

roles of the Federal and State governments with regard to the regulation of surface coal mining and reclamation operations. One of the purposes of SMCRA is to "establish a nationwide program to protect society and the environment from the adverse effects of surface coal mining operations." Section 503(a)(1) of SMCRA requires that State laws regulating surface coal mining and reclamation operations be "in accordance with" the requirements of SMCRA. Section 503(a)(7) requires that State programs contain rules and regulations "consistent with" regulations issued by the Secretary pursuant to SMCRA.

#### *National Environmental Policy Act*

Section 702(d) of SMCRA (30 U.S.C. 1292(d)) provides that a decision on a proposed State regulatory program provision does not constitute a major Federal action within the meaning of section 102(2)(C) of the National Environmental Policy Act (42 U.S.C. 4332(2)(C)). A determination has been made that such decisions are categorically excluded from the NEPA process (516 DM 8.4.A).

#### *Paperwork Reduction Act*

This rule does not contain information collection requirements that require approval by OMB under the Paperwork Reduction Act (44 U.S.C. 3507 *et seq.*).

#### *Regulatory Flexibility Act*

The Department of the Interior has determined that this rule will not have a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*). The State submittal that is the subject of this rule is based upon counterpart Federal regulations for which an economic analysis was prepared and certification made that such regulations would not have a significant economic effect upon a substantial number of small entities. Accordingly, this rule will ensure that existing requirements previously promulgated by OSM will be implemented by the State. In making the determination as to whether this rule would have a significant economic impact, the Department relied upon the data and assumptions for the counterpart Federal regulations.

#### *Small Business Regulatory Enforcement Fairness Act*

This rule is not a major rule under 5 U.S.C. 804(2), the Small Business Regulatory Enforcement Fairness Act. This rule: (a) Does not have an annual

effect on the economy of \$100 million; (b) Will not cause a major increase in costs or prices for consumers, individual industries, geographic regions, or Federal, State or local governmental agencies; and (c) Does not have significant adverse effects on competition, employment, investment, productivity, innovation, or the ability of U.S. based enterprises to compete with foreign-based enterprises. This determination is based upon the fact that the State submittal, which is the subject of this rule, is based upon counterpart Federal regulations for which an analysis was prepared and a determination made that the Federal regulation was not considered a major rule.

#### *Unfunded Mandates*

This rule will not impose a cost of \$100 million or more in any given year on any governmental entity or the private sector.

#### **List of Subjects in 30 CFR Part 934**

Intergovernmental relations, Surface mining, Underground mining.

Dated: May 21, 2001.

#### **Brent Wahlquist,**

*Regional Director, Western Regional Coordinating Center.*

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## **ENVIRONMENTAL PROTECTION AGENCY**

### **40 CFR Part 261**

[FRL-6992-5]

#### **Project XL Site-Specific Rulemaking for the IBM Semiconductor Manufacturing Facility in Hopewell Junction, New York**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule; Request for comment.

**SUMMARY:** The Environmental Protection Agency (EPA) is today proposing this rule to implement a pilot project under the Project XL program that would provide site-specific regulatory flexibility under the Resource Conservation and Recovery Act (RCRA), as amended, for the International Business Machines Corporation (IBM) East Fishkill semiconductor manufacturing facility in Hopewell Junction, New York. The principal objective of this IBM East Fishkill XL project is to determine whether the wastewater treatment sludge resulting,

in part, from the treatment of wastewaters from electroplating operations (and therefore meeting the listing description for F006 Hazardous Waste) may be used as an ingredient in the manufacture of cement in an environmentally sound manner without RCRA regulatory controls.

As a result of this XL project, the Agency expects to receive data with regard to the effectiveness and safety of using IBM's wastewater treatment sludge as an ingredient in the manufacture of cement. To gather the information needed to make a determination that IBM's sludge need not be regulated as a RCRA hazardous waste in order to protect human health and the environment when recycled as an ingredient in cement, today's proposed rule, when finalized, will provide a conditional exclusion for IBM's wastewater treatment sludge from the definition of solid waste, thus allowing for the recycling scenario to be implemented. IBM will be required to submit periodic reports containing pertinent information regarding this XL project. Such data could ultimately be useful in supporting any future EPA regulatory initiatives regarding the recycling of F006 to make cement products. EPA does not expect, however, that this XL project alone will generate substantial amounts of data on the wide variety of other F006 wastestreams that could potentially be used to make cement; such additional data would be required before EPA would be in a position to develop a national rulemaking for this particular recycling scenario.

**DATES:** Public Comments: Comments on the proposed rule must be received on or before July 6, 2001. All comments should be submitted in writing to the address listed below.

**Public Hearing:** Commenters may request a public hearing by June 20, 2001 during the public comment period. Commenters requesting a public hearing should specify the basis for their request. If EPA determines that there is sufficient reason to hold a public hearing, it will do so by June 27, 2001, during the last week of the public comment period. Requests for a public hearing should be submitted to the address below. If a public hearing is scheduled, the date, time, and location will be available through a **Federal Register** notice or by contacting Mr. Sam Kerns at the U.S. EPA Region 2 office.

**ADDRESSES:** *Comments:* Written comments should be mailed to the RCRA Information Center Docket Clerk (5305W), U.S. Environmental Protection

Agency, 1200 Pennsylvania Ave. NW., Washington, D.C. 20460. Please send an original and two copies of all comments, and refer to Docket Number F-2001-IB2P-FFFFF.

**Request for a Hearing:** Requests for a hearing should be mailed to the RCRA Information Center Docket Clerk (5305G), U.S. Environmental Protection Agency, 1200 Pennsylvania Ave. NW., Washington, D.C. 20460. Please send an original and two copies of all comments, and refer to Docket Number F-2001-IB2P-FFFFF. A copy should also be sent to Mr. Sam Kerns at the U.S. EPA Region 2 office. Mr. Kerns may be contacted at the following address: U.S. Environmental Protection Agency, Region 2, 290 Broadway, New York, NY 10007-1866, (212) 637-4139.

**Viewing Project Materials:** A docket containing the proposed rule, Final Project Agreement, supporting materials, and public comments is available for public inspection and copying at the RCRA Information Center (RIC), located at Crystal Gateway, 1235 Jefferson Davis Highway, First Floor, Arlington, Virginia. The RIC is open from 9:00 am to 4:00 pm Monday through Friday, excluding Federal holidays. The public is encouraged to phone in advance to review docket materials. Appointments can be scheduled by phoning the Docket Office at (703) 603-9230. Refer to RCRA docket number F-2001-IB2P-FFFFF. The public may copy a maximum of 100 pages from any regulatory docket at no charge. Additional copies cost 15 cents per page. Project materials are also available for review for today's action on the world wide web at <http://www.epa.gov/projectxl/>.

A duplicate copy of the docket is available for inspection and copying at the U.S. EPA Region 2 Library, 290 Broadway, New York, NY 10007-1866, during normal business hours. Persons wishing to view the duplicate docket at the New York location are encouraged to contact Mr. Sam Kerns or Ms. Aleksandra Dobkowski-Joy in advance, by telephoning (212) 637-4139 or (212) 637-3676, respectively.

**FOR FURTHER INFORMATION CONTACT:** Mr. Sam Kerns or Ms. Aleksandra Dobkowski-Joy, U.S. Environmental Protection Agency, Region 2, 290 Broadway, New York, NY 10007-1866. Mr. Kerns can be reached at (212) 637-4139 (or [kerns.sam@epa.gov](mailto:kerns.sam@epa.gov)) and Ms. Dobkowski-Joy can be reached at (212) 637-3676 (or [dobkowski.aleksandra@epa.gov](mailto:dobkowski.aleksandra@epa.gov)). Further information on today's action may also be obtained on the world wide web at <http://www.epa.gov/projectxl/>.

**SUPPLEMENTARY INFORMATION:** This pilot project assesses the appropriateness of excluding from the RCRA regulatory definition of solid waste the wastewater treatment sludge (designated as F006 Hazardous Waste) generated by one of the two fluoride/heavy metal wastewater treatment plants (the plant designated as B/690 West Complex by IBM) on the IBM East Fishkill facility when the sludge is being used as an ingredient in the manufacture of cement, and to characterize those factors that may determine whether similar sludges should also be excluded from RCRA regulatory controls when recycled in the same manner. This proposed rule is not intended to apply to any other hazardous wastes generated and/or managed at the IBM facility, although wastewater treatment sludge (also designated as F006 Hazardous Waste) generated by the other wastewater treatment plant (the B/386 East Complex) at the facility may become eligible in the future once a Final Project Agreement (or addendum to the current Final Project Agreement) is signed allowing for the additional sludge to be included in this project. This proposed rule does not apply to any wastewater treatment sludges generated at other facilities.

The duration of this XL pilot project is five years. The site-specific conditional exclusion from the definition of solid waste being proposed in today's notice includes a "sunset provision" which will automatically terminate the exclusion 5 years from the effective date of the final rulemaking promulgated to allow for the XL project to be implemented. (A "sunset provision" is typically included in regulatory changes to facilitate XL pilot projects.) Towards the end of the term of this XL project, EPA, the New York State Department of Environmental Conservation (NYSDEC), and IBM will evaluate the success of the pilot project. If the project is determined to be successful, EPA may consider expanding the scope of the exclusion to the national level (by rulemaking). Although EPA does not expect that this XL project by itself can generate all the data that would be necessary on the wide variety of other F006 wastestreams that could potentially be used to make cement to proceed with a national rulemaking, the data generated from this project may be useful in supporting such national-level rulemaking.

