State of Utah
DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF AIR QUALITY

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DAQE-416-92

April 28, 1992

James R. Van Orman
Director of Environmental Management
Department of the Air Force
Hill A.F.B., Utah 84056-5990

Re: Approval Order for Industrial Wastewater Treatment Plant Sludge Dryers, Building 577
Davis County CDS A1 NA

Dear Mr. Van Orman:

The above-referenced project has been evaluated and found to be consistent with the requirements of the Utah Air Conservation Rules (UACR) and the Utah Air Conservation Act. A 30-day public comment period was held and all comments received were evaluated. The conditions of this Approval Order (AO) reflect any changes to the proposed conditions which resulted from the evaluation of the comments received. This air quality AO authorizes the project with the following conditions and failure to comply with any of the conditions may constitute a violation of this order:

1. Hill Air Force Base, shall install and operate the Industrial Wastewater Treatment Plant Sludge Dryers in Building 577 according to the information submitted in the Notice of Intent dated September 4, 1991.

   A copy of this AO shall be posted on site and shall be available to the employees who operate the air emission producing equipment. All employees who operate the air emission producing equipment shall receive instruction as to their responsibilities in operating the equipment in compliance with all of the relevant conditions.

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2. The approved installations shall consist of the following equipment:

   A. Two JWI Metal Hydroxide Sludge Volume Reducers

Model:	J360G
Heat source:	Natural gas
Burner rating:	400,000 BTU/hr
Gas consumption:	400 CFH

   B. Two JWI single speed wet venturi scrubbers

Scrubber water usage:	3 GPM
Dry gas:	79.93 SCFM
Humidity:	51%
Saturation Temp:	184°F
Discharge Volume:	293 ACFM

3. Emissions to the atmosphere of NO_x from the sludge dryer exhaust stacks shall not exceed the following rates and concentrations:

   A. 200 ppmdv (7% oxygen, dry)
   B. 0.47 lb/hr (per stack)

4. Stack testing to show compliance with the emission limitations in condition #3 shall be performed as specified below:

Emission Point	Pollutant	Testing Status	Retest
Dryer exhaust stacks	NO_x	§	***

Testing Status (To be applied above)

§ The stacks shall be tested for NO_x emissions compliance within 30 days of start-up using a portable testing instrument approved by the Executive Secretary

*** The dryer stacks shall be retested every 30 dryer operating days ± 10 days. The maximum time between tests shall be 35 dryer operating days.

5. Test Procedure

Dryer stack emissions testing shall be performed by the following procedure or an approved equivalent. Equivalency shall be determined by the Executive Secretary and approved prior to tests being conducted.

A. - Sample Port

A sampling port shall be installed in each dryer exhaust stack in accordance with 40 CFR 60, Appendix B, Performance Specification #2 or as approved by the Executive Secretary. The sample ports shall be safely accessible to the tester, operator, or inspector in accordance with OSHA standards.

B. - Operating Rate

The steam production or operating rate during testing shall be performed under three operating rates; 90%, 70% and 50% (all ±10%) of the dryers' rated capacities.

C. - Test Instrument

The test procedure shall be conducted using a portable testing instrument approved by the Executive Secretary. The testing instrument shall be calibrated on site with a suitable NBS referenced or traceable calibration gas in accordance with the instruction of the test instrument.

D. - Test Procedure

The test shall be conducted in the following manner:

(1) The dryers shall be:

a) operated at the designated production rate in Condition #5B

b) allowed to stabilize for a minimum of 5 minutes.

(2) The gas sample shall be drawn according to the instructions of the test instrument being used.

(3) The sample value shall be determined from the test instrument, appropriate calculations made, and the data recorded.

E. - Failed Dryer Status

(1) If a dryer is unable to attain the emission limitation in Condition #3, at any one of the operating rates specified in condition #5B, the dryer shall be taken out of service until the unit has been repaired or maintenance performed and a successful retest completed.

(2) Maintenance and repairs of any dryer that fails the periodical test shall be performed within 15 days, or the dryer shall be idled.

a) If a dryer that has failed a test is repaired and a successful retest completed according to the limitations of Condition #3 within 15 days, the dryer shall be determined to not have been in violation.

b) A dryer that fails the retest after repair shall be idled until further repairs are made and a successful retest completed. If the dryer demand requires the dryer to be operated, it shall be base loaded at the rate that will result in the lowest emissions rate possible until the dryer can be repaired and shown in compliance by the above test.

c) Operation of a dryer that has failed the above "retest after repair" may be determined to be a violation of this AO.

F. - Reports

A copy of all test reports containing the test results, any calculations required, and the test instrument calibration data shall be retained by the owner/operator for two years. The reports shall be made available to the Executive Secretary or his agent upon request. An annual summary report of all the test results with a copy of the periodical reports shall be submitted to the Executive Secretary no later than January 31 of each year for the previous calendar year.

6. Visible emissions from any point or fugitive emission source associated with the installation or control facilities in this NOI shall not exceed 10% opacity. Opacity observations of emissions from stationary sources shall be conducted in accordance with 40 CFR 60, Appendix A, Method 9.

7. The owner/operator shall use only natural gas as a primary fuel in the two sludge dryers located in Building 577. If any other fuel is to be used, an AO shall be required in accordance with R307-1-3.1, UAC.

8. All records referenced in this AO or in an applicable NSPS or NESHAPS, which are required to be kept by the owner/operator, shall be made available to the Executive Secretary or his representative upon request.

9. All installations and facilities authorized by this AO shall be adequately and properly maintained. The owner/operator shall comply with R307-1-3.5 and 4.7, UAC. R307-1-3.5, UAC addresses emission inventory reporting requirements. R307-1-4.7, UAC addresses unavoidable breakdown reporting requirements. The owner/operator shall calculate/estimate the excess emissions whenever a breakdown occurs. The sum total of excess emissions shall be reported to the Executive Secretary for each calendar year no later than January 31 of the following year.

10. The Executive Secretary shall be notified in writing upon start-up of the installation, as an initial compliance inspection is required. Eighteen months from the date of this AO the Executive Secretary shall be notified in writing of the status of installation if installation is not completed. At that time the Executive Secretary shall require documentation of the continuous installation of the operation and may revoke the AO in accordance with R307-1-3.1.5, UAC.

Any future modifications to the equipment approved by this order must also be approved in accordance with R307-1-3.1.1, UAC.

This AO in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including the Utah Air Conservation Rules.

Annual emissions for this source (the wastewater treatment plant sludge dryers in building 577) are currently calculated at the following values:

A. 1.026 tons/yr for Particulate
B. 0.453 tons/yr for PM_{10}
C. 0.002 tons/yr for SO_2
D. 2.050 tons/yr for NO_x
E. 1.328 tons/yr for VOC
F. 0.149 tons/yr for CO

These calculations are for the purposes of determining the applicability of PSD and nonattainment area major source requirements of the UACR.

Sincerely,

Monte R. Keller

F. Burnell Cordner, Executive Secretary
Utah Air Quality Board

FBC:HGN:cl

cc: EPA Region VIII, Mike Owens
Davis County Health Department