

January 19, 1988

TO: File

FROM: Rick P. Summers, Reclamation Hydrologist *RPS*

RE: Proposal to Modify Monitoring Program (Incorporated with Mid-Term Review Response, dated 10/9/87), Kaiser Steel Corporation, Wellington Preparation Plant, ACT/007/012, Emery County, Utah

Summary:

The proposed amendment to the ground-water monitoring program has been an ongoing issue since November 18, 1986. At that time, Kaiser Steel Corporation (Kaiser) proposed to modify the ground-water monitoring program in terms of number of wells to be sampled and quality parameters to be analyzed. The modification requested deletion of ten (10) of the fourteen (14) ground-water sites. The modification also requested reduction of the parameters to those identified as operational parameters on the Division's water quality guidelines and a reduction of frequency to a semi-annual basis. The Division responded to the proposal with a review letter dated March 3, 1987. In that letter, approval was granted to reduce the frequency to a semi-annual basis during the period of cessation of operations. The other requests were not approved and additional information was requested. The operator submitted a response to the request during the Mid-Term Review dated October 9, 1987. That response was not adequate for evaluation of the monitoring program and approval of the request.

Body:

The following concerns have been noted during the review of this proposal:

1. Temperature data was not collected for any well samples from the period of November 1984 through February 1986 (five of the required eight baseline samples). Samples

were missing for two sites during the baseline data period. These problems are of concern but are not significant enough to warrant collection of a new baseline data set.

2. Data and background information on the wells is not on file with the Division and has not been submitted by the operator. Map E9-3451, Drill Hole Correlation, was submitted as a response to questions concerning monitoring well depth, perforated (sample) zones, drillers or lithologic logs, etc. This plate labels the holes, using alpha labels and numeric labels that exceed the number of wells at the site. A search of the Division records could not find a narrative that defines this label system. It is possible that this plate reflects holes drilled for purposes other than the monitoring of wells. This information should be supplied in order to evaluate the intended sampling of each well and the applicability of deletion of the site.
3. Water monitoring reports on file with the Division are deficient. The last reported ground-water sample date was August 28, 1986, and the last surface water sample date was  
→ November 22, 1985. No data has been submitted since those dates. This data must be submitted so that an evaluation can be made of the adequacy of the data set for the baseline parameters.
4. It was noted during the data review that no sample report was submitted for Site BCW for November 22, 1985. If available, this data should be submitted.
5. The only indication that field pH values were measured is in the reports for August 28, 1986. It appears the balance of the data were laboratory measurements. Future sampling must ensure that the field values are measured.
6. The sample report of March 27, 1986 contains some erroneous information. The values in the minimum and maximum columns do not correspond to actual high and low values on the sample dates. It appears that the November 22, 1985 samples were added to the summary sheet and the minimums and maximums were not updated. These values should be corrected for the annual report for 1987.

7. Discussions with Lynn Kunzler (DOGM), who is currently conducting the site inspections, have indicated the need to clarify the current monitoring program. Upon finalization of this proposal approval, the monitoring dates and reporting dates will be specified by the Division for inclusion into the permit. Additionally, field verification of sampling methods should be conducted by the Division during the next sampling operation.
8. A report entitled "Hydrologic Resources, Probable Hydrologic Consequences and Hydrologic Monitoring Associated with the Wellington Prep. Plant", prepared by Engineering Science, December 1983, and incorporated in the MRP as Appendix I, proposes several objectives for a ground-water resource study. No follow-up or final report for the study could be found in the Division files. The report proposes to document the unaffected water quality, the water quality effect of the contamination sources, the gradient of the water table at each source, and the direction and volume of ground-water flow (p. 23). Additional objectives included verification of the depth of alluvium (p. 21), quarterly leachate analyses taken from the waste rock for one year (p. 22), an annual summary interpreting the data (p. 26), and documentation with conclusions of effects associated with the preparation plant on the water resources. This information should be provided to complete the baseline information section of the MRP.
9. Background (up-gradient) data for the north diversion has not been collected. This data is critical in evaluating the effects of the slurry pond leachate on the surface water system. It is unfortunate that this problem was not noted earlier and a new background site selected, or automatic samplers installed, as the current set of surface data for the east side of the Price River does not have an upgradient comparison. Upon receipt of a complete data set, an evaluation will be made to determine a solution to this problem.

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Recommendation:

Following the evaluation of the monitoring program for the site, it becomes evident that the logical solution to the problems would be a final report on the baseline studies for the site. Essentially, the MRP committed to providing the data, interpretations, and conclusions to meet the requirements for baseline information for the site. A comprehensive report on the data, water resources at the site, and effects of the plant on those resources, would meet the requirements of the MRP commitments. The report would also provide the information required to effectively evaluate the program and objectively reduce the monitoring requirements (and costs) without reducing the effectiveness of the program. It is suggested that this information be submitted for inclusion into the MRP, with a separate request for modification of the monitoring schedule submitted as a proposed amendment.

jr  
cc: S. Linner  
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