

US EPA ARCHIVE DOCUMENT



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DEPARTMENT OF ENVIRONMENTAL QUALITY
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DAQE-549-97

June 20, 1997

Brad Theurer
AUTOLIV ASP/Auto Safety
3350 Airport Road
Ogden, Utah 84405


Dear Mr. Theurer:

Re: Approval Order Modification for ASP-31 Aluminum Recovery Smelter
Box Elder County, CDS-B

The attached document is an Approval Order for the above referenced project.

Future correspondence on this Approval Order should include the engineer's name as well as the DAQE number as shown on the upper right-hand corner of this letter. Please direct any technical questions you may have on this project to Mr. Nando Meli. He may be reached at (801) 536-4052.

Sincerely,


Ursula K. Trueman, Executive Secretary
Utah Air Quality Board

UKT:NM:aj

cc: Bear River District Health Department



STATE OF UTAH

Department of Environmental Quality

Division of Air Quality

**APPROVAL ORDER MODIFICATION FOR ASP-31
ALUMINUM RECOVERY SMELTER**

**Prepared By: Nando Meli, Engineer
801-536-4052**

APPROVAL NUMBER

DAQE-549-97

Date: June 20, 1997

Source

AUTOLIV ASP/Auto Safety

**Brad Theurer
801-471-3274**

**Ursula K. Trueman
Executive Secretary
Utah Air Quality Board**

Abstract

AUTOLIV ASP is a manufacturer of automobile safety products. The company has installed a process which involves the recovering of aluminum components from air bag inflator units. AUTOLIV ASP is installing two new 3 MMBTU/hr melt burners that will be used with the existing equipment to recover aluminum. The furnace is operated with a starved oxygen air feed. This causes the CO emission rate to be higher than it would be in a normal combustion process. A low O₂ air feed is needed for the melting of the aluminum. The allowed CO emissions increase is greater than the actual emissions increase. This is because of the starved air feed and the fact that the actual emission rate was determined by stack sampling.

This is a minor modification to an existing minor source. Box Elder County is an attainment area for all pollutants. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations do not apply to this source. Title V does not apply to this source. This will be a minor modification to an existing minor source. The change of annual emissions in tons per year will be as follows: PM₁₀ -0.01, SO₂ + 5.20, NO_x + 1.38, CO + 49.72, and VOC + 0.24. A 10-day public comment period was held.

The above-referenced project has been evaluated and found to be consistent with the requirements of the Utah Administrative Code Rule 307 (UAC R307) and the Utah Air Conservation Act. A 10-day public comment period was held and all comments received were evaluated. The conditions of this 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:

General Conditions:

1. This AO applies to the following company:

Corporate Office Location

AUTOLIV ASP
Automotive Safety Product Division
3350 Airport Road
Ogden, Utah 84405

Phone: (801) 625-4800
FAX: (801) 625-4911 or (801) 625-4808

The equipment listed below in this AO shall be operated at the following location:

PLANT LOCATION:

9160 North HWY 83, Promontory, Utah

Universal Transverse Mercator (UTM) Coordinate System:
4,610.4 kilometers Northing, 381.4 kilometers Easting; Zone 12

2. Definitions of terms, abbreviations, and references used in this AO conform to those used in the Utah Administrative Code Rule 307 (UAC R307), and Series 40 of the Code of Federal Regulations (40 CFR). These definitions take precedence unless specifically defined otherwise herein.
3. AUTOLIV ASP shall install and operate the two melt burners in the Aluminum Recovery Facility at Building # ASP-31 and shall operate the Aluminum Recovery Operations at Building # ASP-31 according to the terms and conditions of this AO as requested in the Notice of Intent dated October 22, 1996
4. A copy of this AO shall be posted on site. The AO shall be available to the employees who operate the air emission producing equipment. These employees shall receive proper instruction as to their responsibilities in operating the equipment according to all of the relevant conditions listed below.
5. This AO shall replace the AO (DAQE-552-95) dated June 20, 1995
6. The approved installations shall consist of the following equipment or equivalent*:
 - A. Deactivation/melt furnace

Manufacturer	North American
Burner rating	2.0 MMBTU/hr
 - B. Melt/holding furnace

