



State of Utah  
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April 18, 1994

Mr. David Pearce  
Sunnyside Cogeneration Associates  
P.O. Box 58087  
Salt Lake City, Utah 84158-0087

Re: Review of Refuse and Slurry Acid-and/or-Toxic Forming  
Potential Sampling Plans (Part 5 of 7), Sunnyside  
Cogeneration Associates, Sunnyside Refuse and Slurry,  
ACT/007/035-94B, Folder #2, Carbon County, Utah

Dear Mr. Pearce:

The sampling and analysis plan submitted as Appendix 6-5 has been reviewed. The refuse sampling plan requires some editorial changes. The monitoring well installation proposal requires substantive alterations.

The following issues must be adequately addressed:

**Refuse Sampling Plan**

In Appendix 6-5, page 1, item #6, the statement should read "...analyze soil samples collected from the precipitate layer for total and water soluble metals...".

In Appendix 6-5, page 3, the permittee states that an estimate of the depth ( i.e. drill hole collar to the refuse precipitate interface) to the precipitate layer will be made "...where it outcrops...". The permittee will be able to estimate the depth of the precipitate layer by reviewing the drill hole logs from the 1991 and 1992 John T. Boyd report.

In appendix 6-5, page 7, paragraph 2, item #3, the statement should read "...mixing the ground sample to attain saturation ...".

In addition, metal analyses should be accomplished utilizing Furnace Atomic Absorption.

To avoid confusion the reference for exchangeable acidity should be stated (i.e. ASA Mono. No.9, Method 9-4.1, page 163).



Refuse Sampling Plan-  
Monitoring Well Installation  
Sunnyside Cogeneration Associates  
ACT/007/035  
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### Monitoring Well Installation

The permittee must commit to completing, for water monitoring purposes, drill holes B-3,4,5,10 and 11 as depicted on Appendix 6-5, Figure 2. The wells should be slotted through the precipitate layer (if encountered) and constructed as depicted on Appendix 6-5, Figure 4. The permittee must more precisely define the drainage channel at the base of the refuse pile. The well monitoring frequency should be increased to quarterly.

The logic behind the aforementioned requirements is as follows.

- 1) There is a high potential for caving in the refuse and mancos material.
- 2) Clogging of the filter packing and the slotted portion of the completed wells by the dissolved constituents in the water flowing at the base of the refuse is likely.
- 3) There is a low probability of encountering a piezometric surface within the zone (at least 50 feet in width) identified as the likely location of the drainage channel. One drill hole at a particular location is not likely to encounter the piezometric surface. Every effort should be made to encounter and characterize the piezometric surface.
- 4) Seasonal variations in the quantity and quality of water underneath the refuse pile must be characterized.
- 5) By completing a number well, as back up sites, the potential for failure is minimized.

The issues enumerated above must be adequately addressed prior to approval of the drilling proposal.

If you have any questions, please call Randy Harden or me.

Sincerely,



Pamela Grubaugh-Littig  
Permit Supervisor

cc/enc: Bill Malencik, PFO  
Daron Haddock