ENVIRONMENTAL PROTECTION AGENCY

[FRL–5710–5]

Agency Information Collection Activities Under OMB Review

Polychlorinated Biphenyls (PCBs): Manufacturing, Processing and Distribution in Commerce Exemptions

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of submission to OMB.

SUMMARY: In compliance with the Paperwork Reduction Act (44 U.S.C. 3501 et seq.), this notice announces that the Information Collection Request (ICR) entitled: Polychlorinated Biphenyls (PCBs): Manufacturing, Processing and Distribution in Commerce Exemptions [EPA ICR No. 0857.07; OMB Control No. 2070–0021] has been forwarded to the Office of Management and Budget (OMB) for review and approval pursuant to the OMB procedures in 5 CFR 1320.12. The ICR, which is abstracted below, describes the nature of the information collection and its estimated cost and burden.

The Agency is requesting that OMB renew for 3 years the existing approval for this ICR, which is scheduled to expire on May 31, 1997. A Federal Register notice announcing the Agency's intent to seek the renewal of this ICR and the 60 day public comment opportunity, requesting comments on the request and the contents of the ICR, was issued on September 12, 1996 (61 FR 48152). EPA did not receive any comments on this ICR during the comment period.

DATES: Additional comments may be submitted on or before April 14, 1997.

FOR FURTHER INFORMATION OR A COPY CONTACT: Sandy Farmer at EPA, (202) 260–2740, and refer to EPA ICR No. 0857.07 and OMB Control No. 2070–0021.

ADDRESSES: Send comments, referencing EPA ICR No. 0857.07 and OMB Control No. 2070–0021, to the following addresses:

Ms. Sandy Farmer, U.S. Environmental Protection Agency, Information Management Division (Mailcode: 2137) 401 M Street, SW., Washington, DC 20460

And to:

Office of Information and Regulatory Affairs, Office of Management and Budget (OMB) Attention: Desk Officer for EPA, 725 17th Street, NW., Washington, DC 20503.

SUPPLEMENTARY INFORMATION:

Review Requested: This is a request to renew a currently approved information collection pursuant to 5 CFR 1320.12.

ICR Numbers: EPA ICR No. 0857.07; OMB Control No. 2070–0021.

Current Expiration Date: Current OMB approval expires on May 31, 1997.

Title: Polychlorinated Biphenyls (PCBs): Manufacturing, Processing and Distribution in Commerce Exemptions.

Abstract: Section 6(e)(3)(A) of the Toxic Substances Control Act (TSCA) prohibits the manufacture, processing and distribution in commerce of PCBs. TSCA section 6(e)(3)(B) provides that any person may petition the EPA for an exemption from these prohibitions and that the EPA may grant such an exemption for a one-year period if (1) an unreasonable risk of injury to health or environment would not result, and (2) good-faith efforts have been made to develop a substitute chemical substance for PCBs that does not present an unreasonable risk of injury to health or the environment.

Interim Procedural Rules at 40 CFR Part 750 Subparts B and C outline the procedures for filing exemption petitions, the procedures that EPA will follow when a petition is submitted and the procedures for filing a request to renew an exemption previously granted. Under these rules, EPA may request information from each petitioner to determine whether the petitioner meets the statutory requirements to qualify for an exemption.

Responses to the collection of information are mandatory (see 40 CFR part 750). Respondents may claim all or part of a notice confidential. EPA will disclose information that is covered by a claim of confidentiality only to the extent permitted by, and in accordance with, the procedures in TSCA section 14 and 40 CFR part 2.

Burden Statement: The annual public reporting burden for this collection of information is estimated to average approximately two to eight hours per response for three respondents. These estimates include the time needed to review instructions; develop, acquire, install and utilize technology and systems for the purposes of collecting, validating and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information. No person is required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are displayed in 40 CFR Part 9.

Respondents/Affected Entities: Entities potentially affected by this action are those persons who petition the Environmental Protection Agency for exemptions from the prohibition on the manufacture, processing and distribution in commerce of PCBs.

Estimated No. of Respondents: 3.

Estimated Total Annual Burden on Respondents: 18 hours.

Frequency of Collection: Annually.

Changes in Burden Estimates: There is a decrease of 37 hours in the total estimated respondent burden as compared with that identified in the information collection request most recently approved by OMB, from 55 hours currently to an estimated 18 hours. This reflects the fact that new procedures that EPA has or plans to put in place with respect to the regulation of PCBs will reduce the number of exemption petitions that respondents need to file, and will eliminate the need to file renewal requests for exemptions previously granted. This, in turn, will reduce the burden associated with this information collection.

According to the procedures prescribed in 5 CFR 1320.12, EPA has submitted this ICR to OMB for review and approval. Any comments related to the renewal of this ICR should be submitted as described above.

Dated: March 10, 1997.

Joseph Retzer,

Director, Regulatory Information Division.

[FR Doc. 97–6507 Filed 3–13–97; 8:45 am]

BILLING CODE 6560–50–P

[FRL–5710–3]

Retrofit/Rebuild Requirements for 1993 and Earlier Model Year Urban Buses; Approval of a Notification of Intent To Certify Equipment

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of agency approval of an application for equipment certification.

SUMMARY: The Agency received an application dated March 22, 1996 from the Engelhard Corporation (Engelhard) with principle place of business at 101 Wood Avenue, Iselin, New Jersey for certification of urban bus retrofit/rebuild equipment pursuant to 40 CFR 85.1404–85.1415. The equipment is applicable to Detroit Diesel

Corporation's (DDC's) petroleum-fueled 6V92TA model engines having mechanical unit injectors (MUI) that were originally manufactured between January 1979 and December 1989. On May 6, 1996 EPA published a notice in the Federal Register that the notification had been received and made the notification available for public review and comment for a period of 45 days (61 FR 20249). EPA has completed its review and the Director of the Engine Programs and Compliance Division has determined that it meets all the requirements for certification. Accordingly, EPA certifies this equipment effective March 14, 1997.

The certified equipment complies with the 0.10 gram per brake horsepower-hour (g/bhp-hr) particulate matter (PM) standard for the engines for which it is certified (see below). In addition, the equipment will be offered to all parties for $7,940 or less (in 1992 dollars) incremental to the cost of a standard rebuild. The certification of this equipment triggers requirements for transit operators utilizing compliance Program 1 (excluding engines originally manufactured as meeting California emissions standards) that have engines in their fleet covered by this certification.

DATES: The effective date of certification is March 14, 1997.

ADDRESSES: The Engelhard application, as well as other materials specifically relevant to it, are contained in Public Docket A–93–42, Category VIII–A, entitled ''Certification of Urban Bus Retrofit/Rebuild Equipment''. Docket items may be inspected from 8:00 a.m. until 5:30 p.m., Monday through Friday. As provided in 40 CFR Part 2, a reasonable fee may be charged by the Agency for copying docket materials.

FOR FURTHER INFORMATION CONTACT: Tom Stricker, Engine Programs and Compliance Division (6403J), U.S. Environmental Protection Agency, 401 M St. SW, Washington, D.C. 20460. Telephone: (202) 233–9322.

SUPPLEMENTARY INFORMATION:

I. Background and Equipment Identification

By a notification of intent to certify signed March 22, 1996, Engelhard Corporation (Engelhard) applied for certification of equipment applicable to Detroit Diesel Corporation's (DDC) 6V92TA model urban bus engines having mechanical unit injectors (MUI) that were originally manufactured between model years 1979 and 1993. Today's certification, however, applies only to 6V92TA MUI engines originally manufactured between model years 1979 and 1989, because DDC ceased production of the 6V92TA MUI after model year 1989. The certified equipment, referred to as the ETX kit, consists of an engine ''upgrade'' kit, a CMX–5 catalytic converter-muffler, and a proprietary coating, referred to as GPX–5m, applied to the piston crowns and cylinder head combustion chambers. The engine upgrade portion of the kit consists of specified DDC cylinder kits, cylinder heads, camshafts, turbocharger, blower, blower drive gear (hardened or non-hardened, as appropriate), fuel injectors, and gasket kit. The specific combination of parts to be used depends upon the direction of engine rotation, orientation of the engine (tilt), and engine power level. Injector height and throttle delay must be set to 1.460 inches and 0.636 inches respectively for each of the three certified horsepower (HP) configurations (253 HP, 277 HP, and 294 HP).

Using engine dynamometer testing conducted on January 26, 1996 in accordance with the Federal Test Procedure (FTP) for heavy-duty diesel engines, Engelhard documented in its March 22, 1996 notification, PM emissions below the 0.10 g/bhp-hr level. Engine throttle delay and fuel injector height settings for the ETX certification test were set to 1.466 inches and 0.594 inches respectively in order to comply with FTP cycle statistics requirements. Baseline exhaust emissions data were developed by testing an engine rebuilt to a 1979 urban bus configuration. This testing occurred on April 4, 1994. This set of baseline and ETX test data, is hereafter referred to as the ''original'' baseline and ETX certification tests, and are shown in Table A.

TABLE A.—''ORIGINAL'' BASELINE AND ETX CERTIFICATION DATA

ETX kit including coated exhaust manifolds, turbocharger Y-pipe, cylinder heads, and piston crowns, and throttle delay of 1.466 inches and injector height of 0.594 inches	''Original'' baseline 1979 model year	''Original'' ETX certification test	1988/89 federal standard
Gaseous and particulate emissions (g/bhp-hr):			
HC	0.5	0.2	1.3
CO	1.5	0.4	15.5
NO_X	10.3	10.1	10.7
PM	0.213	0.08	0.6
Smoke emissions (% opacity):			
Accel	NA	0.9	20
Lug	NA	0.6	15
Peak	NA	1.3	50

In response to comments from the public (discussed in detail below), Engelhard removed the coated exhaust components from the ETX kit, and respecified the throttle delay and injector height specifications to 1.460 inches and 0.636 inches respectively. Additional FTP testing of the ETX kit was conducted on September 27, 1996, again documenting PM emissions below the 0.10 g/bhp-hr level, while complying with FTP statistical requirements. Additional baseline data were developed on October 7, 1996 by testing an engine rebuilt to a 1986 urban bus configuration. This set of baseline and ETX test data, submitted to EPA in letters of October 21, 1996 and October 2, 1996 respectively, is hereafter referred to as the ''secondary'' baseline and ETX certification tests, and are shown in Table B.