Manufacturer	North American
Burner rating	Two burner assemblies rated at 2.0 MMBTU/hr each
 - C. Afterburner

Manufacturer	Gillespie and Powers
Burner rating	4.9 MMBTU/hr
 - D. Melt burners

Manufacturer	Eclipse Combustion
Burner rating	Two at 3.0 MMBTU/hr each
 - E. Induced draft (ID) fan

Manufacturer	IAP
Airflow	7,000 scfm at 26" S.P. designed to operate at 400°F
 - F. Reagent contactor and baghouse control system, pulse jet cleaning

Manufacturer	SENCA
Airflow	7,000 scfm at 26" S.P. designed to operate at 400°F
Cloth area	1,649 square feet
 - G. Heat exchanger

Manufacturer	Interel
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- H. Emergency stack shut-off valve pneumatically operated (on-off)
Manufacturer Worcester

* Equivalency shall be determined by the Executive Secretary.

Any future changes or modifications to the equipment and processes approved by this AO that could effect the emissions covered by this AO must be approved in accordance with R307-1-3.1.1, UAC.

Limitations and Tests Procedures

- 7. Emissions to the atmosphere at all times from the shall not exceed the following rates and concentrations:

Source: Metals Recovery Exhaust Stack

<u>Pollutant</u>	<u>lb/hr</u>	<u>ppmdv</u> (3% O ₂ dry)
CO	11.4	642

- 8. Stack testing to show compliance with the emission limitations stated in the above condition shall be performed as specified below:

<u>Emissions Point</u>	<u>Pollutant</u>	<u>Testing Status</u>	<u>Test Frequency</u>
Metals Recovery Stack	CO	*	@

- B. Testing Status (To be applied above)

* No initial testing is required. However, the Executive Secretary may require testing at any time in accordance with R307-1-3.4.1, UAC. The source shall be tested if directed by the Executive Secretary.

@ Test every five years or sooner if directed by the Executive Secretary. Tests may be required if the source is suspected to be in violation with other conditions of this

- C. Notification

The applicant shall provide a notification to the Executive Secretary of any test required by this AO at least 45 days before the test. A pretest conference shall be held if directed by the Executive Secretary. It shall be held at least 30 days before the test and include representation from the owner/operator, the tester, and the Executive Secretary. The emission point shall be designed to conform to the requirements of 40 CFR 60, Appendix A, Method 1, and Occupational Safety and

Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.

D. Sample Location

40 CFR 60, Appendix A, Method 1

E. Volumetric Flow Rate

40 CFR 60, Appendix A, Method 2

F. Carbon Monoxide (CO)

40 CFR 60, Appendix A, Method 10

G. Calculations

To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Executive Secretary to give the results in the specified units of the emission limitation.

H. New Source Operation

For a new source/emission point, the production rate during all compliance testing shall be no less than 90% of the production rate listed in this AO. If the maximum AO allowable production rate has not been achieved at the time of the test, the following procedure shall be followed:

- 1) Testing shall be at no less than 90% of the production rate achieved to date.
- 2) If the test is passed, the new maximum allowable production rate shall be 110% of the tested achieved rate, but not more than the maximum allowable production rate. This new allowable maximum production rate shall remain in effect until successfully tested at a higher rate.
- 3) The owner/operator shall request a higher production rate when necessary. Testing at no less than 90% of the higher rate shall be conducted. A new maximum production rate (110% of the new rate) will then be allowed if the test is successful. This process may be repeated until the maximum AO production rate is achieved.

I. Existing Source Operation

For an existing source/emission point, the production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

J. Internal Combustion Engines and Natural Fired Gas Boilers

Portable testing monitors may be used to test natural gas fired boilers and IC engines. If portable monitors are to be used an EPA method test must be performed at least once every five years. This applies to sources that do not have a federal testing requirement listed in an NSPS, NESHAP, MACT or other federal standards. Test every five years or sooner if directed by the Executive Secretary.

