



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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September 17, 1993

TO: Randall Harden, Senior Reclamation Engineer

FROM: Susan M. White, Senior Reclamation Biologist *S M White*

RE: Analysis and Findings for Permit Conditions, Sunnyside Cogeneration Associates, Refuse and Slurry, ACT/007/035, Folder #2, Carbon County, Utah

SYNOPSIS

The following reviews Permit Conditions 3, 4, 5, 6, 7, 8 and 16 based on the information submitted September 15, 1993 by the permittee.

ANALYSIS

PERMIT CONDITION 3.

R645-301-321.100 (SW) By July 31, 1993 the permittee must submit, for inclusion in the PAP, a detailed discussion on the Riparian vegetation type. This discussion must include grasses, forbs, and shrubs found within this zone.

Analysis:

Riparian vegetation information was submitted to the Division for review on July 30, 1993. The riparian vegetation discussion has been incorporated into Chapter Three, Appendix 3-1. The permittee's discussion on the Riparian vegetation type includes a partial list of the plant species found within the riparian zone, species distribution based on aerial cover, and a brief description of the species and their wetland indicator status.

A brief site visit by the Division in September identified six additional plant species to the "comprehensive list" of species identified within the seep area by the permittee. While some of the six species identified may not be termed facultative or obligate wetland species, their presence is important in



characterizing this area within the permit area. This hydrophytic vegetation zone was shown on previously submitted vegetation maps, but somehow has been deleted on the current submittal.

Species areal cover was given by percentage in the discussion. This is very useful in developing a picture of the community structure. However, specific sampling and statistical methods used to determine this cover were not described.

The permittee states in Appendix 3-1: "It should be noted that although it was only required that SCA submit a discussion of the riparian vegetation types, this report includes both wetland and riparian species due to their prevalence and important functions within the area." I would suggest to the permittee that this statement be removed because it illustrates the authors lack of understanding of the riparian ecosystem.

Findings:

A review of the information indicates that the requirements of this Permit Condition have not been met. A comprehensive species list for the Riparian community has not been submitted. Methodology for describing the riparian community was not stated and a finding could not be made as to the adequacy of the description.

PERMIT CONDITION 4.

R645-301-321.200 (SW) By July 31, 1993 the permittee must submit, for inclusion in the PAP, a discussion of the productivity of the land in terms of average yield of forage.

Analysis:

Information required in regard to this Permit Condition was submitted to the Division on June 30, 1993. A site visit was conducted by the SCS in June, 1993 and the productivity of the land was described for the SCA permit area. The productivity and range condition classification summary is included in Chapter Three, Figure 3-5. The text of Chapter Three references Figure 3-4 and should be corrected to indicate the correct figure.

Findings:

The requirements of this Permit Condition have been met.

PERMIT CONDITION 5.

R645-301-322.100 (SW) By September 30, 1993, the permittee must submit, for inclusion in the PAP, a report of the fish

inventory in Icelander Creek and adjacent areas. The permittee must assist the DWR in an inventory of Icelander Creek for fish species to the Price River. Baseline transects must be established above and below the Price River, in Icelander Wash and at the discharge at the base of the refuse pile. Two Category 2 fish species, Roundtail chub and Flannelmouth sucker, are likely to be found at the Price River and Icelander Wash confluence. The Roundtail chub is likely to be listed to the Threatened and Endangered Species list. The DWR will provide a report of this inventory. A copy of the DWR report must be submitted within 10 days of receipt for inclusion in the PAP.

Analysis:

SCA has obtained the services of Pioneer Environmental to conduct the necessary work to complete the fish inventory. The summer/fall inventory was conducted September 20, 1993. The report is due September 30, 1993. It should be noted that a Category 2 species, Flannelmouth sucker, was found at the confluence of Icelander Creek and Grasse Trail Creek.

The required spring fish inventory was not completed. And no commitments for a spring sampling program were made in the September 15, 1993 permit submittal by SCA.

Findings:

Sunnyside Cogeneration is in noncompliance with this Permit Condition by failing to inventory the fish in the spring. No commitment has been made to sample in spring 1994. A report for the summer/fall fish inventory is anticipated to be submitted by September 30, 1993.

PERMIT CONDITION 6.

