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OSWER Docket
EPA Docket Center
Mail Code 28221T
1200 Pennsylvania Avenue, NW
Washington, DC 20460

RE: Docket ID No. EPA-HQ-RCRA-2010-0742
Definition of Solid Waste (76 Federal Register 44094, July 22, 2011).

Dear Sir/Madam:

The American Forest & Paper Association (AF&PA) appreciates the opportunity to comment on the proposed "Definition of Solid Waste," published in the Federal Register on July 22, 2011.

AF&PA is the national trade association of the forest products industry, representing pulp, paper, packaging and wood products manufacturers, and forest landowners. Our companies make products essential for everyday life from renewable and recyclable resources that sustain the environment. The forest products industry accounts for approximately 5 percent of the total U.S. manufacturing GDP. Industry companies produce about \$175 billion in products annually and employ nearly 900,000 men and women, exceeding employment levels in the automotive, chemicals and plastics industries. The industry meets a payroll of approximately \$50 billion annually and is among the top 10 manufacturing sector employers in 48 states.

EPA recently has begun promoting sustainable materials management as an approach to reduce consumption of resources and environmental impacts. According to Environmental Protection Agency (EPA) Assistant Administrator Mathy Stanislaus, this effort entails "fulfilling human needs and prospering, while using less materials, reducing toxics and recovering more of the materials used."¹ Through extensive use within the forest products industry of industrial by-products and reclaimed secondary materials,

¹ Memorandum from Mathy Stanislaus, Assistant Administrator for Solid Waste and Emergency Response to The ECOS Waste Subcommittee, "2020 Vision Report: *Sustainable Materials management: The Road Ahead*" (attached).

AF&PA members have embraced sustainable material management. As a result, AF&PA members reuse nearly 100% of recoverable spent pulping liquors generated within the industry. In addition, AF&PA members engage in byproduct synergy, which is an approach recommended by EPA in its report on Sustainable Materials Management, by providing valuable co-products to other industries, such as turpentine, tall oil, and inks generated by the deinking process.

AF&PA is very concerned that these successes would be severely undermined by EPA's recent proposal to redefine what constitutes a solid waste under subtitle C of the Resource Conservation and Recovery Act (RCRA). As discussed below in these comments, AF&PA strongly urges EPA to retain its current regulatory definition. Failure to do so will create new barriers to sustainable materials management with no increased environmental benefit.

In particular, AF&PA is concerned about the proposed changes to the long-standing exemptions under subtitle C. By reopening and adding regulatory traps to these regulations, EPA would deter the reuse of many secondary materials in the absence of any record of misuse or mismanagement or clear demonstration of environmental benefit. AF&PA believes there is no policy justification for that position.

Finally, if it finalizes the proposed changes to the definition of solid waste in a manner that regulates non-discarded materials, EPA will exceed its authority under the law. RCRA does not authorize regulation of materials that are not discarded. Under the Administrative Procedure Act (APA), EPA cannot make changes to its regulations without providing a reasoned analysis that justifies the changes. Under the Paperwork Reduction Act (PRA), EPA cannot impose duplicative and unjustified paperwork burdens. Under the Regulatory Flexibility Act (RFA), EPA cannot impose regulatory burdens on small businesses without analyzing the impacts on those businesses and minimizing the adverse impacts.

In these comments, AF&PA discusses (1) the overarching issues that are relevant to EPA's proposed changes to the definition of solid waste; (2) specific concerns with the proposed changes; (3) how those changes would impact the materials that AF&PA members are recycling; and (4) EPA's failure to meet the requirements of the PRA and RFA.

I. Overarching Issues

A. EPA Has No Authority under RCRA to Regulate Material that is not Discarded.

RCRA defines solid waste as “any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material” RCRA section 1004 (27). As noted by many courts, the key phrase in this definition is “other discarded material.” To meet the RCRA definition of solid waste a material must be discarded. If it is not discarded, then EPA has no authority under RCRA to regulate it.

The 2008 Rule, which EPA now is proposing to change, appropriately focused on the concept of “discard” to determine whether a material is a solid waste, and thus, subject to RCRA subtitle C jurisdiction. As noted in the 2008 Rule:

While EPA clearly has the authority to regulate hazardous secondary materials that are reclaimed under Subtitle C of RCRA when discard is involved, the Agency also believes (and the courts have generally confirmed) that when hazardous secondary materials are reclaimed and such recycling operations do not involve discard, the hazardous secondary materials involved are not solid wastes under RCRA. 73 Fed. Reg. 64668, 64718 (Oct. 30, 2008).

This position is fully in line with case law interpreting RCRA. As noted in *Association of Battery Recyclers v. EPA*, 208 F.3d 1047, 1051 (D.C. Cir. 2000) (ABR), “Congress unambiguously expressed its intent that ‘solid waste’ (and therefore EPA’s regulatory authority) be limited to materials that are ‘discarded’ by virtue of being disposed of, abandoned, or thrown away.”

The D.C. Circuit also has provided guidance on what materials can be considered “discarded” under RCRA. First, courts have interpreted the term “discard” based on the ordinary plain-English meaning of the term which encompasses “disposed of,” “thrown away,” or “abandoned.” See *American Mining Congress v. EPA*, 824 F.2d 1177, 1188-89 (D.C. Cir. 1987) (“AMC I”). If a person has not disposed of, thrown away, or abandoned a material, it is not discarded, even if it is no longer useful in its original capacity. *AMC I*, at 1185-87. Further, because RCRA was enacted in response to Congressional concerns over “the rising tide of scrap, discarded, and waste materials,” RCRA authority extends only to materials that are part of the waste disposal problem. *AMC I*, at 1185.

Unfortunately, as discussed below, in the 2011 Proposal, EPA now is seeking to regulate materials that are not discarded. Thus, EPA’s proposal is contrary to law.

B. EPA Must Present a Reasoned Analysis to Justify Any Changes to the 2008 Rule.

Under *Motor Vehicle Manufacturers Ass’n v. State Farm Mutual Automotive Insurance Co.*, 463 U.S. 29 (1983) (*State Farm*), a federal agency may change its interpretation of

the law and its policy positions. However, a change in interpretation or policy must be supported by a reasoned analysis. *Id.* at 42. In this rulemaking, EPA offers no new record information to support its proposed changes to the 2008 Rule.² EPA appears to rely on its Environmental Justice analysis to support its proposal.³ However, this analysis does not provide the requisite “reasoned analysis” to support the proposed rule changes because, to find disproportionate harm to minority and low income populations, EPA’s Environmental Justice analysis assumes that persons will operate in violation of the law. The analysis then suggests new regulations and posits that persons will comply with new regulations thus eliminating that harm. Nowhere does EPA allege that compliance with the 2008 Rule or previously promulgated exclusions will result in harm to public health or the environment. Nowhere does EPA explain the basis for its assumption that the regulated community will fail (or has failed) to comply with the 2008 Rule or previous exclusions but will be in full compliance with the 2011 Proposal. Thus, the environmental justice analysis is irrational and does not provide a basis for the proposed changes.

The failure to provide a justification for changes to the definition of solid waste is particularly acute with respect to EPA’s proposed changes to the pre-2008 regulatory exemptions. EPA’s Environmental Justice analysis does not address recycling under the pre-2008 exemptions, and therefore, cannot purport to be a basis for changes to those regulations.⁴ Further, with respect to these exemptions, EPA has already determined that recycling activities under these exemptions do not constitute discard and there is a robust record supporting that determination. Thus, any changes to the definition of solid waste regulation that seeks to regulate recycling activities that EPA has already determined do not constitute discard would be arbitrary and capricious and would exceed EPA’s RCRA authority.

C. EPA’s Proposal Will Decrease Sustainable Materials Management Without Increasing Environmental Protection.

EPA’s 2011 Proposal is not based on any record showing that discard is occurring under existing regulations, both the 2008 Rule and the pre-existing exemptions. Thus,

² In contrast, EPA has a well developed record to support the 2008 Rule. In addition to the preamble, Regulatory Impact Analysis, and response to comments document, which are available in EPA Docket No. EPA-HQ-2002-0031 and incorporated herein by reference, EPA also has developed a summary of the rationale behind the 2008 Rule. See Revisions to the Definition of Solid Waste Final Rule Compilations: The History of Legitimate Recycling, EPA, June 2010 (attached).

