



**Applied Soil Water
Technologies, LLC**

56 Coney Island Drive
Sparks, NV 89431

775.284.5500 Phone
775.284.5504 Fax

www.appliedsoilwater.com

May 21, 2012

Nevada Division of Environmental Protection
Bureau of Waste Management
Solid Waste Branch
901 S. Stewart Street, Suite 4001
Carson City, Nevada 89701

**Attn: Mr. Jon Taylor, P.E., C.E.M.
Staff Engineer III**

**Re: Response to State of Nevada Division of Environmental
Protection Correspondence dated 4/11/2012.
Permit Modification Application – Permit Number
SW214R01
Lockwood Regional Landfill
Storey County, Nevada
ASW Project No. 002-047**

RECEIVED

MAY 21 2012

ENVIRONMENTAL PROTECTION

Dear Mr. Taylor,

Applied Soil Water Technologies, LLC (ASW) is pleased to submit this letter on behalf of Refuse, Inc. in response to the comments provided by the Nevada Division of Environmental Protection (NDEP) in a letter dated April 11, 2012 regarding the Modification Request (Modification) for Lockwood Regional Landfill, Storey County, Nevada. The following narrative describes revisions to the Modification Request as a result of NDEP comments.

For ease of review, ASW has provided in *italics* the *comments* from the NDEP letter dated April 11, 2012 (Letter) prior to the **responses** in **bold**.

NDEP Comment 1:

The current Groundwater Monitoring System and Network is deemed to the Division to be inadequate in the context of this Modification request. Accordingly, pursuant to NAC 444.7483 the Division requires the submission of a supplemental monitoring program to ensure any leakage from the facility is detectable. For the existing Groundwater Monitoring network, in accordance with NAC 444.748 Waste Management shall submit a proposed detection monitoring program and reporting format for review and approval in conjunction with this Modification request. The Lockwood Landfill has been in monitoring for some time and has a sufficient number of data points to establish a detection monitoring program. The proposed detection monitoring must

include those requirements as stated in NAC 444.7481 through NAC 444.7493.

Response 1:

Attachment A includes the proposed Addendum to the Lockwood Regional Landfill Facility Monitoring Plan.

NDEP Comment 2:

Please provide a cost estimate for Closure and Post Closure of the Facility in accordance with NAC 444.6851 and NAC 444.68515. Please also include a copy of the chosen Financial Instrument in accordance with NAC 444.68525.

Response 2:

NAC 444.6851 and 444.68515 requires financial assurance for “the cost of closing the largest area of all municipal solid waste landfill units within the site requiring a final cover at any time during the active life of the unit ...” This makes the timing of final cover construction and landfill sequencing very important. The facilities existing financial assurance mechanism provides funds necessary to close the areas that are currently filled with waste but are awaiting final cover. When the modification is approved to allow waste placement outside the currently permitted footprint, landfill operators will continue to close portions of the landfill as new areas are developed to accept waste as is currently being performed. This will ensure that the current area “requiring final cover” will be the largest area meeting the definition of “requiring final cover” at any time during the active life of the landfill.

Therefore, the Modification Request submitted in December 2011 does not have an impact on the currently approved financial assurance mechanism.

NDEP Comment 3:

The Division has noted the inclusion of a Construction & Demolition (C&D) area [Drawing F-1]. As this is implied to be a dedicated C&D facility it would be regulated pursuant to NAC 444.733 as defined by NAC 444.585(p). Waste Management must provide in conjunction with this Modification a change to the existing Class I Landfill Operations Plan incorporating NAC 444.652. Also include a liner design for this area.

Response 3:

The area referred to in the comment is not a dedicated C&D area. The area will contain both municipal solid waste (MSW) and C&D. C&D will be placed in the area in question to bring that area up to grade for the leachate collection and recovery system and to accept the geomembrane liner. After the geomembrane is installed, MSW will be placed. The configuration of this area is shown in the attached Revised Sheets D2, 3 and 4. As cited in NAC 444.591 a Municipal Solid Waste unit may receive other types of solid wastes including industrial waste. Industrial solid waste includes C&D waste (NAC 444.585).

The current Operations Plan provides text in Section 5 on the proper handling and disposal of MSW and C&D.

The liner design details for this area are presented on Sheet D-3 presented in Attachment E.