TABLE B.—''SECONDARY'' BASELINE AND ETX CERTIFICATION DATA

ETX kit including only coated cylinder heads and piston crowns, and throttle delay of 1.460 inches and injector height of 0.636 inches.[1]	''Secondary'' baseline 1979 model year	''Secondary'' ETX certification test	1988/89 federal standard
Gaseous and particulate emissions (g/bhp-hr):			
HC	0.5	0.2	1.3

TABLE B.—''SECONDARY'' BASELINE AND ETX CERTIFICATION DATA—Continued

ETX kit including only coated cylinder heads and piston crowns, and throttle delay of 1.460 inches and injector height of 0.636 inches.[1]	''Secondary'' baseline 1979 model year	''Secondary'' ETX certification test	1988/89 federal standard
CO	1.4	0.5	15.5
NO_X	11.4	10.5	10.7
PM	0.194	0.083	0.6
Smoke emissions (% opacity):			
Accel	NA	1.4	20
Lug	NA	1.4	15
Peak	NA	1.9	50

[1] These are the injector height and throttle delay settings approved as part of today's certification.

Both sets of emissions test data provided by Engelhard demonstrate PM emission levels are below 0.10 g/bhp-hr. However, the ''secondary'' data represent the ETX equipment configuration upon which today's certification is granted. The data indicate that applicable engines with the certified equipment installed comply with the federal 1988 model year emission standards for hydrocarbon (HC), carbon monoxide (CO), oxides of nitrogen (NO_X), and smoke emissions.

Engelhard's March 22, 1996 notification of intent to certify requests certification for DDC 6V92TA MUI engines originally certified as meeting both federal and California emissions standards. However, as described in more detail in the Summary and Analysis of Comments section below, today's certification is limited to 1979 through 1989 DDC 6V92TA MUI engines originally certified as meeting federal emissions standards. Today's certification does not extend certification of equipment to engines originally certified as meeting California emissions standards. The impact of this decision on transit operators is discussed in more detail in the Transit Operator Requirements section below.

Additionally, EPA approves several supply options proposed by Engelhard for transit operators to obtain this certified equipment. Transit operators must purchase the CMX–5 and the GPX–5m coated components of the ETX kit from Engelhard or its distributors. However, in order to provide as much flexibility to transit operators as possible while ensuring emissions reductions, EPA has approved several options for obtaining the remainder of the components of the kit. For the first supply option, transit operators purchase the entire ETX kit from Engelhard or its distributors. This supply option must be available to any and all transit operators, and is the option upon which life cycle costs have been determined, and upon which the 0.10 g/bhp-hr standard is triggered. The second and third options, described below, may be available at Engelhard's discretion. Transit operators who choose either of the options below, do so voluntarily, and EPA makes no representation concerning the impacts of either on life cycle costs.

For the second supply option, transit operators purchase the specified DDC upgrade parts (excluding the coated cylinder heads and piston kits, which must be obtained from Engelhard) through normal supply channels. Engelhard will provide the appropriate DDC parts list to the transit operator upon purchase of the CMX–5 and coated engine parts. ''Equivalent'' aftermarket parts are not permitted under this certification, because EPA has no assurance that such parts can achieve the 0.10 g/bhp-hr PM standard. Engelhard provides the applicable 100,000 mile defect warranty and 150,000 mile emissions performance warranty for all parts included in the kit, whether purchased from Engelhard, or through normal supply channels. Manufacturers of ''equivalent'' aftermarket parts may choose to certify their parts for use in the ETX kit in a separate proceeding subject to testing and certain warranty concerns.

For the third supply option, the transit operator obtains most parts in the same manner described in the second option above, but rebuilds or remanufactures in-house the camshafts, blower, and/or turbocharger. Transit operators can perform in-house rebuilding of these three components provided the transit operator meets the requirements of the ''Engelhard Certified Remanufacturer Program'', and the camshafts, blower, and/or turbocharger are rebuilt to the specified DDC configuration.

The Engelhard Certified Remanufacturer Program, to be administered by Engelhard, is covered by today's certification as it relates to the third supply option. For transit operators who choose to rebuild the camshafts, blower, and/or turbocharger in-house, the Certified Remanufacturer Program requires the transit operator to possess a minimum of five years remanufacturing experience. In addition, Engelhard will perform an initial inspection of the remanufacturing operation to assess facility capabilities, and will conduct a complete review of the quality control procedures and component reject rate of the remanufacturing operation. Transit operators who perform adequately will be designated by Engelhard as ''probational'' remanufacturing sites. This facility will then be required to maintain records of all critical measurements of remanufactured camshafts, blowers, and/or turbochargers. These records will be inspected periodically by Engelhard. Upon completion of at least two Engelhard periodic reviews without any problems, the facility may be upgraded to an ''Engelhard Certified Remanufacturer''. This option provides EPA with reasonable assurance that the 0.10 g/bhp-hr PM standard will be achieved, while providing transit operators with reasonable sourcing flexibility.

Engelhard is required to provide a 100,000 mile defect warranty and 150,000 mile emissions performance warranty for the ETX kit and all of its components regardless of which of the three approved supply options is used. Furthermore, EPA has authority to conduct in-use testing of certified equipment to determine compliance with the requirements of the program.

As noted above, EPA is certifying option 2 and 3 to increase transit operator flexibility. The option 3 Engelhard Certified Remanufacturer Program is to be administered by Engelhard without further explicit involvement of EPA. As with any certification, if EPA determines that any supply option is not resulting in a certified engine configuration, then EPA has the authority pursuant to 40 CFR section 85.1413. Transit operator responsibilities are described in more

detail in Section IV of today's Federal Register notice.

The ETX equipment is certified to a PM emission level of 0.10 g/bhp-hr for all 1979 through 1989 DDC 6V92TA MUI urban bus engines using either diesel fuel #1 or #2 (excluding those originally certified as meeting California emissions standards). Table C lists the applicable engine models and certification levels associated with the certification announced in today's Federal Register.

TABLE C.—CERTIFICATION LEVELS

Engine models	Engine code	Certified PM level
1979–1989 Detroit diesel 6V92TA MUI.	all (excluding those originally certified as meeting California emissions standards)	0.10 (g/bhp-hr)

II. Summary and Analysis of Comments

Comments were received from nine parties in response to the Federal Register notice (61 FR 50549, May 6, 1996). Commenters include Detroit Diesel Corporation (an engine manufacturer), Johnson Matthey (an equipment manufacturer), and several transit properties including Milwaukee County Transit System (Milwaukee County), Long Beach Transit, New York City Transit (NY MTA), New Jersey Transit (NJ Transit), Kansas City Area Transportation Authority (KCATA), Connecticut Transit (CT Transit), and Dallas Area Rapid Transit (DART).

Comments generally fell into the following categories: kit applicability, maintenance, fuel economy, ability of the equipment to meet the 0.10 g/bhp-hr standard, backpressure, durability, toxic emissions, part sourcing, and supply options. Comments outside of these categories were also received, and are discussed separately below.

In general, transit fleets commenting on this equipment are concerned with fuel economy impacts, part sourcing, and equipment cost. DDC, as the original manufacturer of the engines to which this equipment is intended, noted it's desire to ensure that certification of this equipment would not negatively impact the reliability, durability, performance, or fuel economy of its engines, or in any way damage their product reputation or relationship with their customers. EPA appreciates the extensive comments provided by DDC, which are discussed in more detail below. JMI also provided extensive comments related to this equipment. Most significant are JMI's concerns that the technology of spray coating components is unproven, and that Engelhard's proposed supply options may present barriers to competition. JMI's complete comments are also discussed in detail below.

a. Ability of the Kit to Meet 0.10 g/bhp-hr

EPA received detailed comments from DDC regarding the ability of the ETX to meet the 0.10 g/bhp-hr PM standard. DDC performed Federal transient emissions testing of the ETX kit in various configurations. In addition, two transits, Long Beach and DART, raised question regarding the ability of the ETX to consistently achieve the 0.10 g/bhp-hr level to which Engelhard requests certification.

DDC performed testing on each of the three HP ratings described by Engelhard in its original notification. In addition, DDC performed testing to determine the relative PM reductions associated with catalyst alone versus the entire ETX kit. DDC was unable to demonstrate PM emissions at or below the 0.10 g/bhp-hr level on any of their tests, and suggested that additional verification of emission reductions be obtained prior to certification. In addition, DDC stated that it had experience with components using ceramic coatings, noting they have seen little, if any, benefits associated with the use of such coatings. DDC requested that EPA quantify the reductions associated with each facet of the ETX kit prior to certifying the equipment. The issues raised by DDC are discussed below.

Regarding DDC's comments on the ability of the ETX kit to achieve 0.10 g/bhp-hr, no explanation was provided by DDC for the difference in test results between it's testing and Engelhard's testing. DDC and Engelhard together reviewed test procedures, engine condition, parts condition, etc., and could not agree on why the test results differed.

However, subsequent additional review by Engelhard revealed differences that Engelhard believes could potentially impact emission results. As described in a September 12, 1996 letter to EPA, prior to performing it's original certification test, Engelhard performed a 100-hour break-in on the test engine to ensure proper and adequate seating of the piston rings and to stabilize emissions results. DDC, in it's testing of the ETX kit, performed only 25 hours of engine break-in. According to its July 18, 1996 comments, DDC believes that 25 hours is sufficient to stabilize emission results for these engines. Engelhard, however, pointed out that measured engine motoring losses at rated speed for the DDC testing was 280 Newton-meter (Nm), versus 250 Nm for the Engelhard testing, implying that the DDC test engine experienced more internal frictional loss compared to the Engelhard engine. Engelhard believes that the higher frictional loss measured by DDC resulted from insufficient break-in, and could explain the higher PM emissions measured by DDC.

In a November 22, 1996 letter to EPA, DDC explained that the 280 Nm motoring loss was from the DDC's testing of the 253 HP version of the ETX kit, whereas the 250 Nm obtained in Engelhard's testing was from the 294 HP version of the ETX kit. DDC states that when it tested the 294 HP version, the motoring loss was 274 Nm. DDC's published specification for running loss on the 294 HP version 6V92TA MUI is 268 Nm. DDC believes that the measured motoring loss (274 Nm) is not unusually high, but rather, Engelhard's measured loss is unusually low. DDC believes that use of SAE30W lubrication oil, rather than the DDC-specified SAE40W, may account for this difference.

