

World Resources Company  
EPA ID No. AZD 980 735 500  
Attachment 16  
Draft Permit

**ATTACHMENT 16**  
**U.S. EPA VARIANCE**

one or more distinct provisions of the direct final rule, we would publish a timely notice in the **Federal Register** specifying which provisions will become effective and which provisions will be withdrawn due to adverse comment. We subsequently received from one commenter adverse comments on six of the amendments:

- § 63.1501(c), which deferred the compliance date for new and reconstructed affected sources which are located at existing aluminum die casting, foundry, or extrusion facilities; and

- § 63.1505(c),(d),(e),(f), and (k), which deferred the compliance date for thermal chip dryers, scrap dryers/delacquering kilns/decoating kilns, sweat furnaces and secondary aluminum processing units from the date on which performance testing was completed until the compliance date specified in § 63.1501.

In light of the relationship between the sections which were commented on and some of the remaining amendments, and to avoid the possibility of confusion resulting from partial adoption of the amendments, we have decided to withdraw all amendments contained in the direct final rule. Accordingly, all amendments in the direct final rule are withdrawn as of August 13, 2002. We recognize the potential disruptive effect of this withdrawal action on affected facilities. Therefore, after considering the adverse comments, we intend to take final action on the accompanying proposed rule as soon as possible. We will not institute a second comment period on this action.

#### List of Subjects in 40 CFR Part 63

Environmental protection, Administrative practice and procedure, Air pollution control, Reporting and recordkeeping requirements.

Dated: August 7, 2002.

**Robert Brenner,**

*Acting Assistant Administrator, Office of Air and Radiation.*

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## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 260

[FRL-7257-7]

#### Exclusion from the Definition of Solid Waste; Hazardous Waste Management System; Identification and Listing of Hazardous Waste

**AGENCY:** Environmental Protection Agency.

**ACTION:** Final rule.

**SUMMARY:** The Environmental Protection Agency (EPA) is today granting a variance from EPA's hazardous waste requirements for certain materials reclaimed by the World Resources Company (WRC) from metal-bearing sludges. This action responds to a petition submitted by WRC requesting that the Agency exclude from the definition of solid waste under the Resource Conservation and Recovery Act (RCRA) its concentrate material that is partially reclaimed from metal-bearing sludges and sold to smelters. In response to the petition, EPA published a **Federal Register** notice proposing to grant the variance on December 9, 1999 (64 FR 68968).

**EFFECTIVE DATE:** This variance is effective August 13, 2002.

**ADDRESSES:** Supporting materials for this variance are available for viewing in the RCRA Information Center (RIC), located at Crystal Gateway I, First Floor, 1235 Jefferson Davis Highway, Arlington, VA. The Docket Identification Number is F-2002-WRCF-FFFFF. The RIC is open from 9 a.m. to 4 p.m., Monday through Friday, excluding Federal holidays. To review docket materials, we recommend making an appointment by calling (703) 603-9230. The public may copy a maximum of 100 pages from any regulatory docket without charge. Additional copies cost \$0.15 per page. The docket index and some supporting materials are available electronically. For information on accessing them, see the beginning of the Supplementary Information section.

**FOR FURTHER INFORMATION CONTACT:** For general information, contact the RCRA/Superfund/EPCRA/UST Call Center at (800) 424-9346 (toll free) or TDD (800) 553-7672 (hearing impaired). In the Washington, D.C. metropolitan area, call (703) 412-9810 or TDD (703) 412-3323. For more detailed information on specific aspects of this rulemaking, contact Ms. Marilyn Goode, U.S. Environmental Protection Agency, MC 5304W, 1200 Pennsylvania Avenue, NW., Washington, DC 20460, (703) 308-8800, electronic mail: [goode.marilyn@epa.gov](mailto:goode.marilyn@epa.gov).

**SUPPLEMENTARY INFORMATION:** The index to the docket record and some supporting documents for this proposal are available on the Internet. Follow these instructions to access the information electronically: <http://www.epa.gov/epaoswer/hazwaste/id/index/htm>.

The official record for this action will be kept in paper form. The official

record is the paper record maintained at the RCRA Information Center, also referred to as the Docket, at the address provided in the **ADDRESSES** section at the beginning of this document.

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#### I. Background

##### A. Authority

Under 40 CFR 260.30(c), facilities may petition EPA to exclude from the definition of solid waste material that has been reclaimed but must be reclaimed further before recovery is complete. To qualify for the exclusion, the material resulting from initial reclamation must be commodity-like (even though it is not yet a commercial product, and has to be reclaimed further). Petitioners must provide sufficient information to EPA to allow the Agency to make a determination that the material is not a solid waste, pursuant to criteria set forth at 40 CFR 260.31(c).

##### B. Summary of Petition

Pursuant to 40 CFR 260.30(c), WRC submitted to EPA a petition for a variance from classification as solid waste for metal-rich concentrate material produced at its facility in Phoenix, Arizona. WRC produces the concentrate primarily from sludges generated by electroplating operations. The sludges are rich in metals, and are generally classified as hazardous wastes. WRC then sells the partially reclaimed material to primary smelters for metals extraction. Currently, the partially reclaimed material produced at the Phoenix facility is fully regulated as hazardous waste, must be managed and sold as hazardous waste, and off-site shipments must be accompanied by a hazardous waste manifest. In support of its variance application, WRC provided data and information in its application about each of the factors listed in 40 CFR 260.31(c).

##### 1. Applicability of the Variance

At its Phoenix facility, WRC principally reclaims wastewater treatment sludges (F006) received from generators who conduct electroplating and metal finishing operations. From

these sludges, WRC “produces” a metal-rich concentrate material. In addition, the facility also receives and partly reclaims hazardous wastes listed as F019 (wastewater treatment sludges from chemical conversion coating of aluminum) and D004 through D011 (characteristic hazardous wastes). WRC’s petition, and the proposed exclusion addressed in this notice, pertain only to the metal-bearing sludges listed as hazardous wastes F006 and F019 and partially reclaimed at WRC’s Phoenix, Arizona facility. Other hazardous wastes managed by WRC at its Arizona facility and all hazardous wastes managed at other WRC facilities are not addressed in this decision and must continue to be managed as solid and/or hazardous wastes in accordance with all applicable RCRA regulatory requirements.

The Agency notes that sludges that are hazardous only because they exhibit a characteristic of hazardous waste that are reclaimed are currently excluded from classification as solid waste pursuant to 40 CFR 261.2(c)(3). Therefore, sludges that are reclaimed by WRC and designated as hazardous wastes D004 through D011 are not solid wastes. In addition, if these characteristic sludges are mixed with the listed metal-bearing sludges covered by the variance prior to or during the reclamation process at WRC’s Phoenix facility, the mixture will not be classified as a solid waste provided the mixture is sent off-site for further reclamation and is handled in accordance with all the conditions of this variance.

