

| Permit No.   | Date                      | Document ID No. |
|--------------|---------------------------|-----------------|
| <b>98-01</b> | <b>September 04, 2012</b> | <b>17160</b>    |

August 31, 2012

Mr. Ming-Tai Chao, P.E.  
1646 Mail Service Center  
Raleigh, NC 27699-1646

Received via an email  
**Date: August 31, 2012**  
**Solid Waste Section**  
**Raleigh Central Office**

RE: **Response to Comments**  
**2011-2012 Dewatering Maintenance Project**  
**Wilson County MSWLF**

Dear Ming:

This letter is in response to your comments, submitted via email on July 18, 2012 (**attached**), concerning the Wilson County MSWLF Construction Record Letter for the 2011-2012 Dewatering Maintenance Project. The original letter and attachments were submitted to your office on July 16, 2012. Please find each of your comments, along with the MP Wilson, LLC's response in **bold**, addressed below.

1. The Construction Record (on page 1) didn't describe the status of the two pumps which originally planned to be installed into wells GW-31 & GW-32 according to the approved "Dewatering Maintenance Operation Plan" dated September 2011 (Doc ID 15082). The As-Built Survey/Record Drawing (Sheet 3 of 6) in Attachment B indicated that pumps have been installed into the wells GW-31 & GW-32. Please describe the status of the two pumps associated with wells GW-31 & GW-32; or if there is any deviation from the original plan, please provide the causes resulted in this deviation. If the proposal of installing two pumps had been removed from the original plan during the course of the project, please revise the drawing (Sheet 3 of 6) accordingly.

**Pumps were not installed in wells GW-31 and GW-32. They were removed from the original plan once it became evident that the pumps installed in GW-8 and GW-9 were causing moderate drawdown of the water levels in GW-31 and GW-32. A revised Record Drawing attached to this letter reflects this change.**

2. The Construction Record – Air Supply and Condensate Forcemain Ping (on page 2) reported that "S+G verified pressure testing records provided by Methane Power in accordance with ASTM F-1417." The Attachment A shown the hydrostatic tests were conducted according to ASTM F 2164. Please explain the discrepancy.

**ASTM F 2164 was utilized for pressure testing and the reference to ASTM F 1417 in the original letter is incorrect. We apologize for any confusion.**

3. The Construction Record – Temporary Above-Ground Storage Tank (AST) for Condensate Storage (on page 2). Please address the leachate/condensate management stated below:
  - i. The tentative schedule for condensate/leachate removal [Rule .1680(b)(3)].

**The tank's maximum limit is 7,000 gallons; it is emptied every other week to ensure that this limit is not exceeded.**

- ii. The descriptions of measurement and record keeping scheme of the generated and removed condensate/leachate. A typical form for recording the generated and removed quantities of liquid waste is needed [Rule .1680(b)(2)].

Measurements are recorded on an "On-Site Wastewater Discharge Manifest". This manifest is completed by the designated discharge transporter, SWS Environmental Services, every time the AST is emptied. Information recorded includes: transporter company, tanker license number, authorization to discharge expiration date, total number of gallons discharged, and rated tank capacity. Signatures from both the transporter and City of Wilson operator are required.

- iii. The tank foundation analysis in Attachment C concluded that the constructed anchor system and foundation system can adequately provide a resisting moment of the empty AST against the maximum overturning moment resulting from wind force calculated from wind speed up to 110 mph. Will this statement be an implication that the County will be empty the tank and shut down the LFGCCs during the course of hurricane or natural disaster preparedness? If so, please add the statement as a portion of the contingency plan.

The statement is not intended to imply that the County will empty the AST or shut down the LFGCCs during the course of a hurricane or natural disaster. MP Wilson, LLC will review the current arrangement with SWS Environmental and investigate a potential course of action to be included in the contingency plan.

- iv. Please describe the routine inspection of the AST [Rule.1680(c)(5)].

A checklist has been developed and is used for the weekly inspection of the AST. The tank is inspected weekly for evidence of leaks, corrosion, and maintenance deficiencies. Inspection reports are kept onsite and are available upon request.

- v. Please describe the closure of the AST [Rule .1680(f)].

A Condensate Tank Closure Plan has been developed for this AST and is included as an attachment to this letter.

4. The As-Built Survey/Record Drawing (Sheet 3 of 6) in Attachment B of the Construction Record must be signed, sealed and dated by a Professional Engineer registered in the State of North Carolina or a NC licensed surveyor.

