

Department of Environmental Quality  
 Northwest Region  
 Air Quality Program

Standard  
 AIR CONTAMINANT DISCHARGE PERMIT  
 REVIEW REPORT

Allied Systems Company  
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 Sherwood, OR 97140  
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|                      |   |
|----------------------|---|
| Unassigned emissions |   |
| Emission credits     |   |
| Source test          |   |
| COMS                 |   |
| CEMS                 |   |
| Compliance schedule  |   |
| Special conditions   |   |
| Annual report        | X |
| Semi-annual report   |   |
| Quarterly report     |   |

|                         |    |
|-------------------------|----|
| Monthly report          |    |
| Excess emissions report |    |
| NSPS                    |    |
| NESHAP                  |    |
| NSR                     |    |
| PSD                     |    |
| RACT                    | X  |
| FCE                     |    |
| Public Notice           | II |

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## PERMITTING

### PERMITTING ACTION

1. The permit is a modification of an existing Air Contaminant Discharge Permit (ACDP) which was issued on 8/22/2002 and was originally scheduled to expire on 6/01/2007. The Department has chosen to simultaneously renew the permit with this modification.

### OTHER PERMITS

2. Other permits issued or required by the Department of Environmental Quality for this source include: a Storm Water 1200-Z (file number 111859). The facility was considered to be a large quantity generator from 1996 & 1997. As of 1998 to current the facility has been considered a small quantity generator.

### ATTAINMENT STATUS

3. The source is located in an attainment area for PM and a maintenance area for CO and Ozone. NO<sub>x</sub> and VOC are precursors to Ozone. The permitted facility is an insignificant source of VOC from coating operations and a negligible source of PM from shot/sandblasting and welding.
4. The RACT calculation and recordkeeping was modified to meet the RACT requirements which are now greater than 10 tons for VOCs.

## SOURCE DESCRIPTION

### OVERVIEW

5. The permitted facility manufactures specialized heavy equipment, such as marine cranes and log skidders. Products are designed, built, and painted (coated) to order. The facility began operations in 1980. The facility uses aqueous cleaners and water based compliant coatings. High VOC coatings are used for mil-spec jobs and other special items. One natural gas fired burning table has been added, and the older burning table was converted from map gas to natural gas.

PROCESS AND CONTROL DEVICES

6. Existing air contaminant sources at the facility are identified by building number:
  - a. Building 1 contains two paint rooms for solvent and water-based paints, plate shop, fabrication, and welding areas. The sandblast room, with bag house, is considered part of Building 1.
  - b. Building 3 contains three small paint rooms which may also be used for steam cleaning and/or drying fabricated equipment.
  - c. Building 5 contains one paint/drying room used primarily for the application of solvent based coating for hay balers.
  - d. Some fugitive PM arise from metal fabrication and machining, although these are negligible and occur indoors.

COMPLIANCE

7. The facility was inspected on 8/06/2004 and found to be in compliance with permit conditions.
8. During the prior permit period there were no complaints recorded for this facility.
9. No enforcement actions have been taken against this source since the last permit renewal.

EMISSIONS

10. Proposed PSEL information:

| Pollutant | Baseline Emission Rate (tons/yr) | Netting Basis      |                    | Plant Site Emission Limits (PSEL) |                         |                         |
|-----------|----------------------------------|--------------------|--------------------|-----------------------------------|-------------------------|-------------------------|
|           |                                  | Previous (tons/yr) | Proposed (tons/yr) | Previous PSEL (tons/yr)           | Proposed PSEL (tons/yr) | PSEL Increase (tons/yr) |
| VOC       | 0                                | 0                  | 0                  | 39                                | 39                      | 0                       |

- a. The proposed PSELs for all pollutants are equal to the Generic PSEL in accordance with OAR 340-216-0064(4)(b) and the netting basis is zero in accordance with OAR 340-222-0040(2).
- b. The PM emissions from bag house operation and welding are less than one ton per year. About one-half ton of PM<sub>10</sub> per year is exhausted through the shot-blast bag house. PM emissions from welding are fugitives and are also about one-half

- ton per year. The PSEL for PM and PM<sub>10</sub> have been removed from the permit.
- c. Reported natural gas consumption for 2001 was 94,233 therms, or 9 MMCF. NOx emissions are less than one-half ton per year. Emissions from natural gas combustion are not included in the PSEL.
- d. The PSEL is a federally enforceable limit on the potential to emit.

