Written Comments

on the

Environmental Protection Agency's Proposed Rule;

Revisions to the Definition of Solid Waste [68 FR 61558]

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ASSOCIATION CONNECTING ELECTRONICS INDUSTRIES®

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I. Introduction and Industry Background

IPC - Association Connecting Electronic Industries - is pleased to submit the following comments in response to the Environmental Protection Agency's (EPA's) proposed *Revisions to the Definition of Solid Waste.*

IPC is the national trade association for the electronic interconnection industry, and represents more than 2,200 member companies that manufacture printed circuit boards and attach electronic components, such as computer chips. Printed circuit boards and electronic assemblies are used in a variety of electronic devices that include computers, cell phones, pacemakers, and sophisticated missile defense systems. The industry is vital to the U.S. economy. Without printed circuit boards and electronic assemblies, you would not be able to start your car, watch television, answer a telephone, turn on a light switch, or brew a cup of coffee.

Although IPC members include electronic giants, such as Intel, Hewlett Packard, and IBM, sixty percent of IPC members meet the Small Business Administration's definition of "small business." The typical IPC member has 100 employees and has a profit margin of less than four percent.

II. SUMMARY

The proposed rule defines conditions under which secondary materials would be excluded from the definition of solid waste and therefore not subject to the Resource Conservation and Recovery Act (RCRA) hazardous waste regulations. In EPA's main proposal, comprised of two co-proposals, only materials that are "generated and reclaimed in a continuous process within the same industry" would be eligible for the exclusion. EPA proposes using the North American Industry Classification System (NAICS) for the purpose of establishing the definition of "same industry." EPA also proposes to codify criteria for establishing the legitimacy of recycling operations. Additionally, EPA requests comment on whether to implement a broader rule that would exclude from RCRA jurisdiction all legitimately recycled materials.

IPC believes that EPA's main proposal is an overly narrow rule and will fail to meet RCRA's goal of encouraging resource conservation through increased recycling. EPA believes that EPA has overestimated the benefits of the proposed rule, particularly those claimed for Printed Circuit Board manufacturing.[1] Additionally, IPC is concerned that small businesses, which are particularly affected by limited access to capital and the personnel needed to construct and operate ancillary on-site material recycling operations, will be unable to benefit from the proposed rule.

EPA has based this narrow rule upon misinterpretation of a series of decisions of the D.C. Circuit Court. IPC believes the key to achieving RCRA's resource conservation goals is to balance the risks and benefits of the recycling operations themselves through legitimacy determination rather than by limiting the materials eligible for the exclusion. EPA should focus its rules on the management of secondary materials destined for recycling, reclamation processes and criteria for legitimate recycling, rather than industry categories, organizational structures, or the financial arrangements among generators and recyclers. These factors are not relevant to whether 'discard' of solid waste has occurred.

IPC encourages EPA to reject both of its narrow co-proposal options and instead focus on a broader rule that would exclude from the RCRA definition of 'solid waste' all legitimately recycled materials. IPC believes that it is appropriate for EPA to codify the legitimacy criteria in conjunction with the broader exclusion so that the criteria may be used to distinguish legitimately recycled materials that should be excluded from RCRA, regardless of whether the recycling/reclamation is done within the generating industry or between industries.

IPC also recognizes EPA's need to ensure that RCRA's objectives are not comprised by environmentally unsound activities cloaked as recycling activities and therefore supports the provision of any reasonable requirements that do not impose undue burden or costs, and thus serve to continue discouraging recycling.

[1] USEPA. "Revisions to the Definition of Solid Waste." Proposed rule. 68 FR 61561. October 2003.

III. THE PROPOSED RULE IS OVERLY NARROW

A. EPA Has Misinterpreted the Court's Intentions

In the proposed rule, EPA cites a number of court cases as the basis for limiting their RCRA exclusion to materials "generated and reclaimed in a continuous process within the same industry." Unfortunately, EPA has misinterpreted the court's intentions and as a result has constructed an overly narrow rule which will fail to achieve the goals of RCRA as envisioned by Congress.

