

Permit No.	Date	Document ID No.
96-06	March 6, 2013	18646

From: Chao, Ming-tai
To: ["Wayne Sullivan"](mailto:Wayne.Sullivan@mesco.com)
Cc: ["Tim.Rogers@waynegov.com"](mailto:Tim.Rogers@waynegov.com) (Tim.Rogers@waynegov.com)
Subject: RE: Status of rersponses to DWM comments, Wayne County MSWLF, Phase 3, 96-09
Date: Wednesday, March 06, 2013 11:54:00 AM

[Sent by an e-mail](#)
Date: **March 6, 2013**
Solid Waste Section
Raleigh Central Office

Wayne:

I have reviewed the responses submitted on 03/01/2013 (Doc ID 18611) & 03/05/2013 (Doc ID 18636) and have some questions of the response to comment No. 19 (Doc ID 17328). Since the tested interface angle between the base liner components is 18.26 degree which is less than the originally proposed angle of 26 degree, I believe that you need have your geotechnical consultant:

- to re-run the slope stability analysis by using the "real" parameters based on the lab or filed testing results
- to confirm the constructed baseliner system along the sloped areas has an adequate and sufficient factor of safety to resist any external forces during the entire landfill life span.

The revised slope stability analysis must be prepared and signed/sealed by a NC P.E. Please contact me if you have any questions on this matter. Thanks and have a wonderful day.

Ming

From: Wayne Sullivan [<mailto:wsullivan@mesco.com>]
Sent: Tuesday, March 05, 2013 12:40 PM
To: Chao, Ming-tai
Subject: RE: Status of rersponses to DWM comments, Wayne County MSWLF, Phase 3, 96-09

Ming,

I am still waiting on some lab results for the calcium carbonate. However, I am attaching comments on other items not associated with the leachate collection system. On item 15, we only had the pre-construction meeting that we kept notes. The rest of the meetings were somewhat informal and no notes were kept.

Thanks and have a nice day.

D. Wayne Sullivan
Municipal Engineering Services Co., Inc.
Phone: (919) 772-5393
Fax: (919) 772-1176
email: wsullivan@mesco.com

From: Chao, Ming-tai [<mailto:ming.chao@ncdenr.gov>]
Sent: Monday, March 04, 2013 10:41 AM
To: Wayne Sullivan
Subject: RE: Status of rersponses to DWM comments, Wayne County MSWLF, Phase 3, 96-09

Hey Wayne:

Good morning. I am looking forward to receiving your responses to the 10/03/2012 comment Nos. 12 through 19 and No. 24. Are the responses ready for me to review? Or do you have the tentative schedule for the submittal?

Ming

From: Wayne Sullivan [<mailto:wsullivan@mesco.com>]
Sent: Friday, March 01, 2013 12:25 PM
To: Chao, Ming-tai
Subject: RE: Status of rersponses to DWM comments, Wayne County MSWLF, Phase 3, 96-09

Attached is the PDF

D. Wayne Sullivan
Municipal Engineering Services Co., Inc.
Phone: (919) 772-5393
Fax: (919) 772-1176
email: wsullivan@mesco.com

From: Chao, Ming-tai [<mailto:ming.chao@ncdenr.gov>]
Sent: Friday, March 01, 2013 11:19 AM
To: Wayne Sullivan
Subject: RE: Status of rersponses to DWM comments, Wayne County MSWLF, Phase 3, 96-09

Wayne:

I can't open the drawing file; could you please send the one w/ pdf format. Thanks.

Ming

From: Wayne Sullivan [<mailto:wsullivan@mesco.com>]
Sent: Friday, March 01, 2013 10:46 AM
To: Chao, Ming-tai
Subject: RE: Status of rersponses to DWM comments, Wayne County MSWLF, Phase 3, 96-09

Ming,

Attached are responses to your questions on Item 8, 10 and 11. I will be sending 12, 13, 14 and 15 shortly.

Thanks and have a nice day and weekend.

