
Does subpart GG apply to maintenance and repair facilities?

Question: Is this facility applicable to the rule?

Facility XYZ is responsible for the maintenance and repair of commercial aircraft. They maintain three hangar bays on the flight line of a major international airport.

The facility does not engage in the manufacturer or rework of aircraft. Fully assembled, flight-worthy aircraft are purchased from an aerospace manufacturing company. When aircraft require major modification or overhaul (rework), the aircraft is taken to a private rework facility located outside the airport fenceline.

Maintenance activities performed at the airport include wipe cleaning, spray gun cleaning, flush cleaning, inorganic and organic painting and priming and depainting. The amount of solvent, paint and stripper used at the facility is minimal since operations are performed only on areas of the aircraft where a pre-flight inspection has found evidence of corrosion or where corrosion was found during the 60 day aircraft maintenance check. Although the surface area to be repaired varies, on an average, a 4-5' x 4-5' area of the aircraft is repaired. The facility has 70 aircraft which could undergo repair more than once before going into rework status.

Answer: Yes, this facility is subject to Subpart GG for the following reasons:

- although the EPA did not specifically define manufacturing and rework facilities, it was not EPA's intent to exempt routine painting operations performed in reworking (maintaining and repairing) aerospace vehicles or components (final rule BID, Page 4-30).
- aerospace facility is defined as any facility that produces, reworks, or repairs in any amount any commercial, civil, or military aerospace vehicle or component. "Rework" and "Repair" was intended to include routine maintenance.

Background Information

What the rule says: Final (Amended) Rule, February 10, 1998 [Red-line/Strike-Out version]

NESHAP title: "National Emission Standards for Aerospace Manufacturing and Rework Facilities"

63.741(a) [*applicability*] states "This subpart applies to facilities that are engaged, either in part or in whole, in the manufacture or rework of commercial, civil, or military aerospace vehicles or components and that are major sources as defined in 63.2."

63.741(c) [*applicability, affected sources*]. “. . . The activities subject to this subpart are limited to the manufacture or rework of aerospace vehicles or components are defined in this subpart. . .”

“aerospace facility means any facility that produces, reworks, or repairs in any amount any commercial, civil, or military aerospace vehicle or component”

“aerospace vehicle or component means any fabricated part, processed part, assembly of parts, or completed unit, with the exception of electronic components, of any aircraft including but not limited to airplanes, helicopters, missiles, rockets, and space vehicles.

Manufacture or rework is not defined.

What the proposed BID says: BID for proposed standard, Draft EIS, May 1993

1-1, Summary. “The proposed rule would limit organic HAP emissions from the following sources at aerospace facilities: cleaning operations, primer application operations, topcoat application operations, depainting operations, chemical milling maskant application operations, and the handling and storage of waste.”

What the final BID says: BID for promulgated standard, July 1995

Please see the entire BID documents for more details. The information below provides excerpts only.

Chapter 3

Section 3.1, Clarification of Applicability

Page 3-4/3-5, Response: The EPA believes that a manufacturer is aware of the ultimate application of the parts it produces. Under the Aerospace NESHAP, any cleaning, application of primer, topcoat, or chemical milling maskant, or depainting associated with aerospace vehicles or components must satisfy the requirements of this rule.

Page 3-3, Comment: Commenter IV-D-35 stated that they would incur significant costs if the EPA subjects non-major aerospace activities to the proposed rule. The commenter pointed out that they conduct operations that involve aircraft at hundreds of locations throughout the country and that their activities often involve some form of aerospace work that would be covered in the NESHAP. According to the commenter, extending the proposed rule to these low HAP-emitting activities would be tremendously expensive with minimal benefit to the environment, as these activities involve low volumes of work.

Page 3-3/3-4, Comment: Two commenters (IV-D-27, IV-D-29) were concerned that the universe of activities and sources subject to the requirements of the Aerospace NESHAP is not precisely defined. The commenters believe that without precision and clarity as to which sources and activities are, and are not, covered by the rule, neither potentially affected facilities nor the EPA

itself will be able to determine whether or not specific activities are subject to regulation.

Page 3-5, Response: The EPA's comment in the proposal preamble was not intended to indicate that the Agency's estimate of facilities represented all facilities involved in aerospace work. At 59 FR29217 (column 2), it was stated that, "for the purposes of the proposed rule, aerospace industries refers to all facilities that manufacture ...and ...that rework ...aerospace vehicles or components." Thus, the commenter appears to have been confused by the distinction between the portion of the industry that was analyzed and the regulatory coverage of the proposed rule.

Page 3-5, Comment: Commenter IV-D-5 stated that if the statement is correct that the proposed rule "refers to all facilities that manufacture aerospace vehicles or components and all facilities that rework (including repair) these aerospace vehicles or components," the proposed rule is seriously flawed in that the number of facilities is grossly underestimated. The commenter also claimed that the EPA does not have accurate information on the number of aerospace facilities if it intends to include the entire aerospace industry.

