



August 18, 2009  
Project No. 09-06-27

Johnny Williamson, P.G., Project Manager  
MC 124  
Municipal Solid Waste Permits Section  
Texas Commission on Environmental Quality (TCEQ)  
P. O. Box 13087  
Austin, Texas 78711-3087

**Re: Response to TCEQ Notice of Deficiency Letter Dated June 5, 2009 and Acceptance of a Nature and Extent of Dissolved Arsenic Addendum and Assessment of Corrective Measures (NEDAAACM) Report Dated July 9, 2009; Mill Creek Landfill: MSW Permit No. 208A; Tarrant County, Texas, Tracking No. 12662280; RN100225994 / CN600650311**

Dear Mr. Williamson:

This letter is written on behalf of Mill Creek Landfill in response to a Texas Commission on Environmental Quality (TCEQ) Notice of Deficiency (NOD) letter dated June 5, 2009 concerning the proposed permit modification to incorporate updated 30 Texas Administrative Code (TAC) 330 Subchapter J rules. The letter requested that several comments be addressed within 30 days. A request for a 45 day extension (until August 18, 2009) was requested in a letter dated June 15, 2009. The extension was granted in a letter dated July 14, 2009. Additionally, in a July 9, 2009 letter the TCEQ accepted a Nature and Extent of Dissolved Arsenic Addendum and Assessment of Corrective Measures (NEDAAACM) Report contingent upon the submittal of a permit modification application to incorporate it into the facility's permit. The NEDAAACM has been incorporated into this submittal of the Groundwater Characterization Report as Appendix 5A.56. However, the NEDAAACM has been modified to remove the monitor well evaluation procedures discussed in Section 6. The stated procedures were originally incorporated into the NEDAAACM to evaluate the potential for landfill gas accumulation in the unsaturated sections of the well screens. In spite of this, the TCEQ is requiring that all facility monitor wells be installed and maintained in accordance with 30 TAC Section 330.421 (see Comment 5 on Page 2). As a result, the facility is proposing to decommission those wells that do not comply with 330.421 and replace them with new wells that will be designed and constructed with fully submerged screens. Hence, there is no longer a need to evaluate the wells for the potential for landfill gas accumulation. Similarly, there is no longer a need to update the GWSAP with said procedures as requested by the TCEQ in a letter dated May 8, 2009 and agreed to by the facility in a June 8, 2009 response letter. Consequently, submittal of a GWSAP modification to incorporate said procedures is no longer forthcoming. Comments contained in the TCEQ's June 5, 2009 letter are provided below in italics with our responses immediately following.

Comment 1: *In order to assist us in drafting the permit modification sheet, should your proposed action be issued, your submittal included on page 3 a detailed listing of all portions of the facility permit/permit application affected by your proposed action. This list should include all cover sheets, tables of contents, figures and related revision blocks, attachments, and any other impacted content. Please review this list, and ensure that all of the above content that has been revised is also in this list for consistency and completeness.*

Response: The detailed listing of all portions of the facility permit/permit application affected by the proposed permit modification is attached.

Comment 2: *Please revise Attachment 3, Adjacent Property Owner's List, to include a notation of the date through which the data provided is current.*

Response: The Adjacent Property Owner's List has been updated as requested.

Comment 3: *Since April 1, 2009, the Office of the Chief Clerk (OCC) has required that all landowner lists be provided in a Microsoft Word label format. A specific format is necessary for the OCC to convert your landowner list into mailing labels. The OCC requests an electronic document in the Microsoft Word format referred to as "Avery Standard, 5160-Address." This format contains three (3) columns per page, and ten (10) labels to a column. If you would prefer to not attempt this exercise, you may instead submit four (4) complete sets of pre-printed label sheets. Any questions concerning this requirement can be directed to the OCC at (512) 239-3300. Please provide one of the above two options with your response to this letter.*

Response: The Adjacent Property Owner's List is attached in label format.

Comment 4: *On page 5-11, please revise the time requirements for installation or decommissioning of wells to be contingent on the date of issuance of your requested permit modification versus the permit itself.*

Response: The text in Section 2.1.2 has been revised as requested.