Engelhard also noted that DDC performed testing at a measured exhaust backpressure of 11.9 kPa (3.5 inches Hg.) compared to 6.77 kPa (2.0″ Hg.) for Engelhard's January 26, 1996 test. General industry practice is to test engines at 80 percent of manufacturer's recommended maximum backpressure at rated speed. The test engine specification for maximum recommended backpressure is 2.4″ Hg., resulting in a backpressure setting for testing of 2.0″ Hg. DDC claims to have been unable to achieve the 2.0″ Hg. setting, stating the catalyst unit itself imposed a backpressure of 2.9″ Hg. In its November 22, 1996 letter to EPA, DDC noted a difference between the catalyst Engelhard used in its certification testing and the catalyst

Engelhard provided to DDC for their testing. DDC contends that Engelhard's certification testing was conducted with a simple flow-through catalyst, rather than a catalytic muffler, as utilized in DDC's testing. DDC believes that the backpressure of a catalytic muffler is greater than that of a simple flow-through catalyst, thus explaining DDC's inability to obtain the 2.0″ Hg. backpressure specification.

An October 17, 1996 conversation with Engelhard revealed that the catalyst utilized by Engelhard in its certification testing had to be modified, due to dynamometer interference, in order to be properly installed in the test cell. Such modification was not necessary for proper installation into DDC's test cell. Engelhard contends that the incremental backpressure associated with the muffler portion of the CMX–5 is minimal compared to the backpressure associated with the catalyst portion of the unit. Engelhard conducted additional hot-start FTP tests to demonstrate the impact of increased backpressure on the ability of the ETX kit to achieve the 0.10 g/bhp-hr standard. Two FTP transient FTP tests were conducted at 3.0″ Hg. and one at 4.5″ Hg. As discussed in a November 24, 1996 letter from Engelhard to EPA, in each case, PM results were below 0.10 g/bhp-hr, and were very close to Engelhard's original and secondary certification test results. Emissions of HC, CO and NO_X remained below Federal standards. Based on this additional testing, EPA believes that the catalyst configuration difference and potential difference in backpressure does not explain the difference in PM results obtained by Engelhard and DDC.

In a September 4, 1996 letter to EPA, Engelhard noted another difference between it's testing and DDC's is the fuel injectors. Engelhard's test engine used injectors which fall into the DDC-designated category of ''premium'' Reliabuilt injectors. Engelhard states that fuel flow variances among premium injectors are less variable than on non-premium Reliabuilt injectors. The injectors used by DDC, although consistent with the part number identified by Engelhard, did not fall into this same category. At the time of Engelhard's original ETX certification test of January 26, 1996, Engelhard was unaware that the fuel injectors used in their test engine were ''premium''. Only after attempting to resolve the testing differences with DDC did Engelhard become aware of this fact. Engelhard believes the more consistent fuel distribution associated with premium injectors could impact emissions, and could account for some or all of the difference in measured emissions between Engelhard and DDC. As a result, Engelhard has specified the use of premium matched fuel injectors to be used with the ETX kit. In telephone follow-up with DDC on December 6, 1996, DDC stated that premium Reliabuilt injectors contain more new parts, and fewer remanufactured or used parts, compared to non-premium Reliabuilt injectors. DDC believes the emissions performance of Reliabuilt premium injectors is equivalent to the emissions performance of non-premium injectors, but acknowledges that premium injectors may demonstrate superior in-use durability due to the higher percentage of new parts in the injector.

In spite of the differences noted by Engelhard between it's testing and DDC's testing, EPA believed that additional data were necessary in order to address the uncertainty raised by DDC's comments. To that end, EPA requested that Engelhard retest the ETX kit in the presence of an EPA test observer. This course of action is consistent with DDC's recommendation in its comments that EPA pursue ''additional verification'' of the ETX kit.

On September 27, 1996, Engelhard performed a secondary ETX certification test at SouthWest Research Institute, in San Antonio, TX.[1] The results of this testing indicate that the ETX kit can achieve the 0.10 g/bhp-hr PM level. The EPA observer found no testing or procedural violations. According to DDC, two days prior to EPA's visit, a DDC representative observed testing of the Engelhard equipment at the same facility, and likewise found no indication of testing concerns.

In addition to conducting the above-noted additional test in the presence of an EPA observer, Engelhard provided additional hot-start transient test data in its September 4, 1996 letter (both with and without coated exhaust components) that supports the consistent ability of the ETX kit to meet the 0.10 g/bhp-hr standard.

In summary, EPA believes that Engelhard has sufficiently demonstrated the ability of the ETX kit to achieve the 0.10 g/bhp-hr PM standard. Although there is no clear explanation for the difference in test results between Engelhard's testing and DDC's testing, EPA believes Engelhard has provided sufficient supplemental data which demonstrates the ability of the ETX kit to achieve the 0.10 g/bhp-hr PM standard. EPA retains authority to conduct in-use testing of certified equipment as described in 40 CFR Subpart O. In addition, equipment manufacturers must provide a 100,000 mile defect warranty, and a 150,000 mile emission performance warranty on certified equipment.

Regarding DDC's suggestion that Engelhard quantify the relative PM benefits associated with different aspects of the kit, EPA notes that no such requirement exists in the certification requirements of this program. EPA has in the past expressed its position that components that do not contribute to the ability of equipment to reduce emissions, or which are not reasonably necessary to provide the equipment manufacturer with adequate liability protection, will not be considered part of a certified equipment package. DDC comments that, based on it's past experience, the coatings used by Engelhard in this kit may not contribute to any PM reductions. However, DDC has not provided any evidence that coatings which DDC has evaluated are the same, or similar to, the GPX–5m coating of this equipment package. In fact, Engelhard provided EPA with a confidential description of the coating and it's application technique, that support Engelhard's claim that the coating composition has changed over time, and likely contributes to PM reduction. Without a clear indication that the current GPX–5m coating does not contribute to PM reduction, EPA believes it reasonable for Engelhard to include such coating as an emissions-related part of the ETX kit.

b. Equipment Durability

Several commenters raised questions with regard to the durability of the ETX kit, or its components, in actual use. NY MTA comments that operating experience with the ETX kit is limited, and questions the performance characteristics of the ETX kit on in-service buses. Long Beach commented that there is no information to substantiate that this equipment will effectively provide an average engine life of 300,000 miles after rebuild. KCTA stated that it has had an unfavorable experience with previous generation ceramic engine coatings. KCTA has used GPX coatings on three buses in the past. One bus is still in service (after 2½

[1] As discussed elsewhere in today's notice, in response to EPA and public comments, Engelhard had modified the ETX kit by removing coated exhaust components from the kit, and returning the injector height and throttle delay settings to their original specifications. The testing performed on September 27, 1996 served three purposes; 1) to address DDC's test data regarding the ability of the kit to achieve 0.10 g/bhp-hr; 2) to ensure that the 0.10 g/bhp-hr level could be achieved in spite of the removal of the coated exhaust components and resetting of injector height and throttle delay; and 3) to provide additional data to be used for determining the fuel economy impact of the ETX kit.

years of operation), a second bus lasted only 5 months, and a third lasted only 10 months. No details were provided by KCTA explaining the reason these buses were removed from service. KCTA recommends additional testing of ceramic coatings prior to certification. NJ Transit expressed concern that degradation of the proprietary spray coating could leave them open to non-compliance penalties should an engine equipped with the ETX kit fail to meet emissions standards in-use.

DDC provided several comments regarding durability. First, DDC states that new engine manufacturers are required to conduct durability testing for new engine certification. DDC acknowledges that the urban bus retrofit/rebuild regulations do not require such testing, but expressed concern whether emissions would remain below the standard throughout the life of the rebuild. In addition, DDC states that some oxidation catalyst formulations can suffer from poisoning through contact with exhaust gases, and states that no data have been presented which shows this particular catalyst formulation is resistant to poisoning. Finally, DDC comments that its experience with ceramic coatings indicates that they can become overlaid with combustion deposits, reducing their efficiency. However, DDC also states that they have no reason to believe that thermal barrier coatings do not retain their thermal insulating properties over time.

JMI also provided several comments regarding durability. First, JMI states that ceramic spray coatings are unproven technologies in diesel engines. JMI expressed concern that surface contaminants, such as oil, on both new and rebuilt parts may interfere with proper adhesion of the coating material to the coated engine part. In addition, JMI referenced a report prepared for the National Aeronautics and Space Administration (NASA) and U.S. Department of Energy (DOE) which concludes that ''(r)eliability and durability of thermal barrier coatings remain major issues''.

EPA appreciates that transit operators are concerned with the durability of this equipment, and subsequent additional costs or engine damage that potentially could result from premature equipment failure. EPA is also concerned, in general, with durability of equipment certified under this program because of the potential impacts on emissions. However, EPA notes that the urban bus retrofit/rebuild regulations do not require an in-service durability demonstration as a condition of certification, nor is certified equipment required to be durable for 300,000 miles. Rather, equipment certifiers, including Engelhard, are required pursuant to 40 CFR Section 85.1409 to provide a 100,000 mile equipment defect warranty and a 150,000 mile emissions performance warranty.

KCTA's limited experience with ceramic coated engine parts resulted unfavorably. Unfortunately, KCTA's comments do not correlate the early removal from service of the two KCTA buses with the use of previous generation ceramic coated engine components. Nonetheless, these comments raise a legitimate concern regarding durability—a concern also raised by DDC and JMI in their comments, which EPA addresses below.

Regarding catalyst poisoning raised by DDC, EPA has no reason to believe, nor did DDC provide a reason to suspect, that the catalyst formulation used in this kit will suffer from exhaust gas poisoning. Engelhard's previously certified CMX catalytic converter (60 FR 28402, May 31, 1995) has been in use in the retrofit/rebuild program for over a year, during which time which EPA has not become aware of any incidents of catalyst poisoning. The catalyst in the ETX kit is an improved version of the CMX. EPA will continue to monitor problems with this, or other, certified equipment, and encourages transit operators to provide any information regarding catalyst poisoning.