³ Environmental Justice Analysis of the Definition of Solid Waste Rule, Draft for Public Comment, Jun. 30, 2011, EPA-HQ-RCRA-2010-0742-0004.

⁴ *Id.* at 15, 16.

EPA has no basis for suggesting that its 2011 Proposal will increase environmental protection. Nothing is gained from the proposed changes. In fact, the simplistic assumption that violations would increase significantly under the 2008 DSW rule, resulting in a significant increase in community risks, introduces an unrecognized bias to the analysis and may result in incorrect conclusions.

Frankly, the increased administrative burdens and the consequences of paper-work violations will deter recycling, which will decrease sustainable materials management and increase environmental risks associated with transportation of material to disposal facilities and environmental risks associated with the resource extraction necessary to develop virgin materials.

For example, as discussed below, EPA's 2011 Proposal would significantly confuse the status of materials where EPA has already made regulatory interpretations clarifying whether materials are solid wastes, such as the turpentine and tall oil discussed in the August 8, 2002, letter to Richard Wasserstrom of AF&PA, from Elizabeth Cotsworth, then Director of the Office of Solid Waste (attached).

In addition, EPA's proposal to impose RCRA requirements on non-waste materials does not add to the environmental protections already lawfully imposed under other statutes, such as the Clean Air Act, the Clean Water Act, the Toxic Substances Control Act, and the Hazardous Materials Transportation Act.

EPA analyzes the requirements of other federal regulations in comparison to the 2008 Rule and full subtitle C regulation in Attachment A of the draft Environmental Justice analysis.⁵ However, this analysis simply notes differences in regulation without providing any analysis of whether or not the differences are meaningful. For example, EPA points out that the derived-from rule would not apply under the 2008 Rule, without any consideration of whether that rule would provide any added protections. EPA merely notes that the 2008 Rule allows residues to be evaluated based on a new point of generation and that is "contrary to the intent of the derived-from rule," as if consistency with that rule is a benefit in and of itself. Draft Environmental Justice Analysis, at A-12.

Similarly, the Environmental Justice analysis points out that, while many facilities will have Clean Air Act permits, some may be too small to require a permit. But in pointing out this distinction, using the example of an auto body shop that may generate solvents, EPA fails to articulate any argument that air emissions from the small auto body shop need to be regulated or even that there is a difference between how the shop's solvent would be managed under the 2008 Rule compared to subtitle C regulations as they

⁵ EPA-HQ-RCRA-2010-0742-0004.

existed before 2008. Draft Environmental Justice Analysis, at A-5. The Environmental Justice analysis does admit that other federal statutes would regulate air emissions, emergency preparedness, personnel training, and transportation of hazardous materials. However, the analysis merely offers the conclusion that the regulation would not be identical to subtitle C regulation, without offering any support for the assumption that returning to full subtitle C regulation would provide additional environmental benefits.

As demonstrated in the “Review of EPA’s Draft Environmental Justice Analysis of the Definition of Solid Waste Rule” prepared by ENVIRON, EPA’s environmental justice analysis is not an adequate basis for decision making.⁶ As discussed in that report, the analysis fails to answer the question posed by EPA’s “Draft Environmental Justice Methodology for the Definition of Solid Waste Final Rule (Methodology Report) (attached). According to EPA’s Methodology Report, “The central question of the DSW EJ analysis is how likely is it that the hazards described above will occur *under the requirements and conditions of the DSW rule.*”⁷ However, the environmental justice analysis did not examine what hazards would occur under the requirements and conditions of the 2008 Rule. Instead, it assumed that the rule would be violated.

As discussed in the ENVIRON Report, EPA’s environmental justice analysis also fails to quantify and balance benefits as well as risks, fails to provide a baseline of conditions prior to the promulgation of the 2008 Rule (including the environmental justice concerns related to the locations of Subtitle C facilities), fails to analyze the environmental justice impacts of the 2011 Proposal (including a potential shift in risk from populations surrounding recycling facilities to populations surrounding Subtitle C facilities), fails to analyze the probability that a risk would occur, fails to analyze whether a risk could result in meaningful exposure, and fails to provide a sensitivity analysis.

Furthermore, the environmental benefits analysis in the Regulatory Impact Analysis (RIA) also is not persuasive.⁸ The first category of benefits discussed in the RIA is a reduction in future damage cases. To support the suggestion that repealing the 2008 recycling exemptions associated with third-party recycling would reduce future damage cases, the RIA relies on EPA’s 2007 analysis of recycling damage cases that was

⁶ ENVIRON, Review of EPA’s Draft Environmental Justice Analysis of the Definition of Solid Waste Rule, Oct. 2011, at 2 (hereinafter ENVIRON Report) (attached).

⁷ Draft Environmental Justice Methodology for the Definition of Solid Waste Final Rule, Jan. 13, 2009, at 11 (emphasis added) (attached).

⁸ Regulatory Impact Analysis, EPA’s 2011 Proposed Revisions of the Industrial Recycling Exclusions of the RCRA Definition of Solid Waste. EPA-HQ-RCRA-2010-0742-0002, at 209-20.

developed as part of the record for the 2008 Rule.⁹ However, the RIA fails to consider EPA's study of successful recycling practices.¹⁰ EPA used the successful recycling study to carefully apply conditions to third-party recycling. See 73 Fed. Reg. at 64673 and Chapter 11 of the Regulatory Impact Analysis for the 2008 Rule.¹¹ To conclude that the 2008 Rule would increase damage cases, the RIA then posits non-compliance with that rule. RIA, at 214. However, this analysis does not offer any record evidence that compliance with the 2008 regulations would result in any damages at all. Thus, there is no support for the proposition that the 2011 Proposal would increase environmental benefits.

The second category of benefits discussed in the RIA is increased enforcement opportunities. RIA, at 218. This discussion confuses enforcement with environmental benefits and, in fact, focuses on increased opportunities for paper work violations. *Id.* As a result, nothing in this analysis provides support for the assumption that more regulation necessarily means greater environmental benefits. In fact, EPA even admits that it found no studies showing that increased record-keeping requirements led to an increase in environmental protection, and relies on a non-germane study of OSHA regulations instead to support this premise. RIA, at 216.

II. Specific Concerns Regarding EPA's 2011 Proposal

A. EPA's Proposed Contained Standard Exceeds EPA's Authority Under RCRA and Is not Justified.

1. EPA's Definition of Contained Would Regulate Material that is not Discarded.

In the 2011 Proposal, EPA proposes to add a definition of "contained" to 40 C.F.R. 260.10. EPA is proposing to make meeting the "contained" standard a regulatory requirement for material managed under the control of the generator. EPA is proposing to apply the "contained" standard to the management of all other hazardous secondary materials that must meet the legitimacy criteria if there is no analogous raw material to provide a standard for determining whether a material is being managed as a valuable commodity. EPA also is seeking comment on whether to apply the "contained" standard to all recycling exclusions.

⁹ "An Assessment of Environmental Problems Associated with Recycling of Hazardous Secondary Materials," EPA-HQ-RCRA-2002-0031-0355 (hereinafter "environmental problems study").

¹⁰ "An Assessment of Good Current Practices for Recycling of hazardous Secondary Materials, EPA-HQ-RCRA-2002-0031-0354) (hereinafter "successful recycling study") (attached).

¹¹ EPA-HQ-RCRA-2002-0031-0602, at 120-35 (attached).

Under the proposed definition of “contained,” a unit that manages hazardous secondary materials must have no leaks and must be designed to prevent releases of hazardous secondary materials, including releases resulting from precipitation, wind-blown dust, and fugitive air emissions. It is unlikely that this standard can be met by anything other than a tank.

EPA justifies its proposal to promulgate a contained standard by suggesting that it has received inquiries from states and the regulated community asking when a release from a unit is significant enough to determine that the material inside the unit is no longer being managed as a valuable commodity and therefore is discarded. 76 Fed. Reg. at 44144. In its proposed definition, EPA would answer that question with a bright line: any release -- at all -- subjects the unit and all of the material inside to full subtitle C regulation.

