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FAX TRANSMITTAL

STATE OF UTAH
DEPARTMENT OF ENVIRONMENTAL QUALITY

Location Address:
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Salt Lake City, UT

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Reply to Address:
Executive Director's Office
Dept. of Environmental Quality
Salt Lake City, UT 84114-4810

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TO: Priscilla Burton

FAX # 359-3940

AGENCY/FIRM: DOGMA

PHONE # 538-5340

NUMBER OF PAGES TO FOLLOW 2

SUBJECT Administrative Order IQ2-03
Re: Nov 92 37 3 1

FROM: _____

AGENCY/FIRM: Div. of Water Quality

PHONE # 538-6146



June 2, 1992



Mr. Don Ostler, Director
Division of Water Quality
Department of Environmental Quality
P. O. Box 144870
Salt Lake City, Utah 84114-4870

Dear Mr. Ostler:

RE: Administrative Order I92-03

Submitted herewith is a detailed plan on how Utah Fuel Company will achieve compliance with their UPDES permit. This plan is submitted, as required, by item 2 of the referenced administrative order.

As stated in correspondence dated, February 21, 1992, the preferred, and most cost effective, option is to let the gypsum based rock dust be removed from underground by a dissolution process. This option is guaranteed eventual success because only a finite amount of this material was placed into the system and will eventually be removed. We have evidence that this system is working, as shown by a decrease in the TDS concentration of approximately 30% since the peak of about nine months ago. This dissolution process will continue regardless of other options which may be implemented. However, we are still unable to identify a date at which dissolution alone will bring us into compliance.

In the meantime, we have been investigating several other options, some of which show promise and others which have been discarded as impractical. One such method, reverse osmosis, has been abandoned as being too costly but, more importantly, because the large volume of highly saline process waste would introduce a very difficult disposal problem.

Another option, ion exchange, has been extensively investigated and, at first, showed favorable results. Attempts, however, to increase the TDS removal efficiency and to also eliminate the undesirable effects of polymer addition ultimately resulted in a very marginal TDS reduction. This factor, compounded with problems of cost, equipment cost and operational complexity, ended in a decision to abandon the ion exchange option.

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Mr. Don Ostler
June 2, 1992

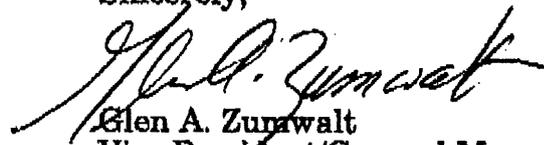
The only remaining viable option, of which we are aware, is a membrane process which incorporates electro dialysis. We are instructing our consultant, PRS Recycling Services, to proceed with engineering design of this equipment. The basic components for such a system are readily available but require selection of membranes which are very site specific. A concurrent evaluation will be made of electrical power, plumbing and other equipment requirements. It will also be necessary to ensure that this entire system complies with MSHA regulations. With the development of an acceptable plan, and Division approval, Utah Fuel Company will initiate purchase and installation of this equipment by October 1, 1992. Delivery is estimated at sixty days.

This process should result in almost immediate compliance with the 1000 mg/L TDS and the 500 mg/L sulfate limitations. The ability to meet the 723 ml/L yearly average for TDS is less certain. It is, therefore, requested that an exemption to the yearly average be granted until the effectiveness of this proposed plan can be evaluated. It is suggested that a six month trial period would be appropriate. At this point, if necessary, a method for compliance with the 723 mg/L yearly average will be presented to the Division for approval.

The requirements in the Administrative Order to study the impacts on Eccles Creek was essentially completed last year in a study contracted with Ecosystem Research Institute of Logan, Utah. A copy of that report was previously submitted in correspondence dated, February 21, 1992. In discussing this requirement with member of your staff, it was decided that a biomonitoring test for chronic toxicity would be useful. We will conduct this test upon your approval to do so.

We appreciate your forbearance while we have attempted to deal with this problem, and for the assistance offered by members of your staff.

Sincerely,


Glen A. Zumwalt
Vice President/General Manager

Keith Welch:gb

cc: Keith Welch
Keith Zobell
Ken May

*Can't give exemption, but could
deal w/it in J. A.*