Today's proposed rulemaking will not in any way affect the provisions or applicability of any other existing or future regulations.

EPA is soliciting comments on this rulemaking. EPA will publish responses

to comments in a subsequent final rule. The XL project will enter the implementation phase when the final rule is promulgated by EPA, and NYSDEC has undertaken appropriate action to allow the project to be implemented. (The Final Project Agreement has already been signed by EPA, NYSDEC, and IBM.)

The terms of the overall XL project are contained in a Final Project Agreement (FPA) which was the subject of a Notice of Availability published in the **Federal Register** on September 1, 2000 (65 FR 53298) and which was signed by EPA, NYSDEC and IBM on September 29, 2000. The Final Project Agreement (FPA) is available to the public at the EPA Docket in Washington, DC, in the U.S. EPA Region 2 library, at the IBM East Fishkill facility, and on the world wide web at <http://www.epa.gov/projectxl/>.

### Outline of Today's Proposal

The information presented in this preamble is organized as follows:

- I. Authority
- II. Overview of Project XL
- III. Overview of the IBM East Fishkill XL Pilot Project
  - A. To Which Facilities Will the Proposed Rule Apply?
  - B. What Problems will the IBM East Fishkill XL Project Attempt to Address?
    1. Background on the Definition of Solid Waste
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    3. Site-Specific Considerations at the IBM East Fishkill Facility
  - C. What Solutions are Proposed by the IBM East Fishkill XL Project?
  - D. What Regulatory Changes Will Be Necessary to Implement this Project?
    1. Federal Regulatory Changes
    2. State Regulatory Changes
  - E. Why Is EPA Supporting this Approach to Removing the Electroplating Sludge From the Definition of Solid Waste?
  - F. How Have Various Stakeholders Been Involved in This Project?
  - G. How Will This Project Result in Cost Savings and Paperwork Reduction?
  - H. What Are the Terms of the IBM East Fishkill XL Project and How Will They Be Enforced?
  - I. How Long Will This Project Last and When Will It Be Completed?
- IV. Additional Information
  - A. How to Request a Public Hearing
  - B. How Does This Rule Comply With Executive Order 12866: Regulatory Planning and Review?
  - C. Is a Regulatory Flexibility Analysis Required?
  - D. Is an Information Collection Request Required for This Project Under the Paperwork Reduction Act?
  - E. Does This Project Trigger the Requirements of the Unfunded Mandates Reform Act?
  - F. RCRA & Hazardous and Solid Waste Amendments

1. Applicability of Rules in Authorized States
2. Effect on New York Authorization
- G. How Does This Rule Comply With Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks?
- H. How Does This Rule Comply With Executive Order 13132: Federalism?
- I. How Does This Rule Comply With Executive Order 13175: Consultation and Coordination With Indian Tribal Governments?
- J. Does this Rule Comply With the National Technology Transfer and Advancement Act?

## I. Authority

EPA is publishing this proposed regulation under the authority of sections 2002, 3001, 3002, 3003, 3006, 3010, and 7004 of the Solid Waste Disposal Act of 1970, as amended by the Resource Conservation and Recovery Act, as amended (42 U.S.C. 6912, 6921, 6922, 6923, 6926, 6930, 6937, 6938, and 6974).

## II. Overview of Project XL

The Final Project Agreement (FPA) sets forth the intentions of EPA, NYSDEC, and the IBM East Fishkill facility in Hopewell Junction, NY with regard to a project developed under Project XL, which is an EPA initiative to allow regulated entities to achieve better environmental results with limited regulatory flexibility. The proposed regulation will allow implementation of the project. Project XL—"eXcellence and Leadership"—was announced on March 16, 1995, as a central part of the National Performance Review and the Agency's effort to reinvent environmental protection. See 60 FR 27282 (May 23, 1995). Project XL provides a limited number of private and public regulated entities an opportunity to develop their own pilot projects to request regulatory flexibility that will result in environmental protection that is superior to what would be achieved through compliance with current and reasonably-anticipated future regulations. These efforts are crucial to EPA's ability to test new strategies that reduce regulatory burden and promote economic growth while achieving better environmental and public health protection. EPA intends to evaluate the results of this and other Project XL projects to determine which specific elements of the project(s), if any, should be more broadly applied to other regulated entities for the benefit of both the economy and the environment.

Under Project XL, participants in four categories—facilities, industry sectors, governmental agencies and communities—are offered the flexibility

to develop common sense, cost-effective strategies that will replace or modify specific regulatory requirements, on the condition that they produce and demonstrate superior environmental performance.

The XL program is intended to encourage EPA to experiment with potentially promising regulatory approaches, both to assess whether they provide benefits at the specific facility affected, and whether they should be considered for wider application. Such pilot projects allow EPA to proceed more quickly than would be possible when undertaking changes on a nationwide basis. As part of this experimentation, EPA may try out approaches or legal interpretations that depart from, or are even inconsistent with, longstanding Agency practice, so long as those interpretations are within the broad range of discretion enjoyed by the Agency in interpreting the statutes that it implements. EPA may also modify rules, on a site-specific basis, that represent one of several possible policy approaches within a more general statutory directive, so long as the alternative being used is permissible under the statute.

Adoption of such alternative approaches or interpretations in the context of a given XL project does not, however, signal EPA's willingness to adopt that interpretation as a general matter, even in the context of other XL projects. It would be inconsistent with the forward-looking nature of these pilot projects to adopt such innovative approaches prematurely on a widespread basis without first determining whether they are viable in practice and successful in the particular projects that embody them. Furthermore, as EPA indicated in announcing the XL program, EPA expects to adopt only a limited number of carefully selected projects. These pilot projects are not intended to be a means for piecemeal revision of entire programs. Depending on the results in these projects, EPA may or may not be willing to consider adopting the alternative interpretation again, either generally or for other specific facilities.

EPA believes that adopting alternative policy approaches and interpretations, on a limited, site-specific basis and in connection with a carefully selected pilot project, is consistent with the expectations of Congress about EPA's role in implementing the environmental statutes (provided that the Agency acts within the discretion allowed by the statute). Congress' recognition that there is a need for experimentation and research, as well as ongoing re-evaluation of environmental programs,

is reflected in a variety of statutory provisions, such as section 8001 of RCRA.

## XL Criteria

To participate in Project XL, applicants must develop alternative environmental performance objectives pursuant to eight criteria: superior environmental performance; cost savings and paperwork reduction; stakeholder involvement and support; test of an innovative strategy; transferability; feasibility; identification of monitoring, reporting and evaluation methods; and avoidance of shifting risk burden. To be selected, the XL projects must have the full support of the affected Federal, State, local and tribal agencies.

For more information about the XL criteria, readers should refer to the two descriptive documents published in the **Federal Register** (60 FR 27282, May 23, 1995 and 62 FR 19872, April 23, 1997), and the December 1, 1995 "Principles for Development of Project XL Final Project Agreements" document. For further discussion as to how the IBM East Fishkill XL project addresses the XL criteria, readers should refer to the Final Project Agreement available from the EPA RCRA docket, the U.S. EPA Region 2 library, or the Project XL web page (see **ADDRESSES** section of today's preamble).

## XL Program Phases

The Project XL program is compartmentalized into four basic developmental phases: the initial pre-proposal phase where the project sponsor comes up with an innovative concept that they would like EPA to consider as an XL pilot project; the second phase where the project sponsor works with EPA and interested stakeholders in developing an XL proposal; the third phase where EPA, local regulatory agencies, and other interested stakeholders review the XL proposal; and the fourth phase where the project sponsor works with EPA, local regulatory agencies, and interested stakeholders in developing a Final Project Agreement and legal mechanism. After promulgation of the final rule (or other legal mechanism) that provides the flexibility required for the XL pilot project, and after the Final Project Agreement has been signed by all designated parties, the XL pilot project proceeds on to implementation and evaluation.

## Final Project Agreement

The Final Project Agreement (FPA) is a written voluntary agreement between the project sponsor and regulatory

agencies. The FPA contains a detailed description of the proposed pilot project. It addresses the eight Project XL criteria, and the expectation of the Agency that the XL project will meet those criteria. The FPA identifies performance goals and indicators that track whether the project is yielding the expected environmental benefits, and specifically addresses the manner in which the project is expected to produce superior environmental benefits. The FPA also discusses the administration of the FPA, including dispute resolution and termination. The FPA for this XL project is available for review in the docket for today's action, and is also available on the world wide web at <http://www.epa.gov/projectxl/>.

### III. Overview of the IBM East Fishkill XL Project

EPA is today requesting comments on the proposed rule to implement key provisions of this Project XL initiative. Today's proposed rule would facilitate implementation of the FPA that has been developed by EPA, the New York State Department of Environmental Conservation (NYSDEC), the IBM East Fishkill facility, and other stakeholders. Today's proposed rule, when finalized, would not be effective in New York until the State has made conforming changes (or used other legal mechanisms) to modify its hazardous waste program.