In a series of decisions beginning in 1987 with *American Mining Congress v. EPA*[2], and followed by *American Petroleum Institute v. EPA*[3], *American Mining Congress v. EPA*[4], *and Association of Battery Recyclers v. EPA*[5], the U.S Court of Appeals for the District of Columbia Circuit has consistently held that RCRA authority over "solid wastes" does not extend to a material unless it is **discarded** by being disposed of, abandoned or thrown away. IPC believes that by attempting to parse the language of these decisions, EPA has too narrowly interpreted them to restrict recycling activities outside the scope of RCRA jurisdiction to only those "generated and reclaimed in a continuous process within the same industry,' when the true meaning of these cases is actually much broader. It is clear that the predominant inquiry throughout the case law as to RCRA jurisdiction is whether or not the materials have been discarded – disposed of, abandoned, or thrown away.

Most recently, in *Safe Food and Fertilizer v. EPA*[6], which was decided after the publication of the proposed rule on the Definition of Solid Waste, the court upheld EPA's conclusion that materials treated like valuable products should not be regulated as "discarded" wastes. In this decision, the court clearly reiterates the inquiry as to regulation under RCRA as one of discard, regardless of the industry or industries involved. The Court stated that while:

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[2] *American Mining Congress v. EPA*. 824 F. 2d 1177 (DC Cir. 1987).
[3] *American Petroleum Institute v. EPA*. 216 F.3rd 50, 58-59 (DC Cir. 2000).
[4] *American Mining Congress v. EPA*. 907 F.2d 1179, 1186 (DC Cir 1990).
[5] Association of Battery Recyclers v. EPA. 208 F.3rd 1047 (2000)
[6] *Safe Food and Fertilizer v. US EPA*. 350 F.3d at 12681263 (D.C. Cir. 2003).

> "We have held that the term "discarded" cannot encompass materials that 'are destined for beneficial reuse or recycling in a continuous process by the generating industry itself'…We have also held that materials destined for future recycling by another industry *may* be considered 'discarded'; the statutory definition does not preclude application of RCRA to such materials if they can reasonably be considered part of the waste disposal problem...But we have never said that RCRA compels the conclusion that material destined for recycling in another industry is necessarily 'discarded'."[7]

IPC believes that EPA, through its misreading of the Courts' intentions, has proposed an unnecessarily narrow regulation. By limiting the proposed exclusion to materials "generated and reclaimed in a continuous process within the same industry," EPA has failed to exclude the vast majority of secondary materials destined for legitimate recycling. Whether that recycling takes place within the generating industry or another industry is not indicative of whether the material has been discarded and is therefore subject to RCRA.

B. The NAICS System Should Not Be Used to Determine the Legitimacy of Recycling Activities

IPC believes it is inappropriate to use the NAICS system for the purpose of defining legitimate recycling. The NAICS system was developed by the Bureau of Census for the gathering of economic data. For a large portion of the manufacturing base, EPA's use of the NAICS system to define legitimate recycling removes any likelihood of realizing an environmental benefit from this rulemaking. Furthermore, reliance on the NAICS system to define legitimate recycling would interfere with product stewardship systems that are developing through manufacturing supply chains. EPA should focus on a broad exclusion for legitimately recycled secondary materials to allow spent materials to be returned to the supply chain for beneficial reuse replacing virgin materials. The NAICS codes of the secondary materials generator and the recycler have no bearing on whether the material is being legitimately recycled.

[7] *Safe Food and Fertilizer v. US EPA*. 350 F.3d at 12681263 (D.C. Cir. 2003).

While there are extensive opportunities for materials reuse within the printed circuit board industry, all of them lie outside the generating industry. Many of the recyclable or reusable materials generated by the electronics industry cannot be economically or effectively reused in the electronics industry, as evidenced by the EPA Economic Assessment[8] prepared for this proposal and discussed further in Section IV.A. This is especially true for the many small businesses in our industry that do not have the capital, staff, or facility space to implement onsite recycling.

Yet most of these materials still retain commercial value. Although many of them are already recycled despite the RCRA hazardous waste designation, greater participation in recycling, especially by small businesses would be likely if a broader RCRA exclusion were to lower the cost of recycling by removing the costs and stigma associated with accepting hazardous secondary materials.