JMI bases its comments regarding the viability of spray coatings primarily on the conclusions reached in the NASA/DOE report prepared in 1991. However, EPA cannot rely on the JMI comments as a basis to deny certification because JMI has provided no information to suggest the coating technology analyzed in the NASA/DOE report is the same as, or similar to, the GPX–5m coating used in the ETX equipment package. In fact, Engelhard's confidential description of the ceramic coating and it's application technique provided to EPA, highlights differences between the coatings examined in the NASA/DOE study compared to the coating Engelhard has developed for the ETX kit. The NASA/DOE findings of 1991 indicate that, at that time, additional development of coatings may have been necessary to make coating technology viable in the diesel engine market place. According to the confidential information provided by Engelhard, the ceramic coating technology has developed compared to that examined in the NASA/DOE study.

EPA has previously certified an Engelhard equipment package utilizing GPX coatings (60 FR 47170, September 11, 1995). From the standpoint of physical durability of the coating, EPA is not aware of any premature wear or failure of this certified equipment. As mentioned previously, in response to concerns about the physical durability of the new GPX–5m coating, Engelhard provided EPA a detailed confidential description of the coating and its application technique. In addition, in a May 23, 1996 letter to EPA, Engelhard provided data from three in-use buses using previous generation GPX–4 coatings. Coating thickness measurements were made on piston crowns and cylinder head combustion chambers, and were found to be within nominal design specifications at an average of 123,000 miles. In addition, deposit formations on the combustion surfaces were nearly non-existent. Engelhard indicates that design advances in the current GPX–5m coatings are intended to further reduce deposit formation and increase coating durability beyond that of the GPX–4 coating.

EPA is concerned, in general, with equipment durability, and believes that certifiers will evaluate the durability of their equipment in order to minimize their liability resulting from the emissions performance warranty. However, program regulations do not require a durability demonstration. EPA believes the available information does not indicate a durability concern with the equipment certified in today's notice, and therefore, does not provide sufficient basis to deny certification on these grounds. EPA retains authority to conduct in-use testing of any certified equipment for compliance with the requirements of the program. In addition, equipment certifiers must provide a 100,000 mile defect warranty and a 150,000 mile emissions performance warranty on all certified equipment.

Lastly, regarding NJ Transit's concern for being subject to penalties if degraded coatings cause an engine to fail to meet its certified PM level, EPA notes that the equipment certifier is responsible for the emissions performance of the engine through the 150,000 mile emissions performance warranty period, if the transit properly installs and maintains equipment in accordance with the equipment manufacturer's instructions. The transit operator is responsible for proper installation and use of certified equipment, and is responsible for the emissions performance of equipment operated beyond the 150,000 miles emissions warranty period. Also, the retrofit/rebuild program does not obviate compliance with any state or local emission requirements, such as inspection/maintenance (I/M) or smoke testing programs.

c. Exhaust Backpressure

DDC provided comments related to the exhaust backpressure resulting from installation of the CMX–5 catalytic muffler, and its potential impact on engine performance and durability. DDC provided these comments in response to the proposed certification, and in a November 22, 1996 letter to EPA.

DDC notes that the maximum recommended exhaust backpressure for 6V92TA MUI engines generally ranges from 2.5″ Hg. to 3.5″ Hg. at full rated power, with the majority of engines having a backpressure specification between 3.0″ Hg. and 3.5″ Hg. DDC is concerned that the backpressure imposed by the CMX–5 catalyst may cause engines to exceed the maximum exhaust backpressure specification recommended by DDC. DDC references chassis dynamometer testing performed on several engines utilizing the original CMX version catalytic muffler produced by Engelhard and certified by EPA under this program. DDC comments that the chassis testing shows average backpressure at rated speed and full load of 5.3″ Hg. with the CMX installed, versus 3.3″ Hg. with the standard exhaust muffler installed. Finally, DDC expressed its opposition to the procedure recommended by Engelhard for determining whether the catalyst unit requires cleaning. Engelhard's instructions involve operating the engine in a rated speed, no load condition (high idle) and recording the pressure drop across the CMX–5 unit. This is the same procedure recommended by Engelhard for determining backpressure across the original CMX catalytic muffler, and was derived from DDC Service Information Bulletin 7–D–95. DDC, however, contends that this service procedure was only intended for a limited population of 6V92TA engines that were originally equipped with particulate traps. Pursuant to an agreement with EPA, these traps were removed and replaced with catalytic converter-mufflers because of severe durability concerns.

The chassis dynamometer data provided by DDC were generated on buses operated by a fleet located in the Northeast. The Agency's follow-up conversations with that fleet indicate that a venturi was improperly installed when measuring the backpressure, resulting in unusually high backpressure readings with the CMX installed. With the measurement conducted properly, exhaust backpressure was 3.2″ Hg., which is below the recommended maximum backpressure for those engines. Therefore, EPA does not believe that DDC's comments with respect to measured in-use backpressure are convincing.

EPA does not dispute that a catalytic muffler, in general, may increase the engine exhaust backpressure compared to a standard noise muffler. In fact, when the ''secondary'' ETX certification test was conducted, EPA requested a backpressure comparison between a standard muffler and the CMX–5. EPA selected the standard muffler, and Engelhard measured the incremental difference between the muffler and the CMX–5 at rated speed and full load. The test revealed a 0.6 inches Hg. difference in backpressure (2.0 inches Hg. with the muffler installed versus 2.6 inches Hg. with the CMX–5 installed). The previously-certified CMX has been in service for over a year, and EPA has not become aware of any problems relating to or resulting from increased backpressure. During a December 17, 1996 conversation, representatives of the Washington Metropolitan Area Transit Agency (WMATA) stated they have not seen any discernable difference in backpressure or fuel economy associated with use of Engelhard's previously certified CMX catalyst. In a December 2, 1996 letter to EPA, Engelhard provided data demonstrating that the backpressure resulting from the CMX–5 unit is equal to, or lower than, the backpressure resulting from the certified CMX over a wide range of exhaust flow rates. Finally, DDC has provided no explanation of the difference, in terms of susceptibility to backpressure impacts, between the engines for which Service Information Bulletin 7–D–95 was intended, and those which are covered by this, and other, retrofit certifications utilizing catalytic mufflers.

Any future information provided by interested parties regarding the impacts of certified equipment on exhaust backpressure would be taken under consideration. EPA appreciates that there may room for improvement in maintenance procedures of equipment certified under this program. Such concerns, in general, can also occur with procedures relating to new engines. EPA encourages all equipment certifiers to issue revised check procedures when appropriate. If Engelhard determines that another check is appropriate, or if EPA becomes aware that backpressure is exceeding manufacturer limits on in-use buses, then Engelhard should revise such procedures. Pursuant to 40 CFR Section 85.1413, EPA has authority to decertify equipment that does not comply with the requirements of the regulations.

d. Supply Options

As originally proposed in an addendum dated March 25, 1996, three supply options would be available at Engelhard's discretion. Under proposed option 1, Engelhard would supply all components of the kit (GPX coated parts, CMX–5 converter muffler and all new and rebuilt parts specified in Attachment 1 of the notification of intent to certify) to the transit operator. Under option 2, Engelhard would supply the GPX coated components (exhaust manifolds, turbocharger Y-pipes, cylinder kits, and cylinder heads) and the CMX–5 converter muffler. The other engine components (fuel injectors, camshafts, air inlet hose, blower, blower drive gear, blower bypass valve, turbocharger, turbocharger Y-pipe, exhaust manifolds, and gasket kit) would be purchased separately or supplied separately as long as such parts were Engelhard OEM specified components or their equivalent. Under option 3, Engelhard would provide the GPX coated parts described in option 2 above, as well as the CMX–5 converter muffler, and the new engine parts listed in Attachment 1 of the notification of intent to certify (gasket kit, cylinder kits, air inlet hose, and blower bypass valve). The remanufactured parts required to complete the kit (fuel injectors, camshafts, blower, blower drive gear, turbocharger, exhaust manifolds, and turbocharger Y-pipe) would be rebuilt in-house by the transit operator if the transit operator was deemed an ''Engelhard Certified Remanufacturer''. To obtain this status, transit operators or third parties would be required to undergo training from Engelhard, and be certified by Engelhard as capable of remanufacturing components within required tolerances. In addition, transit operators would be required to maintain records to demonstrate continued ability to meet these requirements.

With regard to option 2 proposed by Engelhard, DDC commented that allowing the use of ''equivalent'' parts is not appropriate. DDC, as the original engine manufacturer to which this applies, has developed products over many years which encompass a myriad of subtle design features intended to ensure proper engine function, performance, and durability. DDC does not make it's specifications publicly available, and therefore, believes Engelhard is not qualified to determine ''equivalency'' of parts. DDC notes that the certification tests conducted by Engelhard utilized DDC engine parts. DDC believes that additional tests on specific non-OE parts should be

required if these parts are eligible for use in this kit.

DDC's comments regarding supply option 3 are similar to those described above. DDC does not believe that Engelhard can provide transit operators with the appropriate specifications, tolerances, and quality control procedures to which a transit operator must rebuild in order to become a Certified Engelhard Remanufactured. Finally, DDC comments that each supply option proposed by Engelhard should be evaluated separately for it's impact on life cycle cost.

JMI provided substantial comments regarding the proposed supply options. Regarding option 1, JMI commented that Engelhard should be required to disclose the allowable sources and specification of ''equivalent'' parts. JMI comments that coatings for engine parts will be provided by Engelhard's wholly owned technology division. JMI believes that EPA must account for the possibility of interrupted availability of coated components resulting from such interruptions as union problems, divesture, natural disaster, etc.

Regarding option 2, JMI commented that it is beyond Engelhard's legal authority to create a qualified vendor list on behalf of a public transit agency, and that doing so would create a conflict of interest. KCTA mirrored this concern stating that the various supply options allow Engelhard to dictate parts choice of transit operators. In addition, JMI believes that allowing Engelhard discretion to choose which supply options will be made available represents a restraint of trade.

Lastly, JMI comments that Engelhard's proposed supply options will result in labor problems for transit operators who may be forced to eliminate or close their repair operations.

EPA, in general, shares many of the concerns noted by commenters regarding supply of the ETX kit. EPA believes that Engelhard, in proposing a flexible kit distribution plan, attempts to avoid many of the issues raised by commenters. However, EPA must be assured that any increase in flexibility does not undermine emissions reductions expected from certification of equipment. In order to resolve the extensive comments surrounding the proposed supply options, significant follow-up activity was pursued by EPA, as described below.