#### A. To Which Facilities Will the Proposed Rule Apply?

This proposed rule, when finalized, would apply only to the IBM East Fishkill facility in Hopewell Junction, NY. Further, the regulatory modification being proposed is intended to only apply to a portion of the total F006 electroplating sludge generated at the facility (specifically, the sludge designated as B/690 West Complex sludge, which is the subject of the Final Project Agreement (FPA) included in the docket for this proposal). However, it should be noted that IBM expects to implement waste minimization technologies to remove hazardous constituents from the sludge generated at a separate wastewater treatment plant (i.e., the B/386 East Complex), pursue another FPA (or addendum to the current FPA), and include the B/386 East Complex wastewater treatment sludge in this XL pilot project. The regulatory modification being proposed today has been crafted to allow for the future inclusion of the B/386 East Complex sludge in this XL project without an additional rulemaking. A more detailed discussion of the regulatory modification is presented in

section III. E. A more detailed discussion of the sludge that is the focus of this XL project is presented in Section III. B. 3.

#### B. What Problems Will the IBM East Fishkill XL Project Attempt to Address?

IBM believes RCRA oversight (and the regulatory requirements such oversight imposes) does not provide an increase in protection of human health and the environment when applied to the recycling scenario involving the use of IBM's wastewater treatment sludge as an ingredient in the production of cement. Rather, IBM believes the RCRA regulatory requirements serve as a disincentive to an otherwise viable and environmentally sound recycling scenario.

##### 1. Background on the Definition of Solid Waste

On January 4, 1985 the Agency promulgated the basic regulatory definition of solid waste (see 50 FR 614). Under the current RCRA regulatory framework, a hazardous secondary material<sup>1</sup> being recycled may meet the definition of solid waste, depending on the type of secondary material (e.g., spent material, by-product, sludge) and the type of recycling (e.g., reclamation, use as an ingredient, use constituting disposal). (See 40 CFR 261.2.) As provided at 40 CFR 261.2(e)(1)(i), a hazardous secondary material that is used as an ingredient in an industrial process to make a product is excluded from the definition of solid waste. However, 40 CFR 261.2(e)(2)(i) limits the (e)(1)(i) exclusion such that materials used to produce products that are applied to the land are not excluded. As explained in the preamble to the January 4, 1985 rulemaking, RCRA jurisdiction over hazardous secondary materials that are used on the land is based in part on the fact that the environmental impact of such use is basically the same as the environmental impact of conventional land disposal (see 50 FR at 628). Indeed, the potential impact in many cases is worse because there are more potential human environmental exposure pathways for waste-derived products than there are for landfilled wastes (see *Association of Battery Recyclers v. EPA*, 208 F. 3d. 1047 (D.C. Cir. 2000); 53 FR at 17605 (May 17, 1988)). Also, as a

<sup>1</sup> Throughout this preamble, as done in many previous RCRA rulemakings, EPA uses the term "secondary material" as a convenient means of referring to a material that may or may not be a solid and hazardous waste when it is recycled. See footnote number 4, 50 FR at 616 (January 4, 1985). Generally, "secondary materials" do not include virgin raw materials or products.

generalization, products that are used on the land are of relatively low value and seldom have product specifications that address the potential presence of hazardous constituents.

Therefore, a hazardous secondary material (such as IBM's F006 wastewater treatment sludge) that is used as a legitimate ingredient to produce cement (presuming that the cement will be used on the land) is subject to regulation as a hazardous waste, including among other things, the need for a Hazardous Waste Manifest (and hazardous waste transporter), and possibly storage permits at the recycling facility (in this case, a cement manufacturer). And, while the waste-derived product (i.e., the cement made using the sludge as an ingredient) is exempt from any further regulatory requirements pursuant to 40 CFR 266.20(b), assuming it meets the applicable treatment standards (which are the same standards the waste would have to meet prior to land disposal), the waste-derived product remains a hazardous waste within RCRA jurisdiction. It is the application of this regulatory framework that IBM believes provides no environmental benefit and serves as a disincentive to an environmentally sound recycling scenario for the sludge that is the focus of today's proposal.

##### 2. Legitimate Recycling Determination

Inherent to the regulatory definition of solid waste as it applies to hazardous secondary materials that are recycled is the concept that the recycling actually be "legitimate recycling" as opposed to "sham recycling," which is treatment and/or disposal (including disposal through incorporation into a product) of a hazardous secondary material under the guise of recycling (50 FR at 638, January 4, 1985). This determination is not always clear-cut and often involves assessing the intent of the activity by evaluating circumstantial evidence. Basically, the determination rests on whether the secondary material is sufficiently "commodity-like." This entails an evaluation of whether the material truly has value as a raw material/product and whether the recycling process is likely to release hazardous constituents (or otherwise pose risks to human health and the environment) that are different from or greater than those from the processing of an analogous raw material/product. The criteria used to evaluate whether a secondary material is legitimately being recycled are presented in an April 26, 1989 memorandum from Sylvia K. Lowrance, Director of the Office of Solid Waste, to the Hazardous Waste

Management Division Directors in Regions I–X, entitled “F006 Recycling.”<sup>2</sup> The following discussion presents the criteria and EPA’s evaluation of the criteria in the context of the recycling scenario that is the focus of this XL project. It should be noted that these criteria are intended to be used as a means of focusing the overall consideration of a specific recycling scenario and are meant to be taken as a whole (which, in effect, means that a negative response to one or more criteria does not necessarily mean that the recycling scenario is a sham).

(1) Is the secondary material similar to an analogous raw material or product?

This is discussed in detail below.

(2) What degree of processing is required to produce a finished product?

The sludge must undergo significant processing to produce a finished product, consistent with the processing the analogous raw materials must undergo to produce cement. No special processing of the sludge is required.

(3) What is the value of the secondary material?

The sludge will likely have a negative monetary value (IBM expects to pay a fee to a cement manufacturer receiving the sludge). However, the Agency acknowledges that the pure economics of a recycling scenario are difficult to gauge because RCRA regulations are a very real factor influencing the economics of such scenarios. If RCRA did not exist, it is quite possible that a cement manufacturer would pay to receive such a high-calcium containing material (comparable to the price paid for analogous raw materials, such as limestone). However, due to the existence of the RCRA regulations which, in effect, impose costs on IBM for the management of the sludge, a cement manufacturer can charge a fee for the sludge (presumably less than the fee charged by a disposal facility), giving the sludge a negative value.

(4) Is there a guaranteed market for the end product?

Cement is a widely available commercial product with a proven market. As the applications for cement vary, so do specifications for the various products required. Customers of cement kilns will continue to demand that their product specifications be met whether or not IBM’s sludge is among the raw materials used to manufacture their product. In the FPA for this project, IBM

agreed that the cement kiln which recycles its sludge will provide to IBM a certification that the sludge delivered to the kiln (from the IBM East Fishkill facility) was used as an ingredient in the manufacture of cement in accordance with both product specifications and generally accepted cement industry standards. Accordingly, there will be a guaranteed market for cement which meets product specifications. If, however, the cement product fails to meet specifications due to the use of the sludge as an ingredient and cannot be sold (or reprocessed and sold), then it must be managed as a hazardous waste in accordance with all applicable RCRA regulations.

(5) Is the secondary material handled in a manner consistent with the raw material/product it replaces?

No. Consistent with the experimental nature of XL projects, the sludge will be managed more carefully than the raw material it replaces. As agreed to in the Final Project Agreement (FPA), IBM will ensure that the sludge is managed to prevent releases to the environment. IBM has assured the other signatories to the FPA that a cement manufacturer must agree to manage the sludge protectively to receive the sludge. Accordingly, management of the sludge to prevent releases is being included as a condition of the site-specific exclusion being proposed today. Another condition of the exclusion is a requirement for IBM to submit semi-annual reports to the agencies detailing the volumes of sludge recycled as part of this XL project.

(6) Other relevant factors.

This is a broad criterion that allows for the consideration of other factors not otherwise evaluated. In this specific case, the fact that this recycling scenario was conducted previously and deemed to be successful by IBM (as discussed in section III. B. 3.) was another factor considered. Also, the fact that this recycling scenario will be conducted in the context of an XL project, which assumes a certain level of regulatory oversight by the Regional office and State regulatory agency, was considered.

For hazardous secondary materials that are used as ingredients to produce a product, one of the key considerations in evaluating whether the secondary material is similar to an analogous raw material is a comparison of the constituent compositions of both the hazardous secondary material and the analogous raw material it replaces.<sup>3</sup>

<sup>3</sup> In this case, the Agency notes that by comparing a secondary material to an analogous raw material, one can ascertain the expected impact of using the secondary material as an ingredient instead of the

Naturally, the hazardous secondary material must contribute useful or necessary constituents to the production of the product, as do the analogous raw materials. However, to the extent that the hazardous secondary material contains unnecessary (to the product or production process) hazardous constituents at higher concentrations than found in the analogous raw materials, or hazardous constituents not found in the analogous raw materials, one could infer that the constituents are being treated or disposed under the guise of recycling, even if some portion of the secondary material is useful to the production process (see the April 26, 1989 memorandum from Sylvia K. Lowrance, Director of the Office of Solid Waste, to the Hazardous Waste Management Division Directors in Regions I–X entitled “F006 Recycling” available in the docket for this proposal).