R645-301-330 (SW) Within 30 days of permit approval the permittee must provide a discussion, for inclusion in the PAP, as to tolerable limits of iron and TDS in water for plants, livestock, wildlife and fish and the impact of the mining operation on these limits due to the fact that the discharge at the base of the refuse pile has been identified to have exceeded standards for iron and TDS. (Note: The applicant's response to this initial deficiency was to referenced to R645-301-728.317. This is not an acceptable response.)

Analysis:

Information was submitted by SCA in response to this Permit Condition on March 5, 1993 which was reviewed by the Division and a second submittal was received from SCA on August 6, 1993. The TDS and Iron report which was submitted on August 6, 1993 has

been included as Appendix 3-2. Chapter Three text has also been updated to reference this report.

The discussion concluded that the iron concentration at the course refuse seep and as discharged at the permit boundary had no apparent adverse effect on vegetation or wildlife in the area. However, levels exceed those which are tolerable for fish and could be considered toxic. Total Dissolved Solids although exceeding Utah standards for waters designated for agricultural use was determined by the permittee to have no adverse effect on wildlife and vegetation adapted to the area.

While in strict compliance with the permit condition the report failed to discuss the possibility of other metals in solution and the possibility of accumulation of these metals in the food chain. Future work should concentrate in these areas and include plant tissue analysis of important browse species and macroinvertebrate sampling.

Findings:

The permittee is in compliance with this stipulation.

PERMIT CONDITION 7.

R645-301-353.120 (SW) By July 31, 1993 the permittee must submit a re-evaluated seed mixture for inclusion in the PAP. The permittee must evaluate the seed mixture proposed for final reclamation planting after the reference areas have been sampled. The seed mixture must incorporate some of the components of the undisturbed adjacent area. This finalized seed mixture must then be submitted for inclusion in the PAP.

Analysis:

Submittal of the information required by this condition was extended to September 15, 1993. Mt. Nebo Scientific has reevaluated the seed mixtures based on the results of the reference area surveys. The finalized mixes are included in Appendix 3-3 of this submittal and area referenced in Chapter Three. The seed mixtures have also been updated in the final reclamation plan (Plate 10-1).

The seed mixtures meet the requirements of the condition and regulations. Future discussions concerning these mixtures should be concentrated on the delineation of where these mixtures will be used, combining the mixtures to create a seed mixture for the entire site, and reconsideration of the use of Yellow Sweetclover in the mix. Plate 10-1 will need to be revised to be consistent with Appendix 3-3 seeding rates.

Findings:

The permittee is in compliance with this stipulation.

PERMIT CONDITION 8.

R645-301-356 (SW) By July 31, 1993 the permittee must submit, for inclusion in the PAP, the data, discussions, and results of the survey of the proposed reference areas.

Analysis:

Submittal of information required by this Permit Condition was extended to September 15, 1993. The reference area surveys and report has been completed and is included in Appendix 3-3. The methods used to conduct the surveys are outlined in Chapter Three.

Two reference areas were selected and sampled for vegetative cover and woody species density. Vegetative cover was 30 percent in the Atriplex/Grass community and 37 percent in the Pinyon Juniper/Sagebrush community reference area.

The survey results submitted meet the regulations and permit stipulation. However, additional information is required, specifically, where the reference areas are located and exactly which areas will be compared to which reference area at the time of final bond release.

Findings:

The permittee is in compliance with this stipulation.

PERMIT CONDITION 16.

R645-301-728 (KW) The permittee must submit, for inclusion in the PAP, a copy of the U.S. Fish and Wildlife Service study and/or report concerning water loss in the Colorado River Basin within 30 days following the issuance of the study and/or report.

Analysis:

The permittee will be required to provide any technical information required for the Division to prepare a Biological Assessment. The Biological Assessment (BA) should be prepared by the end of September. After the BA has been completed, the Division will initiate a formal consultation with USFW. Within 90 days of initiating the consultation process, the USFW will issue a Biological Opinion which terminates the consultation process if a determination of no adverse conditions or adverse affects can be made.

Findings:

SCA is considered to be in compliance with the requirement of this Permit Condition. In the event that technical or other information is required or requested by the Division or the USFW, SCA may be required at that time to provide such information in their plan.