EPA fundamentally agrees with DDC that certification should be limited to that equipment which has been demonstrated to achieve the claimed certification level. In this case, Engelhard conducted all testing of the ETX kit using DDC engine parts in conjunction with the Engelhard catalytic converter and coatings. Engelhard provided no demonstration or other assurances, other than it's required commitment to honor the urban bus warranties, that ''equivalent'' engine parts would result in PM emissions of 0.10 g/bhp-hr or less. EPA does not dispute the possibility that certain non-DDC parts may provide equivalent function, performance, and/or emissions characteristics as the DDC parts used in Engelhard's certification testing. However, none of these parts were tested, nor was any engineering argument made by Engelhard to indicate equivalent performance. In the absence of emissions data or technical argument relating to the characteristics or design features of OEM and non-OEM parts that affect emissions performance, EPA has no basis for certification of the Engelhard equipment when an engine is rebuilt using parts other than those which Engelhard has demonstrated will achieve the stated emissions level.

EPA also agrees with JMI that, at a minimum, identification of allowable equivalent parts and the means by which this equivalency was determined is required in order to determine if such parts are potentially capable of achieving the claimed reductions.

In an August 23, 1996 letter, EPA requested that Engelhard provide a listing of specific brands and part numbers which Engelhard determined to be ''equivalent'', and the means by which Engelhard determined this equivalency. In addition, EPA requested clarification as to what specifications Engelhard would provide a transit operator who wished to become a Certified Engelhard Remanufacturer and continue to rebuild engines in-house.

In its September 4, 1996 response to EPA's request, Engelhard was unable to identify specific brands or part numbers which it believed to be ''equivalent'' to the DDC parts used in the certification testing. Engelhard will supply only DDC parts for those parts supplied under option 1. Under option 2, Engelhard specifies only DDC parts, which fleets can obtain through normal supply channels rather than from Engelhard, thus providing fleets with part sourcing flexibility while maintaining reasonable assurance that the claimed PM level is achieved. Therefore, under both option 1 and option 2, transit operators must use the specified DDC parts in conjunction with the remaining ETX kit components, as demonstrated by Engelhard to be capable of achieving the 0.10 g/bhp-hr PM level. The practical difference between these two options is that under option 2 the fleet has flexibility to obtain DDC parts through it's normal channels, while option 1 requires purchase of all parts from Engelhard. Manufacturers of ''equivalent'' aftermarket parts may choose to certify their parts for use in the ETX kit in a separate proceeding subject to testing and certain warranty concerns.

Regarding the option 3 Engelhard Certified Remanufacturer program, EPA supports the notion of fleets maintaining the ability to remanufacture and rebuild certain components in-house. Outside of the clear requirement to technology demonstrated to reduce PM exhaust emissions, the Urban Bus Retrofit/Rebuild Program was not intended to significantly impact current fleet rebuilding practices. With regard to the 25 percent PM reduction standard, transit operators currently have flexibility to choose add-on reduction equipment, thus allowing continued in-house rebuilding of engines and components. On the other hand, if EPA were to certify a trigger of the 0.10 g/bhp-hr PM standard that did not allow for continued rebuild of components in-house, and if this were the only equipment available to meet the 0.10 g/bhp-hr standard, then certain transits would be required to cease rebuilding these components or risk being in violation of program requirements.

EPA believes it reasonable to allow in-house rebuild of certain components by transit operators utilizing the ETX kit, under certain conditions. First, in-house rebuilding is limited to camshafts, blowers, and turbochargers. EPA believes that allowing rebuild of other components, such as fuel injectors, cylinder liners and cylinder heads, would raise substantial concerns whether the resulting engine could meet the 0.10 g/bhp-hr standard because of their key role in oil and fuel control of the engine. Allowing in-house rebuild of camshafts, blowers and turbochargers introduces some uncertainty with respect to the PM emissions performance of the resulting engine because of their role in controlling combustion air flow within the engine. However, EPA imposes the following measures to mitigate this uncertainty. First, Engelhard must specify, and fleets must rebuild to, the relevant DDC camshaft, blower and turbocharger part number utilized in the certification test engine. Second, Engelhard will implement it's Engelhard Certified Remanufacturer program for any and all fleets affected by the Urban Bus Retrofit/Rebuild Program choosing to rebuild these components in-house. This parts supply option necessitates that participating fleets undergo periodic quality checks, performed by Engelhard,

of components rebuilt in-house. Unsatisfactory performance would result in the fleet losing, or not achieving, the status of Engelhard Certified Remanufacturer, and subsequently losing the option to rebuild these components in-house. Engelhard provides the defect and emissions performance warranties required pursuant to 40 CFR 85.1409 for engines using components rebuilt by Engelhard Certified Remanufacturers.

EPA has been informed that the ability to continue some level of in-house rebuilding is important to the needs of transit operators. The Engelhard Certified Remanufacturer program, combined with the limited set of components that can be rebuilt in-house, result in increased flexibility for transit operators yet allow EPA to maintain reasonable assurance concerning PM reduction.

Regarding DDC's comment that each supply option be evaluated separately for it's impact on life cycle costs, EPA believes this is unnecessary. EPA has determined that supply option 1—the option in which Engelhard supplies all necessary components of the kit—complies with the life cycle cost requirements of the Urban Bus Retrofit/Rebuild Program, as described below. At a minimum, this supply option must be provided to any and all transit operators. Therefore, certification of this supply option ''triggers'' the 0.10 g/bhp-hr standard. Use of the other two supply options is strictly voluntary, and any cost savings or added costs are accepted voluntarily by the fleet operator.

f. Life Cycle Cost

Section 1403(b)(1)(ii) describes those items which must be considered when analyzing life cycle cost of equipment, including equipment purchase price, incremental fuel cost/savings, installation costs, maintenance costs, and other costs specific to fuel additives and fuel conversions. Most commenters provided input on at least one cost-sensitive topic area. Comments received are described below, and are grouped by general topic area within the larger context of life cycle costs.

i. Maintenance Cost

NY MTA, NJ Transit, and CT Transit each expressed concern that Engelhard did not include any allowance in the life cycle cost analysis for maintenance of the equipment. EPA believes that the engine upgrade portion of this equipment requires no additional maintenance incremental to that required on a standard rebuild. In addition, the coated component portion of the kit cannot be serviced because the coated parts are internal to the engine. Therefore, no additional maintenance is expected related to the coated components. EPA believes any concerns related to incremental maintenance would apply only to the catalyst unit.

Engelhard maintains that the CMX–5 catalyst unit is maintenance-free over the emissions performance warranty period of 150,000 miles, and notes that the currently certified CMX has been in operation for over a year. During this time neither Engelhard nor EPA has become aware of any additional maintenance required to keep the unit functional, when the engine is maintained in accordance with instructions. Engelhard stated that several CMX catalysts which have accumulated over 150,000 miles without maintenance have been inspected and found to be functioning properly. EPA questioned Engelhard regarding the prescribed catalyst cleaning procedure, and the need for such a procedure if the unit is truly maintenance free. Engelhard responded that an improperly operating or improperly tuned engine could lead to clogging of the catalyst unit. To the extent this happens, transit operators must have instructions for cleaning the unit. Routine cleaning of the catalyst unit on properly tuned engines is not required, and thus no life cycle cost is associated with this cleaning procedure. Therefore, EPA has determined that no additional maintenance costs, incremental to costs associated with a standard rebuild, are associated with the use of this equipment.

ii. Incremental Fuel Cost

EPA received numerous comments regarding the fuel economy impact of the ETX kit. DDC's testing of the ETX kit showed a brake-specific fuel consumption (BSFC) ranging from 0.469 to 0.472 lbs./bhp-hr. DDC believes that comparing these BSFC measurements with Engelhard's original 1979 and supplementary 1986 baseline tests (0.421 and 0.442 lbs./bhp-hr) may not be appropriate given that DDC and Engelhard testing were conducted at different laboratories which may use different test procedures and equipment. However, DDC believes that comparing it's BSFC data for the ETX kit to a 1979 6V92TA baseline engine tested by DDC recently in its own retrofit certification program (60 FR 51472, October 2, 1995) is valid. Comparison of the original ETX certification test with DDC's baseline testing shows an average 2.2 percent fuel economy penalty for the ETX kit. In its November 11, 1996 and November 22, 1996 follow-up letters to EPA, DDC notes other factors, such as blower drive ratio and catalyst backpressure, which are consistent with increased fuel consumption with the ETX kit. Considering these qualitative factors, combined with its test data, DDC believes that a 2–4 percent fuel penalty is appropriate.

JMI commented that a four percent fuel economy penalty, as demonstrated by Engelhard's original certification and baseline test data, should be used to assess the fuel economy impact of the ETX kit. In addition, JMI referenced a report prepared for the National Aeronautics and Space Administration (NASA) for the U.S. Department of Energy, which concludes that thermal barrier coatings on diesel engine combustion components can result in up to a two percent fuel economy penalty compared to baseline ''metal'' (i.e., non-coated) components. EPA notes that the relevancy of this report to this particular certification is unclear.

Milwaukee County, Long Beach Transit, CT Transit, NJ Transit, and NY MTA all commented regarding the fuel economy impacts associated with the ETX kit. In general, these transits believe that the Federal transient test procedure does not represent real-world urban bus operation, and therefore, the actual fuel economy impact is unknown. One commenter suggested that fuel economy impact be determined through testing over the Advanced Design Bus Cycle chassis dynamometer test, which the commenter believed to be more representative of urban bus operation.

Regarding the comments from transit operators, 40 CFR 85.1407(a)(3)(ii) states, in part, that certifiers must include in their notification of intent to certify ''(t)he percent change in fuel economy * * * based on testing performed over the heavy-duty engine Federal test procedure or an approved alternative test procedure''. Engelhard complied with this requirement by providing the percent change in fuel economy resulting from use of this kit as measured over the heavy-duty engine Federal test procedure described at 40 CFR Part 86 Subpart N. While test data generated using the Advanced Design Bus Cycle could be useful to EPA when determining fuel economy impacts, it is not required. In addition, in order to demonstrate compliance with the 0.10 g/bhp-hr PM standard, testing must be conducted using the engine-based Federal test procedure. Requiring additional testing to demonstrate fuel economy on a chassis-based test cycle would be an expense of unknown benefit.

Regarding DDC and JMI comments, the following describes the available

data on the subject. Table D below summarizes the available transient BSFC data for both baseline engines and engines with the ETX kit.

