leak detection riser in subcell B of Master Cell VI. To the best of my knowledge and belief, the reinforcement of the leak detection riser in subcell B was completed in compliance with the "Leak Detection Riser Sliplining Work Plan" dated January 19, 2006 and revised on March 16, 2006 with the following minor deviations; 1) Field modifications to the volume of filter material were made to assure that high strength grout was in place at the desired elbow location, and 2) Camera inspection could not be done due to inability to insert the camera through the elbow. Lengths of filter material, choke sand and grout within the annular space between the riser pipe and slipline pipe were confirmed at hourly intervals using a measured rod.

TATE OF MICHIG JAMES. PARSONS ENGINEER Ó No. 49891 ou James J./Parsons, P.E. State of Michigan Professional Engineer Registration No. 49891

Attachments: Daily Field Reports

S-\proj\2006\13\030550-01\0328-096 Ltr.doc





STEVEN E. CHESTER DIRECTOR

NIFER M. GRANHOLM GOVERNOR

June 4, 2004

Mr. Kerry Durnen, P.E., Director of Operations The Environmental Quality Company Wayne Disposal, Inc. 49350 North I-94 Service Drive Belleville, Michigan 48111

Dear Mr. Durnen:

SUBJECT: Certification of Construction, Phase I Cell VI E, Wayne Disposal, Inc. (WDI), Site #2; MID 048 090 633

The Department of Environmental Quality (DEQ), Waste and Hazardous Materials Division (WHMD), has reviewed the April 29, 2004, response to DEQ comments on the Construction Documentation Report submitted on November 4, 2003, pursuant to Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Based on that review, the WHMD has determined that the Certification of Construction for Phase I of Cell VI E satisfies the requirements of Part 111 and is hereby approved with the following condition:

No filling in the area between Cell E and Cells A-north and B will be allowed until the repair of the leak detection risers in A-north and B is completed and approved by the DEQ and the leachate clean-out deformations in that area have been addressed to the DEQ's satisfaction.

Should you have any questions, please contact Mr. Peter Quackenbush, Hazardous Waste and Radiological Protection Section, WHMD, at 517-373-7397.

Sincerely

George W. Bruchmann, Chief Waste and Hazardous Materials Division 517-373-9523

cc: Mr. Steve Haton, WDI
Mr. Scott Maris, WDI
Mr. Michael Porath, WDI
Mr. Timothy Tilotti, WDI
Ms. Liane Shekter Smith, DEQ/Operating License File
Mr. Steve Buda, DEQ
Mr. Larry AuBuchon/Mr. Mike Busse, DEQ
Ms. Christine Kearns, DEQ
Mr. Dan Qian, DEQ
Mr. Peter Quackenbush, DEQ
Mr. Leo Parks, DEQ



State of Michigan DEPARTMENT OF ENVIRONMENTAL QUALITY Lansing



STEVEN E. CHESTER DIRECTOR

NIFER M. GRANHOLM GOVERNOR

March 12, 2004

Mr. Kerry Durnen, P.E., Director of Operations The Environmental Quality Company Wayne Disposal, Inc. 49350 North I-94 Service Drive Belleville, Michigan 48111

Dear Mr. Durnen:

SUBJECT: Certification of Construction, Phase I Cell VI E, Wayne Disposal, Inc. (WDI), Site #2; MID 048 090 633

The Department of Environmental Quality (DEQ), Waste and Hazardous Materials Division (WHMD), has reviewed the Construction Documentation Report submitted on November 4, 2003, pursuant to Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. At this time the WHMD believes it would be inappropriate to approve this document because of concerns regarding the Master Cell (MC) VI leak detection system riser deformation problems. Therefore, the WHMD will not consider approval of the MC VI E Phase I construction certification until sufficient documentation is provided that the planned filling between the new cell and cells VI A-North and VI B will not adversely affect the integrity of the already compromised leak detection risers. Ultimately, failure to restore the MC VI leak detection systems to their design functionality may result in the WHMD determining that placing additional waste in those areas is an unacceptable option.

For your information, attached are the WHMD technical review comments on the Certification of Construction for Phase I of MC VI E, which also must be addressed to the WHMD's satisfaction prior to consideration for approval.