Please find attached the revised Record Drawing that has been signed, sealed, and dated by a NC licensed surveyor.

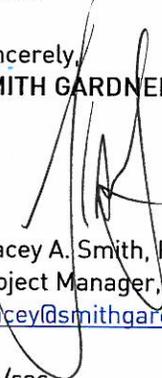
5. According to the photo (on Page 2 in Attachment D) the identification numbers of the well GW-9 has been changed into EW-9. Has the change been done at all gas wells or just at the selected gas wells which involve to the Dewatering Project? Please clarify. To avoid any confusion in the future, please describe the variation of well identifications and revise the as-built drawing accordingly.

Mr. Ming-Tai Chao, P.E.  
August 31, 2012  
Page 3

Temporary well identification numbers were used during construction and were not removed from the wells prior to taking the project completion photographs. The facility has relabeled each well so that they correspond to the identification numbers shown on the Record Drawing.

Please feel free to contact me with any additional questions or comments at 919-828-0577 or by email below.

Sincerely,  
SMITH GARDNER, INC.

  
Stacey A. Smith, P.E.  
Project Manager, ext. 127  
[stacey@smithgardnerinc.com](mailto:stacey@smithgardnerinc.com)



lap/sas  
att.

Cc: Mr. Ryan Hennessey, Methane Power  
Ms. Rebecca Pedeira, Methane Power  
Mr. Bob Gettys, Methane Power  
Mr. Simon Haworth, Methane Power  
Andy DAVIS, Wilson County Solid Waste Department  
Gary Ahlberg, P.E., Blackrock Engineers  
File

H:\Projects\Methane Power\MP Wilson, LLC\MPW-12-1 (Dewatering Certification)\CONSTRUCTION\Record Documents\DWM  
comments response letter - August 2012 revised.docx

## Stacey Smith

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**From:** Chao, Ming-tai <ming.chao@ncdenr.gov>  
**Sent:** Wednesday, July 18, 2012 10:02 AM  
**To:** Lori Phillips  
**Cc:** Mussler, Ed; Stacey Smith; Andy Davis  
**Subject:** comments on the Wilson County Record Letter

Dear Ms. Phillips:

I have conducted a review of the “Construction Record - 2011-2012 Dewatering Maintenance Project” (Doc ID 16903) at the closed Wilson County MSWLF (permit # 98-01) and have some concerns/comments stated below.

1. The Construction Record (on page 1) didn’t describe the status of the two pumps which originally planned to be installed into wells GW-31 & GW-32 according to the approved “Dewatering Maintenance Operation Plan” dated September 2011 (Doc ID 15082). The As-Built Survey/Record Drawing (Sheet 3 of 6) in Attachment B indicated that pumps have been installed into the wells GW-31 & GW-32. Please describe the status of the two pumps associated with wells GW-31 & GW-32; or if there is any deviation from the original plan, please provide the causes resulted in this deviation. If the proposal of installing two pumps had been removed from the original plan during the course of the project, please revise the drawing (Sheet 3 of 6) accordingly.
2. The Construction Record – Air Supply and Condensate Forcemain Ping (on page 2) reported that “S+G verified pressure testing records provided by Methane Power in accordance with ASTM F-1417.” The Attachment A shown the hydrostatic tests were conducted according to ASTM F 2164. Please explain the discrepancy.
3. The Construction Record – Temporary Above-Ground Storage Tank (AST) for Condensate Storage (on page 2). Please address the leachate/condensate management stated below:
  - i. The tentative schedule for condensate/leachate removal [Rule .1680(b)(3)].
  - ii. The descriptions of measurement and record keeping scheme of the generated and removed condensate/leachate. A typical form for recording the generated and removed quantities of liquid waste is needed [Rule .1680(b)(2)].
  - iii. The tank foundation analysis in Attachment C concluded that the constructed anchor system and foundation system can adequately provide a resisting moment of the empty AST against the maximum overturning moment resulting from wind force calculated from wind speed up to 110 mph. Will this statement be an implication that the County will be empty the tank and shut down the LFGCCs during the course of hurricane or natural disaster preparedness? If so, please add the statement as a portion of the contingency plan.
  - iv. Please describe the routine inspection of the AST [Rule.1680(c)(5)].
  - v. Please describe the closure of the AST [Rule .1680(f)].
4. The As-Built Survey/Record Drawing (Sheet 3 of 6) in Attachment B of the Construction Record must be signed, sealed and dated by a Professional Engineer registered in the State of North Carolina or a NC licensed surveyor.

