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INTEROFFICE CORRESPONDENCE

DATE January 5, 1994
TO M C Broussard, Environmental Operations Management, Bldg 080, X8517
FROM M T Vess, Environmental Operations Management, T891A, X6540
SUBJECT PROCESS IMPROVEMENTS AT THE OPERABLE UNIT NUMBER 2
(OU-2) FIELD TREATABILITY UNIT (FTU) - MTV-001-94

Two Process Improvement items have been installed and are now operational at the OU-2 FTU. These items have increased the treatment capacity at the unit, reduced chemical addition, and most significantly, reduced the waste generated as a result of remediation activities at the facility by approximately fifty percent (initial estimates)

Increased flow and reduced chemical usage during chemical cleaning of the membranes was achieved by adding nine additional membranes into the microfiltration unit. This increase in the system capacity will also reduce/eliminate periods of non collection at the FTU that result from inadequate flows through the membranes. The OU-2 FTU is required to collect water from three surface water collection sites twenty four hours per day, 365 days per year. Fines of up to \$10,000 per week could be levied against the facility for periods of non-collection. The goal of the FTU is to collect and treat all required water, and to remain in full compliance with the Interagency Agreement between the client (DOE) and the regulatory agencies (CDH and EPA). This process improvement will significantly aid in achieving this goal, as well as reduce the amount of chemicals used during chemical cleaning activities by thirty three percent.

A waste reduction of approximately fifty percent is being achieved by injecting sodium hydroxide (caustic) in place of lime to adjust the pH in the second reaction tank (TK-2). Initial results indicate that this process improvement will reduce the mixed waste generation at OU-2 by ninety (or more) fifty five gallon drums per year. Further adjustments and monitoring of the caustic injection system will determine the final sludge reduction potential. Reduction of mixed waste results in a significant cost savings and helps reduce the waste handling/storage/disposal problems that the Rocky Flats Plant faces.

These process improvements could not have been done without the effort that Mark Burmeister put into getting the Scientific Notebook Plan approved for use. This method allowed for the implementation and testing of the waste reduction process improvement at the FTU. The Scientific Notebook Plan allows for minor adjustments, and optimization of the facility, and a means for documentation.

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Resource Technology Group, Inc (RTG) deserves recognition for proposing and planning the waste reduction plan. Without the technical expertise provided by RTG, the waste reduction plan may have never been implemented at the FTU. RTG's staff provided technical input and operations personnel to implement the plan. RTG was also able to save \$12,500 in procurement costs by negotiating with the supplier of the microfiltration unit at the FTU when EG&G purchased ten (10) additional membranes for the unit.

Please feel free to contact me if you have any questions.

alc

cc
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