Should you have any questions, please contact Mr. Peter Quackenbush, Hazardous Waste and Radiological Protection Section, WHMD, at 517-373-7397.

Sincerely,

George W. Bruchmann, Chief Waste and Hazardous Materials Division 517-373-9523

Attachment

cc: Mr. Steve Haton, WDI Mr. Scott Maris, WDI Mr. Michael Olson, Abletech Inc. Mr. James Parsons, NTH Consultants, Ltd. Mr. Michael Porath, WDI Mr. Timothy Tilotti, WDI Ms. Liane Shekter Smith, DEQ/Operating License File Mr. Steve Buda, DEQ Ms. Delores Montgomery, DEQ Mr. Larry AuBuchon/Mr. Mike Busse, DEQ Ms. Christine Kearns, DEQ Mr. Dan Qian, DEQ Mr. Peter Quackenbush, DEQ Mr. Leo Parks, DEQ

CONSTRUCTION DOCUMENTATION REPORT PHASE I, CELL 6E, SITE 2 LANDFILL (MASTER CELL VI DESIGN MODIFICATION) WAYNE DISPOSAL, INC. TECHNICAL COMMENTS March 12, 2004

- The Shelby tube test location ST-9 was not shown in Plate 1 of Appendix B in the Construction Documentation Report (Report) submitted on November 4, 2003. After checking Appendix C, Tabulation of Flex Wall Permeability Data in the Report, it was found that the samples of ST-6 and ST-9 were taken at the same location and had different test results. The Report must include an explanation of why these two Shelby tube samples were taken at the same location.
- 2. The Report must include an explanation of why there was a moisture/density test run at Location 959 (N7790, E5295) of Lift 21 as shown in Plate 21 of Appendix B and there were no tests run at the same area of Lifts 19 and 20 under Lift 21.
- 3. The Report must include an explanation of why there were three moisture/density tests run at Locations 982 (N7760, E5170), 983 (N7850, E5175), and 984 (N7960, E5170) of Lift 26 as shown in Plate 26 of Appendix B and there were no tests run at the same area of Lifts 24 and 25 under Lift 26.
- 4. The Report must include an explanation of why there was a moisture/density test run at Location 858 (N7895, E5290) of Lift 34 as shown in Plate 34 of Appendix B and there were no tests run at same area for Lifts 22 to 33 under Lift 34. In addition, an explanation must be provided as to why there were no test locations shown for the entire liner area for Lifts 28 to 33.
- 5. The first lift of the primary clay liner was placed with a loose lift thickness of 18 inches and was compacted to a thickness of approximately 12 inches to prevent damage to the geocomposite drainage layer under the primary clay liner. The following lifts were placed with a maximum loose lift thickness not exceeding 9 inches. The loose lifts were compacted to a thickness of approximately 6 inches. In that case, the 5-foot primary clay liner should be compacted as 9 lifts. The Report must include an explanation of why there are only 8 lifts where moisture/density tests were run as shown in Appendix B.
- 6. Section 2.2.2 Geomembrane of the Report (page 5 of 13, Volume 1) states that "NTH sampled and tested the geomembrane to assure a residual interface friction equivalent to at least 15 degrees when tested within the compacted clay and the geocomposite. Appendix E presents these test results." However, page 2002201ds2 in Appendix E of the Report shows that

pisposal, Inc. oction Documentation Report

the residual friction angle between geocomposite and 80-millimeter texture high density polyethylene is only 10.6 degrees and the value of adhesion was not presented in the result figure. Pages 2002201ds3 and 2002201ds7 in Appendix E of the Report show that the residual friction angles for "geocomposite only" are only 8.2 degrees and 5.8 degrees, respectively, and the values of adhesion were not presented in the result figures. The Report did not include any equivalency demonstrations in Appendix E of the Report to assure residual interface frictions at different interfaces equivalent to at least 15 degrees. This demonstration must be provided in the Report.

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7. Appendix E of the Report includes a direct shear strength test result presenting the relationship between displacement and apparent shear load for the interface between geocomposite and compacted clay under vertical pressure of 58 and 82 pounds per square inch. However, the Report does not specify the interface friction angle and adhesion based on the test result. As stated above, the Report did not include any equivalency demonstrations in Appendix E of the Report to assure residual interface frictions at different interfaces equivalent to at least 15 degrees. This demonstration must be provided in the Report.