To take just one example, hydroxide metal sludge created through the treatment of wastewater from the manufacture of printed circuit boards is routinely landfilled due to the RCRA designation of these sludges as a hazardous waste. Under RCRA, metal precipitate sludge is considered a hazardous waste, even when it is being shipped off-site for metals recovery. This hazardous waste designation greatly increases the cost of recycling, resulting in a large quantity of valuable metal bearing sludge being disposed of in hazardous waste landfills rather that being recycled. The *1998 Metal Finishing Common Sense Initiative F006 Benchmarking Study* found that landfilling was the dominant choice for final disposal of electroplating sludge.

Electroplating sludge contains high concentrations of valuable metals. For instance, copper ore normally contains less than 1% copper, whereas copper precipitate sludge from the printed circuit board industry average 10% to 15% copper. Wastewater treatment sludge from electroplating operations, predominantly from

[8] USEPA prepared by DPRA Incorporated. "Economic Assessment of the Association Battery Recyclers Proposed Rule." June 2003.

the metal finishing and circuit board industries represent one of the largest sources in the United States of untapped metal-bearing secondary material amenable to metals recovery. However, because landfilling and associated treatment are generally less expensive than metals recovery, much metals-rich sludge is landfilled, wasting valuable resources.

When electroplating sludge is recycled it is generally through secondary smelting or cement manufacture. The electronics industry is in NAICS Code 334, while smelters are in NAICS 331 and cement kilns are NAICS 327. Thus the reuse of this valuable metal source would not qualify for exclusion under this rule's main proposal. In fact, even if the same generating industry is defined on a three digit basis, this proposal would fail to have any effect on the reuse of electroplating sludge. Only through the broader option of excluding all legitimately recycled materials would the recycling of electroplating sludge be encouraged and increased.

The disposal of electroplating sludge is just one example of how the current RCRA regulations suppress resource conservation and reuse. Additional examples of secondary materials from circuit board manufacturing (NAICS 334) that are legitimately recycled outside the generating industry include:

- Spent cupric chloride etchant that goes back to the supplier, a chemical manufacturer (NAICS 325) for copper reclamation. Cupric chloride can be used in the manufacture of copper hydroxide fungicides, copper sulfate and tribasic copper chloride for use as mineral supplements in the hog and chicken feedstock industries, and copper oxide for the pigment market as well as for the treated wood industry.

- The ammonium chloride portion of spent ammoniacal etchant, which is recycled by chemical suppliers/manufacturers (NAICS 325) into new etch solution. The solution is then returned to the electronics industry (NAICS 334), but the metal constituent is incorporated into copper sulfate, copper oxide, and a variety of other specialty formulations as discussed above.

- Other spent plating baths, such as electroless copper, electroless nickel, and gold that can be reclaimed by suppliers or other chemical processors (NAICS 325).

- Cyanide bearing solutions that often contain reclaimable precious metals. Any precious metals are typically recovered by chemical suppliers/manufacturers (NAICS 325) and returned to the market.

- High chloride micro-etches that one of our member facilities ships to a mine as a feedstock to the mining process (NAICS 21).

- Solder dross, a byproduct, which is sent back to the solder manufacturers (NAICS 331) and returned to electronics facilities and other solder users.

- Solder contaminated electronic components and sweatables (wipers, lead-bearing Q-tips, solder tips, rollers, and personal protective equipment contaminated with solder), which are considered hazardous waste by many states and is infrequently recycled or reclaimed. When reclaimed it is sent to the solder manufacturer (NAICS 331). Sludge from the stencil wash evaporator process can also be sent to the solder manufacturer for reclamation.

C. Small Businesses Will Be Particularly Unable to Benefit from the Narrow Co-Proposal Options

IPC is concerned that the restrictive "generated and reclaimed in a continuous process within the same industry" provision in EPA's main proposal will severely limit small businesses' access to the environmental and economic benefits of the proposed rule. Small businesses are particularly affected by limited access to capital and the personnel needed to construct and operate ancillary on-site material recycling operations. As noted by EPA,

> "Smaller businesses may often not be able to recycle materials themselves, and may rely primarily on third party recyclers that are considered part of the waste management industry."[9]

It is likely that small businesses generate a significant portion of the secondary materials that are not currently being reclaimed or reused. A broader application of the proposed regulatory reforms would provide enhanced opportunities for environmental benefit by allowing small businesses to take advantage of the exclusion.