EPA justifies this change by suggesting that it must take “preventative measures” to address regulatory gaps identified in its environmental justice analysis. 76 Fed. Reg. 44144. However, EPA is not authorized to take “preventative measures” to prevent material from becoming a waste. RCRA only gives EPA authority to regulate material that is already discarded. If RCRA gave EPA the authority to prevent material from being discarded, EPA could use RCRA to regulate manufacturing processes themselves. Of course, RCRA does not confer such authority so EPA cannot cite the need to prevent discard as a justification for imposing a “contained” standard on material that is not discarded.

2. EPA Offers No Reasoned Analysis For Its Proposed Change to the 2008 Rule.

To support its proposed change to the contained standard in the 2008 Rule, EPA argues that “if the primary or only way to determine that the hazardous secondary material is not contained is to wait until it is released to the environment, then the 2008 DSW final rule increases the likelihood of discard for these materials.” *Id.* at 44144. This statement once again demonstrates that EPA has failed to recognize the limits of its authority under RCRA, which extends only to materials that are already discarded. If EPA had the authority under RCRA to require the prevention of fugitive air emissions, wind-blown dust, and precipitation runoff and if the existence of such releases meant that all material in a storage unit was discarded, then EPA would have the authority under RCRA to regulate all primary as well as secondary materials. Of course, RCRA does not confer this authority.

By respecting the limits of EPA’s jurisdiction, the 2008 Rule cannot be said to “increase the likelihood of discard.” EPA’s new argument fails to acknowledge the proper application of EPA’s RCRA authority in the 2008 Rule. Under that rule, material must be managed as a valuable commodity. If material is managed as a valuable

commodity it is not discarded. EPA arbitrarily now argues that somehow meeting the requirements of the 2008 Rule would “increase the likelihood of discard.” Under the 2008 Rule, leaks that are not repaired and releases that are not cleaned-up can be evidence that the material inside a unit is not being managed as a valuable commodity. However, a leak that is repaired and releases that are immediately cleaned up are evidence that the material in the unit is valued and is not discarded. 73 Fed. Reg. at 64685. This regulatory regime both respects the limits of EPA’s authority and lets the regulated community and states know that material must be managed properly.

3. EPA’s Explanation of its Proposed Definition of “Contained” is Contradicted by the Rule Language.

In the preamble to the 2011 Proposal, EPA suggests that its intent regarding the meaning of the term “contained” has not changed since the promulgation of the 2008 Rule. EPA states: “However, under today’s proposal, in the event of a release to the environment, the hazardous secondary materials that remain in the unit could still meet the terms of the exclusion, as long as the other provisions of the containment definition are met.” 76 Fed. Reg. 44114. It is difficult to understand how EPA intends this sentence to provide any flexibility when the containment definition includes a requirement that there be no leaks. EPA further states: “A single release that is quickly addressed would not generally affect the regulatory status of the hazardous secondary materials still contained in the unit.” *Id.* Again, while the “significant release” standard under the 2008 Rule would have permitted EPA to exercise this flexibility, it is difficult to reconcile this statement with regulatory language that requires material be in a unit with “no leaks” to be contained.

EPA also suggests in the preamble that on-going releases of trace amounts of hazardous constituents in stormwater runoff would not result in the loss of the regulatory exemption for material stored in a unit, citing the same example of furnace bricks that was used in the preamble to the 2008 Rule. 76 Fed. Reg. at 44114-15. In the 2008 Rule, EPA stated:

One specific example of “contained” hazardous secondary materials would be furnace bricks collected from production units and stored on the ground in walled bins before being used as feedstocks in the metals production process. If there were very small releases from the walled bins due to precipitation runoff, such releases would not cause the storage bins to be subject to Subtitle C controls.

73 Fed. Reg. at 64681.

However, the proposed 2011 regulatory text defines “contained” as “no leaks.” This regulatory text cannot be reconciled with either the preamble to the 2011 Proposal or to

the 2008 Final Rule. EPA must eliminate its “no leaks” standard to avoid regulating material such as furnace bricks that are stored outside.

Finally, EPA suggests in its preamble language that material in a unit that has had a release is not considered solid waste unless the unit “is likely to have one in the future (as demonstrated by not meeting the three factors in the standard).” *Id.* at 44115. Given the fact that one of the three factors in the standards is the “no leaks” requirement, this preamble statement provides no flexibility at all. Under the 2011 Proposal, one leak means a unit has not met the contained standard in the rule, and therefore is considered likely to leak in the future.

EPA’s proposed definition of “contained” (under which one leak, including stormwater runoff, dust and fugitive air emissions, may turn a unit into a regulated hazardous waste storage unit) could transform virtually all material into waste. As a result, EPA’s definition exceeds its authority under RCRA. The existence of stormwater runoff, which is regulated by the industrial stormwater program under the Clean Water Act, and fugitive air emissions and dust, which are regulated under the Clean Air Act, does not mean that material is not being managed as a valuable commodity so these factors cannot be used to justify a determination that a material is subject to RCRA. As noted above, this rationale suggests EPA has the authority to regulate the management of all materials under RCRA, an expansion of authority that has no support in the statute.

Even if EPA intends its existing definition of “contained” to allow a single leak, as long as it is not continuing or intermittent, such standard is not appropriate for distinguishing between wastes and non-wastes. A single or intermittent leak or leaks is not evidence that all the material in a container is not being managed as a valuable commodity, if the leak is immediately addressed. If EPA proceeds with a regulatory definition of “contained,” AF&PA strongly urges EPA to replace the “no leaks” requirement with language that reflects the reality that the occurrence of a leak that is quickly addressed is not evidence that the material remaining in the unit is discarded and that stormwater runoff and air emissions are not evidence of discard.

Further, as discussed below, AF&PA strongly urges EPA to refrain from imposing new conditions on legitimate recycling that is occurring, and has been occurring for decades, under existing regulatory exemptions.

B. EPA’s Proposed Notice, Labeling, and Recordkeeping Conditions Exceed its Authority Under RCRA and Are not Justified.

In the 2011 Proposal, EPA is proposing to require all generators that recycle their own materials to provide notice to EPA, as well as to label recyclable materials and keep records regarding the accumulation of such materials. In addition, EPA is taking

comment on whether to impose a notice requirement on all recycling activity. AF&PA believes that there is no basis for imposing any of these new requirements.

1. EPA is proposing to impose conditions on the management of material that is not discarded.

The 2008 Rule excluded from the definition of solid waste materials that were recycled under the control of the generator as well as materials recycled under tolling agreements. These materials were excluded from the definition on the grounds that these materials had not been discarded. These materials were still subject to speculative accumulation limits, because those limits define when a material is discarded. Such material also had to be contained because materials that are released to the environment and not immediately recovered are discarded. The 2008 Rule did include a notice requirement under its general authority under section 3007 of RCRA, but that requirement was not a condition of the exclusion because EPA has no authority to place conditions on the management of material over which it has no jurisdiction.

The 2011 Proposal retains the exclusion for materials recycled under the control of the generator. In doing so, EPA repeats the conclusion reached in 2008 that these material are not discarded:

By maintaining control over, and potential liability for, the reclamation process, the generator ensures that the hazardous secondary materials are not discarded (see 73 FR 74676). EPA has not received any information that would cause the Agency to reverse this determination, and this continues to be the underlying rationale for the generator-controlled exclusion. 76 Fed. Reg. at 44113.

Notwithstanding this statement, however, the 2011 Proposal does attempt to regulate material being recycled under the control of the generator as waste. EPA does so by placing conditions on the management of this material and by moving this exemption from the definition of solid waste under 40 C.F.R. 261.2 to the list of exemptions in 40 C.F.R. 261.4. These proposed regulatory changes are inconsistent with EPA's determination that material being recycled under the control of the generator is not discarded and exceed EPA's authority under RCRA. As noted by the D.C. Circuit: "While we do not lightly overturn an agency's reading of its own statute, we are persuaded that by regulating in-process secondary materials, EPA has acted in contravention of Congress' intent." *AMC I*, at 1193.

