

March 11, 1985

Michael Graham  
242 31 Road  
Grand Junction, CO 81503

To whom it may concern:

Re: Federal Sewage Works Grant  
CO80337-26, Step 3  
Mesa County/Grand Junction

This is to advise you that in my opinion this project has not conformed with assurances and conditions of the Federal Grant. It appears to me that the Plan of Operation as established in the Operations and Maintenance Manual has not been followed in two important areas: Operator Training and Secondary Treatment Process Control.

Operator Training as described in Chapter V, pages 17 and 18 is far different than the training that myself and other operators have received during the last two years that I have worked on this project. For example, "Currently 2 hours of classroom instruction each week are being given at the Grand Junction treatment facility." None of the operators that I have spoken with have received this instruction, and I have not received it myself. Many operators have complained of this situation to the Utilities Operations Superintendent and Personnel Director. We were told that we would see a change in this policy. I have seen no change.

Operator training is a requirement of this Federal Grant, and I believe that the city must follow the letter and intent of the Operations and Maintenance Manual. It appears to me that the training program at the Persigo Wash is inadequate to meet the needs of this project, since some phases have been nonexistent.

It is the intent of the Federal Sewage Works Grant Program to establish Secondary treatment facilities with the best available technology, the goal of which would be to control the discharge of pollutants to as near to zero as is possible. My concerns are not with the equipment technology, but, with control techniques being used at the Persigo Wash facility.

The Operations and Maintenance Manual, Chapter IV-C, page 14, states that "Current technology considers SRT to be the best process control technique available to the plant operator. By using the SRT, the operator can control the organic loading (F/M). In addition, he can calculate the amount of activated sludge that should be wasted in a logical manner." This technique is not used at this facility. In fact the amount of

sludge to be wasted is not based on any calculations at this time..

The illogical methods that are used at this facility to determine the amount of activated sludge to be wasted are, I believe, responsible for problems such as nitrification, denitrification and solids wash-out. On February 16, 1985, I reported a solids wash-out condition occurring in the final clarifiers. The decision by management was made to decrease wasting by 66%. During the next two days the problem worsened. Then on the nineteenth, the decision was made to drastically increase the wasting. Waste sludge units were increased from 0.37 to 3.0 in one day.

This action caused a biological upset condition in the system and a massive discharge of pollutants to the waters of the state and a violation of the N.P.D.E.S. permit. I personally was appalled at this situation as a taxpayer, citizen, and as a wastewater treatment plant operator. However, more important than my own views is the fact that many references state that changes in wasting rates should be no more than 10-15%/day.

Trouble shooting guide no. 5, Activated Sludge Process Secondary Clarifier, Chapter IV, states that increases be no more than 10%. Appendix 15 and 16 of Volume II, Operations and Maintenance Manual concur with this well established guideline. Chapter IV, page C-12, under the heading, Waste Activated Sludge Control states that the objective of wasting activated sludge is to achieve balance and a "steady state." I do not believe that this kind of illogical wasting (an increase of approximately 800%/day) conforms to assurances of the Federal Grant Program as outlined in the Plan of Operations.

The purpose of my writing this letter is that I am concerned with the methods of training and operation being used at the Persigo Wash Facility. I want to have pride in doing the best that I can to protect the environment and public health and give the taxpayers what they paid for. If I can be of further assistance in providing graphs, data, or other information please contact me.

Sincerely,



Michael Graham  
Wastewater Treatment Plant  
Operator IV  
Colo. "A" #1111

cc:

Richard Lamm, Governor

Mesa County Administrator

Mark Aken, City Manager, Grand Junction

Feggy Galligan, Project Administrator, C.H.D.

Patricia Nelson, Project Engineer, C.H.D.

William Homberg, EPA Region VIII Administrator

Jerry O'Brien, Facility Supervisor

Richard Bowman, District Engineer, C.H.D.