[9] USEPA. "Revisions to the Definition of Solid Waste." Proposed rule. 68 FR 61558. October 2003.

IV. EPA ECONOMIC ANALYSIS OF THE PROPOSED RULE IS INCOMPLETE

EPA's economic analysis of the proposal's benefits attempts to show how industries could reconstitute their core businesses to encompass on-site recycling operations and thus reuse materials within the same generating industry. In the analysis, EPA attempted to quantify the amount of materials that would be recycled by comparing the break-even cost of onsite, within the same generating industry, waste recovery. IPC believes that EPA's analysis overestimates the potential benefit of the proposed rule because it is based on faulty data analysis, makes incorrect assumptions, and fails to analyze other factors contributing to the feasibility of onsite recycling.

EPA's analysis did not consider whether the space, investment capital, and skilled labor would be available for the construction and operation of these on-site reclamation facilities. The operation of the type of reclamation facilities envisioned in the economic analysis would require a significant quantity of personnel skilled in a set of operations that are completely divergent from core manufacturing processes. Recent trends in manufacturing operations are towards a focus on core business, with as many ancillary operations as possible being outsourced. EPA's analysis ignores this trend. EPA's analysis also overlooks the difficulty in obtaining environmental permits for onsite reclamation processes, particularly those associated with smelting.

A. EPA Has Overestimated the Benefits of the Proposed Rule on the Printed Circuit Board Industry

While EPA has analyzed and claimed substantial environmental benefit for the reclamation of metals from printed circuit board wastes, these benefits are illusory artifacts of incomplete analysis. EPA analysis of the circuit board industry focused on two wastes, metal-containing liquids and electroplating wastewater sludge.[10] As

[10] USEPA prepared by DPRA Incorporated. "Economic Assessment of the Association Battery Recyclers Proposed Rule. Table 3-11, pg 3-18. June 2003.

previously discussed, these materials constitute a significant source of copper and other metals which have historically been reclaimed outside of the generating industry. In the economic analysis, EPA conducted a break-even analysis for the onsite recycling of these materials through onsite smelting of metals-rich sludge and ion-exchange treatment of the metals-containing liquids.

EPA claims that approximately 70% of the materials benefiting from the rule's proposed exclusions are generated in eight industries including Printed Circuit Board manufacturing[11]. However, IPC's review of the economic assessment finds there to be negligible increases in recycling in the circuit board industry as a result of this rule.

In fact, in the case of the electroplating wastewater treatment sludge, EPA's break-even analysis concluded that **no circuit board facilities would find it cost-effective to conduct on-site smelting of electroplating waste!** EPA's main proposal of the proposed rule would fail to encourage the recycling of a single pound of this valuable metal containing material.

Regarding the metals containing liquids, IPC believes the economic assessment to be flawed. Significant errors in the underlying assumptions render the results extremely questionable. In evaluating recycling and recovery costs for metals containing liquid wastes generated by the printed circuit board industry, EPA incorrectly assumed that copper is the primary metal recovered. A thorough examination of metal containing liquids shipped off-site for recycling and reclamation from the printed circuit industry would reveal that a significant portion is comprised of nickel and tin-bearing liquids. Casual examination of the receivers and secondary receivers identified in Appendix X reveals that a significant portion of the identified streams were sent to tin, lead, and nickel recovery operations such as ECS Refining Texas LLC and Envirite Inc. Most on-site precipitation recovery systems are well equipped to handle copper based solutions, but have difficulty with

[11] USEPA. "Revisions to the Definition of Solid Waste." Proposed rule. 68 FR 61561. October 2003.

concentrated nickel and tin solutions, particularly when combined with chelating agents or fluorides. Facilities desiring to undertake on-site recovery of chelated nickel and tin solutions would face technical challenges in addition to the effort needed to separately package, label, store, and ship these additional metals.

The economic assessment's analysis of facility impacts for major industry groups also appears to have mathematical errors. The printed circuit board industry (NAICS 334412) is identified again on page 6-1 as a major beneficiary of the proposed rule. Table 6-27 lists NAICS Code 3344 as having 464 facilities affected with annual average savings of $24,860 per facility. Yet clearly this aggregate industry benefit of $11.5 million far exceeds the benefits ascribed to this industry sector (identified both by NAICS 3344 and SIC 3672) in Tables 5-20, 5-21, and 5-22 ($527,843, $2,884,000, and $254,000, respectively). It is unclear as to the source of the additional benefits.