9. Visible emissions from any point or fugitive emission source associated with the installation of the source or with the control facilities 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.
10. The following production and/or consumption limits shall not be exceeded without prior approval in accordance with R307-1-3.1, UAC:
 - A. 2,000 pounds of raw materials including Aluminum inflators, steel inflators, and scrap aluminum per hour
 - B. 4,380 tons of raw materials including Aluminum inflators, steel inflators, and scrap aluminum per 12-month period.
 - C. 2,000 pounds of aluminum and steel produced per hour

Compliance with the annual limitation shall be determined on a rolling 12-month total. The owner/operator shall calculate a new 12-month total based on the first day of each month using data from the previous 12 months. Records of material processed and/or recovered shall be kept for all periods when the plant is in operation. Records of material processed and/or recovered, including rolling 12-month totals, shall be made available to the Executive Secretary or her representative upon request, and shall include a period of two years ending with the date of the request. Material weight shall be determined by scales. The records shall be kept on a daily basis.

11. All emissions from this aluminum recovery facility shall be exhausted through the reagent contactor and baghouse control system prior to release to the atmosphere through the metals recovery exhaust stack.
12. The aluminum recovery process will be shut down if the reagent contactor and baghouse system fails. The process will not resume unless the emergency vent stack is closed and the control system is on-line.

Fuels

13. The owner/operator shall use only natural gas as a primary fuel and propane as a backup fuel. If any other fuel is to be used, an AO shall be required in accordance with R307-1-3.1, UAC.

Records & Miscellaneous

14. All installations and facilities authorized by this AO shall be adequately and properly maintained. Maintenance records shall be maintained while the plant is in operation. All pollution control vendor recommended equipment shall be installed, maintained, and operated. Instructions from the vendor or established maintenance practices that maximize pollution control shall be used. All necessary equipment control and operating devices, such as pressure gauges, amp meters, volt meters, flow rate indicators, temperature gauges, CEMS, etc., shall be installed and operated properly and easily accessible to compliance inspectors. A copy of all manufacturers' operating instructions for pollution control equipment and pollution emitting equipment shall be kept on site. These instructions shall be available to all employees who operate the equipment and shall be made available to compliance inspectors upon their request.
15. The owner/operator shall comply with R307-1-3.5, UAC. This rule addresses emission inventory reporting requirements.
16. The owner/operator shall comply with R307-1-4.7, UAC. This rule addresses unavoidable breakdown reporting requirements. Any breakdown lasting longer than two hours shall be reported to the Executive Secretary within three hours of the breakdown if reasonable, but in no case longer than 18 hours after the beginning of the breakdown. During times other than normal office hours, breakdowns for any period longer than two hours shall be initially reported to the Environmental Health Emergency Response Coordinator. Within seven calendar days of the beginning of any breakdown lasting longer than two hours, a written report shall be submitted to the Executive Secretary. The owner/operator shall calculate/estimate the excess emissions (amount above AO limits) whenever a breakdown occurs. The total of excess emissions per calendar year shall be reported to the Executive Secretary with the inventory submittal, as directed by the Executive Secretary.
17. All records referenced in this AO, which are required to be kept by the owner/operator, shall be made available to the Executive Secretary or her representative upon request and shall include a period of two years ending with the date of the request. All records shall be kept for a period of two years (used oil records are to be kept for a period of three years). Examples of records to be kept at this source shall include the following as applicable:
 - A. Raw materials processed (Condition number 10)
 - B. Aluminum and steel recovered (Condition number 10)
 - C. Maintenance records (Condition number 14)
 - D. Emission inventory (Condition number 15)
 - E. Upset, breakdown episodes (Condition number 16)

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

The Executive Secretary shall be notified in writing if the company is sold or changes its name. The notification shall be submitted within 30 days of such action.

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 UAC R 307.

Annual emissions for this source (the ASP-31 Aluminum Recovery Facility) are currently calculated at the following values:

<u>Pollutant</u>	<u>Tons/yr</u>
PM ₁₀	0.31
SO ₂	5.20
NO _x	3.30
CO	49.90
VOC	0.36

These calculations are for the purposes of determining the applicability of prevention of significant deterioration and nonattainment area major source requirements of the UAC R307. They are not to be used for determining compliance.

Approved By:

Ursula K. Trueman
Ursula K. Trueman, Executive Secretary
Utah Air Quality Board
