



October 25, 2011

Mr. Jon Taylor, P.E., CEM
Staff Engineer III
Bureau of Waste Management
Solid Waste Facilities Branch
901 S. Stewart St., Suite 4001
Carson City, NV 89701-5249

RECEIVED

OCT 26 2011

ENVIRONMENTAL PROTECTION

**RE: Western Elite, Inc. Class I Landfill Permit Application
Response to NDEP Comments
JEI Project No. 383.00/Task No. 13/Subfolder 01**

Dear Mr. Taylor:

In response to your e-mail on August 31, 2011 we are providing this letter with our responses. To facilitate the Department's review, NDEP's comments have been repeated and are italicized with Western Elite's responses shown below each comment in bullet form. The revised sections of the application are referenced in the responses to comments. Western Elite is requesting a modification to Permit (SW277) to include Class I materials on the eastern half of the existing permitted landfill footprint. The eastern half of the permitted footprint will be a Class I area and the western half of the footprint will remain as a Class III area. Please find the enclosed replacement pages and drawings. The design is rigorous and conservative, specifically, WEI is proposing the following modifications to exceed the minimum requirements for a Class I landfill and be more protective of the groundwater:

- The landfill's current permitted base grades will be raised 10 feet under the Class I area to increase the distance between the cell floor and groundwater.
- A modified Subtitle D liner will be installed on the Class I areas, including a geosynthetic clay liner (GCL) which has permeability 2 orders of magnitude lower than minimum requirement of 2 feet of clay.
- The leachate collection design has been upgraded for the Class I area to reduce the potential head on the liner to less than 6 inches by increasing the number of leachate collection pipes in the Class I areas.
- A piggyback liner system for the Class I area will be installed over the eastern slopes of Cells 1 & 3 of the permitted landfill that will act as a primary liner system. The existing landfill is lined and has a leachate collection system as well and provides a reliable secondary containment system for the piggyback, since any leachate that escaped the primary liner will be collected by the secondary liner.

- There will be no change to the highest final elevation.
- There will be no change to financial closure costs.

General Comments

Comment #1: As this site is proposed to encompass both Class I and Class III facility, within each section of the Design Report and Operating Plan please clarify which design criteria is being referred to. There is a conflicting and unclear narrative contained within the submitted documents. By example; The Table of Contents (March 2011) does not reflect the text, for example TOC says section 13.2 & 3 for Run-on but the text refers to Misc. Requirements. Section 10 of the Report text says Run-on/Run-off and refers to the Design Report. This occurs in a number of places. Please clarify what is being referred to and proof read the entire document for consistency and accuracy. Section 15.0 Integrated Site wide Contingency Plan is not on page 26 but on page 28 and merely restates the regulations. Please do not restate regulations; the NDEP is aware of their contents.

- Per our conversation, WEI has prepared separate operating plans for the Class I facility that do not reference Class III materials. The Class III operating plan has removed references to composting. A revised Class III Operating Plan (pagination the same as previously submitted) and a new Class I operating plan are attached to this response. It was our understanding (based on several conversations with NDEP) that this is a permit modification to an existing permit, and DEP is going to review and comment on only the items that are new (i.e., Class I liner, operating plan changes, design plan changes etc.). Based on this understanding, previously submitted material was not to be attached to this modification application. Additionally, the Class I portion of the landfill will be designed and constructed in the same manner as the approved Class III so no additional design was performed. Please note that all documents have been proof read for consistency and accuracy.

Comment #2: Please show, on a scaled plan, in accordance with NAC 444.680(3)(d), the location of all borrow sources with soil material balances. Also include, in accordance with NAC 444.680(6), the source of cover material.

- Borrow soils will be excavated from Lot 12. A revised drawing (Drawing #1B) has been prepared showing this area (and the requested soil material balance) and has been attached to this response.