5. According to the photo (on Page 2 in Attachment D) the identification numbers of the well GW-9 has been changed into EW-9. Has the change been done at all gas wells or just at the selected gas wells which involve to the Dewatering Project? Please clarify. To avoid any confusion in the future, please describe the variation of well identifications and revise the as-built drawing accordingly.

Please contact me if you have any questions of these comments/concerns.

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

**1646 Mail Service Center  
Raleigh, NC 27699-1646**

(Street Address)  
Green Square, 217 West Jones Street  
Raleigh, NC 27603  
**Tel. 919-707-8251**  
[ming.chao@ncdenr.gov](mailto:ming.chao@ncdenr.gov)  
<http://portal.ncdenr.org/web/wm/sw>

*E-mail correspondence to and from this address may be subject to the North Carolina Public Records Law and may be disclosed to third parties.*

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**From:** Lori Phillips [<mailto:lori@rsgengineers.com>]  
**Sent:** Monday, July 16, 2012 4:47 PM  
**To:** King, Henry; 'Pedreira, Rebecca'  
**Cc:** 'Haworth, Simon'; 'Ryan Hennessy'; [adavis@wilson-co.com](mailto:adavis@wilson-co.com); 'Stacey Smith'; [gary@blackrocke2.com](mailto:gary@blackrocke2.com); Chao, Ming-tai  
**Subject:** Wilson County Record Letter

Please find attached an electronic copy of the signed Wilson County Construction Record letter for the dewatering maintenance project. I am taking the signed copy over to the NCDENR office now.

Thanks,

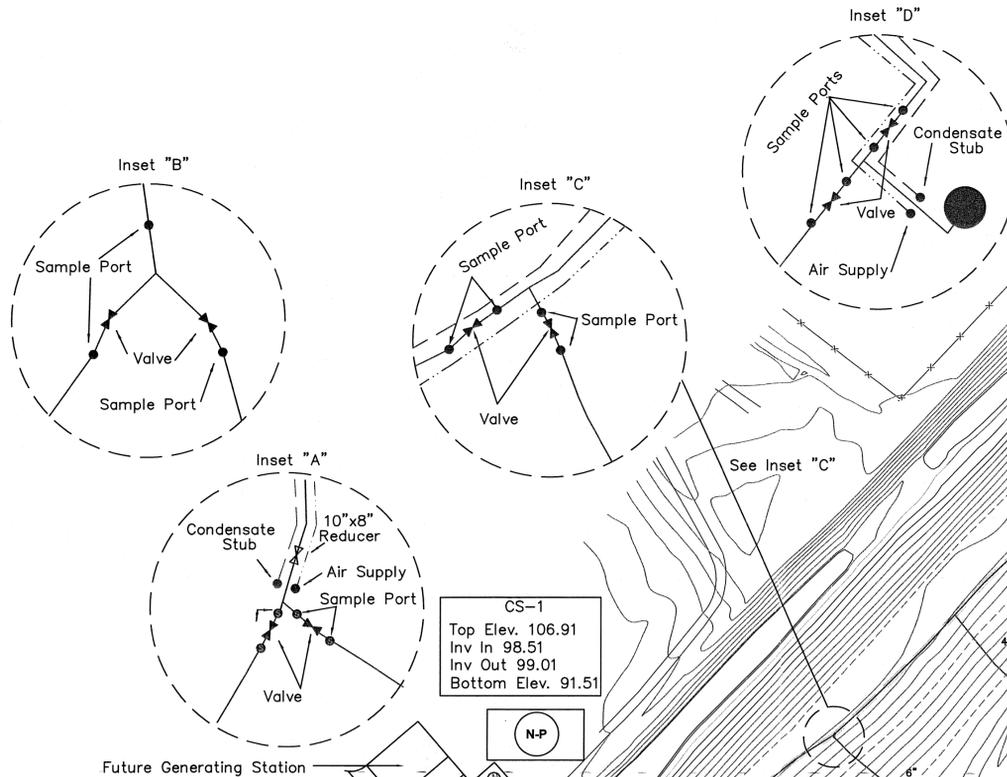
**Lori Ann Phillips, P.E.**  
Project Engineer