NDEP Comment 4:

Please provide further detail for the drawing sets, as a matter of note some of the drawings are quite “busy”, for clarity and ease of review consider adding a drawing [F-1 Detail A for example] for those requested details below. For the Final Configuration Drawing [D-1], please include all that will remain in place at closure i.e. gas monitoring, groundwater monitoring, drainage and collection systems fencing, roads, etc. Please also reduce the “busyness of this drawing as well. It is difficult to determine flowlines due to the lack of elevations included in the drawings.

Response 4:

To reduce the “busyness” and address comments associated with Sheet D-1 the following revisions were made;

- **The existing ground contours beneath the final grade were removed.**
- **Arrows were removed and a legend incorporated to call out features.**
- **Permanent monitoring systems were added.**
- **Run-off drainage was delineated.**

Revised Sheet D-1 is included in Attachment B.

NDEP Comment 5:

Provide design calculations for all anchor trenches, sheet G-1H

Response 5:

The calculations for the Anchor Trenches are included in Attachment C. The anchor trench design is consistent throughout the landfill. The calculations included are for the most extreme placement of the liner in the center canyon.

NDEP Comment 6:

Include an outline of the Construction Quality Assurance program in accordance with NAC 444.645. Please provide further detail for the two liner systems drawing sheet G-1, including where they may be “stitched” together, these may be shown on the drawings as well.

Response 6:

Included in Attachment D is an outline for Construction Quality Assurance Plan. More detail has been added to Sheet E-1 to delineate where the different types of geomembrane are located.

NDEP Comment 7:

For the drawing sets as follows please provide the following:

1. *Drawing F-1*
 2 Cross Sections of C&D area
 Northeast Run-on Channel show details for the discharge to natural drainage or structures with direction of flow and contributing watershed. Are channels supercritical?
2. *Drawing F-2*
 Cross Section for this phase of the HDPE lined area
 East Run-on Channel show details for the discharge to natural drainage or structures with direction of flow and contributing watershed. Are channels supercritical?
3. *Drawing F-4*
 Cross Section for this phase of the HDPE lined area
4. *Drawing F-6*
 2 Cross Sections of the HDPE lined area
5. *Drawing F-8*
 2 Cross Sections of each of the HDPE lined areas
6. *Drawing F-10*
 2 Cross Sections
7. *Drawing F-13*
 2 Cross Sections

Response 7:

Included in Attachment E are a revised Sheet D-2 and two new sheets of cross-sections, Sheet D-3 and D-4. Sheet D-2 is revised to include areas highlighting the C&D area. Sheet D-3 shows detailed cross-sections of the C&D areas from Sheet D-2. Sheet D-4 is a comprehensive set of cross-sections consistent with Sheet D-2 cross-sections but that include the geology and the limits of liner per the phases requested in the Letter. We feel that the cross-sections provided on Sheets D-2, 3 and 4 adequately show the existing conditions and the proposed design, and that 2 cross-sections for every requested phase may be redundant. However, additional cross-sections can be provided if NDEP feels that additional information is necessary.

Also included in Attachment E is the requested information regarding run-on hydrology to be included in Appendix H of the Design report. This includes a figure (H-1) identifying the contributing watershed in relation to the landfill expansion toe and the Northeast and East Run-on Channels. Sheet H-1 also shows that the run-on control channels discharge on Refuse, Inc. property.

An updated version of Table 3.4-2 including a column to identify portions of the run-on channels which will experience supercritical flow is provided in Attachment E. In support of Table 3.4-2, another figure (H-2) presenting channel station references is also included.

Refuse Inc.
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Please accept this submittal as our formal response to the April 11th request for additional information. If you have any questions regarding the update of this plan, please do not hesitate of call us at (775) 284-5500.

Sincerely,

Applied Soil Water Technologies, LLC



Robert Valceschini, P.E.
Principal/Senior Engineer

A handwritten signature in black ink, appearing to read "Daniel M. Cycholl".

Daniel M. Cycholl, E.I.
Staff Professional II

CC:

William Carr, P.E., Refuse Inc., Market Area Manager
Mark Franc, P.E., Refuse Inc., Western Group Engineer
Jim Obereiner, P.G., Refuse Inc., Senior Manager, Groundwater Protection

Attachments:

Attachment A - Addendum to the Lockwood Regional Landfill Facility Monitoring Plan
Attachment B - Revised Sheet D-1
Attachment C – Anchor Trench Calculations
Attachment D– Construction Quality Assurance Plan Outline, Revised Sheet E-1
Attachment E – Drawing Sheets D-2, D-3, D-4
Figure H-1, H-2
Table 3.4-2 Drainage Hydraulic Table;100yr-24hr Storm