Comment #3: The bottom liner design, drawing 13A, is not described (it is merely stated that it will comply with NAC444.681 in section 11.0) in the design report but noted in the Table of Contents. As a matter of note the design does not comply with NAC 444.681(1)(b). Nevada Division of Environmental Protection (NDEP) will not approve an alternative liner for this facility in light of its proximity to groundwater.

Per our conversation, since the alternate liner will more protective of human health and the environment (since it will generate less leakage through the liner and hence pose less of a risk to groundwater) it can be used in this design. Section 11.1 of the revised Design Report describes the liner section in detail. It is also shown on the drawings.

Comment #4: Include a detail for the top of the piggy-back liner at the crest of the slope for review.

- Detail B/13A has been prepared and is included with this response.

Comment #5: Include design Calculations related to the leachate sump design.

- WEI has calculated the volumes of the sumps and they are as follows: North Sump 36.99 cubic yards and South Sump 41.09 cubic feet. Although the base grades have been raised (to be more protective of groundwater), the volume and dimensions of the sumps will not change appreciably. This is due to the fact that the design of these sumps from the Class III application were based on waste using MSW (Class I) material.

Comment #6: NDEP has specific concerns related to both the remoteness of the site and the impact this may have on the ability of emergency response personnel (fire, medical, law enforcement) to respond in the event of an onsite incident and its concomitant impact on site personnel. Specifically, establishing site worker safety protocols will be paramount in this review process. The current plans are disconnected and do not provide the level of worker safety necessary due to the complexity of the site. The Alamo Volunteer Fire Department is some 40 miles away and presumably medical assistance as well. Please identify and make arrangements with fire/medical response personnel and include a Response Action Plan for injuries, as a well as a plan for responding to a fire. As this site will be operational during the night please include specific direction for operations during this time. By example, note that NAC 444.684(4) requires a specific "plan of action", there does not appear to be a hierarchical system or list a series of specific steps taken in the event of an emergency; emergency response is mentioned but not contained in the plan. Nor does it establish who or how a particular reaction would be determined with level of responsibilities, nor offer gathering points, or evacuation routes etc. The hazards at this site, in conjunction with its relatively remote location and associated response time, may require an Emergency Medical Technician on site at all times. NDEP is, in accordance with NAC 444.641(1) and NAC 444.677(9), requiring the following;

1. Please incorporate all employee training, contingency plans, fire and emergency response, documentation of events and records into a single Integrated Site Wide Contingency Plan [ISWCP] Guidance document outline enclosed.

- 1) The job title for each position at the facility related to waste management and emergency response, and the title of the employee filling each job;*
- 2) A written job description for each position listed above. This description must include the*

requisite skill, education or other qualifications, and duties of facility personnel assigned to each position;

3) A written description, type and amount, of both introductory and continuing training that will be given to each person filling a position listed above.

4) Establish records that document training and ongoing training or job experience required above has been given and completed by facility personnel.

- Based on our conversation and for ease of use and DEP review, WEI has provided these items in the stand-alone Integrated Sitewide Contingency Plan (which is attached to this response). This includes all emergency response documentation.

Comment #7: Establish a Site Wide Emergency Coordinator ,with alternates, that has specific authorities to include, at a minimum;

- *Activate facility alarms or notification system for employee's onsite*
- *Notify local authorities as necessary*
- *Activate the Integrated Site Wide Contingency Plan*
- *Complete any other actions necessary to secure the site and ensure the safety of personnel*

Furthermore, if employees are to be required to engage in a firefighting activity, or any other activity outside of the normal course of site operations, the training program must include this and it must be consistent with training obtained at the fire department. NDEP will not approve a plan that does not provide comprehensive training for employees for any activity they may be required to perform both within and without the normal course of their duties. In review of the re-submitted documents NDEP will be using OSHA documents 3317-06N 2006 and CPL 02-02-073 for guidance. Should local authorities decline to enter into such arrangements, please document the refusal in the operating record.

- Please see response to Comment #6 (above).