B. The Proposed Rule May Have a Negative Effect by Undercutting the Existing Recycling Infrastructure

EPA has failed to consider the potential negative effects of the proposed rule on the nation's existing recycling infrastructure. While EPA's economic assessment identified potential economic and environmental benefits through increased onsite recycling of secondary materials that are currently managed offsite, the analysis failed to consider the potential adverse economic impacts on existing recycling and reclamation facilities. As current recycling and reclamation facilities lose access to significant streams of valuable secondary materials and feedstocks, many recycling operations will no longer prove economically viable. For many recycling operations, the result of this economic pressure will be to either raise prices for handling materials or close their doors. This is unfortunate, as recycling businesses, which have recycling operations as their core business activity, may be the most qualified to efficiently and safely recycle many secondary materials. Furthermore,

as recyclers exit the business, the lack of competition and geographic availability will result in increased costs for generators. Consequently, fewer materials will be recycled and more materials will be permanently disposed of in landfills.

V. IPC Supports a Broader Exclusion for All Legitimately Recycled Materials

A. Exclusion of All Legitimately Recycled Materials Will Increase Resource Conservation

IPC supports the exclusion from the definition of solid waste of all legitimately recycled materials, regardless of the industry in which the secondary materials are reclaimed or reused. In 1976 when Congress passed RCRA, the Act was directed at addressing very real environmental concerns related to improper releases of hazardous materials. The rule's stated intent was not only to prevent improper management of hazardous waste, but to encourage material reuse and recovery:

> "As originally conceived, RCRA was designed primarily as a system of controls over the management of wastes in this country, with two fundamental mandates: protect human health and the environment, and conserve resources." [12]

Yet, EPA's current system of waste management has failed to promote the conservation of resources. In fact, the unintended consequence of RCRA regulations is often to discourage the reuse, recycling, and reclamation of valuable materials, resulting in increased use of virgin materials while valuable resources consume diminishing landfill space. The current regulatory structure has resulted in a business environment where it is cheaper to landfill wastes than it is to recycle them. Businesses, which must balance civic responsibility against responsibility to shareholders, often are driven to choose a landfill over recycling. Other businesses, choosing to place a premium value on environmental responsibility, do so at a competitive disadvantage.

[12] US EPA, Office of Solid Waste. "Beyond RCRA, Waste and Materials Management in the Year 2020." EPA530-R-02-009. April 2003.

Until EPA addresses this critical impediment, little if any substantive progress can be made to reduce regulatory burden and enhance resource conservation.
IPC believes that by revising the definition of solid waste to identify certain recyclable hazardous secondary materials as not discarded and thus no longer a "waste" and not subject to regulation under RCRA, EPA would provide greater incentive for recovery and reuse of beneficial materials. In discussing the broader regulatory exclusion, EPA recognizes the merits of a broader exclusion stating,

> "This broader regulatory exclusion could thus potentially result in less disposal of valuable material, less use of virgin materials, and better resource conservation."[13]

In the future envisioned by EPA's RCRA vision paper,

> "America's wasteful ways are a thing of the past. Materials that were once considered wastes suitable only for landfilling are now continually reused and recycled, and "industrial ecology" has become the mantra of corporate executives across the nation."[14]

Unfortunately, EPA's proposal for recycling within the same generating industry fails to incorporate the principles of industrial ecology. The principles of industrial ecology envision the industrial process following the natural order, where the waste from each natural system is the input to another natural system in an endless cycle of conservation and reuse. The key to the success of this natural ecology is that one organism uses another organism's waste as food. EPA's main proposal ignores the natural economy of this system by requiring each industry to use its own waste. Only in EPA's broader proposal for all legitimate recycling does EPA create a regulatory environment where the principles of industrial ecology can flourish.

The RCRA vision paper goes on to discuss the need to change the regulatory system to increase recycling and reuse:

> "Creating a system truly oriented towards efficient use of resources could also require fundamental changes in the waste versus non-waste regulatory construct embedded in the current RCRA system so that materials now considered wastes would be seen, whenever

[13] USEPA. "Revisions to the Definition of Solid Waste." Proposed rule. 68 FR 61588. October 2003
[14] US EPA, Office of Solid Waste. "Beyond RCRA, Waste and Materials Management in the Year 2020." EPA530-R-02-009. April 2003.