Several considerations are worth noting concerning the similarity of IBM’s sludge to the analogous raw materials used to produce cement. A comparative analysis of representative samples of IBM’s wastewater treatment sludge and samples of analogous raw materials (which, in this case, is taken to be the combination of all the feedstocks that normally make up the feedstream to the cement manufacturing process rather than an individual component, such as limestone) from various cement manufacturing facilities indicates that certain heavy metals (specifically lead, cadmium,<sup>4</sup> and chromium) may be present at slightly higher concentrations in the sludge than in the analogous raw materials. Additionally, the wastewater treatment sludge contains somewhat higher levels of fluoride than found in the analogous raw materials. However, given the variability in both IBM’s wastewater treatment sludge and in the raw material

raw material. If the physical/chemical compositions of both materials are comparable, the product made with the secondary material would be expected to have the same characteristics and qualities as the product made with the analogous raw material. Similarly, the environmental impact (e.g., emissions to air or water) of the actual processing of the secondary material would be expected to be the same as from the processing of the analogous raw material.

<sup>4</sup> It should be noted that IBM has conducted an inventory of the hazardous constituents used in its production processes and found that cadmium is not used. IBM’s explanation for the presence of cadmium in the wastewater treatment sludge is that the cadmium may be a contaminant in the lime (i.e., calcium hydroxide) used in its wastewater treatment process. Similarly, beryllium may be found in the sludge at measurable levels, even though beryllium is not used in the manufacturing process and is likewise assumed to be a contaminant in the lime used to precipitate the metals from the wastewaters.

<sup>2</sup> The criteria contained in the memorandum were consolidated from preamble discussions presented in various **Federal Register** notices. Specifically, the criteria are drawn from 53 FR at 522 (January 8, 1988); 52 FR at 17013 (May 6, 1987); and 50 FR at 638 (January 4, 1985). This memorandum is included in the docket for today’s proposal.

feedstocks used by cement manufacturers, and the very low levels of hazardous metals in the sludge, the Agency agrees with IBM that the slightly higher levels are not significant but rather are consistent with the variability typically found in raw materials mined from different sites. In other words, one could expect to find analogous raw materials (e.g., from various mining sites) that contain equivalent or even higher levels of the hazardous constituents found in IBM's sludge. (The data used in comparing IBM's sludge to the analogous raw materials are contained in the Final Project Agreement, which is included in the docket for today's proposal.)

As for the fluoride content of the sludge, it should be noted that fluoride is not a regulated constituent in F006, nor is it a RCRA Appendix VIII hazardous constituent. While fluoride is normally present in cement, IBM's sludge does have notably higher concentrations of calcium fluoride than are typically found in analogous raw materials. Consequently, only a portion of the calcium needed for the production of cement can be derived from the sludge because fluoride concentrations above a certain threshold may have adverse effects on the cement product (or on concrete made using the cement product). Thus, the sludge could not function as the sole source of the calcium in the aggregate of raw materials fed to a cement kiln because the attendant fluoride concentration could exceed that specified for the product. However, the same point may be made with regard to traditional feedstocks used in the production of cement, although the unwanted constituent may be one other than fluoride.

It is a standard practice in the cement industry to combine the various raw material feedstocks that comprise the aggregate composite fed to a cement kiln so that essential components are supplied without resulting in a greater-than-desirable concentration of unwanted constituents (as determined by the product specifications being met), as well as to maximize the cost-effectiveness of the manufacturing process. To do this, a cement manufacturer would analyze individual feedstocks to determine their constituent make-up and then determine the respective proportions of the feedstocks to be used in preparation of the aggregate composite feedstream. For example, a shipment of limestone may be analyzed for its calcium content and be found to also have a high iron (also an essential constituent in cement) content. When this shipment of

limestone is used as a source of calcium to make up the feedstream, less iron from another source (e.g., from mill scale, an iron rich by-product of the steel manufacturing process) will need to be added to the feedstream. The Agency believes that, in this specific instance, the limitation on the use of the sludge as a source of calcium, due to its fluoride content, is consistent with normal manufacturing practices rather than an indication that the sludge is not a viable ingredient in the manufacture of cement. The Agency believes that, up to a certain limit, the calcium from the IBM's sludge will perform as effectively in the production of cement as traditional calcium-bearing feedstocks. The Agency notes that the proportion of traditional calcium-bearing feedstocks may similarly be limited by the levels of constituents (other than calcium) that they contain.

Another consideration in the legitimacy determination concerns the ratio of sludge to analogous raw materials. In general, the Agency would consider a low ratio of hazardous secondary material to normal feedstocks to potentially be an indication of sham recycling. For example, a low ratio suggests that the hazardous secondary material may not truly be similar to the analogous raw materials. Moreover, it suggests that the hazardous secondary material is merely being diluted and disposed of by incorporation into a product. A low ratio of hazardous secondary material to normal feedstocks might also imply that the hazardous secondary material contributes so little as to be otherwise unnecessary to the production of the product (see 50 FR at 638, January 4, 1985). In the case of this XL project, however, it is important to note that IBM currently only generates approximately 300 tons/year of the sludge that is the subject of this XL project, and a typical cement manufacturer processes more than 60,000 tons/year of raw materials. Therefore, the overall ratio of sludge to raw material feedstocks could be, at a minimum, approximately 1:200. Although the ratio of IBM's sludge to normal cement feedstocks could be as low as 1:200, in reality it is expected that the sludge will make up a higher percentage of the overall feedstream on a per batch basis because the sludge is expected to be processed soon after the cement manufacturer receives it (as opposed to being stored long enough to be evenly distributed among all batches of cement). Thus, the actual ratio will primarily depend on the frequency of the shipments of sludge from IBM to the cement manufacturer, but it may be

relatively small. Also, as discussed further in section III. B. 3., it should be noted that it is likely that the sludge generated by the B/386 East Complex wastewater treatment plant will also be included in this XL pilot project in the future, assuming the sludge achieves the same low levels of hazardous constituents and is the subject of another Final Project Agreement (FPA) or addendum to the current FPA. The estimated volumes of this B/386 East Complex sludge is projected to be 3,900 tons per year. An additional 2,400 tons of non-hazardous wastewater treatment sludge (also generated in the East Complex wastewater treatment plant, but in a system segregated from the treatment of the electroplating wastewaters) may be recycled as an ingredient in cement. While this sludge is non-hazardous and therefore does not require any Federal regulatory flexibility to be recycled as an ingredient in cement, it should be noted that when combined with the total volumes of sludges that may, in the future, be recycled as an ingredient in cement, the total approaches 6,600 tons per year, much more consistent with the volumes of raw material feedstocks normally used to produce cement.

Taking into consideration all the criteria, as discussed above, EPA and NYSDEC have determined that the use of IBM's sludge as an ingredient in cement is legitimate recycling in the context of this XL project. It should particularly be noted that the Agency has made this determination of "legitimate recycling" only in the context of this XL project. The intent of this pilot project is to test an alternative approach from the current regulatory framework, and by its very nature, assures some level of project oversight by the EPA Region 2 office and NYSDEC (as discussed above, this was considered as an "other relevant factor"). Accordingly, the analysis done by EPA, as summarized above, which resulted in a legitimacy determination was a necessary element of this XL project. Normally, however, a determination of legitimate recycling (as the basis for an exclusion from the definition of solid waste) is a self-implementing determination (i.e., the exclusion requires no prior approval from EPA). Nevertheless, written concurrence from the appropriate regulatory agency that a given recycling activity is legitimate is strongly encouraged because persons claiming an exclusion from the definition of solid waste must be able to support their claim in the event of an enforcement action (see 40 CFR 261.2(f)).

### 3. Site-Specific Considerations at the IBM East Fishkill Facility

The IBM East Fishkill facility in Hopewell Junction, NY conducts semiconductor research and development operations, as well as the manufacture of semiconductor and electronic computing equipment. As a result of these process operations, which include electroplating operations, wastewaters containing dissolved heavy metal and fluoride compounds are generated and subsequently treated in two separate on-site fluoride/heavy metal (F/HM) wastewater treatment facilities, an East Complex (B/386) and a West Complex (B/690). The sludge generated from electroplating wastewaters by both wastewater treatment facilities is designated as F006 Hazardous Waste. The sludge generated by the wastewater treatment facility that serves the West Complex of the facility, identified by IBM as the Building 690 (B/690) F/HM Wastewater Treatment Facility, is the focus of this XL project. In addition to the F006 generated, the East Complex (B/386) generates a non-hazardous wastewater treatment sludge in a segregated wastewater treatment system that does not process electroplating wastewaters (IBM segregated the electroplating wastewaters from other facility wastewaters to minimize the amount of hazardous waste being generated).

Of the total volume of approximately 825 tons per year of F006 waste currently generated by the IBM East Fishkill facility, approximately 300 tons per year are generated by the B/690 West Complex wastewater treatment facility and are the subject of today's proposal. IBM has determined that the sludge generated by the B/386 East Complex wastewater treatment facility is not, at this time, a viable ingredient in cement production. However, as the Final Project Agreement states, IBM will consider (should the implementation of this XL project prove successful) implementing various waste minimization measures to improve the quality of the B/386 East Complex sludge, making it a suitable ingredient in cement production as well, and initiating steps to include the B/386 East Complex sludge in this XL project.