## 2. Description of WRC’s Partial Reclamation Process

Operations at WRC’s Phoenix facility are governed by a Consent Agreement and Consent Order (CA/CO) executed by EPA Region IX, WRC, and the Arizona Department of Environmental Quality, hereafter referred to as “ADEQ” (see *In the Matter of World Resources Company*, EPA I.D. No. AZD980735500, United States Environmental Protection Agency, Region IX, September 3, 1996). The CA/CO includes a requirement to submit an application for a treatment and storage permit to ADEQ. At the Arizona facility, WRC accepts F006 raw material (as well as other metal-bearing sludges) that it judges to be acceptable for recycling based on laboratory and process testing of generated sludges. WRC prepares a waste profile for the wastestreams received from each generator, which includes physical descriptions and constituent content. The material is unloaded, examined, and sampled on receiving pads in a

processing enclosure. WRC dries the received waste through evaporative processes. The material is spread out in a controlled area, mechanically furrowed, and periodically rotor-tilled to facilitate drying. The physical characteristics of the material changes from a wet cohesive nonfree-flowing mass into a granular free-flowing form. The moisture content of the F006 received is reduced by one-half. The entire processing area is located on a concrete pad which covers several acres, with a compacted native soil and flexible membrane liner underneath the pad.

The F006 is then blended by mechanical mixing with other waste streams received from various generators to achieve concentrates that meet the contractual specifications (e.g., recoverable metals contents) of its customers. Other than water, WRC neither adds any materials to, nor removes any materials from the F006 and F019 metal-bearing sludges that it receives from generators and processes. The resulting concentrate contains metal hydroxides and oxides of iron, aluminum and magnesium. WRC markets the concentrates as copper, nickel, and tin concentrates to smelters that recover various metals contained in these concentrates.

## II. Summary of the Agency’s Final Decision

For the reasons described below in our response to public comments, the Agency is today conditionally granting the petitioner’s (WRC’s) request for a variance from classification as solid waste for the metal concentrate partially reclaimed from materials listed as hazardous waste F006 and F019 received at its Arizona facility, which are sold to metal smelters after being partially reclaimed by WRC. The variance is granted subject to conditions that are very similar to those proposed in the **Federal Register** on December 9, 1999 (64 FR 68968), namely:

(1) Metal-bearing sludges F006 and F019 accepted by the facility from off-site and used in the production of the partially reclaimed concentrate materials must have a metals concentration level of no less than two percent on a dry weight basis, or an equivalent economic value in precious metals (e.g., gold, silver, platinum, or palladium). In addition, the facility may only process two shipments of listed sludge materials that do not meet the two percent metals concentration level from a single generator within a 14-day time period before taking action to ensure that subsequent shipments will meet the minimum metal content.

Specifically, WRC may not accept more than one non-conforming shipment from a generator, unless the second non-conforming shipment is received within 14 days following the first event. Thereafter, WRC may not accept additional materials from that generator until WRC determines that the generator’s subsequent sludge shipments will meet the minimum metal content requirements of this condition.

(2) WRC shall provide to ADEQ an annual audit, performed by an independent third party mutually acceptable to WRC and ADEQ, to be completed within the six months following the end of each calendar year. The scope of the annual audit will cover WRC’s concentrate shipments during the year to certify that all shipments were: (1) Made to metal smelting facilities; (2) documented and shipped in accordance with all applicable U.S. Department of Transportation regulations; and (3) documented to have reached the designated destination.

(3) The partially reclaimed concentrate materials must have a concentration of no greater than 590 ppm total cyanide. Cyanide must be analyzed using method 9010 or 9012 found in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, EPA Publication SW-846, as incorporated by reference in 40 CFR 260.11, with a sample size of 10 grams and a distillation time of one hour and 15 minutes.

(4) WRC must send a one-time notification of the variance and its conditions to any foreign country where metal smelters accepting WRC concentrate are located. In addition, WRC must include on its Material Safety Data Sheet shipped with the concentrate a notification that the concentrate may contain up to 590 ppm cyanide and that low pH environments can result in the production of hydrogen cyanide gas.

(5) To ensure that its customers handle the processed concentrates as valuable commodities in a manner that minimizes loss, WRC must place a provision stipulating no land placement of the materials in its contractual agreements with smelting facilities.

(6) This conditional variance from classification as solid waste for the metal concentrate reclaimed from listed hazardous wastes F006 and F019 at WRC’s Phoenix, Arizona facility takes effect at the point at which the concentrate is loaded for shipment. This conditional variance does not affect the regulatory status of any other hazardous wastes handled by WRC at the Phoenix facility. In addition, the variance does

not apply to or affect the regulatory status of any wastes managed at any other WRC facility.

### III. Response to Public Comments on the Proposed Variance

40 CFR 260.30 provides that the EPA Administrator may grant a variance from the classification of solid waste, on a case-by-case basis, for materials that have been reclaimed but must be reclaimed further before recovery is completed. Such a variance generally is contingent upon the material resulting from the initial reclamation being "commodity-like." When this variance is effective, the concentrates partially reclaimed from metal-bearing sludges F006 and F019 that are shipped to smelters may travel without a hazardous waste manifest and will not be subject to any RCRA controls other than the conditions of this variance (listed above in this notice). Incoming hazardous waste received by WRC at the Phoenix facility is not covered by the variance and must be manifested and managed as a hazardous waste until shipped to smelters for further reclamation.

EPA's rules at 40 CFR 260.31(c) specifies five criteria for evaluating whether a specific material qualifies for a "partially reclaimed material" variance from the definition of solid waste. In addition, 40 CFR 260.31(c)(6) also allows EPA to consider "other relevant factors" when determining whether or not to grant a requested variance for materials that have been partially reclaimed. The criteria of 40 CFR 260.31(c) do not constitute separate legal thresholds, each of which must be met before EPA can grant a variance under this regulatory provision. Instead, EPA must consider all the criteria in their totality to determine whether the partially reclaimed concentrate is "commodity-like". A strong demonstration that several criteria have been met may outweigh the fact that an applicant is weak in another area. Weighing all of the factors together, EPA has concluded that WRC's processed concentrates are more commodity-like than waste-like, and that it is reasonable to grant the variance.

This section sets out EPA's findings, describes the principal comments concerning these findings, and gives EPA's responses to these comments. All other comments, and the Agency's responses, may be found in the record for this rulemaking (see RCRA Docket Number F-2002-WRCF-FFFFF).

#### A. Degree of Processing

The first evaluation criterion (40 CFR 260.31(c)(1)) is the degree of processing a material has undergone and the degree

of further processing that is required for the material to be rendered "commodity-like." Materials that have undergone substantial processing to reclaim valuable or recyclable materials (but still must undergo a degree of further processing) generally satisfy this criterion. Materials that are still substantially "waste-like" and that need a significant degree of further processing or "treatment" to be rendered "commodity-like" may not satisfy the evaluation criterion.

One commenter stated that the greater part of the processing is accomplished at the smelter rather than at the WRC facility and that WRC therefore does not meet the criteria for the variance. EPA agrees that this processing is not technically complicated. As discussed below, however, WRC has a sophisticated quality control program which allows it to blend sludges to meet smelter specifications. In fact, WRC has made a very strong showing that its processing adds substantial economic value to electroplating sludges. It takes in a material that has little or no market value (electroplaters pay WRC to take their sludges) and converts it into a material that smelters will buy (see the discussion of economic value in the following section of this notice). WRC also made a strong showing that it meets the fourth criterion, relating to a guaranteed end market for its reclaimed material. Weighing all the factors together, EPA has concluded that the amount of processing performed by WRC is sufficient to meet this criterion.