> possible, as commodities with potential uses. One approach to making such a system work would be to identify materials as "wastes" only when they are clearly destined for disposal; until then, all potentially hazardous materials would be subject to similar management controls/incentives based on their risk potential rather than on designation as a waste—that is "materials management" rather than "waste management." Reducing distinctions between wastes and materials could dramatically improve recycling and reuse rates and, therefore, make great contributions towards conservation of resources."[15]

This rulemaking presents an opportunity for EPA to move toward that future where the focus of RCRA is on resource conservation. IPC therefore encourages EPA to undertake the broad based reform outlined in the Proposed Rule's Preamble by excluding those materials legitimately recycled or reclaimed from Subtitle C RCRA jurisdiction.

B. EPA Should Analyze the Environmental and Economic Benefits of Excluding All Legitimately Recycled Materials

By excluding all legitimately recycled materials from RCRA regulations, EPA will remove many of the regulatory barriers that currently discourage the reuse of hazardous secondary materials. EPA should conduct an analysis to quantify the potential economic and environmental benefits of a rule that excluded from RCRA all legitimately recycled materials.

C. EPA should Reconsider the Exclusion of Materials Burned for Energy Recovery

EPA should reconsider its decision that the incineration for energy recovery is not a legitimate form of reclamation. Many industrial materials, including the epoxy resins used to create the substrate on which circuit boards are printed, are created from petroleum feedstocks. Recovery of the energy value of these materials is often the most efficient means of reclamation. The reclamation of energy from

[15] US EPA, Office of Solid Waste. "Beyond RCRA, Waste and Materials Management in the Year 2020." EPA530-R-02-009. April 2003.

waste materials serves the environmentally beneficial goal of reducing coal and other fossil fuels extraction and their attendant environmental effects.

D. IPC Supports Reasonable Regulation/ Regulatory Assurance

While EPA's jurisdiction under RCRA does not extend to materials that have not been discarded, IPC recognizes EPA's need to ensure that RCRA's objectives are not comprised by environmentally unsound activities cloaked as recycling activities. As identified in EPA's RCRA vision paper,

> "any effort to diminish the distinctions between what are now considered 'wastes' (particularly wastes now identified as hazardous) and 'materials' must not ignore legitimate needs to protect humans and the environment from risks posed by hazardous chemicals." [16]

EPA should also recognize the significant improvements in waste management that have been made over the two decades since the establishment of RCRA:

> "In these past twenty years waste management practices have improved tremendously. Uncontrolled dumping of hazardous industrial wastes has decreased dramatically…"[17]

It is important that EPA balance its need for assurance with the thought that each regulatory requirement serves to further burden recycled materials as they attempt to compete with the use of analogous virgin materials which carry no such burden. IPC therefore supports the provision of any reasonable requirements that do not impose undue burden or costs.

[16] US EPA, Office of Solid Waste. "Beyond RCRA, Waste and Materials Management in the Year 2020." EPA530-R-02-009. April 2003.

[17] US EPA, Office of Solid Waste. "Beyond RCRA, Waste and Materials Management in the Year 2020." EPA530-R-02-009. April 2003.

1. Legitimacy Criteria

IPC believes that it is appropriate for EPA to codify the legitimacy criteria in conjunction with the broader exclusion so that the criteria may be used to distinguish legitimately recycled materials that should be excluded from RCRA, regardless of whether the recycling/reclamation is done within the generating industry or between industries. IPC generally supports the criteria as proposed by EPA, with the following comments.