WAYNE DISPOSAL, INC.

) copies.

Hand Delivered

November 4, 2003

Mr. George Bruchmann, Chief Waste Management Division Michigan Department Of Environmental Quality 525 West Allegan Lansing, MI 48909-7741

- Re: Certification of Construction Phase I, Cell 6E, Site 2 Landfill
- Ref: Construction Documentation Report Phase I, Cell 6E (Master Cell VI Design Modification) Site 2 Landfill, Wayne Disposal, Inc. NTH Consultants, Ltd., October 24, 2003

Dear Mr. Bruchman:

Wayne Disposal, Inc. (WDI) has completed construction of Phase I, Cell 6E of the Site 2 Landfill. Pursuant to I.E.1(g) of our operating license¹ we are herewith submitting the above referenced Construction Documentation Report for this new cell. This report provides demonstration that WDI has completed construction of the cell in compliance with the operating license and approved plans therein. Appendix M of this report presents the certification of construction by a registered Professional Engineer.

We would like to request your review of this report, inspection of the project, and approval to place waste in this new cell. As we are close to the fill capacity of the existing approved landfill your timely review and approval of the new cell, so that disposal operations are not interrupted, will be greatly appreciated. Please contact me should you have any questions or comments concerning this report. Thank you for your attention to our project.

Sincerely.

Kerry Durnen, P.E. Director of Operations

c:

P. Quackenbush, WMD/MDEQ (3 copies)
M. Olson, Abletech, Inc.
J. Parsons, NTH Consultants, Ltd.
S. Haton, WDI
M. Porath, WDI
T. Tilotti, WDI

NOV 0 4 2003

Waste and Hazardous Materials Division

¹ Hazardous Waste Managent Facility Operating License pursuant to Part 111 of the Natural Resources and Environmental Protection Act, 1994 PA 451, Site 2 Landfill, Wayne Disposal; Inc., MID 048 090 633, July 13, 2001

WAYNE DISPOSAL. INC.

CORPORATE OFFICES 1349 WHITTAKER ROAD, YPSILANTI, MICHIGAN 48197 (313) 485-6460 • FAX: (313) 485-6450

December 10, 1991

Federal Express

RCRA Activities U. S. EPA, Region V, P.O. Box A3587 Chicago, Illinois 60690-3587 Attn: Shari L. Kolak

Re: COA Report/Construction Certification Master Cell VI, Cell D Site No. 2 Hazardous Waste Landfill, MID 048 090 633

Dear Ms. Kolak:

We are herewith transmitting a copy of the Construction Quality Assurance (CQA) Report and cosnstruction certification for Master Cell VI, Cell D of the above-captioned site. The cell was completed on August 14, 1991, and the construction certification for the cell was approved by the Michigan Department of Natrural, Resources Waste Management Division (MDNR/WMD) on October 10, 1991.

This is duplicate copy of the complete CQA Report and construction certification submitted to and approved by MDNR/WMD pursuant to the Michigan Act 64 operating license for the facility. However, to comply with additional requirements of the March 30, 1990 RCRA permit for the site, we have inserted documentation of personnel qualifications at the end of Volume 3, Appendix C, and a "Report on Fingerprinting Test Results of PE Pipe," at the end of Volume 3, Appendix H. Also, please note that Volume 3 actually spans two 3-ring binders, because of current photocopying limitations.

If you have any questions on this material, please do not hesitate to contact me at 313-485-6460.

Sincerely, Michael A. Olson, P.E. Project Engineer Jerry Fore, WDI CC: Don Vilnius, WDI Mark Young, WDI

STATE OF MICHIGAN

NATURAL RESOURCES COMMISSION MARLENE J. FLUHARTY GORDON E. GUYER O. STEWART MYERS RAYMOND POUPORE



JOHN ENGLER, Governor

DEPARTMENT OF NATURAL RESOURCES

STEVENS T. MASON BUILDING P.O. BOX 30028 LANSING, MI 48909

Roland Harmes, Director

October 10, 1991

Mr. Jerry Fore Vice President Wayne Disposal, Inc. 1349 Huron Road Ypsilanti, Michigan 48197

Dear Mr. Fore:

Subject: Master Cell VI D Construction Certification, Wayne Disposal, Inc. MID 048 090 633

Waste Management Division has completed review of the construction certification documents for Master Cell VI D dated August 14, 1991. These documents satisfactorily demonstrate that the cell was constructed in accordance with the approved design plans and the construction quality assurance plans contained in the Act 64 operating license for Wayne Disposal. The construction certification for Master Cell VI D is, hereby, approved.

