



## U.S. Environmental Protection Agency Applicability Determination Index

**Control Number: 9700056**

**Category:** NSPS  
**EPA Office:** Region 4  
**Date:** 10/20/1994  
**Title:** Reconstruction Determination-GMI  
**Recipient:** Klimek, Alan  
**Author:** Harper, Jewell

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**Subparts:** Part 60, A, General Provisions  
Part 60, Dc, Small Indust.-Comm.-Inst. Steam Gen. Units

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**References:** 60.15

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**Abstract:**

Q. Is a particular boiler subject to Subpart Dc due to reconstruction?

A. Yes. The cost to repair the boiler exceeds 50 percent of the cost to build a comparable new facility so the repair does constitute a reconstruction unless it is technologically or economically infeasible to comply with Subpart Dc. When only the appropriate costs are considered, it is economically feasible for the boiler to comply so the repair and relocation of the boiler is a reconstruction.

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**Letter:**

Mr. Alan Klimek, Chief  
Air Quality Section  
North Carolina Department of Environment, Health, and Natural Resources Division of  
Environmental Management P.O. Box 27687 Raleigh, North Carolina 27611-7687

SUBJ: Reconstruction Determination for Boiler No. 6 at the Guilford Mills, Inc. (GWI)  
Maurice Fishman Plant, Greensboro, North Carolina.

Dear Mr. Klimek:

The purpose of this letter is to provide you with a determination regarding the applicability of 40 C.F.R. Part 60, Subpart Dc (Standards of Performance for Industrial-Commercial Institutional-Steam Generating Units) to the referenced boiler which has a heat-input capacity of 70 million BTU/hour. On September 9, 1994, your agency sent GMI a letter indicating that Boiler No. 6 is subject to Subpart Dc because the boiler had been reconstructed. In a letter dated September 20, 1994, GMI requested that the U.S. Environmental Protection Agency (EPA) Region IV also comment on the applicability of Subpart Dc to Boiler No. 6. After reviewing the information provided by GMI Region IV concurs with your previous conclusion, and our determination is being provided to you because your agency received delegation to implement Subpart Dc.

According to 40 C.F.R. 60.15, the repair or replacement of parts in an existing facility constitutes reconstruction if the cost for the repair or replacement is more than 50 percent of the cost to build a comparable new facility and it is technologically and economically feasible for the facility to comply with the applicable standard. If an existing facility is reconstructed, it becomes subject to New Source Performance Standards (NSPS).

Based upon information provided by GMI, there appears to be no question that the cost to repair Boiler No. 6 exceeds 50 percent of the cost to build a new boiler. According to the company, the fixed capital cost to repair Boiler No. 6 in conjunction with its relocation from another facility is \$191,000, and the cost for an identical new boiler would be \$242,500. Since the cost to repair Boiler No. 6 is approximately 79 percent of the cost to buy a new boiler, the repairs constitute reconstruction unless it is technologically or economically infeasible to comply with Subpart Dc.

GMI supplied information in an attempt to demonstrate that it would be economically infeasible for them to comply with the S02 limits in Subpart Dc. After reviewing this information, however, it has been determined that the demonstration includes some costs that cannot be included when calculating the economic feasibility of complying with Subpart Dc. When the appropriate costs were used to evaluate the cost of controlling S02 emissions from Boiler No. 6, it was determined that it will be economically feasible for the boiler to comply with Subpart Dc. Therefore, the repairs made in conjunction with the relocation of Boiler No. 6 to the Maurice Fishman Plant constitute reconstruction.

In its attempt to demonstrate the economic infeasibility of complying with Subpart Dc, GMI cited the following costs:

1. The cost differential between 2.1 percent sulfur fuel oil and the 0.5 percent sulfur oil that must be burned in order to comply with Subpart Db,
2. The additional cost the company will incur since it only has one fuel storage tank and will have to burn 0.5 percent sulfur oil in five existing boilers at the Maurice Fishman plant, and
3. The additional cost the company will incur since the cost of their primary fuel (natural gas) is tied to the cost of the oil that they burn.

After reviewing the three sources of increased cost cited by GMI in their demonstration, it has been determined that all three items were considered by EPA during the development of Subpart Dc, and after taking these costs into account, EPA determined that the cost of complying with the S02 limits in Subpart Dc would be reasonable for companies that burn fuel oil. Enclosed are the following documents related to the consideration of these cost issues:

1. Pages from the Federal Register notice for the proposal of Subpart Dc (54 FR 24792, June 9, 1989) indicate that the cost of switching from high sulfur to low sulfur oil is in the range of \$1300 to \$1500 per ton of S02 emission rate reductions. Please see the first full paragraph on page 24810 for details. This cost is below the threshold of approximately \$3000 per ton that has generally been considered reasonable for other NSPS rules.
2. The issue related to the need to burn low sulfur oil in existing boilers due to the lack of separate fuel storage tanks is addressed on page 2-131 from the background information document (BID) for promulgation of Subpart Dc (EPA-450/3-90-016). According to the response in the BID, the cost of separate fuel storage capacity for new boilers at existing plants was included in the calculation of compliance costs and was determined to be reasonable.
3. The issue involving the relationship between natural gas and fuel oil costs is addressed on pages 2-75 and 2-76 of the BID for promulgation of Subpart Dc. According to the response to comments on this issue, the effect of fuel oil prices on natural gas costs was not considered to be a part of the cost of compliance with Subpart Dc because EPA determined that in addition to fuel oil prices, the cost of natural gas is influenced by several other factors. Among the other factors cited in the BID were marketplace competition between fuels, international trade regulations, and foreign price controls.

During the rulemaking process for Subpart Dc, EPA considered all of the economic issues raised by GMI and determined that the cost for complying with the S02 limits for small boilers is reasonable. Therefore, a source-specific calculation of cost-effectiveness would not be specifically required for Boiler No. 6. Based upon calculations performed by your agency and reviewed by EPA, however, it was determined that the total and incremental cost-effectiveness for S02 compliance on Boiler No. 6 are \$611 per ton and \$439 per ton, respectively. Both of these values are well below the threshold that EPA generally considers reasonable .

In summary, the repairs to Boiler No. 6 at the Maurice Fishman plant constitute reconstruction because the cost of the repairs exceed 50 percent of the cost of a new boiler, and it is economically feasible for the company to comply with the applicable S02 standard. Therefore, Boiler No. 6 is subject to NSPS Subpart Dc.

If you have any questions about the determination provided in this letter, please contact Mr. David McNeal of y staff at 404/347-3555, voice mail box 4158.

Sincerely yours,

Jewell A. Harper  
Chief  
Air Enforcement Branch  
Air, Pesticides and Toxics Management Division

Enclosures