D. Wayne Sullivan
Municipal Engineering Services Co., Inc.
Phone: (919) 772-5393

Fax: (919) 772-1176
email: wsullivan@mesco.com

From: Chao, Ming-tai [<mailto:ming.chao@ncdenr.gov>]
Sent: Wednesday, February 27, 2013 9:19 AM
To: Wayne Sullivan
Subject: RE: Status of rersponses to DWM comments, Wayne County MSWLF, Phase 3, 96-09

Wayne:

Good morning. Thanks for prompt reply to my e-mail. I will frequently check my mail box next several days and set up a meeting or conference call later after I get a chance to complete a review the new submittal. Have a wonderful day.

Ming

From: Wayne Sullivan [<mailto:wsullivan@mesco.com>]
Sent: Wednesday, February 27, 2013 9:29 AM
To: Chao, Ming-tai
Subject: RE: Status of rersponses to DWM comments, Wayne County MSWLF, Phase 3, 96-09

Ming,

Hope you are doing well. We just received the last comment from the geotechnical engineer and I plan on getting it and other comments to you no later than tomorrow. I would like to sit down with you to discuss but I'll wait until you have had a chance to review everything.

Thanks and have a nice day.

D. Wayne Sullivan
Municipal Engineering Services Co., Inc.
Phone: (919) 772-5393
Fax: (919) 772-1176
email: wsullivan@mesco.com

From: Chao, Ming-tai [<mailto:ming.chao@ncdenr.gov>]
Sent: Tuesday, February 26, 2013 10:00 AM
To: Wayne Sullivan (wsullivan@mesco.com)
Cc: 'Tim.Rogers@waynegov.com' (Tim.Rogers@waynegov.com); Mussler, Ed
Subject: Status of rersponses to DWM comments, Wayne County MSWLF, Phase 3, 96-09

Hey Wayne:

I hope all is well. Just check back to see if you have a tentative schedule to wrap up all responses/comments tasks so I can process the issuance of PTO for Phase 3. Please feel free to contact me if you have any concerns or require any assistance in clarifying the comments. Looking forward to hearing from you.

Best regards,

Ming Chao
919-707-8251

From: Chao, Ming-tai
Sent: Monday, January 28, 2013 1:13 PM
To: Wayne Sullivan (wsullivan@mesco.com)
Subject: additional comment, Wayne County MSWLF, Phase 3, 96-09

Hey Wayne:

I have completed a review of the 01/22/13 responses to DWM comment Nos. 10 and 11 and have additional comments on the as-built drawing for the 60-mil HDPE Installation and the FML Repair Report (Doc ID 18209):

As-Built Drawings

1. (60Mil Textured Geomembrane As-Built Record Drawing, Sheet No. 1 of 1) Please address the following concerns:
 - i. The location of the following repair samples is not available on the as-built drawing but recorded in the Repair Report: R297, R298, R358. Please add the locations to the As-Built Record Drawing.
 - ii. The description of the location of repair sample R180 in the Repair Report (P17/P60) is inconsistent with that (P18/P60) shown on the As-Built Record Drawing. Please clarify and make necessary correction.
 - iii. There is the second location R340 at P109/P110 shown on the As-Built Record Drawing but not recorded in the Repair Report. Please clarify.

Please contact me if you have any questions.

Ming

From: Chao, Ming-tai
Sent: Wednesday, January 23, 2013 2:57 PM
To: 'Wayne Sullivan'
Cc: Ritter, Christine
Subject: RE: Wayne County MSWLF, Phase 3, 96-09

Hey Wayne:

I have reviewed responses - No. 1 through No. 9 and have no further questions at this time except the response to the **comment No. 8i** regarding the compaction effort of compacted clay liner (CCL) samples less than 95% of the determined maximum dry density. I believe the answer is described in the Section 3.3.1 (p 209) and Section 4.2.2(b) (p. 238) of the approved PTC application (Doc ID 14016) which specify that

“A permeability “window” shall be developed for each type of soil from the borrow material that will be used for construction of the cohesive soil liner. The window is developed from the accepted remolded samples and moisture contents from the semi-log plot. A straight line is typically drawn between the acceptable points on the **moisture-density curve** to indicate a range of probable **acceptable permeability results**. The window will be used in the construction of the test strip to verify the laboratory remolded permeability results.”