Another commenter said that evaporation and blending represent the most minimal form of waste handling and should not be interpreted to constitute significant value-added processing. This commenter stated that any electroplater would be able to obtain a variance for hazardous waste that has been evaporated in a 90-day or other exempt unit, and any smelter would be able to accept it. Another commenter speculated that other 90-day generators would dewater other wastes and claim partially-reclaimed variances.

EPA does not agree that any electroplater would be able to obtain a variance to dry sludges in onsite units. Although WRC's mechanical methods for sludge drying and blending may be technically simple, the company has a sophisticated quality control program used to ensure that the sludge from each generator meets contract specifications, and that the partially reclaimed material has also been formulated to meet purchaser specifications. The process involves a chemical analysis laboratory program and computer software programs which yield over 200,000 test

results yearly to provide needed operational information to control WRC's recycling activities. These specifications and analyses also played a role in EPA's decision that the sludges undergo meaningful processing at WRC. EPA would not be likely to grant variances to electroplaters or other waste generators who could not show similarly strong indicators that they engaged in significant processing to create "commodities."

One commenter stated that using the value of services to generators as a measure for determining the degree of processing of a waste material does not appear in any regulation and is not discussed in any of the Agency's correspondence or guidance on this subject.

EPA did not consider the value of services that WRC provides to generators in its evaluation of this criterion. Although WRC urged EPA to take into account the amount of money it spends to process each ton of sludge, and although it is true that WRC does derive some of its profit from fees paid by generators, EPA's decision is based on the fact that WRC's activities make its concentrate marketable to smelters as discussed elsewhere in this notice (see section B below).

#### B. Economic Value of Material That Has Been Reclaimed

The second evaluation criterion (§ 260.31(c)(2)) requires an evaluation of the economic value of the material that has been reclaimed, but must be further reclaimed. This criterion is also useful in determining whether a material is indeed "commodity-like." To satisfy this criterion, petitioners must demonstrate that the initial reclamation process increases or contributes to the value of the material and that there is a market for the reclaimed material. Petitioners generally can demonstrate that this factor is met by providing sales information, including quantities of the material sold, additional demand for the material (if any), and the price paid for the material by purchasers.

In the proposal, EPA stated that the processed concentrate that WRC produces has positive economic value and is purchased by smelters. EPA based this conclusion primarily on sales data provided by WRC for January 1994-June 1995. EPA found that this data showed that WRC in fact sold its partially reclaimed material to smelters and received a positive economic value (taking into account average transportation costs).

One commenter stated that WRC and EPA have mis-characterized the "economic value" of the concentrate.

This commenter asserted that the true economic value of metal-bearing sludges is determined by the value of the metals in the material at a given time, not by how much is spent to process the material or how much the processor charges for the material. The commenter asserted that, on this basis, WRC's process adds no value, because the amount of the metals in the sludges does not change.

EPA agrees that the presence of the valuable metals in metal-bearing sludges is one factor to be used in determining whether WRC's partially reclaimed concentrate is commodity-like.

However, EPA does not agree that WRC must increase the amount of metal to add value to the materials that it processes. There are other ways to make these metal-bearing materials more valuable. WRC's services in aggregating sludges into larger volumes which smelters are willing to accept and in custom-blending sludges to meet specific smelter specifications add significant value. The fact that WRC is able to sell processed concentrates to smelters (while few electroplaters are able to persuade smelters to accept unprocessed sludges, and most who do have to pay smelters to accept their sludges), demonstrates that WRC's services add value.

One commenter questioned whether WRC would be able to claim positive economic value if it analyzed sales data for sludges that were reclaimed for common metals only. This commenter argued that the economic value would not be as high if only common metals were sold, instead of precious metals. Another commenter said that information in the record indicated that WRC's concentrate contained substantially lower levels of recoverable metals than virgin concentrates.

In response to these comments, Agency points out that the regulatory criteria for granting a variance under 40 CFR 260.30(c) do not require the Agency to distinguish between the common metals and precious metals contained in WRC's partially reclaimed concentrate, if in fact the concentrate contains both kinds of metals. The Agency also disagrees that recoverable levels for many metals are lower in WRC's concentrate than those found in virgin concentrate. If in some cases the levels of metals are lower, smelters are nevertheless willing to pay for the concentrates, demonstrating that they have positive economic value.

The commenter also pointed out that a significant portion of WRC's revenue comes from fees it charges generators, as opposed to the revenue received for selling its concentrate to smelters. The

commenter believed that this fact is indicative of sham recycling. If the commenter means that WRC's operation is a "sham", the issue is not relevant to this variance. The sham recycling criteria help EPA distinguish facilities that engage in recycling that is not subject to RCRA regulation from facilities that engage in waste treatment that is subject to RCRA. WRC is not claiming that its operation is exempt from RCRA; therefore, the sham recycling criteria do not apply. Similarly, the commenter may be suggesting that smelters using WRC concentrates are engaged in waste treatment rather than recycling. EPA does not believe that the fees generators pay to WRC are relevant to the legitimacy of the smelters' processes. The argument might have relevance if WRC paid smelters to take its concentrates; however, the record shows that WRC sells its concentrates to smelters.

Finally, the commenter may be suggesting that WRC's process adds so little value to the sludges that no variance is warranted, so that WRC concentrates should continue to be regulated as hazardous wastes during transportation and during storage at smelters. EPA disagrees. Data provided by WRC show that, during 1996–1999, WRC made more money from selling concentrates to smelters than from charging fees to generators. WRC received approximately \$0.59 from generator fees for every \$1.00 it received in metal sales (after adjusting generator fees to eliminate charges for optional transportation services).

This commenter also stated that EPA should not have used "average" transportation costs in assessing whether WRC received positive economic value for its concentrate. This commenter suggested that the Agency should require recordkeeping and auditing of WRC's records to ensure that each shipment generates a return. The commenter further suggested that EPA should assess the transportation cost of a single trip for each load, any administrative activities by the smelter, and smelter processing costs. These costs should then be compared to similar costs for "as-generated" sludges shipped directly to smelters. The commenter also stated that EPA should determine monetary value to smelters of reducing sludge moisture content and blending sludges to meet smelter specifications.

In response to these comments, the Agency notes that it is not feasible to evaluate the profitability of each and every shipment made by WRC to smelters. Such profitability will depend

on several factors, such as the concentration of metals in a particular shipment, the price of the metals at the time, and freight costs. We do not believe that the regulatory criteria at 40 CFR 260.31(c) require the Agency to examine all of these factors with respect to each shipment. For this reason, EPA instead assessed the average cost of transportation over the period covered by the variance application. We believe that such averaged costs are sufficient to help us assess the economic value of WRC's concentrate.

EPA believes that the record shows that smelters value the reduction of moisture content and the blending of sludges. Smelters will pay more for WRC's concentrates, which have undergone these steps, than they will pay for sludges marketed by electroplaters which have not been dried and blended. Contrary to the commenter's assertion, EPA does not need to determine precise values for each of these activities to make a finding on this issue.