The conditions proposed by EPA include the contained standard, discussed above, as well as notification, recordkeeping to demonstrate the absence of speculative accumulation, and recordkeeping for the generators that utilize tolling manufacturers. In addition, although no one raised this as an issue, EPA is taking comment on whether record-keeping should be required for shipments of hazardous secondary material

between two facilities owned by the same generator. *Id.* at 44117. Under the 2011 Proposal, if a generator fails to meet any of these conditions, the material being recycled would be considered a solid and therefore hazardous waste, and full subtitle C regulation would apply. This would be the result even if the material at issue is being managed as a valuable commodity, the material is not being speculatively accumulated, and the material is being legitimately recycled into a valuable product. In other words, EPA is proposing to identify material as a solid waste even if it is not discarded. EPA has no authority to do so under RCRA.

Thus, EPA is taking the position that material being recycled under the control of the generator is a waste, and can become a non-waste only if it meets the conditions imposed by EPA. This proposal is very similar to the regulatory provisions reviewed by the D.C. Circuit in *ABR*. The *ABR* case involved changes to the definition of solid waste that EPA promulgated as part of its Phase IV Land Disposal Restrictions. That rule changed the regulation of reclaimed sludges and by-products of the mineral products industry that exhibit a hazardous characteristic by overlaying the exemption for these materials in the definition of solid waste in section 261.2 with a conditional exclusion in 261.4. The rule then imposed storage conditions on these materials. As described by the D.C. Circuit:

The new § 261.4(a)(17) gave a so-called "conditional exclusion": if the provision's criteria were met, reclaimed mineral processing secondary materials would not be classified as solid waste. We have trouble making sense of these two provisions. The first provision (§ 261.2(c)(3)) broadly describes what is not a solid waste, unless it complies with the other provision. But the other provision-- §261.4(a)(17)--is an exclusion, and the consequence of not complying with the provision is, of course, loss of exclusion. In other words, read together, the provisions seem to say that something is not a solid waste unless it is not excluded from being a solid waste. Lewis Carroll would be proud. *ABR*, at 1051.

The court concluded that this conditional exclusion was invalid because at least some of the material being regulated was not discarded:

At this stage, all we can say with certainty is that at least some of the secondary material EPA seeks to regulate as solid waste is destined for reuse as part of a continuous industrial process and thus is not abandoned or thrown away. Once again, "by regulating in-process secondary materials, EPA has acted in contravention of Congress' intent," because it has based its regulation on an improper interpretation of "discarded" and an incorrect reading of our AMC I decision. *Id.* at 1056 (internal citations omitted).

In the 2011 Proposal, EPA is repeating the mistake made in the Phase IV Land Disposal Restrictions and is proposing to regulate material that has not been discarded, exceeding its authority under RCRA.

2. EPA Offers No Reasoned Analysis to Support its Proposed Changes to Generator-Controlled Recycling.

In the 2008 Final Rule, EPA recognized that requirements such as a notification requirement are not good indicators of whether or not material is discarded.

In context with this issue, EPA considered the intent of the notification, which is to provide basic information to regulatory agencies about who will be managing hazardous secondary materials under the exclusions. This basic information enables regulatory agencies to administer oversight and set enforcement priorities, but does not allow regulatory agencies to directly determine that hazardous secondary materials were discarded. In other words, a generator or reclaimer could fail to notify yet still be legitimately recycling their hazardous secondary materials according to the conditions of the exclusion. Therefore, EPA is retaining notification as a requirement under the authority of RCRA section 3007, and, thus, notification is not a condition of today's exclusions. 73 Fed. Reg. at 64739.

EPA has provided no reasoned analysis to explain why the above quoted statement is no longer true. **If EPA intends to now argue that failure to provide notice or failure to comply with record-keeping or labeling requirements is evidence that a material is somehow abandoned or thrown away and therefore discarded, then EPA must provide some record evidence to support this new position.** Otherwise, this shift in policy is arbitrary and capricious. *State Farm*, 463 U.S. at 46, 52.

EPA's argument that its proposed notice, record-keeping and labeling requirements are justified on the basis of "ease of enforcement" or "enforceability" is not persuasive. See 76 Fed. Reg. at 44116. EPA cannot regulate non-waste material and so it cannot take enforcement action under RCRA against non-waste material. There is no statutory or policy justification for trying to make it easier for EPA to take an action that is *ultra vires* of its authority. Further, in the RIA, EPA admits that "no studies were found indicating that recordkeeping improves environmental compliance." RIA at 216.

3. EPA Offers No Reasoned Analysis to Impose a Notice Requirement on Pre-2008 Regulatory Exclusions.

EPA is seeking comment on whether notice should be a condition of all existing regulatory exclusions from the definition of solid waste. 76 Fed. Reg. at 44138.

EPA cannot place conditions on non-waste material. Thus, to the extent that a material being recycled is not discarded, EPA has no authority to impose notification requirements. Further, EPA's own rulemaking record would not justify imposing notice requirements on all existing regulatory exclusions. EPA only identified 223 damage cases. According to EPA, 132 of these cases (59%) are associated with materials that were likely to be exempted from subtitle C under an existing exclusion. 76 Fed. Reg. at 44138 and U.S. EPA, Correlation of Recycling Damage Cases with Regulatory Exclusions, Exemptions or Alternative Standards (EPA-HQ-RCRA-2010-0742-0010). However, these 132 cases represent only 2.5% of the 5321 facilities that EPA estimates were operating under these existing regulatory exclusions as of 2007. RIA, at 48.¹² Thus, these damage cases are isolated incidents compared to the vast amount of valuable recycling activity that takes place in the U.S. with no environmental or public health impacts. As a result, EPA's record does not support imposing additional conditions on recycling and this regulatory change is not supported by a "reasoned analysis" as required by the Supreme Court under *State Farm*.

Once again, EPA tries to justify increased regulation "as means to better enforce the regulations." 76 Fed. Reg. at 44138. However, increased enforceability alone is not a justification for increased regulation in the absence of a record showing there are violations to enforce against.

AF&PA strongly urges EPA to maintain existing exemptions from subtitle C regulation as is. If EPA makes any changes to the existing regulatory exemptions, those changes should apply only to those exemptions that are likely to be correlated to a meaningful number of recent damage cases and should not apply to all regulatory exemptions. As EPA points out, the vast majority of regulatory exemptions are not associated with any of the damage cases. See 76 Fed. Reg. at 44138 (identifying only three regulatory exemptions that account for most [110 of 132] of the damage cases that are correlated to a regulatory exemption). None of the damage cases identified by EPA are associated with the forest products industry and thus cannot be used to justify increased regulation of this industry.

C. EPA's new Legitimacy Criteria will create an unjustified barrier to legitimate recycling, in excess of EPA's authority under RCRA.

The 2008 Rule codified EPA's flexible long-standing legitimacy criteria that had been summarized on the 1989 "Lowrance Memo," and applied the codified legitimacy criteria

¹² EPA's estimate of the number of facilities operating under the pre-2008 exclusions is based on Toxic Release Inventory (TRI) data. RIA, at 48. However, TRI excludes articles, so recycling of articles such as scrap metal or whole batteries will not be included in these data and EPA's estimate of the number of facilities that rely on the pre-2008 exclusions is likely a gross underestimate.

to the exclusions promulgated in the 2008 Rule. In the 2011 Rule, EPA is now proposing to (1) make all the criteria mandatory, (2) require all recyclers, including persons recycling under pre-2008 exclusions, to document legitimacy; and (3) change the 3rd and 4th criteria. In addition, EPA is proposing a “legitimacy waiver” process.

1. The Legitimacy Criteria relating to materials management and levels of toxic constituents should not be mandatory.

Under the 2008 Rule the first two legitimacy criteria (the requirement that recycling result in a useful product and that the secondary material make a useful contribution to that product) are mandatory requirements that all recycling activity under the 2008 exemptions must meet. The second two criteria (managed like an analogous product and does not contain significant concentrations of Appendix VIII constituents not found in the analogous product or significantly higher than found in the analogous product) are required to be considered, but are not mandatory. The reason for this structure is that EPA is aware of examples where the recycling activity is legitimate but does not meet either factor 3 (relating to management) or factor 4 (relating to toxics).

