

October 23, 2003

Mr. Jack Broadbent
Director, Air Management Division
United States Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105

ALAMEDA COUNTY
Roberta Cooper
Scott Haggerty
(Chairperson)
Nate Miley
Shelia Young

Dear Mr. Broadbent:

The requirements for public and EPA review of the following proposed significant revision to a Major Facility Review Permit have been completed:

CONTRA COSTA COUNTY
Mark DeSaulnier
Mark Ross
Gayle Uilkema
(Secretary)

Facility #	Facility Name	Application #
A0051	United Airlines S.F. Maintenance Center	1870

Comments were received from the facility and the USEPA.

MARIN COUNTY
Harold C. Brown, Jr.

The District received comments on behalf of the EPA from Gerardo Rios, Chief Air Permits Office, on May 29, 2003. The purpose of this letter is to respond to the comments made by Mr. Rios and to notify you of the District's decision to issue the Major Facility Review Permit for this facility.

NAPA COUNTY
Brad Wagenknecht

Response to Comments:

A summary of each of the comments received from the EPA is listed below, followed by a discussion of the comment, the District's position, and any changes that will be made to the permit as a result of the comment.

SAN FRANCISCO COUNTY
Willie Brown, Jr.
Chris Daly
Jake McGoldrick

SAN MATEO COUNTY
Jerry Hill
Marland Townsend
(Vice-Chairperson)

Comment #1: EPA recommends that the District add a condition to the Title V permit for the Miscellaneous Coating Paint Booths S-137 and S-149 that specifically prohibits the coating of critical parts and assemblies that are subject to the Aerospace NESHAP.

SANTA CLARA COUNTY
Liz Kniss
Julia Miller
Dena Mossar
(Vacant)

• Discussion:

The EPA concurs with the District assessment that the Aerospace NESHAP (40 CFR 63 Subpart GG) does not apply to the Miscellaneous Coating Paint Booths S-137 and S-149 because these booths are not used to coat parts and assemblies critical to aircraft structural integrity or flight performance. However, the EPA recommends that the District add a permit condition for these sources that specifically prohibits the use of these booths for such coating operations.

SOLANO COUNTY
John F. Silva

SONOMA COUNTY
Tim Smith
Pamela Torliatt

• District's Position:

The District is in agreement with the EPA's recommendation.

William C. Norton
EXECUTIVE OFFICER/APCO

- Changes to the Permit as a Result of Comment #1:
Permit Condition #20887 has been added for S-137 and S-149 as follows and Table IV – M has been updated accordingly:

For Sources: 137, 149 (Miscellaneous Coating Paint Booths)

The Miscellaneous Coating Paint Booths S-137 and S-149 shall not be used to coat parts and assemblies critical to aircraft structural integrity or flight performance. (basis: 40 CFR 63.741(f))

Comment #2(a): The basis of UAL's request to change the pressure drop range for A-48 and A-49 to 2-18 inches of water is not clear.

- Discussion:
The United Airlines SF Maintenance Center operates a chrome plating line consisting of (10) hard chrome-plating tanks (S# 16-25) and a chromic acid anodizing tank (S# 246). Emissions from these sources are captured at each source and vented through a common exhaust system to a dual scrubber abatement system designed to remove hexavalent chromium from the exhaust stream. As part of the chrome abatement process, exhaust gases from the scrubbers pass through the add-on control devices A-48 and A-49. These devices each consist of a Composite Mesh Pad followed by a Fiberbed Mist Eliminator.

The CARB Airborne Toxic Control Measure (ATCM) for Hexavalent Chromium Section 93102(e)(2) requires continuous pressure drop monitoring for add-on control devices and specifies that the pressure drop must be maintained within ± 1 inch of water of the value established during the complying performance test. United found that they were unable to maintain this pressure drop range at A-48 and A-49 without taking the costly measure of prematurely replacing the filters in the Fiberbed Mist Eliminators. Furthermore, the manufacturer of the filters (Koch–Otto York) stated that increasing pressure drop is normal for the Brownian Diffusion type filters in use at A-48 and A-49 and that the removal efficiency is not adversely affected by increases throughout the designed pressure drop range of 2-20 inches of water column.