IPC believes that it is important that the criteria be used in a balanced manner to determine legitimacy. As acknowledged by EPA,

> "There may be situations when a recycling activity that does not conform to one or more of the criteria could be considered legitimate."[18]

The criteria are intentionally written to establish parameters that must be weighted and evaluated given each circumstance. EPA should not mandate that each be individually met. Similarly, as discussed below, EPA should not set specific limits or standards within the criteria.

a) Managed as a Valuable Commodity or Analogous Raw Material

Requiring a secondary material to be managed as a valuable commodity is a reasonable criteria for determining if recycling is legitimate. Just as raw materials would be managed as a valuable commodity necessary to successful facility production processes, so should secondary materials. Both raw materials and recyclable secondary materials represent a valuable commodity with an inherent economic incentive towards appropriate management that avoids the potential loss of valuable production inputs, and consequently, the potential for releases into the environment. Material

[18] USEPA. "Revisions to the Definition of Solid Waste." Proposed rule. 68 FR 61583. October 2003.

managed as a valuable commodity is not material "abandoned, disposed of, or thrown away," and thus, has not been discarded.

b) Provides a Useful Contribution to the Recycling Process

IPC agrees with EPA that the principles of legitimate recycling require that a recycled secondary material provides a useful contribution to the recycling process or to a product of the recycling process. We further agree that while economic factors may be used to establish the usefulness of the secondary material to the recycling process, no specific economic test should be established. Variations in the prices of recycled materials and indeed in raw materials as well, make establishment of a specific economic test inappropriate.

Furthermore, as is the case under the current regulatory scheme, recycling a material may be more costly than disposal. Nonetheless, a company, wishing to lessen its environmental footprint, may choose to pay for recycling. This decision should not be deemed to render the recycling illegitimate. Requiring that recycling always result in positive payments to the generator would inappropriately shift the focus of the regulation to economic factors, as opposed to environmental ones. IPC recommends that the criteria remain open to non-economic measures of 'useful contribution' by not developing a specific economic test. This criterion as well as all the legitimacy criteria must be evaluated given the specific facts of the activity being evaluated.

c) Yields a Valuable Product

Requiring that the recycling process yields a valuable product or intermediate is a reasonable criterion for determining if recycling is legitimate. IPC agrees that value should be determined not only on the basis

of market value (evidenced through sale to a third party), but also on intrinsic value or usefulness as a substitute for a commercial product in either a recycling or other industrial process.

d) Yields a Product without Significant Levels of Toxic Constituents as Compared to Analogous Products

In this criterion, EPA proposes a three-part test to prevent the discard of hazardous constituents into a product made from reclaimed hazardous secondary materials. The three conditions specify that the product of the recycling process:

1) Should not contain significant amounts of hazardous constituents that are not found analogous products,
2) Where analogous products do contain hazardous constituents, the recycled product should not contain those hazardous constituents in levels significantly higher than the analogous product, and
3) The recycled product should not exhibit a hazardous characteristic that analogous products do not.

As with the other individual criterion and the legitimacy criteria as a whole, these tests must be evaluated and balanced for specific recycling circumstances.

As noted by EPA, recycling process often remove toxic constituents, producing a product with significantly lower levels of toxics. If discarded, the toxics containing residuals must be appropriately managed as hazardous waste.

In some cases, products made from recycled materials may contain higher levels of hazardous constituents than those made from virgin materials. Because of the importance of recycling and reusing materials, IPC believes that case-by-case evaluation as to the significance of the hazardous

constituents, given particular focus to the risk presented by the product may be most appropriate.

IPC opposes the promulgation of a 'Bright Line' numerical limit approach to assessing the significance of elevated levels of toxic constituents in recycled products. The establishment of a 'Bright Line' approach would be inappropriate given the need to consider factors such as the differing uses of products made from recycled materials and the properties of each individual toxic of concern.

While IPC supports the right of a recycler to use risk-assessments to demonstrate that elevated levels of toxic constituents are of minimal environmental or health significance, we believe that a broad requirement for risk assessments would be overly burdensome for both the recycling entity and federal and state regulators. Requiring that every use of secondary materials undergo a risk assessment would have a chilling effect on recycling by raising the cost of recycled materials as compared to raw materials which would not bear the risk-assessment requirement.

2. Compliance with Speculative Accumulation Rules

EPA has proposed using RCRA's existing speculative accumulation rules as a means of determining whether a material is being used in a "continuous process." EPA has also proposed applying these rules as a condition of legitimate recycling, should the broader option be adopted. IPC supports this requirement as a reasonable measure of legitimate recycling. However, IPC believes it is important for EPA to make provisions in the regulation for extending the one year limit based on unforeseen circumstances preventing timely recycling. For example, should a primary recycler be unable to accept a facility's material, the generator should be given a reasonable opportunity to make alternate arrangements. Given that materials are being appropriately

stored so as to minimize any risks associated with leaks or spills, this exception should not have any significant environmental effect.