One commenter also stated that EPA's assertion that smelters are reluctant to accept F006 sludges directly from generators is not supported in the rulemaking record, and that at least one smelter takes "as-generated" sludges directly from electroplaters. In response, the Agency notes that we did not intend to imply that smelters refuse to take sludges directly from electroplaters. Rather, EPA meant that WRC's concentrates are more attractive to smelters than sludges shipped directly from electroplaters. EPA believes that the concentrates are more attractive for two reasons. First, WRC's shipments are much larger than typical shipments from electroplaters. For example, in 1995 the average amount of F006 generated from an individual electroplater was 120 tons (*see* Regulatory Impact Analysis for the Final Rule for a 180-Day Accumulation Time for F006 Wastewater Treatment Sludges, USEPA, Office Of Solid Waste, January 14, 2000). During the same year, WRC processed over 16,000 tons of F006 and related wastes for metal recovery (*see* Hazardous Waste Recycling in the United States: Summary Statistics and Trends for 1993–1997, USEPA, Office of Solid Waste, June 7, 2001, p. 18). Larger shipments reduce transaction costs for smelters, and smelters will penalize for smaller lots (*see* Pollution Prevention and Control Technology for Plating Operations, George C. Cushnie Jr., 1994). They also allow for economies of scale in shipping and handling costs. Second, smelter personnel contacted by EPA indicated that they believe that WRC more consistently meets

specifications for metal content and impurities (see personal communication between Paul Borst, USEPA, Office of Solid Waste and Bob Sippel, Vice-President for Recycling, Noranda Minerals, Inc., July 22–24, 1996).

*C. Degree to Which Reclaimed Material Resembles Analogous Raw Material*

The third evaluation criterion (40 CFR 260.31(c)(3)) is the degree to which the reclaimed material is like an analogous raw material. The partially reclaimed material should be similar to an analogous raw material or feedstock for which the material may be substituted in a production or reclamation process. In addition, the partially reclaimed material should not contain significant concentrations of hazardous constituents not found in an analogous raw material and that do not contribute to the value of the partially reclaimed material when used for its intended purpose.

As explained in the proposal, EPA conducted an analysis comparing levels of the inorganic constituents and cyanide in the processed concentrates that WRC sells with levels of constituents in virgin ore concentrates. EPA found that, with the exception of cyanide, the levels of constituents in WRC's concentrates are generally comparable to the levels of constituents found in concentrates made from virgin ores. Also, EPA considered data showing that toxic organic constituents are not likely to be prevalent or present in more than trace amounts in F006 being recycled (see EPA's Metal Finishing F006 Benchmark Study, September 1998, p. 23, and letter (with attachment) from D. Daniel Chandler of Browning, Kaleczyc, Berry and Hoven to Paul Borst, USEPA, June 2, 1993)). To make WRC's concentrate more commodity-like, EPA decided to limit the levels of cyanide that could be allowed.

The 590 ppm total cyanide limit that we proposed is the current Universal Treatment Standard (UTS) for land disposal at 40 CFR 268.48 for total cyanide in hazardous wastes that are land disposed. This limit currently applies to any WRC concentrate that is stored on the land before smelting. In response to requests for clarification from two commenters, we are today stating that the limit refers to total cyanide, and we are adding the test method specified in 40 CFR 268.48.

Some commenters did not believe that the limit set for cyanide in WRC's concentrate should be 590 ppm. One commenter argued that EPA should limit cyanides to the amount present in analogous "virgin" sources of metals.

Another argued that the cyanide limit should be risk-based, and asserted that EPA's assessment of risks did not ensure protection of human health and the environment.

This criterion is intended to help EPA distinguish materials that are waste-like from materials that are commodity-like. Where EPA finds a constituent at higher levels in the partially reclaimed, waste-derived material, it does not have to conduct a risk assessment and impose a condition based on limiting risks to human health and the environment (as demonstrated through some type of risk assessment). Rather, EPA need only ensure that the constituent levels are commodity-like.

Limiting constituent levels in the partially reclaimed material to levels in analogous virgin raw materials, as one commenter suggested, is an acceptable way to accomplish this. It is not, however, the only way. In this case, the analogous raw materials appear to have extremely low levels of cyanide. EPA is concerned that WRC might not be able to reduce cyanide levels in electroplating sludges to this level. EPA, however, is confident that WRC can meet the land disposal restriction level for cyanide, which currently applies while WRC's concentrates are classified as hazardous wastes. As previously stated, WRC makes strong showings for the second and fourth criteria of the variance, causing EPA to conclude that its concentrates are commodity-like. Under these circumstances, EPA finds the 590 ppm limit to be sufficient to ensure that WRC's concentrates are more commodity-like than waste-like.

In spite of the fact that it was not legally required, EPA conducted a screening analysis to determine whether land storage of concentrates with cyanides at this level would pose ground water risks. The analysis suggested that cyanide concentration would not exceed the federal drinking water standard for cyanide at a downgradient drinking water well if cyanide underwent hydrolysis. The screening analysis did show some potential for risk if cyanide did not hydrolyze. One commenter challenged EPA's assumption that hydrolysis was likely to occur. The Agency made this assumption because the scientific literature shows that cyanide is often amenable to that process, since it tends to break down or dissociate if it comes in contact with water (see Kollig P. Heinz *et al.*, Environmental Fate Constants for Organic Chemicals Under Consideration for EPA's Hazardous Waste Identification Projects, Office of Research and Development, USEPA).

Moreover, the screening analysis is likely to overestimate risks for several reasons. EPA conducted the screening assuming 200 to 300 metric tons of electroplating sludge stored outdoors, even though such sludge is usually stored indoors, with reduced likelihood of releases to groundwater, and even though volumes of concentrate at a single smelter at any one time are likely to be smaller. In addition, information available to the Agency indicate that WRC's metal concentrate is unlikely to remain in storage at a smelter for a long period of time. First, the cost and efficiency of the smelting process itself are negatively affected by water content; therefore, any stored materials are used as soon as possible to avoid inadvertent moistening by rainfall. Second, under the purchasing agreement, the smelter must pay WRC by a specified time after the concentrate is received, often before the material is fully unloaded. This practice would lead the smelter to assume the risk of metal price changes if the material is not used promptly. Consequently, it is difficult to conclude that the concentrates would pose unacceptable ground water risk even if hydrolysis occurred slowly or did not occur at all.

The Agency also notes that the other conditions of this variance will protect against air inhalation risks from cyanide. For example, a Material Safety Data Sheet must accompany the concentrate with a notification that the concentrate may contain up to 590 ppm cyanide and that low pH environments can result in the production of hydrogen cyanide gas. Moreover, Department of Transportation regulations for hazardous materials will continue to apply to WRC's processed concentrates even after the RCRA exemption takes effect. In addition, the Agency notes that WRC is not seeking a variance for its own operations. Hazardous waste regulations will continue to apply to processed concentrates held at WRC's facility.