TABLE D.—AVAILABLE BASELINE AND ETX TEST DATA

Test description	Test date	BSFC[1] (lbs./bhp-hr)
Engelhard's original 1979 baseline	March 1, 1996	0.421
Engelhard's original ETX certification test	January 26, 1996	0.438
Engelhard's supplementary 1986 baseline	October 4, 1996	0.442
Engelhard's supplementary ETX certification test	September 27, 1996	0.447
DDC's 1979 baseline	NA	0.461
DDC's ETX test average	June/July 1996	0.471

Brake-specific fuel consumption measured in units of pounds per brake horsepower-hour.

In it's original application for certification, Engelhard claimed no fuel economy penalty associated with the ETX kit, even though Engelhard's original certification data for the ETX configuration indicate a 4 percent fuel economy penalty compared to a standard 1979 6V92TA MUI baseline rebuild.

In a March 8, 1996 letter to EPA, Engelhard further explained its rationale for the claim of no fuel economy impact, noting that the cylinder liners (part number 8923348) used in the 1979 baseline rebuild have larger inlet ports compared to those currently available for rebuilding engines, thus improving volumetric efficiency of the engine. Such an improvement in volumetric efficiency, Engelhard claims, would lead to improved fuel economy compared to an engine with lower volumetric efficiency. In addition, Engelhard claims that the 1979 liner used to rebuild the original baseline test engine allows more oil into the combustion chamber, causing an increase in PM, but also an improvement in fuel economy compared to cylinder kits with a smaller inlet port. Engelhard provided data showing a PM oil fraction for the 1979 baseline test of 0.076 g/bhp-hr, compared to 0.046 g/bhp-hr for the January 26, 1996 ETX certification test.

In addition, Engelhard argues that the 4 percent demonstrated on the original 1979 baseline is reasonably close to the plus/minus 3 percent variability of the fuel economy measurement. This is supported by the supplemental baseline testing conducted on October 7, 1996 on an engine rebuilt to a 1986 6V92TA MUI configuration. The fuel consumption data for this test is shown in Table D above, and shows virtually no fuel economy impact (about 1 percent) compared to the ETX configuration.

In its November 11, 1996 letter, DDC refutes Engelhard's claim that the larger port in the 1979 configuration improves the fuel economy relative to a smaller ported liner. DDC states that the liner port is dimensioned such that the bottom of the port remains constant in the liner, with the top of the port being higher in larger port sizes. In DDC's opinion, port size has a relatively small impact on fuel economy compared to factors such as engine exhaust backpressure and blower drive ratio. In addition, DDC notes that the liner used in Engelhard's original 1979 baseline test engine had 0.95 inch ports, which are still readily available today. EPA recognizes that fuel economy may vary from test to test depending on several factors including base engine design and measurement technique. The statistical determination of the variability of this combination would require additional testing and is beyond the practical requirements of the Urban Bus Program. EPA, therefore, makes the following decision on the impact of fuel economy on life cycle costs based on the available data. EPA believes the most reasonable approach, based on the available data, is to average the fuel economy impacts demonstrated by Engelhard on its 1979 and 1986 rebuild configurations (about 1 percent and four percent, respectively), resulting in a fuel economy penalty of about 2 percent. This figure is consistent with that demonstrated by DDC (about 2 percent), and other qualitative statements made by JMI and DDC. Using this 2 percent figure and the equations of Section 85.1403 of the program regulations, EPA determines the fuel economy impact associated with the ETX rebuild kit to be $563.36 (in 1992 dollars), or $635.64 (in October 1996 dollars).

iii. Purchase Price (Cost of a Standard Rebuild)

According to Section 85.1403(b)(1)(iii)of the program regulation, the purchase price of equipment is defined as ''the price at which the equipment * * * is offered to the operator'', and ''excludes * * * costs * * * for a standard rebuild''. In Engelhard's original notification of intent to certify, Engelhard proposed a purchase price plus installation cost of $13,502, and a standard rebuild cost of $5,562. Thus, the net incremental life cycle cost proposed by Engelhard totaled $7,940 (in 1992 dollars). Engelhard's proposed standard rebuild cost of $5,562 was based on the maximum purchase price guaranteed by DDC in it's April 11, 1995 application for certification of the 6V92TA MUI upgrade kit.

DDC commented that Engelhard's proposed cost for a standard rebuild of $5,562 includes approximately $97 for the blower bypass valve, which is not always replaced during a standard rebuild. In addition, DDC noted some apparent inconsistencies with respect to current year dollars versus 1992 dollars. For example, Engelhard states in it's application that all costs are in 1992 dollars, while the $5,562 cost from DDC's April 11, 1995 application are in 1995 dollars.

JMI commented that basing the cost of a standard rebuild on the price DDC proposed for it's upgrade kit is not representative of the cost of a standard rebuild. JMI stated that numerous fleets receive a minimum 18 percent discount on DDC parts compared to the list price upon which Engelhard's standard rebuild cost was based. Applying an 18 percent discount to the $5,562 OE list price cost, JMI claims a standard rebuild cost of $4,561. In addition, JMI comments that fleets typically can rebuild using non-OE parts at a savings of 40 percent compared to OE list price. JMI states that this 40 percent discount results in a standard rebuild cost of $3,337. JMI did not indicate a cost associated with using a combination of non-OE parts and discounted OE parts, nor did they indicate which of these two proposed standard rebuild costs it considers more representative of the actual cost.

In response to DDC comments, EPA notes that the blower bypass valve is not

included in the cost of a standard rebuild since it is not always replaced. Also, the cost analyses presented below are updated to reflect current dollars.

EPA announced the certification of the DDC MUI upgrade kit on the basis of meeting life cycle cost requirements in a Federal Register notice dated July 19, 1996 (61 FR 37734). In that July 19, 1996 notice, EPA responded to comments relating to the cost of a standard 6V92TA MUI rebuild, and determined that a ''weighted'' rebuild, which accounts for use of OE, non-OE, and rebuilt parts is likely more representative of typical fleet rebuilding practices than using only OE parts. That weighted rebuild analysis resulted in a cost of $3,747.66 (in 1995 dollars), and was based on the best information available at the time. Table E below provides a summary of that analysis, and is shown in December 1995 dollars.

TABLE E.—COST OF A WEIGHTED REBUILD SUMMARIZED FROM 61 FR 37734, JULY 19, 1996

[1995 Dollars]

Item in kit	OE list cost	Non-OE cost	OE list less 18%	Weighted rebuild [1]	DDC Kit
Cylinder Kit	$1,844.52	$1,139.94	$1,512.51	$1,391.05	.....
Gasket Kit	220.16	132.10	180.53	164.74	.....
Air Inlet Hose	14.95	8.97	12.26	11.19	.....
Blower Bypass Valve	97.36	0.00	0.00	0.00	.....
Fuel Injectors	444.96	266.98	364.87	332.96	.....
LB Camshaft	581.84	349.10	477.11	435.38	.....
RB Camshaft	581.84	349.10	477.11	435.38	.....
Blower Assembly	442.80	199.26	0.00	199.26	.....
Turbo Assembly	783.00	352.35	0.00	352.35	.....
Heads Assembly	944.84	425.18	0.00	425.18	.....
Totals	.....	.....	.....	3,747.48	5,561.92

[1] The weighting factors used to arrive at each individual weighted component cost are described in detail in the **Federal Register** notice referenced above.

In letters dated October 8, 1996, and October 21, 1996, Engelhard provided additional information to EPA in response to JMI's cost comments on the ETX kit, and in response to the weighted rebuild cost shown in Table E. As a result of contacting various fleets and parts distributors, Engelhard states that several adjustments to EPA's weighted cost approach are warranted.

Engelhard states that the OE list prices for the various engine components have risen significantly since the DDC approval. Engelhard also states that JMI's assumption that fleets typically receive an 18 percent discount from OE list is incorrect. DDC provided current OE list costs and suggested fleet costs of individual engine components. Table F below represents an update of the weighted cost analysis presented in the July 19, 1996 Federal Register, updated to reflect current (October 1996) OE list and fleet prices reported by DDC.

TABLE F.—COST OF A WEIGHTED REBUILD [1]

[October 1996 Dollars]

Item in kit	OE list cost	Non-OE cost	OE list less 18%	Weighted rebuild [1]
Cylinder Kit	$1,967.34	$1,174.02	$1,691.40	$1,522.74
Gasket Kit	234.82	140.89	201.27	181.59
Air Inlet Hose	16.20	9.72	13.88	12.52
Blower Bypass Valve	103.85	0.00	0.00	0.00
Fuel Injectors	484.98	290.99	447.96	396.79
LB Camshaft	738.80	443.28	633.25	571.32
RB Camshaft	738.80	443.28	633.25	571.32
Blower Assembly	488.01	219.60	0.00	219.60
Turbo Assembly	801.00	360.45	0.00	360.45
Heads Assembly	1,083.56	487.60	0.00	487.60
Totals	.....	.....	.....	4,323.93

[1] This table is intended to represent the weighted rebuild cost analysis from Table E above, update to reflect October 1996 dollars.

In addition to updating EPA's previous cost analysis to reflect current prices, Engelhard identified several cost areas of the previous weighted cost analysis it felt should be modified. First, Engelhard states that typical non-OE parts cost 25 percent less than the OE part, compared to the 40 percent assumed in the weighted rebuild analysis of the July 19, 1996 Federal Register. Engelhard also notes that some aftermarket parts actually cost more than the OE part. Engelhard contacted DDC, two parts distributors, and various transits to obtain this information. JMI, on the other hand, contacted only one parts distributor to form the basis of it's comments. EPA believes that Engelhard's estimation of non-OE part cost differential is more consistent with information in a study conducted for the California Air Resources Board on heavy-duty diesel rebuilding.[2] The authors of the study contacted four parts distributors and found that aftermarket parts are generally less expensive than

[2] ''Survey of Heavy-Duty Engine Rebuilding, Reconditioning, and Remanufacturing Practices'', August 1987, CARB Contract #A4–152–32, Prepared by Sierra Research, Inc.

OE parts. Comparing the cost differential of a limited number of parts, the aftermarket parts cost about 10 to 20 percent less than OE parts. Based on this information, and the sources contacted for that information, EPA believes that the 25 percent cost difference noted by Engelhard is likely more representative than the 40 percent difference claimed by JMI.