Comment 5: *Due to the recent problems at your facility with monitor well screens straddling the water table, please revise page 5-12 to require that all facility monitor wells be installed and maintained in accordance with 30 TAC Section 330.421.*

Response: Section 2.1.2 has been revised to stipulate that wells MW-1B, MW-2B, MW-3B, MW-4B, OW-5B, MW-6, MW-7, MW-8, MW-9, MW-10, MW-13, and MW-15 will be decommissioned, due to the fact they do not

comply with 30 TAC Section 330.421(a)(2)(D), and replaced with MW-1C, MW-2C, MW-3C, MW-4C, MW-5C, MW-6A, MW-7A, MW-8A, MW-9A, MW-10A, MW-13A and MW-15A. Other portions of Attachment 5 have also been modified to conform with this change.

Comment 6: *Due to the proximity of some of the monitor wells depicted in Figure 5A.42, please provide another figure on a much larger scale that allows the reader to discern the legend symbols used for wells MW-3B, MW-3C, MW-4B, MW-4C, MW-8, MW-8A, MW-10, and MW-10A. Alternatively, this requested information could also be portrayed as insets into Figure 5A.42, if legibility and space allowed.*

Response: Figure 5A.42 has been renamed Figure 5A.43 due to Comment 7 and modified to include insets of the areas depicting wells MW-3B, MW-3C, MW-4B, MW-4C, MW-8, MW-8A, MW-10, and MW-10A per your request.

Comment 7: *Please provide an additional figure using the same scale and base map as Figure 5A.42 that depicts only the current, authorized facility monitoring well system at the Mill Creek Landfill. This figure should include all installed monitor wells, background wells, and piezometers.*

Response: Figure 5A.42 has been renamed as Figure 5A.43, Proposed Monitoring Well Location Map, which depicts the proposed monitoring well locations. A new Figure 5A.42 has been made and is named Existing Monitoring Well Location Map, and it depicts only the currently installed monitoring well system. Both figures are attached.

Comment 8: *Please revise Figure 5A.42 to include the distance between monitor wells MW-6 and MW-7A.*

Response: Due to the additional figure requested in Comment 7, Figure 5A.42 has been renamed Figure 5A.43. Further, to comply with your request in Comment 5, MW-6 is proposed to be decommissioned and replaced with MW-6A. Hence, the requested distance is now measured between MW-6A and MW-7A of Figure 5A.43.

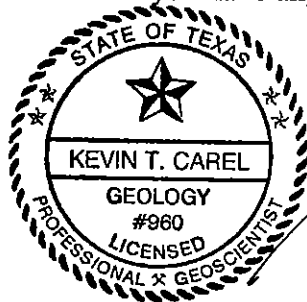
Comment 9: *Please provide individual groundwater potentiometric surface contour maps for one semi-annual groundwater monitoring event for each of the previous ten years. When picking the events, please alternate the selections between "summer" and "winter" monitoring events for best representation of the historic fluctuations in groundwater flow beneath the Mill Creek Landfill facility. Beside each data point, please be sure to include the groundwater elevation determined for that event/well to enable confirmation of the contouring, as well as identification of potential topographic errors.*

Response: Individual groundwater contour maps have been prepared as requested and are provided in Appendix 5A as Figures 5A.45 through 5A.54.

Comment 10: *In the future, please be sure to include a completed Core Data Form with all submittals containing a Part I Form for completeness. Please provide this form with your response to this letter.*

Response: A completed Core Data Form is provided as requested.

We trust this information meets your needs, please call Ms. Jane Berry at (254) 687-2511 (ext 23019) or me at (817) 337-0112 if you have any questions.



Sincerely,  
THE CAREL CORPORATION

*Kevin T. Carel*  
Kevin T. Carel, P.G.  
President

8-18-09

Att.: TCEQ Part 1 Application Page 1 and Signature Page  
List of Revisions  
Adjacent Property Owners List, in Label Format  
Attachment 5 – Underlined/Strikeout Replacement Pages  
Attachment 5 – Clean Replacement Pages  
Core Data Form  
NEDAAACM – Underlined/Strikeout Replacement Pages  
NEDAAACM – Clean replacement Pages

cc: TCEQ Region 4 Office  
Jane Berry – Republic Services, Inc.  
Mark Allendorf – Republic Services, Inc. (e-copy)

**TCEQ Part 1 Application Page 1 and Signature Page**



# Texas Commission on Environmental Quality

## Permit or Registration Application for Municipal Solid Waste Facility

### Part I

#### A. General Information

Facility Name:	Mill Creek Landfill			
Physical or Street Address (if available):	7797 Confederate Park Road			
(City) (County) (State) (Zip Code):	Fort Worth	Tarrant	TX	76108
(Area Code) Telephone Number:	254-687-2511			
Charter Number:				

If the application is submitted on behalf of a corporation, provide the Charter Number as recorded with the Office of the Secretary of State for Texas.