EPA believes that these two factors are important in determining legitimacy, but has not made them factors that must be met because the Agency knows that there will be some situations in which a legitimate recycling process does not conform to one or both of these two factors, yet the reclamation activity would still be considered legitimate. 73 Fed. Reg. at 64701.

According to EPA, examples of legitimate reclamation activity that does not meet factor 4 include products of recycling that have higher levels of appendix VIII constituents but meet industry specifications:

Another example of recycling that may be legitimate although this factor has not been met could be when the material has concentrations of toxics that could be considered “significantly higher” than the analogous product, but meets industry specifications for the product that include specific specifications for the hazardous constituent of concern. Meeting accepted industry standards would be a strong indication that this material is being legitimately recycled. 73 Fed. Reg. at 64705

In the 2008 Rule EPA also cites the situation where recycling takes place within an industry and there is no analogous product:

In many mineral processing operations, the very nature of an operation results in hazardous constituents concentrating in the product as it proceeds through the various steps of the process. In many cases, there is not an analogous product to

compare the products of these processes so this factor may not be relevant because of the nature of the operations. 73 Fed. Reg. at 64705

Despite the fact that it knows that legitimate recycling occurs that cannot meet all four legitimacy factors, in the 2011 Proposal, EPA is now proposing make all four legitimacy criteria mandatory.

To address situations where recycling is legitimate, notwithstanding the failure to meet factor 3 or factor 4, EPA is proposing a petition process under which a person could demonstrate that the overall recycling activity remains legitimate. EPA calls its petition process for legitimacy a “legitimacy variance.” That is a misnomer. EPA is not proposing to exempt any recycling activity that is not legitimate. EPA is recognizing that its legitimacy criteria are not a perfect predictor of whether or not material has been discarded. However, the very fact that a petition process is necessary is an admission by EPA that its proposed changes to the legitimacy criteria exceed its authority under RCRA.

Under the petition process, a Regional Administrator is allowed to evaluate all factors and “consider legitimacy as a whole.” That is the correct test, but EPA is proposing to apply it in an invalid way. Under the 2011 Proposal, material being recycled would be considered a waste even if the overall recycling activity is legitimate as a whole, unless the material receives a “legitimacy variance.” EPA admits that its legitimacy criteria would identify non-waste material as wastes, stating that: “EPA believes it is critical that the legitimacy requirement have flexibility for those situations where a facility is recycling legitimately, but is not meeting factor 3 and/or factor 4.” 76 Fed. Reg. at 44122.

EPA argues that under its proposed petition process “there would be no substantive distinction between the final legitimacy determination under the two approaches.” *Id.* However, the substantive distinction between the 2008 Rule and the 2011 Proposal is a legal distinction. The determination whether recycling activity is legitimate or not is not based on whether a person goes through a petition process. This administrative process is not relevant to the question of whether or not a material is being discarded. Thus, requiring a person to go through the petition process before a material can be considered a non-waste exceeds EPA’s authority under RCRA.

If, despite our concerns, EPA finalizes a rule that requires legitimately recycled non-wastes to go through a petition process, then AF&PA suggests several options for making sure there is consistency among the regions and transparency in the decisions. First, EPA should promulgate generic legitimacy determinations for all pre-2008 exclusions (as has been proposed for foundry sand). Second, all petition determinations must be posted on one website to assurance consistency. (Of course,

as we discuss later, undertaking generic determinations for pre-2008 exclusions brings us back to the exclusion as promulgated in the first place. This shows the absurdity of applying legitimacy criteria to the pre-2008 exclusions.)

In addition, if EPA finalizes its changes to the legitimacy criteria as proposed, the Agency must provide a transition period. A great deal of legitimate recycling goes on every day that is integral to manufacturing processes. If the regulated community now needs a "legitimacy variance" to continue these long-standing manufacturing processes, then facilities will have to shut down and await EPA's administrative process before continuing their legitimate recycling activities. This result would be bad for the economy and could result in the speculative accumulation of secondary materials, increasing, not decreasing, the risk of mismanagement and discard.

2. EPA should not require persons recycling under the pre-2008 exemptions to demonstrate legitimacy.

AF&PA strongly disputes the concept that all materials that are being recycled under 31 separate pre-2008 regulatory provisions would suddenly become discarded if someone does not document that those materials meet the regulatory legitimacy criteria. In promulgating those specific regulatory provisions, EPA already made the determination that the recycling activity under each of those recycling exemptions is legitimate. Further, years of successful recycling under these provisions has demonstrated that EPA's determination was correct. Thus, EPA has no factual or legal basis to now say that this material is now discarded.

In addition, this proposed policy position stands in direct contrast to the position taken in the 2008 Rule. In that rulemaking, EPA initially proposed applying the regulatory legitimacy criteria to all recycling, but changed its position based on the comments received to ensure that existing recycling would continue, unaffected:

*EPA believes that the four legitimacy factors being codified in 40 CFR 260.43 are substantively the same as the existing legitimacy policy. These factors are a simplification and clarification of the policy statements in the 1989 Lowrance Memo and in various Definition of Solid Waste **Federal Register** notices. Nonetheless, to avoid confusion among the regulated community and state and other implementing regulatory agencies about the status of recycling under the existing exclusions, the Agency has decided not to codify the legitimacy factors for existing exclusions and, thus, states and other implementing agencies will continue to apply the existing legitimacy policy to all recycling as they have in the past in order to ensure that recycling is real and not a sham. The legitimacy provisions of the final rule are codified only for the exclusions and non-waste determinations being promulgated today. In developing the codified legitimacy language, we did not intend to raise questions about the status of legitimacy*

determinations that underlie existing exclusions from the definition of solid waste, or about case-specific determinations that have been made by EPA or the states. Current exclusions and other prior solid waste determinations or variances, including determinations made in letters of interpretation and inspection reports, remain in effect. 73 Fed. Reg. at 64708.

In the 2011 Proposal, EPA offers no reasoned analysis to support this change in policy. EPA simply says that it believes that including legitimacy in the regulations for all recycling “will make it easier to enforce.” 76 Fed. Reg. at 44120. EPA also argues that codifying and documenting legitimacy determinations for all recycling will benefit the environment through more thorough, accurate and consistent legitimacy determinations. *Id.*

With respect to enforcement, while EPA always has the burden of establishing its *prima facie* case, EPA regulations place the burden of proof on a person who claims a material is not a waste as a defense to an enforcement action. 40 C.F.R. 261.2(f). Thus, EPA already has the ability to require a demonstration of legitimacy in an enforcement action, if EPA has reason to believe that a material is discarded. Further, as noted above, EPA has no record of wide-spread failure to engage in legitimate recycling that would provide a justification for increasing enforceability. There are only 223 damage cases. According to EPA, there were 5231 facilities operating under existing exemptions and 624 facilities engaged in hazardous waste recycling under subtitle C in 2007. A total of 223 damage cases constitute only 3.8% of the total of the number of facilities recycling hazardous secondary materials. Moreover, EPA states that only 132 cases are likely associated with existing regulatory exclusions. Thus, the damage cases represent only 2.5% of the 5321 facilities that were operating under these existing regulatory exclusions as of 2007. This record is not evidence of widespread non-compliance with the law that would support a need for increased enforceability. Finally, none of the damage cases identified by EPA are associated with the forest products industry.

With respect to the alleged environmental benefits, EPA appears to be mistaking administrative ease of enforcement with environment benefits. EPA offers no record evidence to suggest that documenting and maintaining records of a legitimacy determination would provide additional environmental protection. Indeed, as noted above, EPA admits in its RIA that “no studies were found indicating that recordkeeping improves environmental compliance.” RIA at 216.

Finally, AF&PA believes that Regional Administrators will be overwhelmed with legitimacy variances. The potential need for legitimacy variance for materials being recycled by the forest products industry is discussed below.

Unlike the 2008 Rule, the 2011 proposal would throw much legitimate recycling into turmoil. This is particularly true given EPA's failure to affirm that determinations made in letters of interpretations and inspection reports remain in effect. AF&PA requests EPA to expressly state that prior solid waste determinations or variances remain in effect.