United subsequently sought and was granted a Variance by the District's Hearing Board from the pressure drop requirements under District Docket #3416. In order to maintain future compliance, United applied to the District for a change of permit conditions to establish "Alternative Requirements" as allowed by ATCM Section 93102(k). United requested an alternate pressure drop range of 2-18 inches of water column in order to remain comfortably within the filter manufacturer's recommended range. This pressure drop range is compatible with the other components of the abatement system (e.g. fans, ducting, enclosures, etc.).

- District's Position:

The alternate pressure drop range chosen by United was based on the filter manufacturer's recommendation and the judgment of United's engineering and environmental staff. After

Response to Comments

USEPA

RE: United Airlines S.F. Maintenance Center

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considering United's findings and concluding that they are credible and supported factually, the District is in agreement that the proposed alternate pressure drop range is appropriate.

- Changes to the Permit as a Result of Comment #2(a):
None.

Comment #2(b): The permit evaluation does not state whether the filter manufacturer's recommended pressure drop range (and statement about efficiency) is based on actual emissions testing data.

- Discussion:

In making their case before the District's Hearing Board that a pressure drop range of ± 1 inch of water column was not appropriate for the filters used in the Fiberbed Mist Eliminators at A-48 and A-49, United entered into evidence a statement from Koch-Otto York that the filters had a designed pressure drop range of 2 – 20 inches of water and that they would not lose removal efficiency as the pressure drop increased. No actual emissions test data for the filters was available from the manufacturer because the filters are of a custom design.

- District's Position:

Based on the design principal of the Brownian Diffusion filters and statements from the manufacturer, the District is reasonably satisfied that increasing pressure drop across the Fiberbed Mist Eliminator filters at A-48 and A-49 will not adversely affect the hexavalent chromium collection efficiency. However, in order to demonstrate compliance, the District has proposed adding a bi-annual source test requirement.

- Changes to the Permit as a Result of Comment #2(b):
None.

Comment #2(c): The EPA recommends that the District add a permit condition requiring UAL to conduct compliance testing of the control devices during representative operations and to retest sooner than once every two years should the control devices begin to operate outside the previously tested pressure drop ranges.

- Discussion:

Permit Condition #6465, part 9 in the proposed Title V permit requires that District approved source testing of both scrubber systems be conducted on a bi-annual basis and that testing be

approved by the Source Test Section prior to each test. There is no provision requiring United to test more often than once every 24 months.

- District's Position:

District approved testing means that the methods and procedures used are in accordance with the District's Manual of Procedures (MOP). Volume IV, Section 1.2.2 of the MOP states: "The overriding factor for all source tests shall be that every reasonable effort must be made to obtain samples that are truly representative of the source being tested for that given set of precise variables. In all cases accepted engineering practice shall be followed for all test procedures." Therefore, the District does not agree that a permit condition requiring testing during "representative operations" is necessary.

A bi-annual source test was added as an alternative requirement to the ± 1 inch of water pressure drop range requirement from the ATCM for Hexavalent Chromium Section 93102(e)(2) because it was determined that for United's add on control system, a narrow pressure drop range was not an important factor in controlling emissions. In a letter dated January 17, 2003 from Scott Ecklund of Koch-Otto York to David Weintraub of United, Mr. Ecklund states: "With regard to the collection efficiency of the fiberbeds as the pressure increases towards its rated maximum, the mist elimination system at your site is designed to maintain the stated efficiencies throughout the entire pressure range." The District has accepted this statement in approving Alternative Requirements under Permit Application #6913. Therefore, since the District does not believe that increased pressure drop at A-48 and A-49 will adversely affect the emissions of hexavalent chromium from the system, there is no reason to tie source testing frequency to the pressure drop across the Fiberbed Mist Eliminators.

- Changes to the Permit as a Result of Comment #2(c):

None.

The District has made a decision to issue the Major Facility Review Permit.

Enclosed for your information are copies of the final permit, the facility's comments, and the transmittal letter to the facility. If you have any questions regarding this project, please call Steve A Hill, Manager, Permit Evaluation, at (415) 749-4673.

Sincerely yours,

William C. Norton
Executive Officer / APCO

CC: United Airlines
CARB

Enclosures
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