**SMITH + GARDNER**

14 N. Boylan Avenue  
Raleigh, NC 27603

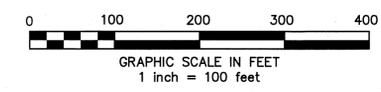
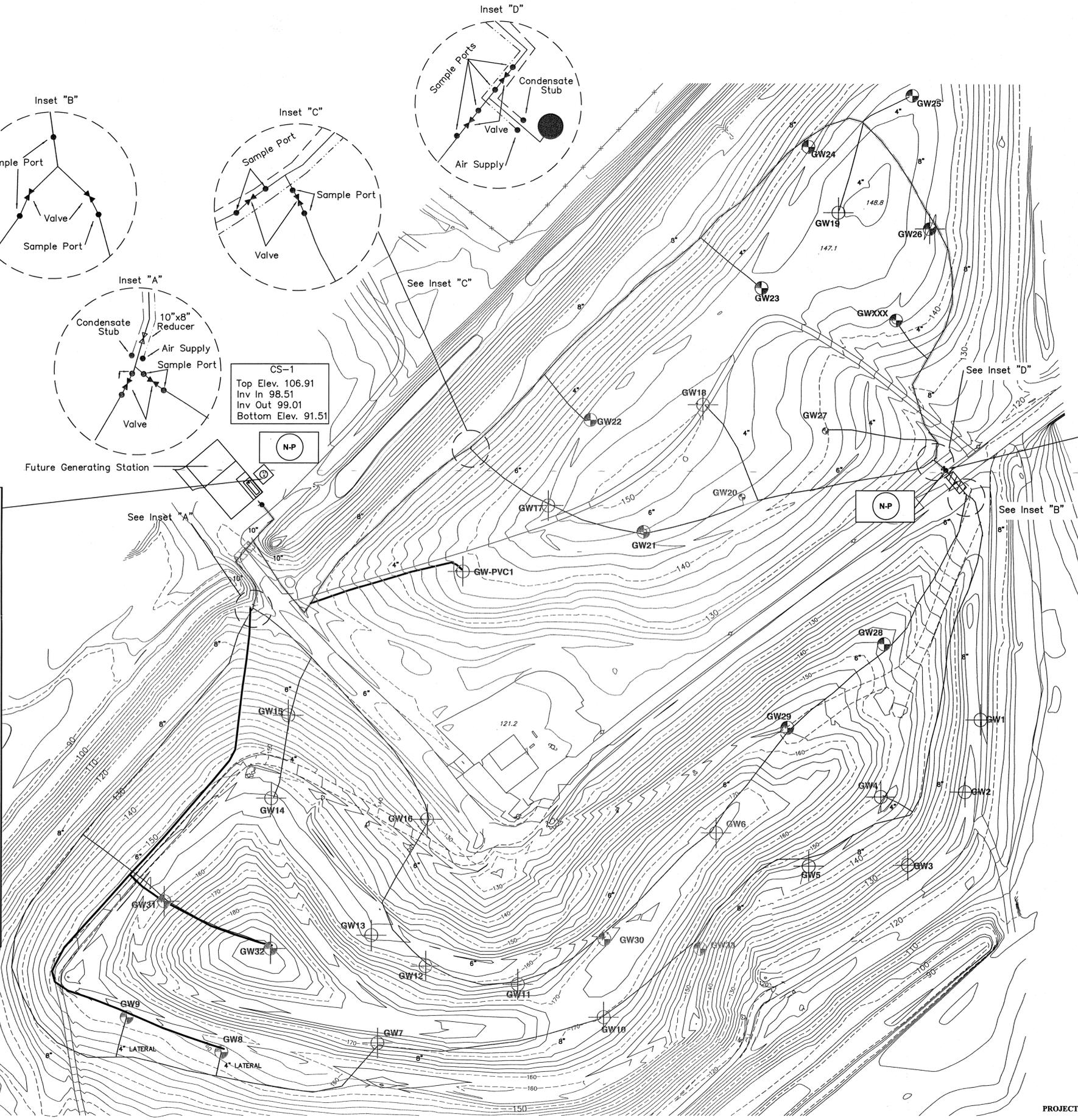
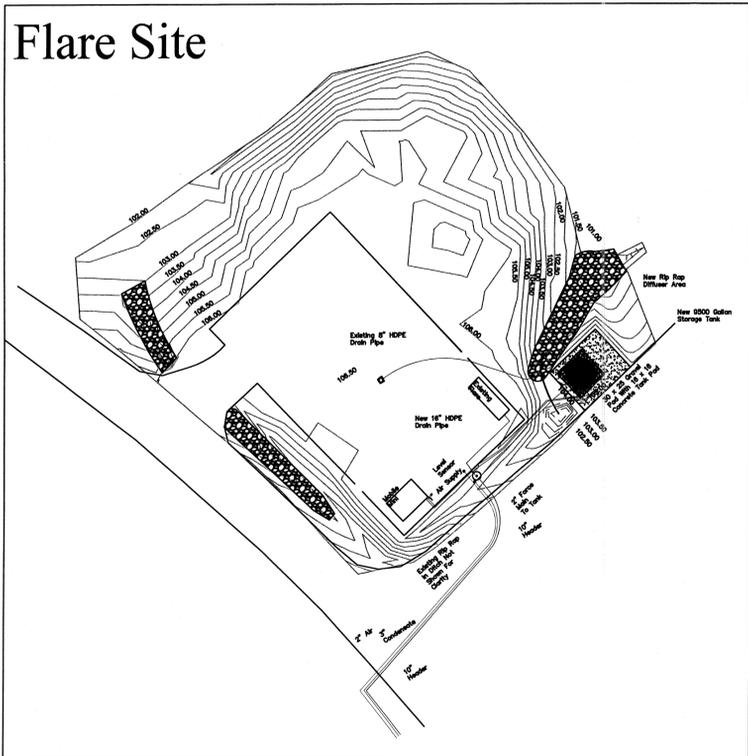
**P (919) 828.0577 x140**  
**F (919) 828.3899**  
**C (570) 760.3639**