If you have any questions, please contact Mr. Peter Quackenbush at Waste Management Division, Department of Natural Resources, P.O. Box 30241, Lansing, Michigan 48909, or at telephone number 517-373-7397.

Sincerely,

Mindy Koch, Acting Chief Waste Management Division 517-373-9523

cc:

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- Mr. Richard Traub, EPA Mr. Ken Burda, DNR/Operating License File
- Mr. Peter Quackenbush, DNR
- Mr. Al Taylor, DNR
- Mr. Tarik Namour, DNR
- Mr. Mike Busse, DNR-Livonia



WAYNE DISPOSAL. INC.

CORPORATE OFFICES 1349 WHITTAKER ROAD, YPSILANTI, MICHIGAN 48197 (313) 485-6460 • FAX: (313) 485-6450

August 14, 1991

Re.

Mr. Peter Quackenbush Mr. Allan Taylor Michigan Department of Natural Resources Waste Management Division South Ottawa Tower 508 W. Allegan Lansing, Michigan 48933

aug 14 1991

Naste Management Division

- Re: CQA Report/Construction Certification Master Cell VI, Cell D Site No. 2 Hazardous Waste Landfill, MID 048 090 633
- Ref: "Wayne Disposal, Inc., Site No. 2 Hazardous Waste Landfill, Master Cell VI, Cell D, Proposed Final Design", submitted to Peter Quackenbush and Allan Taylor, MDNR/WMD on 11/13/90; including subsequent letters from WDI to Quackenbush and Taylor dated 11/20/90, 7/17/91, and 8/13/91, and MDNR interoffice communications from Quackenbush and Taylor to the WDI Site No. 2 Operating License File dated 12/11/91.

Dear Messrs. Quackenbush and Taylor:

We are herewith submitting the Construction Quality Assurance (CQA) Report for Master Cell VI, Cell D- our next and last hazardous waste disposal cell at the Wayne Disposal, Inc., Site No. 2 Hazardous Waste Landfill.

The report documents construction of the cell per the abovereferenced design document and demonstrates the implementation of the CQA Plan for the project. The Table of Contents for the report is attached. Messrs. Quackenbush and Taylor Page 2 August 14, 1991

With this CQA Report, Wayne Disposal, Inc. hereby certifies that construction of Cell D of Master Cell VI at the Site No. 2 Hazardous Waste Landfill has been completed in substantial accordance with Michigan Act 64 standards; the March 30, 1990 operating license for the facility (which includes the CQA Plan) issued thereunder; and the abovereferenced design document, and that the cell is ready to receive wastes.

We are requesting your review and approval of this CQA Report. Should any questions arise, please do not hesitate to contact us. A book of project photographs is available for review in our office if you desire. Thank you for your helpful participation throughout the completion of this construction project.

Sincerely,

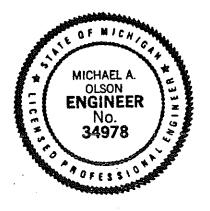
AB. Scheon

Donald B. Schroat Construction Manager

(ichae)

Michael A. Olson, P.E. Project Engineer/CQA Officer

c: Jerry Fore, WDI Don Vilnius, WDI Mark Young, WDI





WAYNE DISPOSAL, INC. CORPORATE OFFICES 1349 WHITTAKER ROAD, YPS AMI, MICHIGAN 48197

(313) 485-6460 • FAX: (313) 485-6450

April 13, 1990

Mr. Terrance J. McNiel Mr. Peter Quackenbush Michigan Department of Natural Resources Waste Management Division P.O. Box 30028 Lansing, Michigan 48909