Operator Name <sup>1</sup> :	Crow Landfill TX, LP			
Mailing Address:	2559 FM 66			
(City) (County) (State) (Zip Code):	Itasca	Hill	TX	76055
(Area Code) Telephone Number:	254-687-2511			
(Area Code) FAX Number:	254-687-2977			
Charter Number:				

If the permittee is the same as the operator, type "Same as Operator".

Permittee Name:	Same as Operator			
Physical or Street Address (if available):				
(City) (County) (State) (Zip Code):			TX	
(Area Code) Telephone Number:				
Charter Number:				

If the application is submitted by a corporation or by a person residing out of state, the applicant must register an Agent in Service or Agent of Service with the Texas Secretary of State's office and provide a complete mailing address for the agent. The agent must be a Texas resident.

Agent Name:	CT Corporation System			
Mailing Address:	350 N. St. Paul Street			
(City) (County) (State) (Zip Code):	Dallas	Dallas	TX	75201
(Area Code) Telephone Number:	214-979-1172			
(Area Code) FAX Number:	214-754-0921			

#### Application Type:

<input type="checkbox"/> Permit	<input type="checkbox"/> Major Amendment	<input type="checkbox"/> Minor Amendment
<input type="checkbox"/> Registration	<input checked="" type="checkbox"/> Modification	<input type="checkbox"/> Temporary Authorization
	<input checked="" type="checkbox"/> w/Public Notice	
	<input type="checkbox"/> w/out Public Notice	<input checked="" type="checkbox"/> Notice of Deficiency Response

<sup>1</sup> The operator has the duty to submit an application if the facility is owned by one person and operated by another [30 TAC 305.43(b)]. The permit will specify the operator and the owner who is listed on this application [Section 361.087 Texas Health and Safety Code].

Signature Page

I, Jane Berry Environmental Manager  
(Operator) (Title)

certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: [Handwritten Signature] Date: 7/24/09

TO BE COMPLETED BY THE OPERATOR IF THE APPLICATION IS SIGNED BY AN AUTHORIZED REPRESENTATIVE FOR THE OPERATOR

I, \_\_\_\_\_, hereby designate \_\_\_\_\_  
(Print or Type Operator Name) (Print or Type Representative Name)

as my representative and hereby authorize said representative to sign any application, submit additional information as may be requested by the Commission; and/or appear for me at any hearing or before the Texas Commission on Environmental Quality in conjunction with this request for a Texas Water Code or Texas Solid Waste Disposal Act permit. I further understand that I am responsible for the contents of this application, for oral statements given by my authorized representative in support of the application, and for compliance with the terms and conditions of any permit which might be issued based upon this application.

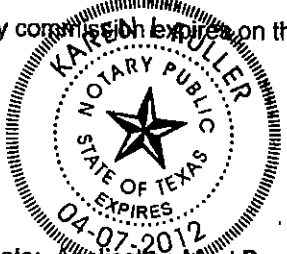
\_\_\_\_\_  
Printed or Typed Name of Operator or Principal Executive Officer

\_\_\_\_\_  
Signature

SUBSCRIBED AND SWORN to before me by the said Jane Berry

On this 24th day of July, 2009

My commission expires on the 7th day of April, 2012



Karen B. Fuller  
Notary Public in and for  
Hill County, Texas

(Note: Application must Bear Signature & Seal of Notary Public)

## **List of Revisions**

## LIST OF REVISIONS

The following table summarizes the proposed replacement pages for the Permit Modification Request to Revise the Spacing of Monitoring Wells in the Groundwater Monitoring System at the Mill Creek Landfill prepared by The Carel Corporation and submitted to the Texas Commission on Environmental Quality on April 6 and August 18, 2009.