One commenter questioned the validity of EPA's assessment of groundwater risks for cyanide, noting that EPA decided not to propose an "exit" level for hazardous wastes containing cyanide in the proposed hazardous waste identification rule (HWIR) due to technical concerns with predicting the fate of cyanide in the environment. However, for this variance EPA did not need to conduct a risk assessment. Moreover, the technical difficulties are less important in a simple groundwater screening analysis than in the complex, multipathway analysis conducted for the HWIR rule.

Another commenter suggested that EPA should set a toxic-along-for-the-ride limit for the cyanide in incoming sludges to WRC's facility, so that WRC would not be able to dilute high incoming cyanide concentrations to achieve specified concentration levels in the outgoing concentrate.

RCRA regulations do not prohibit dilution during reclamation. While dilution is impermissible in the LDR program to avoid a treatment standard (see 40 CFR 268.3 generally), dilution is permissible when done to facilitate treatment (*i.e.*, adding cement to stabilize waste). The type of dilution that may occur at WRC in drying and blending is analogous to that which takes place to facilitate treatment, since drying and blending makes metal concentrates smelter-ready and amenable for high temperature metal recovery. Whatever cyanide dilution takes place in WRC's blending process is incidental to the main purpose of the blending, which is to ensure that the concentrates contain sufficient metal content to assure high process efficiency and limit contaminant concentrations of tramp constituents that may interfere with the smelting process.

One commenter thought the limit for total organic hazardous constituents, including cyanides, should be 500 ppm, apparently because other organic hazardous constituents may be present in sludges received by WRC and because this value is the cutoff point for determining whether a smelter is burning solely for metal recovery, and thus eligible for an exemption to the current permitting rules for boilers and industrial furnaces (BIFs) (see CFR 266.100(c)(2)(i)). Another commenter believed that even the 500 ppm limit was not sufficiently protective, because it could create health risks if burning were conducted improperly, and the limit was not intended for use in a delisting or a variance.

EPA established a 500 ppm limit for total organic constituents in secondary materials burned at smelters to distinguish smelters engaged in metals recovery from smelters engaged in the treatment of hazardous organic constituents. The limit is not risk-based. Moreover, as stated earlier, EPA is not required to ensure that the concentrate will pose low risks before granting the variance. However, EPA has also found that unprocessed electroplating sludges typically contain very low levels of organics (except cyanide) that are well below the cutoff point for smelter metals recovery (see EPA's Metal Finishing F006 Benchmark Study, September 1998, p. 23, and letter (with attachment) from D. Daniel Chandler of Browning,

Kaleczyc, Berry and Hoven to Paul Borst, USEPA, June 2, 1993)). EPA is imposing a limit for cyanide.

Two commenters stated that EPA should evaluate risks presented by all toxic constituents potentially present in the waste, just as it does when considering delisting requests. One of these commenters suggested that EPA should set a "toxics-along-for-the-ride" threshold level for each toxic constituent in each incoming load of sludge that WRC receives, and that any level set for toxic constituents, including cyanide, should be risk-based rather than technology-based.

In response, EPA notes that we found no need for limits on any other constituents to demonstrate that the processed concentrates are commodity-like. The relevant test is the degree to which the concentrate resembles analogous raw materials. To determine whether WRC's concentrate is similar to analogous raw materials, we compared its inorganic constituents to inorganic constituents found in primary copper and nickel concentrates. We concluded that cyanide was the sole hazardous constituent that was not present in the analogous raw material that did not contribute to the value of the WRC concentrate when sent for metals recovery. Moreover, with the exception of cyanide, the Agency concluded that the Appendix VIII metals typically contained in WRC's concentrate are similar to those found in virgin ore concentrates. In addition, we note that commercial contracts under which smelters purchase WRC's concentrate typically specify limits on several such metals (such as lead or chromium) to ensure that levels do not interfere with the extraction process. As noted above, we also found that organic constituents are not found in significant amounts in unprocessed electroplating sludges. Therefore, EPA does not need to set limits for other constituents, either to ensure that WRC's concentrates are commodity-like or to ensure that WRC does not engage in sham recycling.

Some commenters suggested that EPA should place limits on Appendix VIII metals in incoming sludges at the WRC facility, at least for those metals in high concentrations that are not recovered and have no "ore equivalency" levels, such as chromium, cadmium or zinc. One commenter argued that recoverable metals could also be toxics-along-for-the-ride if the receiving smelter does not in fact recover all of them.

The Agency does not believe that such a limitation is necessary to ensure that WRC's concentrates resemble virgin ores. We did not find metals that are not present in virgin ores. We note that

there are Appendix VIII metals at high concentrations in the analogous primary copper and nickel concentrates which are not recovered. Arsenic levels in primary copper concentrates are often present in levels as high as 3000 ppm and are not recovered.

#### *D. Extent to Which End Market Is Guaranteed*

Under the fourth evaluation criterion (40 CFR 260.31(c)(4)), petitioners must demonstrate that an end market for the partially reclaimed material is guaranteed. Petitioners must demonstrate that there is a secure demand and long-term market for the partially reclaimed material and that the chance of large quantities of the material being stockpiled due to insufficient demand is unlikely. If a petitioner cannot demonstrate that the material enjoys a consistent level of demand, with reasonable expectations for the same or greater level of demand once a variance is granted, there may be risk of the material being stockpiled or stored for a significant period of time in containers or other storage units that do not have to meet RCRA Subtitle C storage standards. Such situations may pose significant risks to human health or the environment.

In the proposal, EPA found that WRC demonstrated that it has multi-year contracts for the sale of its processed concentrates with at least four smelters, and that these smelters have excess capacity exceeding WRC's production capabilities. The record also shows that the smelters have been customers for significant periods of time; contracts with one smelter extend back to the 1970's. Even the most recent customers have had contracts since the middle 1990's. At the same time, however, to help ensure that concentrates meet their end market, EPA proposed to require that WRC ship concentrates only to metal smelting facilities, that WRC comply with DOT regulations regarding shipments of hazardous materials, and that WRC document that all shipments reached their designated destination. To assist in ensuring compliance with these shipping conditions, EPA also proposed to require WRC to provide an annual audit to the Arizona Department of Environmental Quality (ADEQ). The annual audit, conducted by an independent third party, must certify that all shipments of WRC's partially reclaimed concentrate were made to metal smelting facilities, were documented and shipped in accordance with all applicable U.S. Department of Transportation regulations, and were documented to have reached the



designated destination. EPA is retaining these conditions for the final variance.

One commenter thought that there was insufficient information in the proposal and in EPA's supporting analyses to fully evaluate the underlying economics of WRC's business. This commenter suggested that *at a minimum* (emphasis supplied in the original comments) EPA should conduct an analysis covering the entire 17 years of WRC's operations, reviewing all contracts over this time period, the primary and secondary metals market over the same period, and any other regulatory or enforcement actions EPA or authorized states have taken with respect to F006 and F019 recycling, including all prior interpretations of the legitimacy of F006 and F019 recycling activities. In particular, the commenter stated that EPA should analyze WRC's 17 year history to determine if there had ever been a period when metals prices were so low that the concentrate could not be sold. This commenter also felt that EPA's position was weakened by the fact that WRC has contracts with foreign smelters. Another commenter expressed similar concerns about fluctuations in metal prices, fearing bankruptcies, abandonments, and "stockpiling" when minerals become less valuable.