Since the signing of the FPA and during the development of this proposal, IBM's projections for production demand for the next few years has grown significantly. As part of planning for scaling up their production capability, IBM is considering several options to address the increased wastewater treatment capacity needed to accommodate the projected increase

in wastewater resulting from an increase in production. One of these options is to implement waste minimization technologies to remove hazardous constituents (e.g., lead) from the B/386 East Complex electroplating wastewater stream prior to precipitating the sludge and subsequently including the B/386 East Complex sludge in this XL pilot project. While the volume of electroplating sludge generated in the B/386 East Complex wastewater treatment plant is currently approximately 525 tons per year, due to the expected increase in production and corresponding increase in sludge generation the volume is estimated to increase to 3,900 tons per year. An additional estimated 2,400 tons of non-hazardous sludge generated in the B/386 East Complex wastewater treatment plant may also be included; however, the Agency notes that because this sludge is non-hazardous, no Federal regulatory flexibility is required to recycle the sludge as an ingredient in cement. Taken all together, the IBM facility could ship approximately 6,600 tons per year of sludge to be used as an ingredient in cement (300 tons/year of sludge currently included in the pilot project, plus 3,900 tons/year of sludge that may become included in this pilot project, plus 2,400 tons/year of non-hazardous sludge) once production has increased. While today's proposal is focused primarily on the 300 tons/year of B/690 West Complex sludge that is currently the subject of the FPA, the Agency is also soliciting comment on the possible future inclusion of the 3,900 tons of B/386 East Complex sludge in this XL pilot project and the exclusion from the definition of solid waste that is being proposed to implement this project. In considering comments, the reader should assume that the threshold levels for hazardous constituents in the sludge and other conditions of the exclusion being proposed for the B/690 West Complex sludge will remain the same for the B/386 East Complex sludge, the only difference being the increase in the volume of sludge being recycled. Should the B/386 East Complex sludge become comparable to the B/690 West Complex sludge, and IBM seeks to include the B/386 East Complex sludge in this XL pilot project, IBM will undertake steps to initiate a new Final Project Agreement or an addendum to the existing FPA, which will undergo the same process of stakeholder outreach and solicitation of comment on the Draft FPA (or addendum) as was done for the existing FPA. Upon signature of the FPA (or addendum) by

representatives of EPA, NYSDEC, and IBM that would include the B/386 East Complex sludge in this XL pilot project, the B/386 East Complex sludge may be recycled pursuant to the exclusion being proposed today, assuming the conditions are met.

Also, it should be noted that IBM has recycled both the B/386 East Complex and B/690 West Complex sludges as an ingredient in cement in the past. In 1987, IBM East Fishkill petitioned NYSDEC and EPA Region 2 to allow the recycling of the B/690 West Complex sludge as an ingredient in cement outside of RCRA regulatory controls. Both NYSDEC and EPA agreed that the sludge could be used as a legitimate ingredient in cement and concurred that the sludge would be excluded from the definition of solid waste and therefore, RCRA regulations would not be applicable. In 1988, IBM contracted with a cement manufacturer (which has since been sold and is now operated under new management as a different company) to use the sludge as an ingredient in cement. This recycling practice continued until 1991. In 1991, the original regulatory interpretation granting an exclusion for the sludge was re-evaluated and it was subsequently determined that because cement is a product presumed to be applied to the land, the sludge was not excluded from the definition of solid waste. At that time (and despite the apparent success of the recycling program), IBM decided to end the sludge recycling program. This prior experience demonstrated the technical and economic viability of using IBM's wastewater treatment sludge as an ingredient in cement and was considered by EPA as a "relevant factor" in determining the legitimacy of the recycling scenario.

#### *C. What Solution Is Proposed by the IBM East Fishkill XL Project?*

To overcome the disincentive posed by RCRA regulatory requirements to the recycling of its sludge, IBM has proposed to specifically exclude the B/690 West Complex sludge from the definition of solid waste and thus, from RCRA regulatory jurisdiction. In effect, the sludge would be excluded as an ingredient in an industrial process to make a product (40 CFR 261.2(e)(1)(i)) without application of the limitation on this exclusion for materials used to produce products used in a manner constituting disposal (40 CFR 261.2(e)(2)(i)). Based on their previous experience with this recycling scenario (as discussed above in Section III. B. 3.), IBM believes the recycling of the B/690 West Complex sludge as an ingredient in cement is protective of human health

and the environment and benefits the environment through conservation of finite natural resources, as well as the conservation of hazardous waste landfill space for hazardous wastes that are not amenable to environmentally sound recycling. Further, IBM believes RCRA regulatory controls provide no additional environmental protection, but rather serve as such a disincentive to recycling that sludge which could otherwise be beneficially used to manufacture a product is instead disposed of in a landfill. Rather than seek a delisting pursuant to 40 CFR 260.22 (for which the Agency would, in general, evaluate whether the sludge should be designated a hazardous waste and if not, remove the specific wastestream from the scope of the hazardous waste listing description through a rulemaking), IBM believed the best approach would be to "test" the need for RCRA jurisdiction over this sludge when it is recycled into cement. Therefore, IBM has opted to work with the Agency, NYSDEC, and interested stakeholders to develop and implement a pilot project under Project XL that will assess whether the B/690 West Complex sludge can be used as an ingredient to produce cement in an environmentally sound manner without RCRA Subtitle C regulatory controls and to develop information that will contribute to possible future regulatory actions by the Agency regarding the management of F006 wastes.

#### *D. What Regulatory Changes Will Be Necessary To Implement This Project?*

To implement this XL project, the Agency is proposing in today's notice to provide a site-specific exclusion in 40 CFR 261.4(a) (i.e., "Materials which are not solid wastes.") for the wastewater treatment sludge generated at the IBM East Fishkill facility when used as an ingredient in the production of cement. This site-specific exclusion will include conditions which reflect the intent to "test" whether this recycling scenario can be realized in an environmentally sound manner and to gather a portion of the data needed to make an informed determination concerning the possible adoption of the regulatory flexibility on a national level.

#### *E. Why Is EPA Supporting This Approach To Removing the Electroplating Sludge From the Definition of Solid Waste?*

The Agency agrees with IBM that this XL project has merit and has the potential to yield greater environmental benefits should this exclusion be adopted on a national basis. Project XL offers the opportunity for the Agency to

test its belief that this recycling scenario can be protective of human health and the environment outside of RCRA regulatory control. Further, this is the type of pilot project for which Project XL was conceived, to provide the opportunity to explore alternative regulatory approaches that differ from the current regulatory framework.

EPA notes that F006 is a very large volume hazardous wastestream nationwide. (In an October 7, 1998 study prepared by EPA's Office of Solid Waste and Emergency Response (OSWER), the amount of F006 generated in the US per year was estimated to range from 360,000 to 500,000 tons of dry weight equivalent.) A large portion of this wastestream is undoubtedly more amenable to other forms of recycling (e.g., recovery of metal values) than for use as an ingredient in cement, and some portion may prove to be inappropriate for any current recycling technology; however, the Agency believes that even if a small portion of this total volume of sludge (as well as other similar wastestreams) proves to be sufficiently similar to IBM's B/690 West Complex sludge to legitimately be recycled in this manner, environmental benefits could result. Although this XL project will provide data regarding the effectiveness and safety of using IBM's wastewater treatment sludge as an ingredient in the manufacture of cement, EPA anticipates that additional data on other F006 sludges would need to be collected prior to developing a national rulemaking for this particular recycling scenario.

The Agency also notes that the drafting of the regulatory text warrants particular attention by commenters on this proposal. As discussed earlier, the intent of this regulatory modification is to allow for the signed FPA to be implemented (after the State also makes the necessary changes to its hazardous waste program to likewise allow for this pilot project to be implemented). However, the regulatory text being proposed would apply more broadly than the project described by the current FPA. Specifically, the conditional exclusion being proposed is not limited to the sludge generated in the B/690 West Complex, but rather applies generically to wastewater treatment sludge generated at the IBM East Fishkill facility. This is being done in anticipation of the inclusion of the sludge generated in the B/386 East Complex as part of this pilot project, after the signing of a new FPA or addendum to the existing FPA. Normally, the Agency would wait until the new FPA (or addendum) has been developed and signed before

undertaking a regulatory modification to include the additional wastes subject to the new FPA (or addendum). However, because the exclusion being proposed today includes conditions that address the concentration levels of hazardous constituents in the sludge, as well as protective management practices and data gathering and reporting requirements, that are designed to ensure that the sludge will not pose an increase in risk to human health and the environment during this pilot project, the Agency believes it makes sense to propose the regulatory modification more broadly to allow for the inclusion of the B/386 East Complex sludge immediately upon signature of the new FPA (or addendum). EPA believes that the only potential concern that may arise by the inclusion of the B/386 East Complex sludge would be the additional volumes of the B/386 East Complex sludge (which are estimated to be an additional 3,900 tons/year). Therefore, the Agency is specifically soliciting comment on the potential inclusion of the additional volume of sludge in this pilot project, as well as on whether it is appropriate to propose to modify the regulations to accommodate a potential future addendum to the existing FPA (or a new FPA) that would bring additional volumes of sludges within the scope of the exclusion.