3. EPA's proposed changes to factor 3, relating to material management will result in many materials being regulated as hazardous wastes.

EPA is proposing changes to the regulatory language of factor 3, to make it mandatory. However, the real change to legitimacy factor 3 is not in the regulatory language found at proposed 40 C.F.R. 260.43; it is in the definition of "contained" at proposed 40 C.F.R. 260.10. As discussed above, EPA has proposed a definition of contained under which a single leak would transform a storage unit for recyclable materials into a subtitle C hazardous waste unit. In a case where there is no analogous secondary material, which is not uncommon in industries that recycle within the same industrial process, then a material must be contained. Not even fugitive air emissions are allowed under that definition.

We appreciate the fact that, by allowing generators and recyclers to demonstrate that the management of the secondary material is "in an equally protective manner" compared to the management of an analogous raw material, EPA is making factor 3 somewhat more flexible should it become a mandatory factor. However, this flexibility does not apply if there is no analogous raw material.

If EPA finalizes this strict new definition of "contained," then EPA is likely to receive an unmanageable number of legitimacy variance petitions seeking to confirm that management of a hazardous recyclable material is legitimate. As noted above, the delays caused by the requirement to obtain a variance could shut down industrial operations.

4. EPA should return to the original wording of factor 4.

EPA is proposing to change factor 4 from a non-mandatory requirement that toxic levels not be significantly higher into a mandatory requirement that the product of recycling contain Appendix VIII constituents at levels that are comparable to or lower than those found in analogous products or does not exhibit a hazardous characteristic.¹³

¹³ The preamble and rule language uses the term "or" which implies that a material could have hazardous constituents at level that are not comparable if the material does not exhibit a hazardous characteristic. However, that does not appear to be EPA's intent.

EPA offers no reasoned analysis to support this change. In fact, in the preamble EPA states:

[W]e are not changing the basic meaning of this factor. Operationally, the terms “comparable” and “not significant” or “not significantly elevated” are the same for hazardous secondary materials recycling and the examples the Agency provided in the 2008 DSW final rule preamble that explained how the Agency envisions this factor working are still appropriate. 76 Fed. Reg. at 44124.

EPA then “repeats” examples from the 2008 Rule. However, in doing so, EPA changes those examples. In the zinc example, the 2008 Rule states:

If zinc galvanizing metal made from hazardous secondary materials that were reclaimed contains 500 parts per million (ppm) of lead, while the same zinc product made from raw materials typically contains 475 ppm, this difference in concentration would likely not be considered “significant” in the evaluation of this factor. If, on the other hand, the lead levels in the zinc product made from reclaimed hazardous secondary materials were 1,000 ppm, it may indicate that the product was being used to illegally dispose of lead and that the activity is sham recycling, unless other factors would demonstrate otherwise. 73 Fed. Reg. at 64706.

In the 2011 Proposal, EPA restates this example to add the statement that, with respect to a comparison of 500 parts per million to 475 parts per million, “[t]hese levels would be considered comparable because they are within a “small acceptable range” and, thus, the product would meet this factor.” 76 Fed. Reg. at 44124. The 2011 Proposal also omits the example of 1000 ppm as a level that may be significantly higher.

Similarly, in the barium example, the full quote from the 2008 Rule is as follows:

In another example, if a “virgin” solvent contains no detectable amounts of barium, while spent solvent that has been reclaimed contains a minimal amount of barium (e.g., 1 ppm), this difference might not be considered significant. If, however, the barium in the reclaimed solvent were at much higher levels (such as 50 ppm), it may indicate discard of the barium and sham recycling. 73 Fed. Reg. 64706.

The 2011 Proposal drops the statement that barium at “much higher levels (such as 50 ppm)” may indicate discard. 76 Fed. Reg. at 44124.

The implication that something less than a 100% increase in lead (from 500 ppm to 1000 ppm) or a 5000% increase in barium (1 ppm to 50 ppm) might be not significantly elevated obviously is inconsistent with EPA's new interpretation of factor 4 as being "within a small acceptable range." Of course, the words "small acceptable range" do not appear in the 2008 Rule and it is disingenuous of EPA to suggest that this is what EPA meant in 2008.

It is clear that EPA is significantly changing the meaning of factor 4 in the 2011 Proposal. Not only is it proposed to be a bright line test that always indicates discard, no matter how legitimate the recycling activity is, EPA is trying to redefine "significantly higher" to mean "within a small acceptable range."

Having proposed to change the test, the question then becomes whether or not the change is supported by a reasoned analysis. In the 2011 Proposed Rule, EPA has denied it is making a substantive change. Thus, it has provided no reasoned analysis to support the revisions to factor 4. In fact, the only justification that EPA provides is the suggestion that it is important for this rule to be consistent with the Identification of Non-Hazardous Secondary Materials rule (76 Fed. Reg. 15456, March 21, 2011) (NHSM Rule). 76 Fed. Reg. at 44122, 44124. This suggestion is ironic because the regulated community has pointed out to EPA that the legitimacy criteria of the NHSM Rule are unworkable and will result in far more materials being identified as solid wastes than EPA intended. In response, EPA has announced its plans to revise the NHSM Rule in ways that may not be consistent with the 2011 Proposal. See EPA, Non-Hazardous Secondary Materials (NHSM) Rule: Comparable Contaminant Guidance Concept Paper, dated July 11, 2011 (available at <http://www.epa.gov/epawaste/nonhaz/define/pdfs/nhsm-concept.pdf> and attached), and October 14, 2011, letter from Administrator Jackson to Senator Wyden (attached). Thus, the 2011 Proposal already is different from the NHSM rule. Consistency with that rule is not a valid justification for that proposal.

If EPA truly does not wish to change the legitimacy factor, the best way to achieve this goal is to leave the language of that legitimacy factor unchanged.

If EPA finalizes its proposed changes to factor 4, a great many materials will have to obtain a legitimacy variance. Examples from the forest products industry are provided below. These petitions will create a backlog that will shut down industrial operations.

D. EPA Should not Eliminate the Transfer-Based Exclusion.

EPA proposes to eliminate the exclusion for materials that are transferred to third parties for recycling that is in the 2008 Rule and require a subtitle C permit for all facilities that receive hazardous secondary materials. The D.C. Circuit has already

rejected the argument that recycled material that is transferred to another firm or industry for subsequent recycling must always be solid wastes. See *Safe Food & Fertilizer v. EPA*, 350 F.3d. 1263, 1268 (D.C. Cir. 2003). Thus, to remain within its statutory authority, EPA cannot presume that a material is discarded merely because it is transferred to a third party.

By proposing to delete the 2008 exemption for materials that are transferred to third parties, EPA is taking the position that the act of transfer itself constitutes discard and no information regarding the legitimacy of the recycling can rebut that position. Under EPA's proposal, a person could arrange for a valuable secondary hazardous material to be recycled, send it to a recycler that it has determined to be reliable and financially sound, and demonstrate that the recycling actually took place and a valuable product was produced, yet the material would still be considered a hazardous waste. This position is not consistent with RCRA or the D.C. Circuit interpretations of the statute, which limit EPA's authority to material that is being discarded "by virtue of being disposed of, abandoned, or thrown away" (*ABR*, at 1051) and therefore are part of the waste disposal problem (*AMC I*, at 1185). In addition, the D.C. Circuit has told EPA in unambiguous terms that:

EPA need not regulate "spent" materials that are recycled and reused in an ongoing manufacturing or industrial process. These materials have not yet become part of the waste disposal problem; rather, they are destined for beneficial reuse or recycling in a continuous process by the generating industry itself. *Id.*

AF&PA urges EPA to retain the transfer-based exclusion from the 2008 Rule.

III. Impact of the 2011 Proposal on Recycling By the Pulp and Paper Industry

A. The Spent Pulping Liquor Exclusion

Two types of chemical pulping processes are used in the United States. The predominant one is the Kraft process that uses alkaline-based pulping liquors to separate the cellulose fibers from the lignin. Sulfite pulping is used for specialty pulps and uses acid-based pulping liquors.