In response, EPA notes that the considerable amount of data submitted by WRC and available to the Agency from other sources have provided an accurate view of the nature of F006 recycling in general and of WRC's operations in particular. This information has been sufficient to allow the Agency to evaluate whether WRC's concentrate meets the regulatory criteria of 40 CFR 260.31(c). The Agency also believes that the existence of past fluctuations in commodity prices should not be a decisive or even strong consideration in evaluating variance applications under 40 CFR 260.30(c), especially since price fluctuations for these materials tend to be the rule rather than the exception. In addition, as noted above, WRC has numerous multi-year, long-term contracts in place, indicating that WRC's processed sludges remain valuable to smelters over time, even with changes in the values of the metals they contain.

Moreover, we note that the variance does not apply to materials held at WRC prior to shipment. Storage there must comply with Subtitle C requirements. These requirements adequately address threats posed by materials "stockpiled" at WRC. With regard to the risks that a smelter might accept a shipment, but stockpile it at the smelting facility during a "down" market, we note that

these materials are blended to specific smelter specifications, and smelters pay to receive them (often before the materials are processed). It therefore seems more likely that smelters will use them rather than store them for extended periods of time. These considerations are true for both domestic and foreign smelters.

The Agency notes that in the proposal, the introductory paragraph to the variance language included a reference to metal concentrate sold to "smelters or other metal recovery facilities", although the proposed numbered variance conditions referred only to "smelters" (see 64 FR 68968 at 68972). Today's final notice limits the variance to WRC's metal concentrate that is sold to smelters, since the available data submitted in support of the variance concerns sales to smelters rather than to other kinds of facilities.

One commenter opposed the requirement for an independent annual audit as an unnecessary expense and believed a statement signed by WRC would suffice. Two commenters believed that the audit should contain additional requirements, such as recordkeeping and evaluations of the management of WRC's concentrate at smelters, and one commenter suggested an audit every four months during the first two years. Some commenters were concerned that an independent audit would replace the role of a regulatory agency inspection.

In response to these comments, EPA notes that the conditions of all variances under 40 CFR 260.30 are site-specific in nature. This audit was proposed as a mutual agreement between ADEQ and WRC to satisfy both parties' concerns about compliance with the terms of the variance. An independent annual audit ensures an objective review of the company's operations, and provides information on how the material is handled after partial reclamation. However, the fact that an audit is required as a condition of this variance does not mean that similar audits would be considered appropriate for all such variances. The Agency does not believe that the additional requirements for increased recordkeeping, evaluation at smelters, and more frequent review suggested by some commenters are necessary to help regulators determine whether WRC has complied with these variance conditions. EPA also notes that nothing in this variance would legally affect or preclude inspections or review of WRC's operations by the regulatory authority. The State or EPA Region can conduct the number of inspections and reviews it believes necessary to ascertain compliance with conditions of

the variance, as well as compliance with other RCRA requirements applicable to the facility.

#### *E. Handling To Minimize Loss*

The fifth evaluation criterion (40 CFR 260.31(c)(5)) concerns the extent to which the partially reclaimed material is handled to minimize loss. Petitioners must demonstrate that the material is handled as if it were a valuable commodity and in a manner that is protective of human health and the environment.

In the proposal, EPA stated that the value of the concentrates and the contracts between WRC and both generators and smelters provide incentives for WRC to manage both the unprocessed sludges and the processed concentrates to prevent loss. EPA also noted that the processed concentrates will remain subject to Subtitle C storage regulations while held at WRC prior to shipment, because the variance will not take effect until the concentrates are loaded for shipment. Even after the RCRA variance takes effect, the concentrates will remain subject to DOT regulations for hazardous substances during shipment to smelters. The smelters' payments for the concentrates show that the smelters value them and have incentives to manage them carefully. The custom blending for each shipment also makes it more likely that smelters will value the concentrates and handle them appropriately.

EPA, however, also proposed to impose a condition that prohibits land placement of WRC's concentrates because land storage has a high potential for loss, and because EPA does not believe that analogous concentrates derived from virgin materials are stored on the land. EPA also proposed to ensure that smelters received notice of this limitation by requiring WRC to restate the condition in all contracts with smelters. In our proposal, EPA described this limit in its discussion of the third criterion, the extent to which constituents in the partially reclaimed material resemble constituents in the analogous raw material. EPA is clarifying here that we are imposing this condition to ensure that WRC's customers handle the exempt material in a manner that will minimize loss.

One commenter claimed that WRC's assertions that smelters handle concentrates to minimize loss are not a sufficient basis for EPA to make a conclusion about smelters' operations. EPA, however, is not basing its finding on this criterion on these assertions. Rather, EPA has independently evaluated the factors that would influence smelters' handling of these



materials, and concluded that the smelter payments, WRC's custom blending activities, and the risks to the smelters from prolonged storage make it likely that smelters will minimize losses. Moreover, the Agency is imposing a condition which provides that concentrates stored on the land will not be excluded under the variance.

One commenter suggested that contracts between WRC and smelters could not be directly enforced by WRC, and that the Agency should therefore condition the variance on enforcement agreements between the smelters and ADEQ. EPA does not agree that enforcement agreements of the type suggested by the commenter are necessary to prevent land storage at smelters. The variance clearly makes land storage a violation of the variance conditions. Concentrates stored on the land would not be excluded from the definition of solid waste, and EPA and the State could take enforcement action if the storage did not comply with all applicable Subtitle C requirements. This commenter also suggested that EPA should promulgate a rule establishing management conditions at all metal recyclers and smelters. However, such a rule would far exceed the scope of our variance proposal.

#### *F. Additional factors*

In addition to the five evaluation factors discussed above, EPA may consider other relevant factors in determining whether or not to grant a variance from the definition of solid waste for materials that have been reclaimed but must be reclaimed further before recovery is complete (40 CFR 260.31(c)(6)). These other factors may be raised by the petitioner, the Agency, or other interested parties. Such factors may be directly applicable to EPA's decision to grant a variance, or may be indirectly applicable, but relevant in assigning priorities for evaluating a particular petition.

##### **1. Minimum Metals Content for Incoming Sludges**

In the proposal, EPA considered the possibility that WRC could engage in "sham recycling" by blending electroplating sludges with low metal concentrations into sludges with higher concentrations, and marketing the blended "product" to smelters. EPA was concerned that WRC's processing would be a form of treatment for sludges which would ultimately be disposed of in smelter wastes, without contributing any significant metal content to smelter products. To ensure that WRC would be engaged in legitimate recycling, the Agency proposed to require each

incoming sludge to have a minimum content of either two percent of copper, nickel or tin (on a dry weight basis), or a precious metal content with monetary value equivalent to the copper, nickel or tin value.