#### *F. How Have Various Stakeholders Been Involved in This Project?*

IBM understands that stakeholder involvement is an integral part of the XL process and has encouraged interested stakeholders to pursue an active role in the development of this XL project. In addition to contacting a broad base of potential stakeholders in the local community, IBM has and commits to continue to conduct outreach to a regional and national cross-section of potentially interested parties. IBM has also undertaken several initiatives in an effort to solicit interest in the XL project from a targeted audience of environmental groups. For example, on April 26, 2000, IBM gave a presentation on this XL project followed by a question and answer session to the Dutchess County Environmental Management Council (EMC), which is comprised of 21 representatives who advise their local governments and citizens on environmental issues. Similarly, IBM made a presentation on the XL project to the Town of East Fishkill Conservation Advisory Council (CAC). Following the one-hour presentation and discussion session, there was a general consensus among the CAC members that the project should be supported. Finally, IBM

retained the services of the Atlantic States Legal Foundation, Inc. (an environmental advocacy group) to assist with the involvement of stakeholders by facilitating notification of public meetings and coordinating the input of interested stakeholders in the development of the Final Project Agreement.

EPA notes that should IBM seek to include the additional volume of sludge generated at the East Complex wastewater treatment plant (i.e., B/386 East Complex sludge) in this pilot project, the same efforts to seek stakeholder involvement will be an integral part of the development of the new FPA (or addendum to the current FPA) that will allow for the additional sludge to be included in the pilot project.

#### *G. How Will This Project Result in Cost Savings and Paperwork Reduction?*

The IBM East Fishkill facility will continue to be regulated as a Large Quantity Generator due to the volume of hazardous wastes (not subject to this XL project) generated at other parts of the facility. Therefore, IBM will continue to have similar paperwork requirements. Additionally, given the nature of a pilot project, IBM will be required to report additional information as a means of evaluating this pilot project and to assist the Agency by providing some of the information necessary to evaluate whether similar regulatory flexibility should be transferred to the national program. This XL project initially addresses only a relatively small volume of wastewater treatment sludge (approximately 300 tons/year). Therefore, the immediate cost savings to the IBM East Fishkill facility resulting from this XL project are not expected to be great, though some savings will be realized. The 300 tons/year of wastewater treatment sludge that EPA is today proposing to exclude from the definition of solid waste currently costs the IBM East Fishkill facility approximately \$27,000 to dispose of in a permitted hazardous waste landfill in Canada. This amount will be saved as a result of finalizing today's proposed exclusion (although IBM expects to pay some amount to the cement manufacturer for recycling the sludge as an ingredient in cement). An additional \$8,000 (approximately) will be saved from the New York State waste management fees charged for hazardous wastes disposed in a landfill (\$27/ton/year of waste). Because IBM expects to pay for the transportation of the sludge to the cement manufacturing facility, there are no notable savings in transportation costs. The IBM East

Fishkill facility expects to save a total of \$35,000 per year as a result of this proposed XL project. The Agency notes, however, that should the projections for increased production and consequent sludge generation prove accurate, and the expected addition of the B/386 East Complex sludge in this pilot project occur, the total volume of sludge that would otherwise be subject to hazardous waste management costs could be approximately 4,200 tons per year, with potential savings (including both disposal fees and New York State waste management fees) of \$500,000 per year.

EPA, as well as NYSDEC, will benefit from some paperwork reduction and cost savings by not having to process and track additional manifests and export documents that will otherwise have to be processed without this XL project. Again, however, these cost savings and paperwork reductions will be limited because of the other hazardous wastes generated at the facility.

This project has the potential to result in significant cost savings and paperwork reduction if this pilot project proves successful and the regulatory flexibility is promulgated on a national basis. On a national level, the overall cost and paperwork reductions that could be realized may be more significant, assuming wastewater treatment sludges generated by other facilities are amenable to this type of recycling. The Agency would need to collect additional data on a wider cross-section of F006 sludges prior to developing a national rulemaking for this type of recycling scenario.

#### *H. What Are the Terms of the IBM East Fishkill XL Project and How Will They Be Enforced?*

As stated earlier, to allow for the implementation of the XL pilot project, EPA is today proposing to modify the current regulatory framework in 40 CFR 261.4(a) to provide a site-specific exclusion from the regulatory definition of solid waste (and thus, RCRA regulatory jurisdiction) for IBM's B/690 West Complex wastewater treatment sludge that is used as an ingredient in the production of cement. NYSDEC likewise intends to modify its State hazardous waste program to allow for the same site-specific exclusion from regulatory controls.<sup>5</sup> The Agency

<sup>5</sup> Implementation of this XL pilot project may be expedited through the issuance of an Enforcement Directive by NYSDEC while the project-specific State rulemaking is in process. Under NYSDEC's program, as long as the sludge remains a regulated hazardous waste under NYSDEC's hazardous waste regulations, it is exempt from regulation under

intends that the exclusion, once finalized, will apply to all the wastewater treatment sludge resulting from the B/690 West Complex wastewater treatment facility that will be used as ingredients in the production of cement, including those sludges that are in the process of being generated, sludges that result from wastewaters already in the wastewater treatment system, and sludges that have been removed from the wastewater treatment system and are being stored pending off-site transportation.

Through the development of the Final Project Agreement (FPA), IBM has agreed to comply with several key criteria as conditions for this exclusion, which will be included in the regulatory language. These conditions are focused on ensuring continued protection of human health and the environment, documenting the environmental benefits resulting from the removal of RCRA Subtitle C regulatory control over the recycling of the B/690 West Complex wastewater treatment sludge as an ingredient in cement, and gathering the data and other information that may assist the Agency in making a determination regarding the possible transfer of this site-specific exclusion to the national program in the future. Such data may be useful in supporting future EPA regulatory initiatives regarding the recycling of F006 wastestreams to make cement products, however, the Agency would need to collect additional information on a broader cross-section of F006 prior to developing a national rulemaking for this particular recycling scenario.

As conditions of the site-specific exclusion, IBM must comply with the following:

(1) Analysis (using the methods specified in 40 CFR Part 264, Appendix IX) of the constituent concentrations in the B/690 West Complex wastewater treatment sludge to ensure that the sludge being recycled remains consistent with the sludge evaluated in

NYSDEC's solid waste regulations. Once NYSDEC's project-specific rulemaking is final, the sludge will conditionally cease to be a solid or hazardous waste for the purposes of NYSDEC's hazardous waste program. However, the sludge would then become subject to regulation as a solid waste under NYSDEC's solid waste program (6NYCRR Part 360) unless a Beneficial Use Determination (BUD) has been issued. If a BUD is issued by NYSDEC, the sludge would be excluded from being a solid waste under NYSDEC's solid waste program upon arrival at the recycling facility, such that the recycling facility (i.e., the cement manufacturer) will not require a NYSDEC permit as a solid waste management facility. Prior to arrival, the sludge would be subject to regulation as a solid waste under 6NYCRR Part 360. NYSDEC expects to issue a BUD when the exclusion from the State hazardous waste regulations becomes effective.

developing this XL project and that it meets the threshold levels discussed below. IBM must perform this analysis every three months for an initial 12-month period. (Note that some or all of these data may be derived from the time period immediately preceding the effective date of this rule.) Following the initial 12-month period (i.e., four sampling/analysis events), IBM must analyze the sludge every six months for the duration of the XL project. These analytical data (including both the 3-month and 6-month sampling/analysis events) must be submitted to the Region 2 office and NYSDEC every six months. Additionally, after any change in the manufacturing process or wastewater treatment process that could affect the chemical composition of the wastewater treatment sludge, sampling and analysis must be conducted.

(2) Management standards for the sludge to ensure that the sludge is actually recycled rather than inadvertently released to the environment, and to ensure that the sludge is managed as a commodity.

(3) Tracking of the sludge, to ensure that the sludge reaches the cement manufacturing facility. In general, under the current hazardous waste regulations (see 40 CFR Parts 262, Subpart D and 263, Subpart B), wastes are tracked through the use of a hazardous waste manifest which accompanies the waste shipment.<sup>6</sup> The regulatory requirements are designed to ensure that the waste is actually received by the facility intended to receive the waste, with built-in time limits requiring a generator to proactively address a shipment that has not been received in a timely fashion. However, because this pilot project provides an exclusion from the definition of solid waste (and therefore from being a hazardous waste), the manifest requirements do not apply. Nevertheless, the Agency believes the need to track the wastewater treatment sludge still remains, to ensure that a shipment of sludge actually reaches its intended destination. However, the Agency does not believe that in this case

<sup>6</sup> Upon receipt of the waste shipment, the receiving facility must sign and return a portion of the manifest to the generator as acknowledgment of receipt of the waste. In the event that the generator does not receive notification that the waste has been received within 35 days, the generator must contact the transporter and/or the facility designated to receive the waste in an effort to ascertain the status of the waste shipment. If the generator does not receive acknowledgment that the waste has been received by the designated facility within 45 days of the date the shipment was received by the transporter, the generator must submit an Exception Report (see 40 CFR 262.42) to the appropriate EPA Regional office describing the efforts undertaken to locate the waste shipment and the results of these efforts.

a hazardous waste manifest, or a similar document, is the only means to ensure that the sludge is being shipped and received appropriately. Therefore, the Agency is allowing IBM the flexibility to develop a tracking system that, in effect, provides the same assurances that the hazardous waste manifest would provide. Specifically, this tracking system must include the following information: the date of shipment, volume of sludge being transported, where the sludge is being shipped, and the date that the shipment was received. IBM remains responsible for ensuring that the sludge is actually received and processed by the cement manufacturer.