Re: Construction Quality Assurance Report Master Cell VI, Cell C Wayne Disposal, Inc., Site No. 2 Hazardous Waste Landfill, MID 048 090 633

Ref: Letter Wayne Disposal, Inc. to Michigan Department of Natural Resources, January 15, 1990 re: same as above

Letter Wayne Disposal, Inc. to Michigan Department of Natural Resources, March 21, 1990 re: same as above

Dear Messrs. McNiel and Quackenbush:

We herewith submit Part 2, Volumes 5, 7, 8 and 9, of the subject Construction Quality Assurance Report. These volumes complete the CQA Report and provide construction records for the primary geomembrane as well as the leachate collection system. Volumes 1 through 4 (Part 1) were submitted with the January 15 letter referenced above. Volume 6 (Part 2) was submitted with the March 21 letter, also referenced above. A set of as-built drawings for Cell C are included herewith in Volume 9 of the CQA Report.



APR 1 3 1990

Waste Management

Page 2 Messrs. McNiel and Quackenbush April 13, 1990

With these documents are several individual items which should be inserted in the previously submitted volumes of the CQA Report. They are identified as follows:

- 1) A revised Table of Contents reflecting the final format of the complete CQA Report. This should replace the original version at the front of Volume 1.
- Quality control documents for an additional shipment of 80-mil National Seal geomembrane. These should be inserted in appropriate subsections of Section 6, Volume 4.
- 3) Quality control documents for Fluid Systems' PN-4000 geonet. A small amount of this net was used as noted in the Daily Field Report for March 21, 1990. The two geonets (PN-4000 and CONWED XB-8410) are identical in origin but are marketed under different names. These documents should be inserted in appropriate subsection of Section 7, Volume 4.
- 4) Quality control documents for additional shipments of geotextile. These should be inserted in appropriate subsections of Section 8, Volume 4.

Your attention is directed to two Special Reports included in Section 9 of Volume 5. The first briefly discusses the effect of the apparent slope instability upon the subsequent construction of Cell C. It is included directly following the October 11, 1989, Daily Field Report by Mr. Thomas Jones of the WDI staff. The second addresses our response to cold weather geomembrane cracking. This Special Report is included directly following the March 26, 1989, Daily Field Report by Mr. Jones.

Wayne Disposal, Inc. hereby certifies that construction of Cell C of Master Cell VI at Wayne Disposal Site No. 2 Landfill has been completed in substantial accordance with Act 64 standards, the engineering plans, and the construction quality assurance plan, and that the cell is ready to receive wastes. Page 3 Messrs. McNiel and Quackenbush April 13, 1990

Thank you for your assistance in reviewing this documentation. Please do not hesitate to contact us if you have any questions.

Sincerely,

Thomas A. Jones Construction Inspector

Michael A. Olson, P.E. Project Engineer

Wayne R. Bergstrom, Ph.D., P.E. Senior Project Engineer

WRB/naw

Enclosures

cc: Don Vilnius; Wayne Disposal, Inc. Jerry Fore; Wayne Disposal, Inc. Mark Young; Wayne Disposal, Inc.



WAYNE DISPOSAL, INC.

CORPORATE OFFICES 1349 WHITTAKER ROAD, YPSILANTI, MICHIGAN 48197 (313) 485-6460 • FAX: (313) 485-6450

March 21, 1990

Mr. Terrance J. McNiel Mr. Peter Quackenbush Michigan Department of Natural Resources Waste Management Division P. O. Box 30028 Lansing, Michigan 48909

Re: Construction Quality Assurance Report Master Cell VI, Cell C Wayne Disposal, Inc., Site No. 2 Hazardous Waste Landfill, MID 048 090 633

Ref: Letter, Wayne Disposal, Inc., Michigan Department of Natural Resources, January 15, 1990, re: same as above.

Dear Messrs McNiel and Quackenbush:

As discussed in our meeting with you in Lansing on March 7, 1990, we are herewith submitting Volume 6 of Part 2 of the Construction Quality Assurance Report for our next hazardous waste cell, identified above. Volume 6 documents geotechnical monitoring of the primary clay liner construction, completed in November, 1989. This volume is being submitted in advance of the other Part 2 volumes (Volumes 5, 7, and 8) with the hope that it may help you pace your review efforts. The balance of Part 2 will be submitted to your office shortly after completion of the project, now planned for April 1.