One commenter stated that no non-conforming shipments should be allowed, since this would be contrary to EPA's policy at other hazardous waste treatment, storage, and disposal facilities (TSDFs). In response, the Agency notes that our proposal to allow a certain number of non-conforming shipments does not affect the status of the incoming material as a hazardous waste. Such shipments would still be subject to all applicable Subtitle C requirements, as is the case with all other TSDFs. We are allowing WRC to accept a minimum number of shipments below the normal minimum metal content which will still be eligible for the variance because, as a practical matter, some shipments from generators will (albeit very infrequently) contain less than the desired metal content, and there is a possibility that this may not be discovered until processing of the shipment has begun.

Some commenters questioned the use of a two percent dry weight limit for copper, nickel, or tin. One commenter stated that EPA should provide a broader discussion of the data which it used to require that the minimum copper, nickel, or tin content of a sludge arriving at WRC must be two percent dry weight in order for the dewatered sludge to be equivalent in quality to virgin ore feedstocks. This commenter appeared to believe that the levels of both base and precious metals in the incoming sludges should be the same as the levels found in virgin ore feedstocks sent to smelters.

For example, this commenter questioned why economic value was used to determine equivalency of precious metals with base metals in incoming sludges, rather than expected virgin ore quality with respect to precious metals. The commenter stated that the value of gold per unit weight is approximately 5,000 times that of copper (based on current market prices). Therefore, the current economic equivalent of two percent copper (about 20,000 ppm) would be about 4 ppm gold, or about 0.09 troy ounce per ton. The commenter expressed doubt that ores containing such a low concentration of gold would be mined and smelted commercially. The commenter appeared to be suggesting that the required threshold level of precious metals in the incoming sludges be the same as the levels of such metals that smelters will accept in virgin ores.

Two commenters stated that concentrate shipped by WRC to smelters can contain a significant moisture content (up to 50%). Therefore, according to these commenters, if the metal concentration in the incoming sludges were two percent on a dry weight basis, the actual concentration as shipped to the smelter would be below two percent. If feedstock equivalency required a copper concentration of at least 2.5 percent, the dry weight concentration in the sludge that WRC received would need to be at least four percent copper.

In response to this comment, EPA notes that we did not intend to require incoming sludges at the WRC facility to be equivalent to virgin ore feedstocks with respect to metal content. The purpose of this proposed requirement was to establish a minimum metal threshold below which little recovery of metals would occur. After reviewing available literature and discussing this issue with smelter representatives, the Agency concluded that the two percent limit appears to be a "smelter cutoff," meaning the lowest concentration of metal that a given smelter will allow through the gate on a dry weight basis (*see memorandum from Paul Borst titled "Analysis of Minimum Metal Content of Secondary Feedstocks Destined for Primary Smelting Operations in North America," May 7, 1999*).

The minimum metal content ensures that at least one smelter in North America would be able to receive and process all incoming sludges to the WRC facility. This condition on the variance ensures that secondary materials which have little or no recoverable metal may not be blended in with metal-bearing secondary materials with higher metal content. The condition therefore prevents surrogate treatment and disposal of the secondary materials with little or no recoverable metal content. It is not necessary to require WRC's concentrates to contain as much metal as virgin ore concentrates. Similarly, with respect to the reduction of moisture content, even if significant moisture reduction of the incoming sludges occurs, WRC is still responsible for meeting the minimum metal content on a dry weight basis required under contract specifications for particular smelters. In addition, we note that moisture reduction tends to concentrate metals levels, rather than dilute them, as the commenter implied. It is therefore unnecessary to require higher metals levels in the incoming sludges to account for moisture reduction.

Similarly, EPA is not aware of any smelters that refuse to give credit for precious metals in secondary materials

when their concentrations are lower than those considered acceptable for virgin ores, so long as the monetary values are equivalent. The Agency believes that it is reasonable to base minimum metal levels in the incoming sludges on smelter acceptance and pricing policies.

Another commenter said that EPA's choice of a two percent minimum metal content level for incoming sludges or an equivalent value in precious metals to assure the "legitimacy" of WRC's operation is based on faulty and incomplete analysis. This commenter suggested that the required minimum metal content should account for transportation and storage costs incurred by smelters receiving WRC concentrate, as well as WRC's processing costs. The commenter also stated that the highest rather than the lowest smelter cutoff should be used in determining legitimate recovery of metals from incoming material to WRC.

EPA does not agree that the highest smelter cutoff (*i.e.*, the most stringent metal limit required by any smelter) is an appropriate number for the incoming limit on metals in the sludges. If other smelters are purchasing materials with lower metal concentrations and reclaiming metals from these materials, there appears no reason to conclude that this is not legitimate reclamation. Nor does the Agency agree that transportation and storage costs should affect which level of metals allows legitimate recycling to occur.

Two commenters questioned how WRC would segregate its incoming loads into: (1) Sludges containing the required minimum levels of recoverable metals, and (2) sludges with lower levels of metals. EPA notes that the conditions of the variance do not absolutely prohibit WRC from receiving sludges with lower metal concentrations than those specified in the variance. However, listed sludges used in producing the concentrate that is eligible for the variance must conform to the minimum metals limit (except for two non-conforming loads). Sludges not used for this purpose need not contain minimum levels of metals. The Agency does not believe it is necessary to specify in the variance a particular method for segregating the two types of sludges. EPA notes that many facilities manage different wastestreams, some of which are regulated under RCRA and some of which are excluded. For purposes of retaining the regulatory exclusion, it often may be important to segregate wastestreams. However, EPA does not specify in its regulations a particular procedure for conducting such segregation.

Another commenter feared that waste streams containing recyclable levels of one metal could be diluted down to non-recyclable levels when mixed with waste streams containing other metals. This commenter proposed an additional condition for the WRC variance that would be implemented according to the following example. The company receives a sludge that has three percent copper and five percent nickel, so that the sludge is above the two percent minimum metal threshold for both metals. Hypothetically, the company makes a business decision to blend this sludge with other nickel-bearing sludges and ship the blended mixture to a nickel smelter for reclamation. The commenter is concerned that the copper in the original incoming shipment has been diluted below two percent and is non-recoverable at the nickel smelter. The commenter believes that this procedure would constitute sham recycling. The condition that the commenter proposed would require that a nickel/copper bearing sludge be only blended with other nickel/copper-bearing sludges and that the blend only be destined to a smelter or other recycling facility where both metals are recovered.

EPA does not agree that recovering nickel values would constitute sham recycling merely because the copper in the sludge could be diluted and possibly not recovered. WRC's processing would make the concentrate marketable by increasing the nickel value. Without WRC's drying, blending, and consolidating operations, the electroplating sludge most likely would not go to a smelter for recovery for either copper or nickel. So long as WRC increased the concentration for one metal, EPA does not think the fact that it diluted a second metal shows that recycling is not legitimate. Moreover, EPA believes that many virgin ores contain multiple metals that smelters do not extract.

## 2. Exports and Imports

One commenter noted that changing the regulatory status of the partially reclaimed material removes RCRA import and export requirements, thus taking away a safeguard designed to put foreign governments on notice that these materials are hazardous. This commenter suggested that if EPA grants the variance, it should continue to require compliance with these requirements. The same commenter was concerned that because WRC's facility is one of the top ten receivers of hazardous waste from Mexico, the granting of the variance may increase the flow of waste across the border, increasing the transportation risks inherent in long

distance transport. The commenter believed that the variance could inadvertently discourage the development of much-needed hazardous waste disposal and recycling facilities in Mexico by creating an incentive for shipping exempted waste from Mexico into the U.S. Finally, the commenter stated that EPA should evaluate whether waste shipments from Mexico are compatible with Mexican and other applicable international or bilateral agreements concerning these wastes.