| LEGEND |   |
|--------|---|
|        | EXISTING CONTOUR                            |
|        | LFG HEADER/LATERAL                          |
|        | CONDENSATE FORCEMAIN                        |
|        | AIR SUPPLY                                  |
|        | ROAD CROSSING                               |
|        | STUBS OF AIR/CONDENSATE LINE                |
|        | LFG ISOLATION VALVE                         |
|        | NEW GAS WELL                                |
|        | EXISTING GAS WELL                           |
|        | SUMP  |
|        | SAMPLE PORT                                 |
|        | New 2" Condensate Force Main                |
|        | New 1" Air Supply Line                      |
|        | New Well Pump Location                      |
|        | Sump With New Pump                          |
|        | Future 9,500 Gallon Condensate Storage Tank |



CS-1  
 Top Elev. 106.91  
 Inv In 98.51  
 Inv Out 99.01  
 Bottom Elev. 91.51

CS-2  
 Top Elev. 124.26  
 Inv South 116.26  
 Inv North 116.56  
 Bottom Elev. 109.26



PROJECT OWNER:  
 MP WILSON, LLC  
 121 EDINBURGH SOUTH DRIVE, SUITE 207  
 CARY, NORTH CAROLINA 27511

I, Randy D. Ward, a Professional Land Surveyor, certify that the ratio of precision is 1:10,000 and that this map meets the minimum standards practice for land surveying in North Carolina.  
 Witness my hand and seal this 15th day of August, 2012.

**RANDY D. WARD**  
 PROFESSIONAL LAND SURVEYOR  
 9696 RALPH WARD TRAIL  
 ASH, NC 28420  
 910-287-6556

An As-Built Drawing of  
**WILSON COUNTY LANDFILL  
 GAS COLLECTION SYSTEM  
 DEWATERING MODIFICATIONS**  
 Wilson County, North Carolina

FIELDWORK: JBR  
 CHECKED BY: JBR  
 DRAWING DATE: 08/22/12  
 DRAWING SCALE: 1" = 100'

# Condensate Tank Closure Plan

## Wilson County Closed Municipal Solid Waste Landfill

Prepared For:



**MP Wilson, LLC**

**August 2012**

**Prepared By:**

---

NC LIC. NO. C-0828 (ENGINEERING)

**SMITH+GARDNER**

14 N. Boylan Avenue, Raleigh NC 27603 | 919.828.0577

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# CONDENSATE TANK CLOSURE PLAN

## 1.0 INTRODUCTION

This Condensate Tank Closure Plan has been prepared by Smith + Gardner, Inc. (S+G) to present the procedures for closure of the temporary above ground condensate storage tank at the closed Wilson County Municipal Solid Waste Landfill (MSWLF) (North Carolina Solid Waste Facility Permit SWP- 98-01). The Wilson County MSWLF facility is located east of the city of Wilson, at 4537 Landfill Road approximately 1.4 miles south of NC 42 E or 1.3 miles north of US 264 Alternate. MP Wilson, LLC is the developer responsible for the landfill gas collection and control system (LFGCCS) and any maintenance activities associated with the LFGCCS.

