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DEPARTMENT OF ENVIRONMENTAL QUALITY  
DIVISION OF AIR QUALITY

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DAQE-167-92

February 19, 1992

James R. Van Orman  
Director, Environmental Management Office  
Department of the Air Force  
Headquarters Ogden Air Logistics Center (AFLC)  
Hill Air Force Base, Utah 84056

Re: Approval Order for JP-4 Tank Throughput Limitations

Dear Mr. Van Orman:

This amended AO is being issued to update and combine the AOs dated January 3, 1989 and July 29, 1991. The JP-4 tank throughput limitations are combined to give one throughput limit for all four tanks. The re-worded throughput limitations give more flexibility and do not allow an increase in total throughput.

The above-referenced project has been evaluated and found to be consistent with the requirements of the Utah Air Conservation Regulations (UACR) and the Utah Air Conservation Act. 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. This AO shall replace the AO's issued to Hill Air Force Base on July 29, 1991 and January 3, 1989.
2. The approved facilities shall consist of the following equipment:
  - A. Two steam generators, a total heat input rate of 120.3 MMBTU/hr with natural gas as primary fuel with a standby diesel fuel (116.5 MMBTU/hr) at building 260;
  - B. Dual seals for JP-4 storage tanks 10873, 10885, 10861 and 10862;
  - C. Two mobile waste hydraulic fluid reclamation units based at Building 514;
  - D. Paint spray booth and two lab hoods at the Building 5N;
  - E. Lab Hoods

4.2.4-744

F. Nine Turboclean chambers, or equivalent, for the paint spray hangar at Building 220 - In addition, water reducible primer or low VOC primer shall be substituted for solvent base primer, and a high volume low pressure (HVLP) type spray gun shall replace the conventional paint spray gun.

Equivalency shall be determined by the Executive Secretary.

3. Visible emissions from any point or fugitive emission source associated with the emission points listed in this AO shall not exceed 10% opacity. Opacity observation of emissions from stationary sources shall be conducted in accordance with 40 CFR 60, Appendix A, Method 9.
4. The following operating limits shall not be exceeded without prior approval in accordance with R446-1-3.1, UAC:
  - A. Steam generators, Building 260
    - 1)  $465.7 \times 10^9$  BTU from natural gas per 12-month period
    - 2)  $108.3 \times 10^6$  BTU from natural gas per hour
    - 3)  $50.1 \times 10^9$  BTU from diesel fuel per 12-month period
    - 4)  $116.5 \times 10^6$  BTU from diesel fuel per hour
    - 5) 4,300 hours per 12-month period
  - B. Storage tanks 10873, 10885, 10861 and 10862 - total combined JP-4 throughput for all four tanks shall not exceed 1,260,000 barrels per 12-month period and shall be determined by summing individual tank throughputs
- F. Hydraulic fluid waste reclamation units, Building 514
  - 1) 30,000 gallons of total fluid per 12-month period
  - 2) 8 hours per day
  - 3) 2,080 hours per 12-month period

Compliance with the annual limitations shall be determined on a rolling 12-month total. Based on the first day of each month a new 12-month total shall be calculated using the previous 12 months. Records of usage, operation, and production shall be kept for all periods when the plant/equipment is in operation. Records of usage, operation, and production shall be made available to the Executive Secretary or his representative upon request, and shall include a period of two years ending with the date of the request.

Fuel consumption for steam generators shall be determined by examination of fuel meter records. Storage tank throughputs shall be determined by examination of tank throughput records, which shall be kept on a daily basis. Hydraulic fluid waste reclamation unit throughput shall be determined by examination of usage records, which shall be kept on a daily basis. Hours of operation shall be determined by supervisor monitoring and maintaining of an operations log.

5. The owner/operator shall comply with R446-1-4.9.1(c), UAC for controlling emissions from storage tanks 10861, 10862, 10873 and 10885.
6. In addition to the requirements of this AO, all provisions of 40 CFR 60, NSPS Subparts A and Ka apply to storage tanks.

7. The condenser at the final point of each of the hydraulic fluid waste reclamation units shall operate during the operation of hydraulic fluid waste reclamation units. If the condenser is out of service, the hydraulic fluid waste reclamation units shall not be used until the condenser has been returned to service. The hydraulic waste reclamation equipment shall be operated for maximum solvent recovery at all times.

The condenser shall be capable of recovering no less than 75% of solvents from the fluid. Records of solvent recovery shall be kept for all periods when the hydraulic fluid waste reclamation units are in operation.

Demonstration of the 75% recovery shall be made by monitoring the solvent input and solvent recovery over a specified period of time acceptable to the Executive Secretary and calculating the percent recovery. A compliance demonstration shall be performed if directed by the Executive Secretary. Records of the amount of solvent recovered shall be kept for all periods when the hydraulic fluid waste reclamation units are in operation. The record shall include the following items:

- A. Date;
- B. Unit usage (start and end times);
- C. Total hydraulic fluid waste processed;
- D. Amount solvent recovered.

8. The owner/operator shall use only natural gas as a primary fuel and #2 diesel fuel as a backup fuel in the steam generators. If any other fuel is to be used, an AO shall be required in accordance with R446-1-3.1, UAC.