1. History of the Kraft and Sulfite Pulping Processes

The Kraft pulping process has been in existence for almost 130 years. The fundamental economics of pulp and paper mills are based on the ability to reuse pulping chemicals and to generate energy for use in the pulp and papermaking processes. It was "Sustainable Materials Management" before the concept was articulated. As Gary

Smook describes in his *Handbook for Pulp and Paper Technologists, 2nd Edition* (Angus Wilde Publications, 1994):

“The Kraft – or sulfate – pulping process was first used commercially in Sweden in 1885.... Its dominance came about in the 1930’s with the introduction of the Tomlinson recovery furnace, where final evaporation and burning of spent liquor were combined with recovery of heat and chemicals in a single process unit.”

Hence for at least eighty years, the paper industry has reused critical chemicals by reclaiming them on a continuous, closed-loop basis and obtaining necessary renewable energy in the process. This is not a new decision to try recycling residuals that had otherwise been previously discarded. This is a process that has been ongoing for decades.

The first U.S. patent for the sulfite pulping process was awarded in 1867, with the first commercial sulfite pulp produced in Sweden in 1874. It rapidly became the main chemical pulping process in the U.S. until the Kraft process gained prominence after the 1930s. Sulfite pulping is still used today as the process renders high quality fibers for use in special papers and tissues. Like the Kraft process, the sulfite process recovers and recycles the pulping chemicals while providing a large portion of the energy needed for the process

B. History of the Pulping Liquor Exclusion

Spent pulping liquors are a vital part of the pulp production process. They are not discarded. EPA recognized this in the preamble to the January 4, 1985 *Federal Register* notice that has served as the basis for the Definition of Solid Waste.

1. Need for the Exclusion

EPA’s April 1983 proposal determined that closed-loop recycling was not management of a solid waste; however, EPA was concerned about reclamation of secondary materials within that closed-loop system and determined that reclamation would cause the material to be considered a solid waste. The Agency recognized that there would be situations where reclamation as part of a closed-loop system is not solid waste management and therefore provided, in section 260.30, a mechanism for secondary materials that are reclaimed in a closed-loop system not to be considered solid waste.

The pulp and paper industry sought such an exclusion from the Definition of Solid Waste for spent pulping liquors. EPA analyzed information from the pulp and paper industry according to the criteria established in section 261.31:

- (1) How economically viable the production process would be if it were to use virgin materials, rather than reclaimed materials;
- (2) The extent to which the material is handled before reclamation to minimize loss;
- (3) The time periods between generating the material and its reclamation, and between reclamation and return to the original primary production process;
- (4) The location of the reclamation operation in relation to the production process;
- (5) Whether the reclaimed material is used for the purpose for which it was originally produced when it is returned to the original process, and whether it is returned to the process in substantially its original form;
- (6) Whether the person who generates the material also reclaims it;
- (7) Other relevant factors.

The final determination was that spent pulping liquor (also known by its colloquial name, black liquor) reclaimed and reused in the Kraft paper process should be excluded from the solid waste definition. The preamble (50 Fed. Reg. 641) reads as follows:

- I. Secondary Materials Specifically Excluded From the Definition of Solid Waste
1. § 261.4(a)(6): *Black Liquor Reclaimed and Reused in The Kraft Paper Process.* Pulpmaking processes in the paper industry use chemicals to digest wood chips, and the spent chemicals are recovered from the digester, reclaimed by burning in a recovery furnace, and then reused in the digester in approximately their original form. "Black liquor" is the name given to the spent chemicals, which are caustic and sometime corrosive. Recovery and reuse of black liquor can occur at a single paper mill, and also can involve a second paper mill which reclaims black liquor for its own use or for reuse by the generating mill. All Kraft paper mills reclaim their black liquor (or have the black liquor reclaimed), and little is ever discarded. The Kraft process itself is not economically viable without recovering the black liquor. Black liquor is customarily stored in tanks before being reclaimed, but also is stored in surface impoundments. (The paper industry estimates that one-third of the approximately 125 domestic Kraft mills have black liquor impoundments.)

The Agency has tentatively determined that black liquor, on a generic basis, meets the standards for a closed-loop variance (see section II.J.2. b. of Part 3 of the preamble below) and so is not a solid waste when recycled in this way. (We also indicated in the proposed regulation that black liquor recovery was a closed-loop type of operation. 48 FR 14489.) At least where black liquor is stored in tanks rather than in surface impoundments, black liquor reclamation is integrally tied to the Kraft paper production process, whether it occurs at a single or different plant. All Kraft mills practice black liquor recovery, and the recovery is economically essential to the process. An end use for black liquor is readily available. The whole operation is essentially an on-going process, with chemicals being used, recovered, and returned in their original form to the same process in which they were generated, or to an analogous process at a different facility. Because this operation appears to occur for all black liquor generated, we have determined that black liquor is not a solid waste when recycled in this way.

The preamble goes on to discuss the Agency's concern with the management of spent pulping liquor in surface impoundments. It noted that it would re-evaluate the status of such impoundments in the future.

However, since 1985 EPA has not sought to amend the exclusion in any way until the current proposal (except to revise the wording to clarify that the

exclusion is also applicable to spent pulping liquors that are generated by the sulfite pulping processes). Clearly the Agency did not see any reason to do so.

2. Changes Since 1985

Since 1985, the pulp and paper industry has closed most surface impoundments used for storage of spent liquor. Today, approximately seven impoundments are still in use. The remainder of the mills uses tanks to store spent liquor. This further demonstrates the critical importance of spent pulping liquors in the pulping process and the care in which the chemicals are handled.

In addition, mills are generally handling most of their spent pulping liquors on site. As a result of the various improvements to recovery furnaces, capacity to recover spent pulping liquor on site has grown. However, there are still situations where a mill may have an operational issue or equipment maintenance downtime and needs to use the capacity of another recovery furnace to reclaim the pulping liquor.

C. Description of the Spent Pulping Liquor and the Kraft Chemical Recovery Process

In the Kraft process, spent pulping liquor¹⁴ is generated by the reaction of wood chips combined with white liquor, a solution of sodium hydroxide and sodium sulfide, at high temperature and pressure in a digester. The reaction dissolves the lignin component of the wood – although some portion of the cellulose and hemicelluloses are also dissolved. Once the reaction is complete, the combined wood and liquor is blown into a blow tank – which begins the separation of the wood and liquor – then it is pumped into a series of washers (known as brown stock washers) to further separate the fibers from the dissolved components that comprise the spent pulping liquor.

Spent liquors are then sent to evaporators to be concentrated to about 65 percent solids. The “strong” liquor is then fired in the recovery furnace for energy and to reclaim the white liquor constituents.

Spent pulping liquor is composed of inorganic and organic constituents. The inorganic component derives mainly from the white liquor used to cook the wood and includes sodium as the predominant cation and hydroxide, sulfide, carbonate, sulfate, thiosulfate and chloride as the major anions. Table 1 shows the elemental composition of virgin black liquors from North American wood species.

¹⁴ Adams, et al, Kraft Recovery Boilers, published by TAPPI Press, 1997

Table 1. Elemental Composition of Kraft black liquors from North American wood species [Adams, et al.]