(4) Additional data collection and reporting on the volumes of sludge recycled as part of this XL project, and an accounting of the volume of analogous raw materials conserved, or alternatively, the increased volume in cement produced as a result of using the sludge as an ingredient.

The threshold levels for the hazardous constituents in the sludge (one of the conditions of the exclusion) are derived based on six recent samples of the wastewater treatment sludge taken between February 1999 and June 2000. Given the analytical results, a standard statistical method<sup>7</sup> was used to derive the actual threshold levels, using a 95% confidence level. These levels are not intended to be health-based levels. The

<sup>7</sup> The standard statistical method establishes a confidence interval that encompasses a certain percentage of the area beneath the bell curve for a normally distributed set of data. The confidence interval has an upper limit and a lower limit. This test was initially designed to determine if individual data points fall within a pre-established confidence interval. Data falling outside the interval are determined to be statistically invalid and are discarded. The test has also been adapted for use in establishing reasonable limits within which future data can reasonably be expected to fall.

For the purposes of establishing an exceedance threshold, only the upper limit is used; the lower limit is not used. The upper limit is calculated as follows: (upper limit of confidence interval) = mean + t\* (standard deviation).

A standard statistical table was used to determine the value of 't' for each set of results based on the degrees of freedom (n - 1, where n is the number of results) and an upper limit of 0.05 (95%). As several of the samples had constituents that were not detected, a method had to be employed to handle these cases. Discarding non-detected results would skew the calculated thresholds high and also increase the degree of error. A method that is typically used (and is used here) is to assume that the actual concentration of a constituent that was not detected falls somewhere between zero and the method detection limit. On average, these values are expected to equal one-half the method detection limit. Therefore, for all non-detect values, one-half the method detection limit is substituted in the calculation of the mean and the standard deviation.

The threshold level for amenable cyanides was derived by substituting the threshold level for total cyanides, which the Agency believes will adequately address any concerns regarding the possible presence of cyanides in the sludge.

threshold levels are intended to serve as a means to gauge the performance of the wastewater treatment process and the composition of the sludge, given that EPA's willingness to implement this pilot project was based in part on the very low levels of hazardous constituents in the sludge and given that this pilot project is premised on the sludge being comparable to the raw ingredients used to produce cement.

In addition to analyzing the sludge to ensure that the threshold levels for the hazardous constituents are met, EPA is requiring IBM to analyze for two additional hazardous constituents, specifically mercury and beryllium, which are not necessarily expected to be in the wastewater treatment sludge. While mercury is not used in the production process, it is used in the laboratory and could conceivably end up in the wastewater treatment sludge (although the Agency acknowledges that in all of the analyses of the sludge, mercury was not detected). Beryllium is also not used in the production process, nor anywhere else at the facility. However, as discussed earlier, it has been found in the sludge in measurable concentrations, presumably resulting as a contaminant in the lime used in the wastewater treatment process. IBM has agreed to analyze and provide data on both mercury and beryllium<sup>8</sup> to the Agency to increase the available information on the sludge. Additionally, IBM has agreed that, should mercury or beryllium be found at significant levels in the sludge, the Agency may set appropriate threshold levels for these constituents as well, through a rulemaking to amend the site-specific exclusion from the definition of solid waste.

The purpose of the periodic analysis is to serve as a check on the performance of the wastewater treatment process itself, as well as to ensure that the sludge is consistently within the threshold concentration levels for the hazardous constituents in the sludge. However, in the unlikely event that the quarterly, or semi-annual, analysis of the wastewater treatment sludge indicates that a specific batch of sludge exceeds one or more constituent thresholds, the pilot project will be temporarily suspended until subsequent

<sup>8</sup> The Agency notes that cadmium is also not used at the facility and so would not be expected to be in the wastewater treatment sludge. As in the case for beryllium, when cadmium is present in the sludge, it is presumably due to its presence in the lime used in the wastewater treatment process. Although the Agency is not setting a threshold limit for beryllium, it is setting a threshold level for cadmium (with agreement from IBM) because cadmium is one of the constituents for which F006 was specifically listed.

analysis (which can be performed immediately) of the sludge demonstrates that the thresholds are once again being met (i.e., the exclusion would not be applicable because the conditions were not met, and will continue to be non-applicable until IBM demonstrates that the conditions are again being met). The Agency acknowledges that the results of the analysis may not be known until after the sludge has already been received and processed by the cement manufacturer as an ingredient in cement (due to the materials handling logistics at the facility, IBM is unable to store the sludge on-site until the results of the analysis are known). Because the threshold levels are so low and because the sludge has demonstrated a relatively consistent composition, the Agency does not believe any action will be necessary to address the sludge that has already been received and processed into cement (in effect, that cement will have been "grandfathered" by the conditional exclusion). The Agency will, however, evaluate such failures to meet the threshold levels as part of its evaluation of the success of this pilot project.

#### *I. How Long Will This Project Last and When Will It Be Completed?*

This project will be in effect for five years from the date that the final rulemaking becomes effective unless it is terminated earlier or extended by all Project Signatories (if the FPA is extended, the comments and input of stakeholders will be sought and a **Federal Register** notice will be published). Any Project Signatory may terminate its participation in this project at any time in accordance with the procedures set forth in the FPA. The project will be completed at the conclusion of the five-year anniversary of the final rulemaking or at a time earlier or later determined by the amount of information gathered to date and the interest of the parties involved. The proposed site-specific exclusion that enables the implementation of this XL project contains a "sunset provision" that will effectively terminate the exclusion automatically after five years, unless further regulatory action is taken to extend the XL project (or end it sooner).

Prior to, or at the completion of the project term, EPA and NYSDEC commit to evaluating the project. If the project results indicate that it was a success, EPA will consider making the site-specific exclusion permanent (through normal rulemaking procedures). EPA will also consider transferring the regulatory flexibility (or similar flexibility) to the national RCRA

program (through normal rulemaking procedures), but such a national change would require more information than the Agency expects to gather from this XL project. Should on-going evaluation during the course of the XL project indicate that the project is not successful, EPA will promulgate a rule to remove the site-specific exclusion prior to the five-year sunset provision. However, as for any conditional exclusion, if at any time, should IBM or the cement manufacturer fail to meet all of the conditions of the site-specific exclusion, the exclusion is not applicable. Also, the Agency may promulgate a rule to withdraw the exclusion at any time, subject to the procedures agreed to in the Final Project Agreement (FPA), including, but not limited to, a substantial failure on the part of any Project Signatory to comply with the terms and conditions of the FPA or if the exclusion becomes inconsistent with future statutory or regulatory requirements.

#### **IV. Additional Information**

##### *A. How To Request a Public Hearing*

A public hearing will be held, if requested, to provide an opportunity for interested persons to make oral presentations regarding this regulation in accordance with 40 CFR Part 25. Persons wishing to make an oral presentation on the site-specific rule to implement the IBM East Fishkill XL project should contact Mr. Sam Kerns or Ms. Aleksandra Dobkowski-Joy of the EPA Region 2 office, at the address given in the **ADDRESSES** section of this document. Any member of the public may file a written statement before the hearing, or after the hearing, to be received by EPA no later than July 6, 2001. Written statements should be sent to EPA at the addresses given in the **ADDRESSES** section of this document. If a public hearing is held, a verbatim transcript of the hearing, and written statements provided at the hearing will be available for inspection and copying during normal business hours at the EPA addresses for docket inspection given in the **ADDRESSES** section of this preamble.

##### *B. How Does This Rule Comply With Executive Order 12866: Regulatory Planning and Review?*

Because this rule affects only one facility, it is not a rule of general applicability and therefore not subject to OMB review and Executive Order 12866. In addition, OMB has agreed that review of site-specific rules under Project XL is not necessary.

##### *C. Is a Regulatory Flexibility Analysis Required?*

The Regulatory Flexibility Act (RFA), 5 U.S.C. 601 *et seq.*, generally requires an agency to conduct a regulatory flexibility analysis of any rule subject to notice-and-comment rulemaking requirements unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small not-for-profit enterprises, and small governmental jurisdictions. This rule will not have a significant impact on a substantial number of small entities because it only affects the IBM facility in Hopewell Junction, NY and it is not a small entity. Therefore, EPA certifies that this action will not have a significant economic impact on a substantial number of small entities.

##### *D. Is an Information Collection Request Required for This Project Under the Paperwork Reduction Act?*

This action applies only to one facility, and therefore requires no information collection activities subject to the Paperwork Reduction Act, and therefore no information collection request (ICR) will be submitted to OMB for review in compliance with the Paperwork Reduction Act, 44 U.S.C. 3501, *et seq.*

##### *E. Does This Project Trigger the Requirements of the Unfunded Mandates Reform Act?*

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104-4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures to State, local, and tribal governments, in the aggregate, or to the private sector, of \$100 million or more in any one year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective or least burdensome alternative if the

Administrator publishes with the final rule an explanation of why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

As noted above, this rule is applicable only to one facility in New York. EPA has determined that this rule contains no regulatory requirements that might significantly or uniquely affect small governments. EPA has also determined that this rule does not contain a Federal mandate that may result in expenditures of \$100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any one year. Thus, today's rule is not subject to the requirements of sections 202 and 205 of the UMRA.