## 1.1 Contact Information

In case of emergency, or if questions arise during implementation, please contact the following:

### 1.1.1 Engineer:

Smith Gardner, Inc.  
Attn.: Stacey A. Smith, P.E.  
14 N. Boylan Avenue  
Raleigh, NC 27603  
Phone: (919) 828-0577  
Email: [stacey@smithgardnerinc.com](mailto:stacey@smithgardnerinc.com)

### 1.1.2 Owner:

Wilson County Solid Waste Department  
Attn.: Andy Davis, Landfill Manager  
113 E. Nash Street  
P O Box 1728  
Wilson, NC 27894-1728  
Phone: (252) 399-2823  
Email: [adavis@wilson-co.com](mailto:adavis@wilson-co.com)

### 1.1.3 Developer:

MP Wilson, LLC  
Attn.: Ryan Hennessy, President  
121 Edinburgh South Drive  
Cary, NC 27511  
Phone: (704) 340-8037  
Email: [ryan@methanepower.net](mailto:ryan@methanepower.net)

## **2.0 CONDENSATE TANK BACKGROUND**

As part of dewatering maintenance activities<sup>1</sup> completed in May 2012, MP Wilson, LLC installed a 9,500 gallon above ground storage tank (AST) at the Wilson County Municipal Solid Waste Facility (MSWLF). The AST was installed at the existing flare station to temporarily store extracted condensate from the dewatering system. **Figure 1** (attached) shows the tank location at the facility. The tank was provided by Protectoplas Company of Streetsboro, Ohio and was constructed upon a rebar-reinforced concrete pad. The tank is equipped with a built-in secondary containment system. All exposed Schedule 80 PVC piping is insulated to prevent condensate from freezing. Condensate from the tank is transported to the City of Wilson Water Reclamation Facility according to the Special Use Sewer Discharge permit #2011-033 (Doc ID 13929).

## **3.0 TANK CLOSURE PROCEDURE**

After shut down of the gas collection system has occurred, the condensate management system will no longer be necessary, specifically the storage tank will not be required. Therefore, the following procedures will be followed to properly close the storage tank in accordance with North Carolina Leachate Storage Requirements Regulation 15A NCAC 13B .1680:

- Completely drain and remove all liquids, sludges, sediments, etc. from the storage tank and built-in secondary containment system.
- Disassemble the tank, piping, and appurtenances and dispose of the contents in a manner approved by the DWM.
- Any connecting lines remaining in place shall be securely capped.
- Sample and analyze the underlying soil for appropriate constituents inherent to condensate. Assess the results for evidence of contaminant migration.
- If contamination of underlying soils is exhibited, perform an assessment as to the degree of contamination and develop remedial actions with DWM approval.
- Perform the remedial actions as necessary to limit any threats to public health and the environment.
- Restore the area(s) to closely match pre-existing conditions in the vicinity of the containment area(s). Activities may include: filling, grading, topsoiling, and seeding.

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<sup>1</sup> CH<sup>4</sup>Power letter from Amy Ratliff. "Dewatering Maintenance Operation Plan." Dated September 6, 2011.

## Chao, Ming-tai

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**From:** Stacey Smith <stacey@smithgardnerinc.com>  
**Sent:** Friday, August 31, 2012 5:16 PM  
**To:** Chao, Ming-tai  
**Cc:** Pedreira, Rebecca; Haworth, Simon; Bob Gettys; 'Ryan Hennessy'; adavis@wilson-co.com; Gary Ahlberg  
**Subject:** Response to Comments on Wilson Dewatering System  
**Attachments:** Letter 8-31-12.pdf

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Ming,

Please find the response to your concerns regarding the record report for the Methane Power dewatering system at the Wilson County landfill. We will deliver a hard copy to you on Tuesday.

Feel free to call with any questions or concerns.

Thanks,

Sas

**Stacey A. Smith, P.E.**  
President, Senior Engineer

**SMITH + GARDNER**

14 N. Boylan Avenue  
Raleigh, NC 27603

P (919) 828.0577  
F (919) 828.3899  
C (919) 815.0803

[www.smithgardnerinc.com](http://www.smithgardnerinc.com)