Operating Plan-October 2010

Comment #8: The proposed Plan shows a March 2004 date which was revised May of 2011, Nevada Division of Environmental Protection (NDEP) has a March of 2004 date with a revised date of October 2010. The two documents differ significantly and do not integrate very well (the "plans" should specify which facility operation it is referring to). Neither is there a description of whether the plan it applies to is the Class I or III facility, please clarify (other than the landfill classification on page 1). While the cover letter of 3/1/2011 notes the amendment it covers the Class I only, there are two Tables of Contents. Please clarify the paging in the Table of Contents as it does not reflect the actual text. NDEP will not proof read nor provide corrections for submissions, please ensure the documents are correct, specific to the request and accurate.

- WEI has revised all plans to ensure consistency and to reflect the fact that these plans are for the Class I landfill only.

Comment #9: With respect to the current application (10/2010) Section 3.1; include immediate notification of the Alamo Fire Station. If site workers are to be used in place of fire department personnel they must have training commensurate with fire department training standards. In general, the Class I and Class III applications identify the same requirements but do not integrate very well and are difficult, at best, to read and follow. Please clarify which requirements apply in which case and provide a clearer document.

- Please see response to Comment #6 (above).

Comment #10: Section 10.0; Remove any and all references to "Composting" at the facility. The current Landfill Permit does not encompass composting and the facility is not permitted to conduct this activity. Should Western Elite wish to begin a composting operation please submit a complete compost application under separate cover. I have included guidance documents for your convenience.

- Western Elite has removed all references to composting as suggested. Should Western Elite wish to continue composting operations, a stand-alone plan will be prepared and submitted.

Comment #11: Remove section 10.8.

- Based on your e-mail dated October 17, 2011, this comment was based on an old plan that is no longer relevant.

Comment #12: Section 12.0; some run-off channels are showing supercritical flow, please redesign all channels for subcritical flow. In the Feb. 2005 Design Report; are there run-on/off controls constructed and in place? In accordance with NAC 444.6885(3), please include a drawing that shows run-off controls that follow the fill sequencing of Drawing 11. Please provide design schematics for the run-off/on control ditches/detention basins during each phase of operation. Are Stormwater Detention Basins 1 & 2 constructed with all channels installed?

- All stormwater calculations and conveyance structures were approved in the Class III application. Since the design is unchanged, it is Western Elite's opinion that the previous design should suffice. Detention basins 1 and 2 with all channels are shown on the drawings. For informational purposes, we have included the approved stormwater design and calculations in the revised Design Plan that is attached to this response.

Comment #13: Include a complete site plan showing the location (to scale) of all buildings, run-on/off structures and borrow areas, appurtenances, property lines etc. associated with the landfill.

- This information has been provided on Drawing Nos: 1A, 1B and 15 of this revised permit modification application. These drawings are attached to this response.

Groundwater Monitoring Program

Comment #14: Drawing 4 shows "Observation Wells" please provide a narrative that describes these and details their purpose.

- OW-1 through OW-7 are the permitted, groundwater monitoring wells for the facility. The designation of these wells has been changed on the legend sheet (Drawing #0A) to provide clarity. The narrative detailing their purpose and construction, can be found in Sections 3.2 and 4.0 of revised Groundwater Monitoring Plan (attached to this response).

Comment #15: In accordance with NAC 444.7488 NDEP is requiring an alternate list of parameters and monitoring schedule for the Western Elite Landfill (facility), as otherwise required by NAC 444.7487. Specifically, NDEP's concern is that the Groundwater Monitoring Program must be as site specific as possible in order to provide a reliable indication of a release from the facility. To that aim, please modify Table 2 and by implication Table 3 of the Plan of Operations and Report of Design respectively to reflect the phased approach as discussed below. Please insert the Phase 1 parameters below into the respective Tables. Remove those tables which will be used to solely provide additional information as to Groundwater Quality from the Detection Program. The Phase 1 detection parameters, as amended later, will form the core of the Detection Monitoring Program. They will therefore, trigger a determination of a Statistically Significant Increase (SSI) pursuant to NAC 444.7489. In addition, please include a procedure within the Groundwater Monitoring Plan that includes procedures for data entry error, sampling error and lab error evaluations prior to making a Statistically Significant Increase determination. With respect to the Groundwater Monitoring Plan please revise in phases as follows.....;"

- Western Elite has made the suggested changes (please see sections 5.1.1, 5.1.4, 5.1.5, 5.2, 5.2.4, 5.2.5) and has provided the entire revised Groundwater Monitoring Plan with this response. Specifically, Tables 4 and 5 have been revised per your request and these tables are shown in the revised Groundwater Monitoring Plan.