The above-referenced letter, and table of contents attached thereto, further explains where this submittal fits in with the entire Construction Quality Assurance Report for the cell. To keep your copy of the CQA report current, please insert this letter in the front of Volume 1, behind the abovereferenced letter and in front of the Table of Contents. Page 2 March 21, 1990

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Thank you for your assistance. If you have any questions, please contact us at 313-485-6460.

Sincerely, nomas Q

Thomas A. Jones Construction Inspector

sau ll H.UU.

Michael A. Olson, P.E. Project Engineer

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Wayne R. Bergstrom, Ph.D., P.E. CQA Officer



WAYNE DISPOSAL, INC.

CORPORATE OFFICES 1349 WHITTAKER ROAD, YPSILANTI, MICHIGAN 48197 (313) 485-6460 • FAX: (313) 485-6450

January 15, 1990

Mr. Terrance J. McNiel Mr. Peter Quackenbush Michigan Department of Natural Resources Waste Management Division P. O. Box 30028 Lansing, Michigan 48909

Re: Construction Quality Assurance Report Master Cell VI, Cell C Wayne Disposal, Inc., Site No. 2 Hazardous Waste Landfill, MID 048 090 633

Dear Messrs McNiel and Quackenbush:

We are herewith submitting Part 1 of the two-part Construction Quality Assurance Report for our next hazardous waste cell, referenced above. Part 1 consists of four volumes which document construction of the secondary clay liner, secondary geomembrane, and the leak detection, collection and removal system. These cell components were constructed in general accordance with the engineering plans prepared by Midwestern Consulting, Inc.. dated April 5, 1989 (as submitted to your office on 4/18/89 and revised through subsequent correspondence dated 5/23/89, 6/5/89, 6/8/89, and 8/4/89), and in general accordance with the Construction Quality Assurance Plan prepared by Wayne Disposal, dated August 1987.

Part 2 of the Construction Quality Assurance Report will document construction of the primary clay liner, primary geomembrane, and the leachate collection system, and will be submitted to your office shortly after completion of the cell, which is planned for March 1. A statement certifying the compliance of cell construction with the engineering plans and Construction Quality Assurance Plan will accompany the submittal of Part 2. A copy of the Table of Contents for the report is attached hereto for convenient reference. Page 2 Messrs McNiel and Quackenbush January 15, 1990

Your timely review of this documentation will be greatly appreciated. Thank you for your assistance. If you have any questions, please contact us on 313-485-6460.

Sincerely,

Thomas A. Jones Construction Inspector

Worker Michael A. Olson, P.E.

Michael A. Olson, P.H Project Engineer

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Wayne R. Bergstrom, Ph.D., P.E. CQA Officer



WAYNE DISPOSAL, INC.

POST OFFICE BOX 5187, DEARBORN, MICHIGAN 48128 • (313) 326-0200

October 18, 1988

Mr. Ken Burda Michigan Department of Natural Resources Waste Management Division P.O. Box 30028 Lansing, Michigan 48909

Re: Certification of Construction Cell B, Master Cell VI Wayne Disposal Site #2 Landfill MID 048 090 633

Dear Mr. Burda:

This Construction Quality Assurance Report documents construction of our next hazardous waste disposal cell, captioned above. Please note that two notebook volumes are provided with this letter. These volumes document the construction of the perimeter dike, secondary liner, leak detection system, and the compacted clay portion of the primary liner. These cell systems were constructed in accordance with the engineering plans prepared by Midwestern Consulting, Inc., dated September 15, 1987, and in accordance with the CQA Plan prepared by WDI, dated May 1986.

A second submittal will complete the construction documentation for this cell and will include construction details regarding the primary FML and the leachate collection system. A full set of as-built plans will also be provided with the second submittal. A photographic log of the work in prints or in slides is available for review at our Engineering Office.

The final volume of the CQA Report and detailed as-built plans, to be prepared by Midwestern Consulting, Inc., will be submitted to the MDNR as soon as they are completed. We expect this to be early in November. A statement certifying the compliance of cell construction with the applicable engineering plans will accompany the second submittal.