### Attachment 5, Groundwater Characterization Report Replacement Pages

Revision	Explanation
<b>April 2009 Submittal</b>	
Cover Page and Table of Contents	Pages have been signed and sealed for updated Attachment 5.
Section 2.1, Groundwater Monitoring System	Updated to reflect current site conditions.
Section 2.1.1, Monitoring Well Placement	Deleted as much of it is outdated.
Section 2.1.1, Previous Groundwater Monitoring Network	Added to provide a discussion of the previous groundwater monitoring network.
Section 2.1.2, Revised Groundwater Monitoring Network.	Added to provide a discussion of the proposed groundwater monitoring wells.
Section 2.1.3, Monitoring Well Design	Updated to reflect current regulations.
Section 2.2, September 2007 Revised Groundwater Monitoring System	Deleted, information now discussed in Section 2.1.2.
Section 2.3, September 2008 Revised Groundwater Monitoring System	Deleted, information now discussed in Section 2.1.2.
Section 2.4, Groundwater Sampling and Analysis Plan (GWSAP)	Redesignated as Section 2.2, revised to reflect current regulations.
Table 2.1	Added to provide well construction information for the existing and proposed monitoring wells.
Figure 5-A.42	Modified to illustrate the existing and proposed groundwater monitoring wells.
Figure 5-A.43	Modified to reflect the construction of existing and proposed monitoring wells.
Figures 5-A.44 through 5-A.46	Deleted as all monitor well construction details are illustrated on Figure 5A-43.
<b>August 2009 Submittal</b>	
Cover Page and Table of Contents	Pages have been signed and sealed for updated Attachment 5.
Section 2.1, Groundwater Monitoring System	Revised to reference maps in Figures 5-A.45 through 5-A.54.
Section 2.1.1, Previous Groundwater Monitoring Network	Revised to discuss decommissioning of wells with long screen intervals.
Section 2.1.2, Revised Groundwater Monitoring System	Revised to discuss decommissioning of wells with long screen intervals and installation of replacement wells. Also revised the time requirements for installation or decommissioning of wells.
Section 2.1.3, Monitoring Well Design	Revised for clarity.
Table 2.1	Revised to include updated monitoring system details.
Section 2.3, Assessment of Corrective Measures	Added to include ACM report in permit.
Figure 5-A.42	Added to depict current, authorized monitoring well system.
Figure 5-A.43	Revised to include more detail.
Figure 5-A.44	Revised to exclude wells which will be decommissioned.
Figures 5-A.45 through 5-A.54	Added to provide historic contour maps.
Figure 5-A.55	Renumbered.
Figure 5-A.56	Added per TCEQ request to include ACM report in permit.

**Adjacent Property Owners List  
in Label Format**

**MILL CREEK LANDFILL**  
Adjacent Property Owner's List  
List Current Through April 6, 2009

Jane Berry  
Allied Waste Industries  
2559 FM 66  
Itasca, TX 76055

Dorothy C. Smelley  
5060 Cattlebaron Dr.  
Fort Worth, TX 76108-9357

Jane Berry  
Allied Waste Industries  
2559 FM 66  
Itasca, TX 76055

James G. & Sandra Humphrey  
8149 Confederate Park Rd.  
Fort Worth, TX 76108-9332

Nelson K. & Barbra A. Pace  
5801 Silver Creek Azle Rd.  
Azle, TX 76020-4355

John A. Rangel  
108 Live Oak Rd.  
Fort Worth, TX 76108-6434

Se & Ae Investments Inc.  
8929 Random Rd.  
Fort Worth, TX 76179-2737

Ted & Sharon Crow  
5805 Silver Creek Azle Rd.  
Azle, TX 76020-4355

Elm Grove Baptist Church  
1040 Nelson Rd.  
Azle, TX 76020-6202

Ted Crow  
9501 Confederate Park Rd.  
Fort Worth, TX 76135-4921

Vivian Gayle Winnett Keck  
6312 Greenfield Rd.  
Forth Worth, TX 76135-1311

Ted Crow  
9501 Confederate Park Rd.  
Fort Worth, TX 76135-4921

Ted Crow  
9501 Confederate Park Rd.  
Fort Worth, TX 76135-4921

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Azle, TX 76020-4342

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Azle, TX 76020-4355

Ted Crow  
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Azle, TX 76020-4355

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Azle, TX 76020-4359

Carl E. Martin  
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Azle, TX 76020-4359

Roy B. & Virgie M. Maxfield  
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Azle, TX 76020-4359

Robert Graham  
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Azle, TX 76020-4355

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Fort Worth, TX 76108-9309

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Fort Worth, TX 76108-9360

Steve & Adele Dufilho  
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San Antonio, TX 78217-3309

Harriet B. Colvin  
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Fort Worth, TX 76108-9360

August C. Jr. Tischendorf  
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Fort Worth TX 76108-9364