The Agency believes that the conditions of this variance are adequate to provide notice to foreign governments. The variance contains a requirement that WRC must send a one-time notification of the variance and its conditions to any country where metal smelters accepting WRC concentrates are located. WRC is also required to submit a Material Safety Data Sheet shipped with the concentrate and a notification that the concentrate may contain up to 590 ppm cyanide and that low pH environments can result in the production of hydrogen cyanide gas. EPA believes that this is sufficient notice to inform foreign governments of the nature of WRC's concentrate, and of the Agency's decision to exclude WRC's concentrate from the definition of solid waste. In addition, the Agency believes that the RCRA notification and consent requirements for imports and exports of hazardous waste are not necessary for materials that have been determined to resemble commodities more than wastes. We note that these requirements do not apply to any materials that are excluded from the definition of solid waste.

With respect to imports from Mexico, EPA believes that the commenter's concerns are speculative. The commenter gives no data or detailed theory to back up its concern that shipments from Mexico will increase or that Mexico will fail to develop needed waste management capacity. The status under RCRA of shipments of F006 imported from Mexico will not be affected by this variance. In addition, even though the Agency believes that RCRA export requirements should not apply to commodity-like materials, we note that this variance does not automatically affect the status of WRC's concentrate under foreign jurisdictions. If the concentrate is classified as a hazardous waste in a foreign jurisdiction, it would retain that status unless the appropriate regulatory authority in that jurisdiction decided to change the classification.

#### IV. Final Variance

The Agency is today conditionally granting the petitioner's (WRC's) request for a variance from classification as solid waste for the metal concentrate partially reclaimed from materials listed as hazardous waste F006 and F019 received at its Arizona facility, which are sold to metal smelters after being partially reclaimed by WRC. The variance is granted subject to the following conditions:

(1) Metal-bearing sludges F006 and F019 accepted by the facility from off-site and used in the production of the partially reclaimed concentrate materials must have a metals concentration level of no less than two percent on a dry weight basis, or an equivalent economic value in precious metals (e.g., gold, silver, platinum, or palladium). In addition, the facility may only process two shipments of listed sludge materials that do not meet the two percent metals concentration level from a single generator within a 14-day time period before taking action to ensure that subsequent shipments will meet the minimum metal content. Specifically, WRC may not accept more than one non-conforming shipment from a generator, unless the second non-conforming shipment is received within 14 days following the first event. Thereafter, WRC may not accept additional materials from that generator until WRC determines that the generator's subsequent sludge shipments will meet the minimum metal content requirements of this condition.

(2) WRC shall provide to ADEQ an annual audit, performed by an independent third party mutually acceptable to WRC and ADEQ, to be completed within the six months following the end of each calendar year. The scope of the annual audit will cover WRC's concentrate shipments during the year to certify that all shipments were: (1) Made to metal smelting facilities; (2) documented and shipped in accordance with all applicable U.S. Department of Transportation regulations; and (3) documented to have reached the designated destination.

(3) The partially reclaimed concentrate materials must have a cyanide concentration of no greater than 590 ppm and may not be placed on the land at metal smelting facilities. Cyanide must be analyzed using method 9010 or 9012 found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA Publication SW-846, as incorporated by reference in 40 CFR 260.11, with a sample size of 10

grams and a distillation time of one hour and five minutes.

(4) WRC must send a one-time notification of the variance and its conditions to any foreign country where metal smelters accepting WRC concentrate are located. In addition, WRC must include on its Material Safety Data Sheet shipped with the concentrate a notification that the concentrate may contain up to 590 ppm cyanide and that low pH environments can result in the production of hydrogen cyanide gas.

(5) To ensure that its customers handle the processed concentrates as valuable commodities in a manner that minimizes loss, WRC must place a provision stipulating no land placement of the materials in its contractual agreements with smelting facilities.

(6) This conditional variance from classification as solid waste for the metal concentrate reclaimed from listed hazardous wastes F006 and F019 at WRC's Phoenix, Arizona facility takes effect at the point at which the concentrate is loaded for shipment. This conditional variance does not affect the regulatory status of any other hazardous wastes handled by WRC at the Phoenix facility. In addition, the variance does not apply to or affect the regulatory status of any wastes managed at any other WRC facility.

#### V. Effect of Variance in Arizona

EPA notes that Arizona is authorized to administer and enforce the RCRA hazardous waste program pursuant to section 3006 of RCRA. Generally, when EPA grants a variance under 40 CFR 260.30, the variance would be automatically effective only in unauthorized States. However, there are two circumstances that make this variance effective in the State of Arizona. First, WRC, EPA Region IX and the Arizona Department of Environmental Quality (ADEQ) executed a Consent Agreement and Consent Order (CA/CO) that finalized regulatory requirements for the WRC recycling facility at Phoenix. Under the CA/CO, if EPA makes a favorable decision regarding WRC's petition for a variance, Arizona is obligated to "honor and give legal effect to the variance determination within the State of Arizona." Second, Arizona's regulations at A.A.C. R18-8-260(J)(Supp. 98-2) (which incorporates and modifies 40 CFR 260.30 entitled "Variances from classification as a solid waste") provides that "any person wishing to submit a variance petition shall submit the petition, under this subsection, to EPA. Where the Administrator of EPA has granted a variance from classification as

a solid waste under 40 CFR 260.30, 260.31, and 260.33, the Director shall accept the determination, provided the Director determines that the action is consistent with the policies and purposes of the HWMA" (the Hazardous Waste Management Act underlying Arizona's authorized status). Since the Director has made such a determination, no further action will be necessary before the variance takes effect under state law upon promulgation by EPA.

#### VI. Administrative Requirements

Under Executive Order 12866 (58 FR 51735, October 4, 1993), this action is not a rule of general applicability and therefore is not a "regulatory action" subject to review by the Office of Management and Budget. Because this action is a rule of particular applicability relating to a facility, it is not subject to the regulatory flexibility provisions of the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*), or to sections 202, 204 and 205 of the Unfunded Mandates Reform Act of 1995 (UMRA) (Pub. L. 104-4). Because the rule will affect only one facility, it will not significantly or uniquely affect small governments, as specified in section 203 of UMRA, or communities of tribal governments, as specified in Executive Order 13175 (63 FR 27655, May 10, 1998). For the same reason, this rule will not have substantial 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, as specified in Executive Order 13132 (64 FR 43255, August 10, 1999). This rule also is not subject to Executive Order 13045 (62 FR 19885, April 23, 1997), because it is not economically significant.

This rule does not involve technical standards; thus, the requirements of section 12(c) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) do not apply. This rule does not impose an information collection burden under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*).

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, does not apply because this action is not a rule, for purposes of 5 U.S.C. 804(3).

Dated: August 6, 2002.

**Christine Todd Whitman,**  
Administrator.

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