Comment #16: Include a biennial sampling event for the groundwater monitoring wells that includes Appendix II to Part 258—List of Hazardous Inorganic and Organic Constituents. Include narrative for both modifying the frequency and constituent list at a future date(s), and incorporate all modified monitoring frequencies in the groundwater monitoring plan.

- Western Elite has made the suggested changes (please see Section 5.4 and Table 5) and has provided the entire revised Groundwater Monitoring Plan with this response.

Comment #17: NDEP is also requiring sampling/monitoring of the leachate sumps to provide further information to determine the most appropriate detection monitoring program for the site. Therefore, Phase 2 must include Leachate Monitoring, (i.e. sampling of the leachate collection sumps) from the point in time leachate generation begins inclusive of a process for; Sampling the leachate collection sumps for 12 continuous quarters for Appendix II to Part 258—List of Hazardous Inorganic and Organic Constituents, and Appendix A to Part 423 Priority Pollutants List.

- Western Elite has made the suggested changes (please see Sections 6.0, 6.1, 6.2, 6.3 and Table 5) and has provided the entire revised Groundwater Monitoring Plan with this response.

Comment #18: At the conclusion of Phase 2, Western Elite must submit an evaluation, within 180 days of chemical constituents (both inorganic and organic) that can be regarded as being consistently generated by the facility (i.e. leachate from the waste mass). These may therefore be considered as reliable groundwater detection parameters, for inclusion into the Detection Monitoring Program.

- Western Elite has made the suggested changes (please see Sections 5.1.5, 5.2.5, 6.3, 7.1, and 10.1) and has provided the entire revised Groundwater Monitoring Plan with this response

Comment #19: Submit a re-evaluation of the initial parameters and the added parameters pursuant to NAC 444.7484 at the conclusion of eight quarterly groundwater sampling events. Include this in the Groundwater Monitoring Program.

- Western Elite has made the suggested changes (please see Section 5.1.5) and has provided the entire revised Groundwater Monitoring Plan with this response

Comment #20: Decomposition Gas Monitoring Plan

Please clarify the "proposed Class III facility" discussion. Should this have said: "Proposed Class I Facility"?

- Western Elite has made the suggested change and revised the Decomposition Gas Monitoring Plan as requested.

Comment #21: Drawing 15: LFG Management Plan lacks sufficient detail. Include all existing buildings and proposed buildings if necessary.

- Western Elite is not proposing any new buildings or structures to be constructed as part of this permit modification application, but has added all existing structures to this drawing as suggested.

Comment #22: Monitoring Comments

The Spacing of the Gas Monitoring points is excessive, well spacing cannot exceed 250 ft.; please revise.

- Agreed. The spacing has been reduced per your comment and new probes are proposed as shown on Drawing No. 15.

Comment #23: 2005 Operating Plan Appendix I discusses drilling holes in pvc as a screen, this is not standard practice. Why is a factory screen not used? When reviewing monitoring completion, it discusses encountering groundwater; all borings should be terminated prior to encountering groundwater to prevent a conduit for vapor contamination of groundwater. It appears these probes are already installed if groundwater was encountered during drilling WEI should slurry and bore adjacent to original boring and complete before encountering groundwater. What is the justification for screen length? Please include narrative as 60 foot screen length is not standard practice. Screened intervals should intercept SP GP bands that are most likely to transmit vapors. Please provide a discussion of subsurface soils that may be preferred pathways for gases (SP GP bands), Please include a discussion of structures, with drawings, depicting all structures that will be sampled