3. Limited Notifications Represent a Reasonable Requirement

EPA's proposed rule would require generators to notify the appropriate authority of their intention to recycle materials under the provisions of the proposed exclusion. While IPC questions EPA's authority to require such a notification regarding the management and recycling of secondary materials that have not been discarded, we believe that it represents a reasonable compromise between EPA's desire to increase recycling and provide assurance of environmental protection. Any notification and/or recordkeeping requirements should be kept as simple as possible in order to avoid discouraging recycling.

4. Specific Recordkeeping Requirements Should not be Promulgated for Excluded Materials

IPC supports EPA's decision not to impose additional, specific documentation requirements beyond those already contained in RCRA for the management of materials under exclusions from the definition of solid waste. This level of flexibility is appropriate to the varying circumstance of recycling. Furthermore, we believe that the generators and recyclers of secondary materials will have sufficient incentive to retain adequate documentation to justify the exclusion.

First and foremost, because the secondary materials represent a valuable material, generators are likely to keep appropriate transaction records of the handling and disposition of the material. Our members generally keep shipping, payment and receipt records including:

- DOT Hazardous Material records

- Records of shipment and financial transactions (paid or received) for materials transferred for reclamation
- Bills of Lading containing the shipper's information, receiving facility's information, material descriptions, and quantities
- Records of shipments for any non-hazardous waste materials, such as containerized wastes and wastewaters for which they perceive there is any risk
- Non-hazardous debris quantities and destinations
- Records needed to complete reporting for EPCRA (TRI) regulated materials

Secondly, as with any recycling exclusion, generators would be prepared to provide appropriate documentation to show they have met the conditions of the exclusion and are in regulatory compliance in order to avoid any enforcement actions.

IPC is opposed to EPA's suggestion that facilities should submit annual reports detailing their recycling activities. Under the requirements of the Pollution Prevention Act, Toxic Release Inventory reporting already requires the reporting of all types of hazardous materials management and recycling.

Similarly, IPC opposes the provision requiring the use of manifests. IPC believes that standard Bills of Lading, combined with other ordinary business records, should provide adequate records regarding the flow of secondary materials. Because these materials represent valuable commodities, generators and other handlers have a natural incentive to keep track of them without the burden of using the manifest system. IPC believes it is important for the EPA to be conscious of the need to avoid discouraging the recycling of secondary materials through the imposition of costly reporting and recordkeeping requirements.

5. The Proposed Enforcement Scheme is Unreasonable

EPA has proposed an enforcement scheme that would impose strict liability for excluded materials, i.e. if any entity handling secondary materials causes it to lose the exclusion, then the material will be considered as having been a hazardous waste from the point of generation. This proposed policy is both inequitable and illogical.

Until a secondary material is discarded, it should not be considered a hazardous waste. Therefore, if a recycler or other entity handles a secondary material in a way such that it would be considered discarded and thus would become a solid waste, this should not retroactively label the secondary material as a waste at the time of generation. To do so is no less illogical than to retroactively label the materials as having been a solid waste before it even entered the manufacturing process.

It would also be wholly unfair for EPA to initiate an enforcement action against a generator which had no control over the subsequent downstream activities causing the material to lose its exclusion. In fact, such liability would propagate a scheme where disposal in a landfill carries less risk than the environmentally preferable choice to recycle the material.

At a minimum, EPA should look to developments under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) where in order to spur the reuse and redevelopment of previously used land, otherwise known as brownfields, the concepts of due diligence and an 'innocent landowner defense' were promulgated. The threat of enforcement under a strict liability scheme, without similar 'safe harbors' for generators, would have a chilling effect on the willingness of generators to engage in recycling activities.

VI. CONCLUSION

IPC believes that EPA has overestimated the benefits of the proposed rule and that only through a broad exclusion will EPA meet RCRA's goal of encouraging resource conservation through increased recycling. IPC urges EPA to reject both of its narrow co-proposal options and instead focus on a broader rule that would exclude from the RCRA definition of solid waste all legitimately recycled materials.