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San Antonio, TX 78217-3309

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5157 Cattlebaron Dr.  
Fort Worth, TX 76108-9360

**Attachment 5**  
**Underlined/Strikeout Replacement Pages**

**MILL CREEK LANDFILL  
TARRANT COUNTY, TEXAS  
TCEQ MSW Permit No. 208A**

**SITE DEVELOPMENT PLAN PART III  
ATTACHMENT 5  
GROUNDWATER CHARACTERIZATION REPORT**

Prepared for  
CROW LANDFILL TX, LP  
September 1994  
Revised February 1995  
Technically Complete August 8, 1995

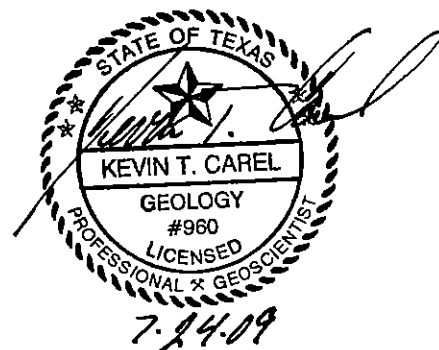
Prepared by  
EMCON Baker-Shiflett, Inc.  
Engineering and Environmental Services  
Fort Worth, Texas

Project 7500-001-103  
~~Revised December 2008~~  
Revised August 2009

By



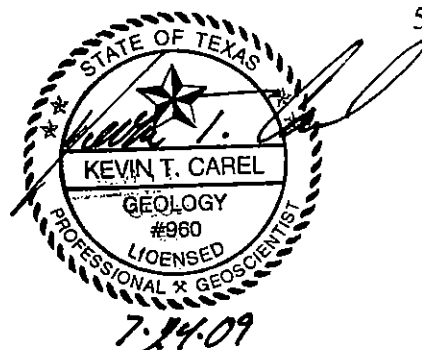
136 Pecan Street  
Keller, Texas 76248  
(817) 337-0112



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## 2 GROUNDWATER MONITORING CONSIDERATIONS

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### 2.1 Groundwater Monitoring System

Groundwater at the site was determined to exist within a single, unconfined hydrogeologic unit consisting of transmissive alluvial deposits overlying Paluxy sand/sandstone, “perched” above a less permeable Paluxy shale. This unit is the uppermost aquifer at the site and will therefore be monitored. Screened intervals for the existing monitoring wells range from 10 to 25 feet in length and are emplaced such that high water levels are within the screen and screened intervals extend approximately 15 feet below the low water table. All wells extend below the base of excavation. If a release occurs from the facility, it will occur at or near the water table. A flowpath analysis (see Section 1.4.3) indicates that in the absence of vertical gradients a potential contaminant would likely flow laterally, parallel to the potentiometric surface, toward the screens of the proposed monitoring wells in the upper sand unit. The Paluxy shale which immediately underlies this unit is indicated to be approximately 10 to 25 feet thick and serves as the lower confining unit (aquitard) to the upper sand aquifer. The shale would inhibit the downward migration of fluids. In the unlikely event that a contaminant moves through the underlying less permeable shale stratum, calculated travel times indicate that the time period before detection of the contaminant would increase a minimum of 2 to 3 years. Considering the potential travel time through a lower sand unit beneath the shale, a monitoring well screened within this lower sand would detect a contaminant years later than it would be detected in the upper hydrogeologic (sand) unit. Flowpath analysis calculations and graphic representations are on Figures 5-A.35 through 5-A.41.

The existing groundwater monitoring system design was based on the potentiometric surfaces illustrated on Figures 5-A.1 and 5-A.2 of this attachment. Ten new groundwater contour maps were constructed at the request of the TCEQ. The maps were constructed using water-level data collected during groundwater sampling events conducted from November 2000 to June 2009. The new maps, designated as Figures 5-A.45 through 5-A.54, indicate that groundwater at the site is interpreted to flow generally flows in a southeasterly direction to the south and east, with the northwestern perimeter of the site area proximal to OW-5B being upgradient. Groundwater flow characteristics are addressed in the previous section.

Monitoring well designs and locations were chosen using principles of groundwater monitoring and site characterizations recognized by the U.S. Environmental Protection Agency, the National Ground Water Association, and the Texas Commission on Environmental Quality (TCEQ). In addition, the well locations have been designed in accordance with 30 TAC §330.403(a)(2).