Please direct Mr. David Page of ES&J and his contracting lab – Engineering & Environmental Science Company that the “window” described above or an “**acceptable zone**” of water content/dry unit weight based on hydraulic conductivity consideration [which can be found in the EPA Technical Guidance Document: Quality Assurance & Quality Control for Waste Containment Facility (EPA/600/R-93/182, dated September 1993, by David E. Daniel and Robert M. Koerner. http://cfpub.epa.gov/si/si_public_record_report.cfm?dirEntryId=124793] must be established and used to confirm if the measured water content/dry density is acceptable for this project.

As long as the measured water content/dry density of a sample falls inside the established acceptable zone or window, it pass the specified criteria for CCL.

Please contact me if you have any question of the comment No. 8i.

Christine has informed me that she has received the GW background sample results, gas and GW well logs, and piezometer abandonment logs (10/03/2012 Comments Nos. 20 thru 23) which has been combined into a single document with a Doc ID 17780. Therefore, I am looking forward to receiving your responses to the 10/03/2012 comment Nos. 12 through 19 and No. 24.

Ming

From: Wayne Sullivan [<mailto:wsullivan@mesco.com>]
Sent: Monday, January 21, 2013 4:07 PM
To: Chao, Ming-tai
Cc: Tim.Rogers@waynegov.com
Subject: RE: Wayne County MSWLF, Phase 3, 96-09

Ming,

Hope you are doing good in the New Year. Please find attached responses for items 1 thru 9 to your comment letter dated October 2, 2012. I will send it in more than 1 email because the perm tests are quite large.

Thanks and have a good day.

D. Wayne Sullivan
Municipal Engineering Services Co., Inc.
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email: wsullivan@mesco.com

From: Chao, Ming-tai [<mailto:ming.chao@ncdenr.gov>]
Sent: Wednesday, November 28, 2012 12:01 PM
To: Wayne Sullivan
Subject: RE: Wayne County MSWLF, Phase 3, 96-09

Thanks for the update.

Ming

From: Wayne Sullivan [<mailto:wsullivan@mesco.com>]
Sent: Wednesday, November 28, 2012 12:24 PM
To: Chao, Ming-tai
Cc: Ritter, Christine; Tim.Rogers@waynegov.com; Mussler, Ed
Subject: RE: Wayne County MSWLF, Phase 3, 96-09

Ming,

Hope you had a nice Thanksgiving. The time of was restful. We are working on the comments now and hope to get back to you within the week. The hyrdo part has been sent to Christine.

Thanks and have a nice day.

D. Wayne Sullivan
Municipal Engineering Services Co., Inc.
Phone: (919) 772-5393
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email: wsullivan@mesco.com

From: Chao, Ming-tai [<mailto:ming.chao@ncdenr.gov>]
Sent: Tuesday, November 27, 2012 8:34 AM
To: Wayne Sullivan (wsullivan@mesco.com)
Cc: Ritter, Christine; 'Tim.Rogers@waynegov.com' (Tim.Rogers@waynegov.com); Mussler, Ed
Subject: Wayne County MSWLF, Phase 3, 96-09

Hey Wayne:

Hope you have a wonderful and restful Thanksgiving Day.

I am writing this e-mail to you for checking on the status of the responses to the Solid Wastes Section (SWS) comments on the CQA Report (Doc ID 17224) which was received by the SWS on 09/14/2012. The SWS comment (Doc ID 17328) was issued to the County and cc to you via an e-mail on 10/03/2012. Could you please provide me the tentative schedule for submitting your

responses and revised portions of the CQA Report for Phase 3? I also would like to know if there is anything that the Christine and I can assist the County and you in moving the project forward and eventually granting the Permit to Operate for the constructed Phase 3. I am looking forward to hearing from you.

Best regard,

Ming-Tai Chao, P.E.
Environmental Engineer
Permitting Branch, Solid Waste Section
Division of Waste Management
(Mailing Address)

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