Second, Engelhard states that the weighted cost approach should be adjusted to reflect an additional cost to transit operators who rebuild in-house, because parts are occasionally unrebuildable due to catastrophic failure. Engelhard stated that 10 percent of turbochargers and blowers are not rebuildable, and that 50 percent of cylinder heads are not rebuildable. This information is consistent with EPA's current understanding based on discussions with DDC. When parts are unrebuildable, a transit operator would typically purchase a new component at fleet cost. The nominal cost of these components assumes the exchange of a rebuildable core. If the core is not rebuildable, then the operator pays a core charge plus the nominal cost of the component. The sum of the component fleet price plus the core charge represent additional costs to fleets that rebuild in-house, due to unrebuildable parts. When weighted based on the frequency at which the part is unrebuildable, it yields an additional cost on a per components basis. EPA's weighted rebuild from the July 19, 1996 Federal Register assumes in-house rebuild of three components: the turbocharger, the blower, and the heads. Therefore, Table G below summarizes estimates of the additional costs related to the in-house rebuild of these parts.

TABLE G.—IMPACT OF UNREBUILDABLE PARTS

[1996 Dollars]

Item	OE fleet price	In-house rebuild cost	Percent damaged	Core charge	Added Cost (OE fleet price + core) (damaged)	Actual in-house rebuild Cost
Blower	$450.73	$219.60	10	$466.00	$91.67	$311.28
Turbo	739.81	360.45	10	300.00	103.98	464.43
Heads	1,000.78	487.60	50	425.00	712.89	1,200.49

Finally, Engelhard states that OE parts carry a 100,000 mile warranty, while transit remanufactured parts and non-OE parts carry less, if any, warranty. Engelhard believes the cost implications of the warranty coverage should be included in the analysis with respect to use of non-OE and transit remanufactured parts, and provides discussion.

EPA does not dispute that some additional cost might be associated with different warranties provided by different part manufacturers. However, the cost impacts associated with warranties cannot be adequately quantified based on the available information. EPA believes that any additional cost would be related to repairs necessary for non-OE parts failing beyond the warranty for the non-OE part, but within the warranty period required for equipment certified under this program. No information has been provided on this subject, but the impact of this analysis on life cycles costs is expected to be minimal.

In summary, EPA is making the following three adjustments to its analysis of the cost of a weighted rebuild described in the July 19, 1996 Federal Register. First, all costs are updated to reflect October 1996 dollars (this singular revision is shown in Table F). Second, the weighted rebuild is modified to reflect non-OE parts cost of 25 percent less than OE cost, rather than 40 percent. Finally, the costs of unrebuildable parts cores are reflected in the costs of these three components, as discussed previously, for fleets rebuilding parts in-house. Table H shows the cost of a weighted rebuild including the three aforementioned adjustments.

TABLE H.—COST OF A WEIGHTED REBUILD (REFLECTING IMPACT OF UNREBUIDABLE PARTS AND 25 PERCENT NON-OE PARTS DISCOUNT)

[1996 Dollars]

Item in kit	OE list cost	Non-OE Cost	OE fleet price	Weighted rebuild
Cylinder Kit	$1,967.34	$1,174.02	$1,691.40	$1,522.74
Gasket Kit	234.82	176.12	201.27	193.07
Air Inlet Hose	16.20	12.15	13.88	13.32
Blower Bypass Valve	103.85	0.00	0.00	0.00
Fuel Injectors	484.98	363.74	447.96	420.50
LB Camshaft	738.80	554.10	633.25	607.45
RB Camshaft	738.80	554.10	633.25	607.45
Blower Assembly	488.01	311.28	0.00	311.28
Turbo Assembly	801.00	464.43	0.00	464.43
Heads Assembly	1,083.56	1,200.49	0.00	1,200.49
Totals	.....	.....	.....	5,340.72

EPA believes that, for the purposes of determining purchase price for the Engelhard ETX kit, the cost of a standard rebuild for a DDC 6V92TA MUI engine is best approximated by the weighted rebuild costs shown in Table H. EPA uses the $5,340.72 cost (in 1996 dollars) as the cost of a standard rebuild to determine the life cycle cost of this equipment.

iv. Catalyst Installation

As defined in 40 CFR 85.1403 (b)(1)(ii)(B), the installation cost of certified equipment is ''the labor cost of installing the equipment on an urban bus engine, incremental to a standard rebuild, based on a labor rate of $35 per hour'' (in 1992 dollars). Engelhard states the CMX–5 catalyst unit requires a maximum time of six hours to install on an urban bus engine, or $210 (in 1992 dollars). The urban bus engines for which this equipment is intended were not originally equipped with catalytic convertors. Therefore, the muffler unit must be removed from the engine, and the CMX–5 unit installed in its place. As a result, the $210 is incremental to the cost of a standard rebuild.

v. Life Cycle Cost Calculation

In a December 16, 1996 letter to EPA, Engelhard revised the price it will charge transit operators for the ETX kit. The maximum purchase price for the ETX kit purchased wholly from Engelhard (the supply option upon which EPA is basing its determination of compliance with the life cycle cost requirements) is stated to be $13,425 (in October 1996 dollars). This cost includes all components of the ETX kit, including the coated cylinder heads and piston kits, the CMX–5 converter muffler, and the turbocharger, blower, blower drive gear, blower bypass valve, camshafts, fuel injectors, air inlet hose, and gasket kit.

Based on this maximum purchase price, EPA determines that the ETX kit complies with the $7940 (in 1992 dollars) life cycle cost requirement of section 85.1403(b) for equipment meeting the 0.10 g/bhp-hr PM standard. A summary of life cycle costs is shown in Table I below.

TABLE I.—LIFE CYCLE COST ANALYSIS

Cost item	Cost in 1996 dollars	Cost in 1992 dollars
Maximum ETX Kit Purchase Price	$13,425.00	$11,898.47
2% Fuel Economy Penalty	635.64	563.36
Catalyst Installation (6 hours)	236.94	210.00
Cost of Standard Rebuild	(5,340.72)	(4,733.44)
Total Life Cycle Cost	8,956.83	7,938.37

g. California Engines

DDC commented that Engelhard's request for certification of the ETX system on California engines is unsupported by any data. DDC notes that the NO_X standard for California engines for 1984 and later model years is more stringent than the corresponding federal NO_X standard. While Engelhard's test engine NO_X level of 10.5 g/bhp-hr (secondary ETX certification test) complies with the 1989 and earlier federal NO_X standard, it exceeds the California standards for these same model years. DDC comments that while the fuel injector part number listed in the NIC for the 277 HP and 253 HP California versions of the ETX kit have a slight internal timing retard which would tend to reduce NO_X, these same injectors would also tend to increase PM. DDC also comments that the NO_X reductions resulting from the slight internal timing retard would not be sufficient to ensure that California engines remained below applicable California NO_X standards. DDC believes the certification of the ETX kit for California engines must be predicated on evidence which shows such engines comply with the 0.10 g/bhp-hr PM standard and comply with applicable California NO_X standards.

EPA agrees with DDC and determines that insufficient data have been provided to justify certification of the ETX kit for use on engines originally certified as meeting California emissions standards. Section 85.1406(a)(1) of the program regulations state, in part, that the equipment certifier must demonstrate that the equipment ''will not cause the urban bus engine to fail to meet any applicable Federal emission requirements set for that engine''.

However, a unique situation exists with respect to engines originally certified as meeting California standards. The DDC 6V92TA MUI engines have, since the 1977 model year, been certified to a more stringent NO_X standard in California. EPA has granted California several waivers of federal preemption in order to allow these more stringent standards. Engelhard must provide emission data to demonstrate that California engines, when retrofit with the ETX kit, will not exceed applicable California standards. Engelhard has provided no such data. In fact, the data which were presented indicate that engines with the ETX kit installed will substantially exceed the California NO_X standard. EPA agrees with DDC that if modifications were made to the ETX kit or its components to reduce NO_X from the level demonstrated by Engelhard's test engine, to the levels required to comply with California standards, then, in the absence of additional PM data, it is unclear whether the equipment would comply with the 0.10 g/bhp-hr standard. This is because, generally speaking, engine design measures taken to reduce NO_X emissions would likely increase PM emissions. Therefore, EPA is not certifying this equipment for use in California at this time, and today's Federal Register notice does not trigger the 0.10 g/bhp-hr PM standard of the urban bus retrofit program for engines originally certified as meeting California emissions standards.

Engelhard may submit an additional notification of intent to certify the ETX kit for use on engines certified as meeting California emissions standards. EPA would make the notification available for a 45-day public review and comment period. After resolution of comments and concerns, EPA would render a certification decision. In addition, EPA understands the California Air Resources Board's (ARB's) view that equipment certified under the urban bus program, to be used in California, must be provided with an executive order exempting it from the anti-tampering prohibitions of that State.

h. Other Comments

In its November 22, 1996 letter, DDC stated its concern that the description of the ETX kit has changed substantially since the May 6, 1996 Federal Register notice seeking public comment. Specifically, DDC states that the removal of coated exhaust parts and the changing of fuel injector height and throttle delay settings should have prompted another opportunity for public comment.

EPA notes that only two substantive changes have been made to the ETX since the initial notification of intent to certify. Removal of coated exhaust parts by Engelhard was done in response to

public comments, including DDC's. Concerns were expressed by both the public and EPA about the ability to control the coating process on such parts considering the part-to-part variability in surface area, shape, etc. Engelhard acknowledged that the coated exhaust parts were originally included in the ETX kit to provide an extra compliance margin relative to the 0.10 g/bhp-hr PM standard, but were not absolutely necessary to comply. Since these parts were not considered ''essential'' by Engelhard to comply with the standard, they were removed from the kit. Engelhard believes that the coating on the piston crowns and combustion chambers is necessary to provide an adequate compliance margin. Any additional public comment on this matter would be moot since the coated exhaust components are no longer present in the kit.

The second change to the ETX kit involved the fuel injector height and throttle delay settings. Engelhard originally proposed settings of 1.460 inches and 0.594 inches, respectively (the OEM settings for most engines covered by this application are 1.466 inches and 0.636 inches, respectively). The reason Engelhard modified the OEM settings in its original application was to ensure compliance with FTP cycle performance statistics, rather than for any specific engine or emissions related performance reasons. (In fact, the settings originally proposed by Engelhard would tend to have a negative impact on PM emissions.) When Engelhard conducted supplemental testing requested by EPA to address fuel economy and emissions issues, Engelhard was able to comply with FTP cycle statistics using the OEM settings of 0.636 inches and 1.466 inches. While returning these settings to the OEM specifications is a change, EPA believes it does not warrant reopening the comment period because the change is minor and directionally would tend to reduce PM emissions.