Natural gas consumption shall not exceed 465.7 x 10<sup>6</sup> scf per 12-month period, and diesel fuel consumption shall not exceed 5% of the annual fuel used in the boilers without prior approval in accordance with R446-1-3.1, UAC. Compliance with the limitations shall be determined on a rolling 12-month total. Based on the first day of each month a new 12-month total shall be calculated using the previous 12 months. Records of fuel consumption shall be kept for all periods when the plant is in operation. Records of fuel consumption shall be made available to the Executive Secretary upon request, and shall include a period of two years ending with the date of the request. Fuel consumption shall be determined by examination of fuel meter records and fuel bills.

9. The sulfur content of any diesel fuel burned shall not exceed 0.50% by weight as determined by ASTM Method D-4294-89. The sulfur content shall be tested if directed by the Executive Secretary.
10. The paint spray booth at Building 5N shall be equipped with a set of paint arrestor particulate filters (or equivalent) to control particulate emissions. All air exiting the booth shall pass through this control system before being vented into the atmosphere. Equivalency shall be determined by the Executive Secretary.
11. The paint spray hangar at Building 220 shall be equipped with a water wall (or equivalent) to control particulate emissions. All air exiting the booth shall pass through this control system before being vented to the atmosphere. Equivalency shall be determined by the Executive Secretary.

12. Emissions of VOC from the paint spray booth and the two lab hoods in Building 5N shall not exceed a total of 2.37 tons per 12-month period without prior approval in accordance with R446-1-3.1, UAC. Compliance with the limitation shall be determined on a rolling 12-month total. Based on the first day of each month a new 12-month total shall be calculated using the previous 12 months. The building emissions of VOC shall be determined by maintaining a record of paints, thinners and cleaning agents used. The record shall include the following data for each item used:

- A. Name of paint or thinner
- B. Weight in pounds per gallon
- C. Percent VOC by weight
- D. Amount used on a daily basis

Records of consumption shall be kept for all periods when the plant is in operation. Records of consumption shall be made available to the Executive Secretary upon request, and shall include a period of two years ending with the date of the request.

VOC emissions shall be determined by the following manner:

$$\text{VOC} = \left( \frac{\% \text{ Volatile by Weight}}{\text{Gallons Consumed}} \right) \times \left( \frac{\text{Density lb/gal}}{2,000 \text{ lb/ton}} \right) *$$

The VOC content in pounds for each individual item or surface coating used shall be calculated, and then the total of all items shall be summed, such that the cumulative total shall not exceed the 2.37 tons per 12-month period as specified.

13. Emissions of VOC from the paint spray hangar in Building 220 shall not exceed 17.2 tons per 12-month period without prior approval in accordance with R446-1-3.1, UAC. Compliance with the limitation shall be determined on a rolling 12-month total. Based on the first day of each month a new 12-month total shall be calculated using the previous 12 months. The building emissions of VOC shall be determined by maintaining a record of paints and thinners used. The record shall include the following data for each item used:

- A. Name of paint or thinner
- B. Weight in pounds per gallon
- C. Percent VOC by weight
- D. Amount used on a daily basis

Records of consumption shall be kept for all periods when the plant is in operation. Records of consumption shall be made available to the Executive Secretary upon request, and shall include a period of two years ending with the date of the request.

VOC emissions shall be determined by the following manner:

$$\text{VOC} = \left( \frac{\% \text{ Volatile by Weight}}{\text{Gallons Consumed}} \right) \times \left( \frac{\text{Density lb/gal}}{2,000 \text{ lb/ton}} \right) *$$

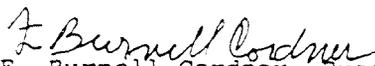
The VOC content in pounds for each individual item or surface coating used shall be calculated, and then the total of all items shall be summed, such that the cumulative total shall not exceed the 17.2 tons per 12-month period as specified.

14. The owner/operator shall operate a solvent cleaning operation under the lab hoods according to the following:
  - A. Covers shall remain closed at all times except during actual loading, unloading, or transfer operations. The covers shall be designed so that they can easily be operated with one hand;
  - B. Waste shall be completely drained in the internal draining rack until all dripping ceases;
  - C. Waste or used solvent shall be stored in covered containers and disposed by a method which prevents its emission into the atmosphere in accordance with R446-1-4.9.4.A(3);
  - D. Tanks, containers, and all associated equipment shall be maintained in good operating condition and leaks shall be repaired immediately;
  - E. Written procedures for the operation and maintenance of the solvent cleaning equipment shall be posted in an accessible and apparent location near the equipment;
  - F. The requirements of R446-1-4.9.4.A, UAC shall apply to this operation as applicable.
15. 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.
16. All installations and facilities authorized by this Approval Order shall be adequately and properly maintained. The owner/operator shall comply with R446-1-3.5 and 4.7, UAC. R446-1-3.5, UAC addresses emission inventory reporting requirements. R446-1-4.7, 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.

Any future modifications to the equipment approved by this order must also be approved in accordance with R446-1-3.1.1, 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.

Sincerely,

  
F. Burnell Cordner, Executive Secretary  
Utah Air Quality Board

FBC:DC:cl

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