SIGNIFICANT EMISSION RATE ANALYSIS

- 11. For each pollutant, the proposed Plant Site Emission Limit is less than the Netting Basis plus the significant emission rate, thus no further air quality analysis is required.

MAJOR SOURCE APPLICABILITY

CRITERIA POLLUTANTS

- 12. A major source is a facility that has the potential to emit more than 100 tons per year of any criteria pollutant. This facility is not a major source of criteria pollutant emissions. The company has made a concerted effort to reduce VOC/HAP emissions since it was first permitted in 1997. All coatings, as applied, contain VOC at or below 3.5 lb/gal. The facility was in operation 2,016 hours in 2001 and used 3,042 gallons of coating materials. Potential to emit for this facility is calculated below.

$$8760 \text{ hrs/yr} \div 2016 \text{ hrs/yr} = 4.345$$

$$4.4 \times 3,042 \text{ gal} = 13,385 \text{ gal/yr (at 8760 hours)}$$

$$3.5 \text{ lb VOC/gal} \times 13,385 \text{ gal/yr} \div 2,000 \text{ lb/ton} = 23.4 \text{ ton VOC/yr (PTE)}$$

HAZARDOUS AIR POLLUTANTS

- 13. A major source is a facility that has the potential to emit more than 10 tons/year of any single HAP or 25 tons/year of combined HAPs. This source is not a major source of hazardous air pollutants. In 2006 the facility recalculated the PTE for HAPs and the results appear below.

| Hazardous Air Pollutant | Potential to Emit (tons/year) |
|-------------------------|-------------------------------|
| Toluene                 | .57                           |
| Xylene                  | .32                           |
| Solvent naptha          | .22                           |
| N-butanol               | .16                           |
| Methyl n-amyl-ketone    | .1                            |
| Ethyl Benzene           | .04                           |
| Propylene glycol        | .01                           |
| Total                   | 1.42                          |

## ADDITIONAL REQUIREMENTS

### NSPS APPLICABILITY

14. There are no sources at this facility for which NSPS standards have been promulgated.

### NESHAPS/MACT APPLICABILITY

15. There are no sources at this facility for which NESHAPS/MACT standards have been promulgated.

### RACT APPLICABILITY

16. The facility is located in the Portland AQMA and the RACT requirements for surface coating in manufacturing apply. The VOC content for miscellaneous metal parts and products, forced air dried or air dried, must not exceed 3.5 pounds per gallon, as applied {OAR-340-232-0160 (5) (j)}.
17. The VOCs are greater than 10 tons per year therefore, the modification to the permit was done to meet the RACT requirements as stated in OAR 340-232-160 (A).

### TACT APPLICABILITY

18. VOC emissions from coating are subject to RACT limitations and are therefore not subject to TACT. Particulate matter from the shot-blast operation and wheelabrator is controlled by a baghouse which is considered TACT for these operations.

## PUBLIC NOTICE

19. Pursuant to OAR 340-216-0064(5)(a), issuance of Simple Air Contaminant Discharge Permits require public notice in accordance with OAR 340-209-0030(3)(b), which requires that the Department provide notice of the proposed permit action and a minimum of 30 days for interested persons to submit written comments. **The public notice will be made available for public comment from February 23, 2007 until March 30, 2007, 5pm.**

tll:ejd  
Document2  
3/20/2007