JMI and DART expressed concern about possible toxic emissions related to the ETX kit. DART questions whether, during assembly of the engine, coating material may become ''airborne'', resulting in a potential health concern. In addition, DART and JMI question whether the combustion process may result in undesirable products. JMI postulates that free heavy metals, such as cobalt, molybdenum, nickel, chromium, boron, silicon, and vanadium, may be released if the coating becomes cracked or spalled. Such free metals, JMI states, when exposed to sulfur from diesel fuel at high temperatures and pressures (2200 degrees Fahrenheit, and 5 to 8 atmospheres), could react to form ''a variety of toxic compounds''. In addition, JMI states this could result in deactivation of the catalyst unit located in the exhaust stream.

EPA does not believe the conditions upon which JMI's (and DART's) concern is based will be present in engines using the ETX kit. Primarily, JMI's concern is based on an assumption that the GPX–5m coating is not durable, and thus will spall and crack, allowing free metals to react with sulfur. As described elsewhere in today's notice, durability testing is not required under this program. However, as discussed above, the available data does not indicate that the GPX–5m coating is not durable. In addition, Engelhard contends that any metals used in the GPX–5m coating are applied to surfaces in such manner that machining is required for removal.

DDC comments that it should not be responsible for providing emission defect or performance warranties under the urban bus retrofit/rebuild program for equipment certified by Engelhard, even though DDC parts are required to be used.

Engelhard, as the equipment certifier, must provide all warranties required by the urban bus retrofit/rebuild regulation. Engelhard is aware of its responsibility to provide such warranties, including cases where transit operators obtain DDC parts from Engelhard or through their normal supply channels under the approved supply options.

III. Certification Approval

The Agency has reviewed this notification, along with comments received from interested parties, and finds the equipment described in this notification of intent to certify:

(1) Complies with a particulate matter emissions standard of 0.10 g/bhp-hr, without causing the applicable engine families to exceed other exhaust emission standards;

(2) Will not cause an unreasonable risk to the public health, welfare or safety;

(3) Will not result in any additional range of parameter adjustability; and

(4) Meets other requirements necessary for certification under the Retrofit/Rebuild Requirements for 1993 and Earlier Model Year Urban Buses (40 CFR Sections 85.1401 through 85.1415).

The Agency hereby certifies this equipment for use in the Urban Bus Retrofit/Rebuild Program as described below in Section IV.

IV. Transit Operator Responsibilities

Today's Federal Register notice announces certification of the above-described Engelhard equipment, when properly applied, as meeting the 0.10 g/bhp-hr particulate matter standard of the Urban Bus Retrofit/Rebuild Program for urban buses originally certified as meeting Federal emissions standards. Urban buses of the type described in Table C of today's notice, which were originally certified as meeting California emissions standards, are not covered the certification announced today. Affected urban bus operators who choose to comply with program 1 are required to use this, or other equipment that is certified as meeting the 0.10 g/bhp-hr particulate matter standard, for any engines listed in Table C which are rebuilt or replaced on or after September 15, 1997. The 0.10 g/bhp-hr PM standard is not triggered for urban buses originally certified as meeting California emission standards. Therefore, operators of such urban buses, who choose to comply with program 1, are not required to use such equipment until the 0.10 g/bhp-hr PM standard has been triggered for such engines.

Urban bus operators who choose to comply with program 2 may use the certified Engelhard equipment immediately, and those who use this equipment may claim the respective particulate matter certification level from Table C when calculating their Fleet Level Attained (FLA). Again, because this equipment is not certified as meeting the 0.10 g/bhp-hr PM standard for engines originally certified as meeting California emission standards, operators of such urban buses, who choose to comply with program 2, may not use this equipment to meet program requirements. In addition, such operators, when calculating their FLA, may not claim the PM levels shown in Table C because the program requires use of certified equipment.

As stated in the program regulations (40 CFR 85.1401 through 85.1415), operators should maintain records for each engine in their fleet to demonstrate that they are in compliance with the requirements of the Urban Bus Retrofit/Rebuild Program beginning on January 1, 1995. These records include purchase records, receipts, and part numbers for the parts and components used in the rebuilding of urban bus engines. Urban bus operators using supply options 2 and 3, as described previously in today's Federal Register notice, must be aware of their responsibility for maintenance of records pursuant to 40 CFR 85.1403 through 85.1404, because they do not purchase the complete ETX kit from Engelhard. Urban bus operators using supply option 2 or 3 must be able demonstrate that all parts used in the

rebuilding of engines are in compliance with program requirements. In other words, such urban bus operators must be able demonstrate that all components of the kit certified in today's Federal Register notice are installed on applicable engines.

Dated: March 7, 1997.

Mary D. Nichols,

Assistant Administrator for Air and Radiation.

[FR Doc. 97–6505 Filed 3–13–97; 8:45 am]

BILLING CODE 6560–50–P

[OPPTS–140254; FRL–5593–3]

Access to Confidential Business Information by Science Applications International Corporation

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: EPA has authorized its contractor, Science Applications International Corporation (SAIC), of Reston, Virginia, access to information which has been submitted to EPA under all sections of the Toxic Substances Control Act (TSCA). Some of the information may be claimed or determined to be confidential business information (CBI).

DATES: Access to the confidential data submitted to EPA will occur no sooner than March 28, 1997.

FOR FURTHER INFORMATION CONTACT: Susan Hazen, Director, Environmental Assistance Division (7408), Office of Pollution Prevention and Toxics, Environmental Protection Agency, Rm. E–545, 401 M St., SW., Washington, DC 20460, (202) 554–1404, TDD: (202) 554–0551; e-mail: TSCA-Hotline@epamail.epa.gov.

SUPPLEMENTARY INFORMATION: Under contract number 68–W4–0005, contractor SAIC, of 11251 Roger Bacon Drive, Reston, VA, will assist the Office of Waste and Chemicals Management and Regional Offices RCRA Enforcement, Permitting and Assistance Program in the implementation of RCRA/TSCA related initiatives. Major areas of support include permitting activities, Subtitle D solid waste, corrective actions and RCRA program planning.

In accordance with 40 CFR 2.306(j), EPA has determined that under EPA contract number 68–W4–0005, SAIC will require access to CBI submitted to EPA under all sections of TSCA to perform successfully the duties specified under the contract. SAIC personnel will be given access to information submitted to EPA under all sections of TSCA. Some of the information may be claimed or determined CBI.

EPA is issuing this notice to inform all submitters of information under all sections of TSCA that EPA may provide SAIC access to these CBI materials on a need-to-know basis only. All access to TSCA CBI under this contract will take place at SAIC's site located at 18702 N. Creek Parkway, Bothell, WA.

SAIC will be authorized access to TSCA CBI at its facility under the EPA *TSCA Confidential Business Information Security Manual*. Before access to TSCA CBI is authorized at SAIC's site, EPA will approve SAIC's security certification statement, perform the required inspection of its facility, and ensure that the facility is in compliance with the manual. Upon completing review of the CBI materials, SAIC will return all transferred materials to EPA.

Clearance for access to TSCA CBI under this contract may continue until January 5, 1999.

SAIC personnel will be required to sign nondisclosure agreements and will be briefed on appropriate security procedures before they are permitted access to TSCA CBI.

List of Subjects

Environmental protection, Access to confidential business information.

Dated: March 7, 1997.

Oscar Morales,

Acting Director, Information Management Division, Office of Pollution Prevention and Toxics.

[FR Doc. 97–6517 Filed 3–13–97; 8:45 am]

BILLING CODE 6560–50–F

[ER–FRL–5478–4]

Environmental Impact Statements and Regulations; Availability of EPA Comments

Availability of EPA comments prepared February 24, 1997 Through February 28, 1997 pursuant to the Environmental Review Process (ERP), under Section 309 of the Clean Air Act and Section 102(2)(c) of the National Environmental Policy Act as amended. Requests for copies of EPA comments can be directed to the Office of Federal Activities at (202) 564–7167.

An explanation of the ratings assigned to draft environmental impact statements (EISs) was published in FR dated April 5, 1996 (61 FR 15251).

Draft EISs

ERP No. D–AFS–K65193–NV Rating EO2, Griffon Mining Project, Implementation, Issuance Plan of Operations Approval, Humboldt-Toiyabe National Forests, Ely Ranger District, White Pine County, NV.

Summary: EPA had environmental objections to the proposed project based on its potential impacts to a wet meadow and disturbance of more land for waste rock dumps, impacts to water quality and habitat in Ellison Creek, facilities design, and air quality. EPA requested additional information regarding water quality impacts and objectives, facilities design, mitigation measures, the waste rock characterization and handling plan, and access roads. EPA recommended that the Forest Service select as its preferred alternative Alternative C with backfilling of the Hammer Ridge pit.

ERP No. DC–NPS–K61029–CA Rating EC2, Yosemite National Park General Management Plan, Yosemite Housing Project, Updated Information on Yosemite Valley Housing Plan, New and Replacement Housing, Mariposa, Modera and Tuolumne Counties, CA.

Summary: EPA expressed environmental concerns that the new preferred alternative would move fewer park employees out of Yosemite Valley than previously identified alternatives, and an employee transportation system would not be developed. EPA recommended the analysis of an additional alternative which combines a more aggressive development of EL Portal housing with an alternative fuels employee transportation system.

ERP No. DS–NOA–E86002–00 Rating LO, Sapper Grouper Fishery, Amendment 8 to the Fishery Management Plan, Regulatory Impact Review, South Atlantic Region.

Summary: EPA lacked objections to the proposed 17 regulatory actions to improve fisheries in US EEZ and recommended more emphasis on nonpoint pollutions, as a factor exacerbated declines in fishery stock.

Final EISs

ERP No. F–BLM–K65188–CA Eagle Mountain Landfill and Recycling Center Project, Land Exchange, Right-of-Way Grants and COE Section 404 Permit Issuance, Riverside County, CA.

Summary: Review of the final EIS was not deemed necessary. No formal comment letter was sent to the preparing agency.

ERP No. F–FHW–E40738–NC US–220 Connecting the Star/Biscoe/Candor Bypass, Improvement, Funding, Right-of-Way, Possible COE Permit,