#### *F. RCRA & Hazardous and Solid Waste Amendments of 1984*

##### 1. Applicability of Rules in Authorized States

Under section 3006 of RCRA, EPA may authorize qualified States to administer and enforce the RCRA program for hazardous waste within the State. (See 40 CFR Part 271 for the standards and requirements for authorization.) States with final authorization administer their own hazardous waste programs in lieu of the Federal program. Following authorization, EPA retains enforcement authority under sections 3008, 7003 and 3013 of RCRA.

After authorization, Federal rules written under RCRA (non-HSWA), no longer apply in the authorized state except for those issued pursuant to the Hazardous and Solid Waste Act Amendments of 1984 (HSWA). New Federal requirements imposed by those rules do not take effect in an authorized State until the State adopts the requirements as State law.

In contrast, under section 3006(g) of RCRA, new requirements and prohibitions imposed by HSWA take effect in authorized States at the same time they take effect in nonauthorized States. EPA is directed to carry out HSWA requirements and prohibitions in

authorized States until the State is granted authorization to do so.

##### 2. Effect on New York Authorization

Today's proposed rule, if finalized, will be promulgated pursuant to non-HSWA authority, rather than HSWA. New York has received authority to administer most of the RCRA program; thus, authorized provisions of the State's hazardous waste program are administered in lieu of the Federal program. New York has received authority to administer the regulations that define solid wastes. As a result, if today's proposed rule to modify the existing regulations to provide a site-specific exclusion for IBM's wastewater treatment sludge is finalized, it would not be effective in New York until the State adopts the modification. It is EPA's understanding that subsequent to the promulgation of the final rule, New York intends to propose rules or other legal mechanisms to provide the exclusion. EPA may not enforce these requirements until it approves the State requirements as a revision to the authorized State program.

#### *G. How Does This Rule Comply With Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks?*

The Executive Order 13045, "Protection of Children from Environmental Health Risks and Safety Risks" (62 FR 19885, April 23, 1997) applies to any rule that: (1) is determined to be "economically significant," as defined under Executive Order 12866; and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, the Agency must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

This rule is not subject to Executive Order 13045 because it is not an economically significant rule, as defined by Executive Order 12866, and because it does not involve decisions based on environmental health or safety risks.

#### *H. How Does This Rule Comply With Executive Order 13132: Federalism?*

Executive Order 13132, entitled "Federalism" (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism

implications." "Policies that have federalism implications" is defined in the Executive Order to include regulations that have "substantial and direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government."

The proposed rule does not have federalism implications. It will not have a substantial direct effect on States, on the relationship between the national government and the States, or on the distribution of powers and responsibilities among various levels of government, as specified in Executive Order 13132. The proposed rulemaking will only affect one facility, providing regulatory flexibility applicable to this specific site. Thus, Executive Order 13132 does not apply to this proposed rule.

#### *I. How Does This Rule Comply With Executive Order 13175: Consultation and Coordination With Indian Tribal Governments?*

Executive Order 13175, entitled "Consultation and Coordination with Indian Tribal Governments" (65 FR 67249, November 6, 2000), requires EPA to develop an accountable process to ensure "meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications." "Policies that have tribal implications" is defined in the Executive Order to include regulations that have "substantial direct effects on one or more Indian tribes, on the relationship between the Federal government and the Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes."

This proposed rule does not have tribal implications. It will not have substantial direct effects on tribal governments, on the relationship between the Federal government and Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes, as specified in Executive Order 13175. EPA is currently unaware of any Indian tribes located in the vicinity of the facility. Thus, Executive Order 13175 does not apply to this rule.

#### *J. Does This Rule Comply With the National Technology Transfer and Advancement Act?*

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 ("NTTAA"), Public Law 104-113, Section 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary

consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., material specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. The NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standard. This proposed rulemaking does not involve technical standards. Therefore, EPA is not considering the use of any voluntary consensus standards. EPA welcomes comments on this aspect of the proposed rulemaking and, specifically, invites the public to identify potentially-applicable voluntary consensus standards and to explain why such standards should be used in this regulation.

#### List of Subjects in 40 CFR Part 261

Environmental protection, Hazardous materials, Waste treatment and disposal, Recycling.

Dated: May 30, 2001.

**Christine Todd Whitman,**  
*Administrator.*

For the reasons set forth in the preamble, part 261 of chapter I of title 40 of the Code of Federal Regulations is proposed to be amended as follows:

#### **PART 261—IDENTIFICATION AND LISTING OF HAZARDOUS WASTE**

1. The authority citation for Part 261 continues to read as follows:

**Authority:** 42 U.S.C. 6905, 6912(a), 6921, 6922, 6924(y), and 6938.

2. Section 261.4 is amended by adding paragraph (a)(22) to read as follows:

##### **§ 261.4 Exclusions.**

(a) \* \* \*

(22) Dewatered wastewater treatment sludges generated by the International Business Machines Corporation (IBM) East Fishkill facility in Hopewell Junction, New York, provided that:

(i) The sludge is recycled as an ingredient in the manufacture of cement meeting appropriate product specifications by a cement manufacturing facility.

(ii) The sludge is not stored on the land, and protective measures are taken to ensure against wind dispersal and precipitation run-off.

(iii) The sludge is not accumulated speculatively, as defined in § 261.1(c)(8).

(iv) A representative sample of the sludge undergoes constituent analysis by IBM (using the methods specified in 40 CFR Part 264, Appendix IX) demonstrating that the sludge contains constituents at no greater concentrations than the thresholds presented below. Sludges generated by different wastewater treatment systems must be analyzed separately (commingling of the sludges is permissible after sampling). This sampling and analysis must be conducted every three months for an initial 12-month period, which can include the immediate period prior to the effective date of this exclusion. After the initial 12-month reporting period (i.e., four sampling/analysis events), sampling and analysis must be conducted every six months for the duration of the project. Additionally, after any change in either the manufacturing process or the wastewater treatment process that could affect the chemical composition of the wastewater treatment sludge, sampling and analysis must be conducted. In addition to the constituents for which threshold levels are established, IBM must analyze and report the concentration levels of mercury and beryllium:

Arsenic—3.0 mg/kg  
Cadmium—0.88 mg/kg  
Chromium—(total) 22.9 mg/kg  
Lead—18.8 mg/kg  
Nickel—10.4 mg/kg  
Silver—2.1 mg/kg  
Cyanide (amenable)—0.815 mg/kg  
Cyanide (total)—0.815 mg/kg

(v) An accounting is made of the volumes of sludge that are recycled, with an assessment of how much less analogous raw materials are used to produce the same volume of cement product, or how much more cement is produced attributable to the volume of sludge that is processed. IBM must acquire this information from the cement manufacturing facility.

(vi) IBM documents each shipment of the sludge, including where the sludge was sent, the date of the shipment, the date that the shipment was received and the volume of each shipment.

(vii) IBM provides EPA and NYSDEC with semi-annual reports detailing all of the information in paragraphs (a)(22)(i) through (vi) of this section for the duration of the project.

(viii) Should any of the conditions of paragraphs (a)(22)(i) through (vii) of this section not be met, the exclusion provided in this provision will not be applicable and the wastewater treatment sludge will be subject to the applicable RCRA Subtitle C regulations until the conditions are once again met.

(ix) The provisions of this section shall expire on [INSERT DATE FIVE YEARS FROM EFFECTIVE DATE OF FINAL RULE].

\* \* \* \* \*

[FR Doc. 01-14249 Filed 6-5-01; 8:45 am]

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## **FEDERAL COMMUNICATIONS COMMISSION**

### **47 CFR Part 25**

[IB Docket 01-96; FCC 01-134]

#### **Policies and Service Rules for the Non-Geostationary Satellite Orbit, Fixed Satellite Service in the Ku-Band**

**AGENCY:** Federal Communications Commission.

**ACTION:** Proposed rule.

**SUMMARY:** The Federal Communications Commission (FCC) proposes to decide the means for sharing among multiple satellite network licensees in spectrum recently designated for the non-geostationary satellite orbit, fixed-satellite service (NGSO FSS) in the 17.7-20.2 GHz and 27.5-31.3 GHz frequency bands (the Ku-band). The FCC's Notice of Proposed Rulemaking (NPRM) seeks comment on four possible sharing options, and also seeks comment on proposed blanket earth station licensing for NGSO FSS in the Ku-band, and seeks comment on proposed service rules. The Commission's goals in opening this satellite service in the Ku-band are to promote competition through opportunities for new entrants, to expedite the authorization process, and to provide incentives for prompt commencement of service to the public using state-of-the-art technology.

**DATES:** Comments may be filed on or before July 6, 2001. Reply comments may be filed on or before August 6, 2001. Comments on the proposed information collections may be filed on or before August 6, 2001.

**ADDRESSES:** Comments may be filed using the Commission's Electronic Comment Filing System (ECFS) or by paper copies. See **SUPPLEMENTARY INFORMATION** for filing instructions, formats and other information regarding electronic filing; send paper copies to Federal Communications Commission, 445 12th Street, SW., Washington, DC 20554. Comments regarding the request for approval of the information collection should be submitted to Judy Boley at 445 12th Street, SW., Rm. 1-C804, Washington, DC 20554 or via