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DEPARTMENT OF NATURAL RESOURCES

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## Technical Analysis and Findings Utah Coal Regulatory Program

**PID:** C0070042  
**TaskID:** 4685  
**Mine Name:** STAR POINT REFUSE  
**Title:** NOV #12148 RESPONSE

### Summary

In response to NOV #12148, Sunnyside Cogeneration Associates (SCA) submitted an update to their MRP to incorporate changes made to roads and drainage features at the facility. A site visit was made on October 20, 2014, to inspect the changes made throughout the site.

### Operation Plan

#### Road Systems Classification

##### Analysis:

Sections 527.100-200 in the MRP was updated by relabeling a previous haul road as Primary Road P (haul road). The text edits show that the primary road P will be used for infrequent fuel hauling and may at some future point be used as a haul road. Other minor edits include updating the use of Primary Road F as an infrequent haul route to the refuse piles.

SCA updated road descriptions in section 527.210 for Primary Road D, F, L, and P. Text was removed in the description of Primary Road D and Primary Road L regarding construction. Primary Road F's description was updated to include the new name of Primary Road P(haul road), reflect the as built grade of 5%, and discuss the current infrequent traffic use. Text was added to the MRP to reflect the new name of Primary Road P (Haul Road) as the preferred access road to the coal refuse pile.

In the event of an increase to more regular traffic on Primary Road F and Primary Road P this section will need to be updated again.

Section 534 was updated to reflect the new naming of Primary Road P (Haul Road) as a primary access to the coal refuse pile. Table 534.3200a was updated for Primary Road P with a new length of 0.09 miles.

##### Deficiencies Details:

R645-301-527.100 The original MRP shows that the road now referred to as Primary Road P was originally 0.16 miles long in Table 534.200a Road Specifications. MRP edits submitted show a decrease in length from 0.16 miles to 0.09 miles.

## Hydrologic Diversion General

### Analysis:

In response to NOV #12148, Sunnyside Cogeneration Associates (SCA) submitted an update to their MRP to incorporate changes made to drainages at the facility to abate the NOV. A site visit was made on October 20, 2014, to inspect the changes made to drainages throughout the site. According to the amendment submitted to the Division, the following culverts were removed: 72A, 72B, 72C, and 7Ea. Culvert 72Aa has also been removed, which was observed during the site visit. Culverts 18A and 18B have also been removed from the MRP and hydrology maps, but from conversations with the inspector, it appears that culvert 18A was removed prior to the permit being transferred to SCA, approximately 11-12 years ago. SCA should add an explanation to their submittal that explains why 18B was removed and how drainage in that area is now handled.

There are some discrepancies between required peak flow of ditches and the subsequent design flow of culverts, specifically culvert 80A. Tables 742b and 742d should be updated and corrected.

The updated maps 731.720a and 731.720b indicate that ditches 72A-C are lined ditches, but some sections were observed to be unlined. These ditches should be lined to reflect the way they are called out in these maps.

While inspecting ditch 72, a riprapped ditch appears to have been added to the site. This new ditch was just north of the 72B ditch section. If it is necessary for site drainage to have a ditch in that location, SCA needs to demonstrate that it has been sized correctly, is listed in the MRP, and included on the facility maps.

During the site visit, it was observed that ditch 16 has been improved by lining the ditch with concrete. The MRP gives three options for lining ditches, riprap, half-round culverts, and conveyor belt lining (Volume 4 page 62). This section should be updated to indicate the use of concrete as lining for this ditch.

There is a culvert from ditch 6C that allows undisturbed drainage to flow off site. This culvert is not listed in the MRP, there are no design specifications for the culvert, and it is unlabeled on the facility maps. The MRP should be updated to include this culvert if it is an SCA culvert.

### Deficiencies Details:

R645-301-742.323, R645-301-740 Table 742b should be updated to reflect the new required design peak flow of culvert 80A, to ensure the culvert can still hold the required design storm, now that it is receiving flow from ditch 72 in addition to the original flow from ditch 80A.

Table 742d was updated with a design flow of 11.39 cfs (from previous flow of 11.01 cfs) for culvert 80A, but this number is not supported by previous design calculations, given that ditch 72C has a peak flow of 4.68 cfs according to Table 742a. The design flow of culvert 80B in Table 742d should be corrected or explained further.

R645-301-742.312 Updated maps 731.720a and 731.720b indicate that ditches 72A-C will be lined. Sections of this ditch were unlined during a site visit on October 20, 2014. Work should be completed so that the ditch reflects the specifications called for in the submitted sheets.

R645-301-731.720 The MRP and maps should be updated to include the new riprapped ditch locate just north of the 72B ditch section. The MRP should include ditch sizing design specifications for the ditch. A picture of this new ditch is attached as Figure 1.

R645-301-742.300 The MRP should be updated to include an explanation of how the drainage previously collected in culverts 18A and 18B is now being handled.

R645-301-740 During the site visit, it was observed that ditch 16 has been lined with concrete. The MRP lists three options for lining ditches, riprap, half-round culverts, and conveyor belt lining (Volume 4 page 62). This section should be updated to indicate the use of concrete as lining for this ditch.

R645-301-740, R645-301-731.720 There is a culvert from ditch 6C that allows undisturbed drainage to flow off site. This culvert is not listed in the MRP, there are no design specifications for the culvert, and it is unlabeled on the facility maps. The MRP should be updated to include this information if it is an SCA culvert.

# Reclamation Plan

## Bonding Determination of Amount

### *Analysis:*

A site visit was conducted on October 20, 2014 and it was observed that ditch 16 has been lined with concrete. The MRP lists three options for lining ditches, riprap, half-round culverts, and conveyor belt lining (Volume 4 page 62).

### *Deficiencies Details:*

R645-301-830.140,-830.200 The bond must be updated to reflect the demolition and disposal of the shotcrete lining in ditch 16.

cparker



Figure 1