- It is our understanding that DEP is referencing the construction of the landfill gas (LFG) boundary probes (BP). Per the DEP-approved permit, probes BP-1 through BP-4 have already been constructed to monitor LFG at the facility. Since they are already in place, WEI is proposing to keep these to monitor LFG at the 60 foot interval at the facility. An additional 30 boundary probes (BP-5 through BP-34) have been proposed as part of this permit modification application. Per your suggestion, the screens for all new BPs will be manufactured in the factory as shown on the schematic (in the Decomposition Gas Monitoring Plan) and the depth of each probe has been chosen to maximize the potential for detecting a release of LFG from the landfill. The justification for screen length, lithology screened and installation procedures are described in the revised Decomposition Gas Monitoring Plan (screen length and installation procedures) and Drawings 15 through 18 (lithology screened) of the revised permit modification drawings. These are attached to this response.

Comment #24: Discussion Regarding References to Previous Documents:

Where are the appendices? All references to other reports, earlier reports etc. should be very

specific. It should be easy to find all referenced sections.

- Please note that since only the HELP model runs (and the groundwater monitoring per your comments) have been changed from the original design, the appendices, earlier reports, attachments were not included in the initial submittal of the permit amendment application. As part of this submittal, we have included all attachments and appendices to the plans. With the exception of revised Tables 4 and 5 of the Groundwater Monitoring Plan and Appendix IIIA of the Design Report, the attachments have not changed and are only included in this submittal for informational purposes. It is our understanding that these calculations (apart from the new HELP model runs and Tables 4 and 5) have been previously reviewed and approved by NDEP and hence are still applicable.

General Comments and Questions

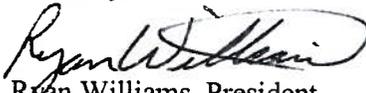
Will this facility necessitate a Title V permit?

Please provide a specific contingency corrective action plan if gas is detected above action levels. Please include a Sampling Plan and procedures/equipment/calibration etc.

- Yes, the facility will be required to obtain a Title V permit prior to operating the Class I facility. WEI will apply for and receive a Title V permit prior to the acceptance of Class I waste at the facility. The specific contingency corrective plan and sampling plan are provided in Section 3.0 of the revised Decomposition Gas Monitoring Plan.

For your review, we have enclosed two (2) copies of the revised application. If you have any questions or comments regarding these responses or any of the enclosed information, please do not hesitate to contact me at (702) 250-3045 or Joyce Engineering at (804) 355-4520.

Sincerely,


Ryan Williams, President
Western Elite, Inc.

Enclosures

1. Groundwater Monitoring Plan (entire plan).
2. Design Report (entire plan).
3. Class I Operating Plan (entire plan).
4. Class III Operating Plan (entire plan).
5. Decomposition Gas Monitoring Plan (entire plan).
6. Integrated Sitewide Contingency Plan (entire plan).
7. Drawings (see list below):

Mr. Jon Taylor, P.E.
Bureau of Waste Management
Nevada Department of Environmental Protection
October 25, 2011
Page 10 of 10

<u>Drawing #</u>	<u>Title</u>
0	Cover Sheet
0A	Legend Sheet
1A	Existing Conditions Plan
1B	Location of Borrow Area
2A	Base Grading Plan
3A	Leachate Collection/Removal Plan
4	Final Grading Plan
8A	Section I-I
8B	Sections J-J and K-K
11	Phasing Plans, Phases VI-IX
11A	Phasing Plans, Phases X-XI
13A	Miscellaneous Details
13B	Miscellaneous Details
13C	Pump Station Details
15	LFG Management Plan
16	Cross Sections A-A', and B-B'
17	Cross Sections C-C', and D-D'
18	Cross Sections E-E'
19	Evacuation Route

c: Mr. L.E. "Butch" Joyce, P.E., President – Joyce Engineering, Inc.