Page 3-6, Response: Since this change clarifies the intent of the rule, the final rule has been revised to incorporate the substance of this new language.

Page 3-6, Comment: Three commenters (IV-D-27, IV-D-29, IV-D-35) recommended similar alternative definitions of "affected source," one of which reads as follows:

"Affected Sources. The affected sources to which the provisions of this subpart apply are specified in §63.741 (c)(1) through (6). The activities subject to this subpart are limited to the manufacture or rework of aerospace vehicles or components as defined in this subpart. Section 63.741 (c)(1) through (6) are not applicable to non-aerospace activities."

Page 3-7, Response: As mentioned above, the applicability of the final rule is not structured in terms of SIC codes, but in terms of specific HAP-emitting activities performed in manufacturing aerospace vehicles and components.

Page 3-7, Comment: Commenter IV-D-28 believes that the extension of the aerospace MACT standard to operations outside the SIC codes for aerospace industries will result in the imposition of inappropriate requirements on too broad a segment of the manufacturing sector. The commenter pointed out that this is particularly true for facilities involved in the manufacture, rework, reconditioning, or repair of aircraft transparencies.

Chapter 4

Section 4.32.6, Maintenance Painting

***Page 4-30, Response:* It was not the EPA's intent in these standards to exempt routine painting operations performed in reworking (maintaining and repairing) aerospace vehicles or components. Therefore, this definition has not been added to the final rule.**

Page 4-29/4-30, Comment: Commenter IV-D-35 recommended that the following definition for "maintenance painting" be added to the rule:

"Maintenance painting means painting operations after non-destructive inspection (NDI), corrosion rework, composite replacement, metal panel replacement, aerospace vehicle modification, panel access, or other maintenance activities to insure aircraft structural integrity."

The commenter proposed that the above definition is necessary since maintenance painting should be exempt from the rule.

Chapter 6

Section 6.9, Touch-up and Repair Application Operations

Page 6-34/6-35, Response: The EPA believes that the commenters' recommendations with respect to "maintenance painting" are too broadly defined and would encompass many of the activities the EPA intends to regulate. . . Therefore, the EPA will not add the recommended definition to the rule or exempt maintenance painting from the rule . . . The EPA has revised the definition as follows:

"Touch-up and repair operation means that portion of the coating operation that is the incidental application of coating used to cover minor imperfections in the coating finish or to achieve complete coverage. This definition includes out-of-sequence coating."

The EPA has added **out-of-sequence** coating to the definition to allow facilities to use any type of application method for this type of operation. This addition does not, however, allow the facility to freely use the touch-up and repair operation exemption to recoat an entire aircraft on the flightline without using controls. The exemption was incorporated in the rule to allow facilities to apply coating to small areas (4 ft² in the proposal) of the aircraft without being constrained to a particular type of application method. The EPA understands that 4 ft² is not adequate for some of the larger aircraft and will allow the permitting authority to determine what constitutes a touch-up and repair operation."

Page 6-30/6-31/6-32, Comment: Commenter IV-D-35 stated that overhaul and repair operations are called "maintenance painting" and are inappropriately given the same MACT standards as full aircraft primer and topcoat applications. The commenter stated that maintenance painting means painting operations after non-destructive inspection (NDI), corrosion rework, composite replacement, metal panel replacement, aircraft modification, panel access, or other maintenance activities to insure aircraft structural integrity. The commenter pointed out that the proposed rule does not recognize or distinguish this type of painting.

The commenter suggested that maintenance painting is an important maintenance tool for ensuring

both airworthiness and operational readiness of aerospace vehicles. Commenter IV-D-37 pointed out that Airworthiness Directives ("AD's") issued by the Federal Aviation Administration may mandate, for purposes of aviation safety, that aircraft components or systems be inspected, replaced, or repaired on a time-critical basis. . . The commenter concurred with AIA's recommendation that an exclusion for permissible maintenance painting limited to 10 percent of the exterior surface of an aerospace vehicle per year would constitute a reasonable and adequate control mechanism.

. . . Since maintenance painting operations were not analyzed during the development of the proposed NESHAP, there is no basis for establishing a MACT floor, other than no control.

The commenter stated that touch-up and repair painting supports aircraft aesthetic repairs and coating system longevity on the outer mold line of the aircraft, while maintenance painting supports aircraft structural integrity during aircraft overhaul and repair operations.

According to commenter IV-D-35, touch-up and repair painting can potentially be accomplished in a paint hangar or booth with emission controls (the aircraft is mobile); however, most locations where aircraft are stationed do not have a paint hangar (80 percent estimate for DoD), and touch-up and repair painting is typically "out of cycle" or non-scheduled painting. The commenter claimed that because emission controlled hangars have low availability (fully scheduled), it is difficult to schedule out-of-cycle touch-up and repair operations. Therefore, the commenter pointed out that touch-up and repair is usually accomplished in facilities without emission controls.