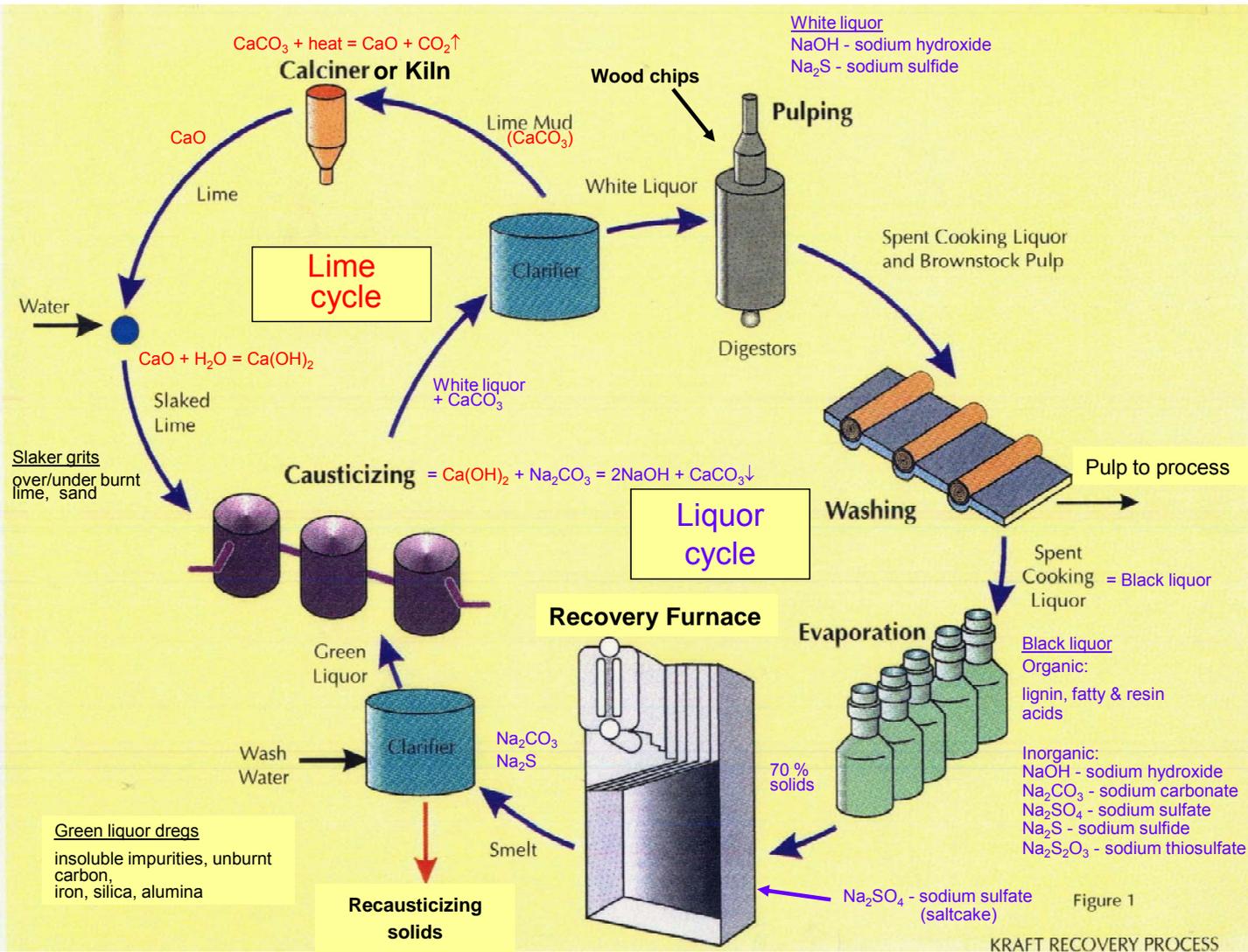
Element	% by weight
Carbon	34 – 39
Hydrogen	3 – 5
Oxygen	33 – 38
Sodium	17 – 25
Sulfur	3 – 7
Potassium	0.1 – 2
Chloride	0.2 – 2
Nitrogen	0.04 – 0.2
Other	0.1 – 0.3

Organic compounds comprise the majority of the black liquor solids. Most of the individual compounds are unknown, but they are generally classified according to the wood constituents from which they were derived. The largest organic component is alkali lignin, consisting of mostly large condensed, cross-linked macromolecules containing many aromatic groups including phenols, catechols and quinones [Grace and Malcolm, eds., 1989]. The carbohydrate wood components are present in the spent liquor as hydroxy acids and carboxylic acids. Extractives are the third major group of organic compounds. They consist of resin acids, fatty acids, and neutrals (e.g., sterols and terpene alcohols), and generally pass through the pulping process unchanged. Table 2 shows typical concentration ranges of organic compound groups for spent Kraft liquors.

Table 2. Chemical Species in Kraft Black Liquor [Adams, et al.]

Element	% by weight
Alkali lignin	30 – 45%
Hydroxy acids	25 – 35%
Extractives	3 – 5%
Acetic acid	5%
Formic acid	3%
Methanol	1%
Sulfur	3 – 5%
Sodium	15 – 20%

The following diagram shows the full Kraft pulping cycle, including the additional steps that fully convert spent pulping liquor into energy and white liquor.



D. Description of the Spent Pulping Liquor and the Sulfite Chemical Recovery Process

Sulfite pulping follows many of the same steps as Kraft pulping. The major difference in sulfite pulping is that the digester “cooks” with a mixture of H₂SO₃ (sulfurous acid) and HSO₃⁻ (bisulfate ion in the form of calcium, magnesium, sodium, or ammonium bisulfate). The pulp continues on through the same processes as in the Kraft pulping process.¹⁵

The spent cooking liquor from sulfite pulping is called brown or red liquor (compared to black liquor in the Kraft process). After the washers, the weak red liquor enters a storage tank, having approximately 13-15% solids. The liquor is concentrated in a multiple-effect evaporator system and transferred into a strong liquor tank, when the required concentration reaches (between 60-65%) the boiler operation. In the recovery boiler, the strong red liquor is burned off and the base (usually magnesium) is recovered for recycling.¹⁶

E. EPA has not justified changing the spent pulping liquor exclusion

1. Nothing has changed from the 1985 exclusion

When the pulp and paper industry requested that EPA provide the exemption for spent pulping liquors from the RCRA hazardous waste regulations, EPA undertook a thorough analysis of the processes involved in managing those materials, based on the criteria described above. Although this took place prior to the issuance of the Lowrance memo, EPA did evaluate spent pulping liquor considering the manner in which the material was being managed and that it is an essential part of the chemical pulping process.

Periodic demonstration of legitimacy criteria compliance is a waste of resources. As noted, the only change from the 1985 exemption to today is that the overwhelming majority of spent pulping liquor is managed in tanks rather than in surface impoundments. The industry continues to generate, manage, and burn spent pulping liquor in fundamentally the same manner as it did in 1985.

¹⁵ Washington State Air Programs description of chemical pulping;
<http://www.ecy.wa.gov/programs/air/pdfs/pulpmil3.pdf>

¹⁶ Pulp and Paper, Application, Note 3.02.00, Sulfite Process, K-Patents Instruments,
<http://www.kpatents.com/pdf/applications/apn-3-02-00.pdf>

As we noted above, EPA has not provided any justification for amending the existing spent pulping liquor exemption. Neither the Regulatory Impact Analysis nor the Environmental Justice study provides insight into or support for EPA to establish additional requirements on pulp mills – other than for ease of enforcement. Frankly, the RIA and the EJ study only tangentially address pulp mills (by including them in the cost analysis).

2. No damage cases concern spent pulping liquor

None of the damage cases identified in the Environmental Justice study concerns spent pulping liquor. And none of the damage cases address processes such as those that occur at pulp mills – where the material being reclaimed is an integral part of the overall production process.

There have been periodic spills of spent pulping liquor throughout the years; however, they are always promptly cleaned up. And, as noted, the mills have moved from management of liquor in surface impoundments to tanks. Furthermore, if appropriate, spills are reported to the National Response Center or equivalent state entity. This is standard operating procedure for mills for all of the hazardous materials they handle on site – not just pulping liquors.

In addition, the mills are very mindful of managing pulping liquors to reduce their impact on wastewater treatment facilities. In fact, the NPDES standards covering pulp mills require that pulp mills implement BMPs to minimize spills. Notably, a recent release and resulting fish kill in Louisiana has not been alleged to have been caused by RCRA violations. Investigation and enforcement in that matter are being carried out under the Clean Water Act; again illustrating that existing rules and regulations are already in place to address material releases.

Application of the legitimacy criteria to spent pulping liquor would not change the reporting or management of those spills. It would only add administrative costs without any change in protection of public health or the environment.

3. There is no justification for requiring notification for the mills applying the spent pulping liquor exemption.

Almost every chemical pulp mill recovers spent pulping liquor. There are approximately 113 chemical pulp mills in the United States. Therefore, there are approximately 113 facilities using the spent pulping liquor exemption either by reclaiming the pulping liquor onsite, or sending it to another pulp mill to do so. To require more than that level of information provides no additional ease of enforcement but is a waste of administrative resources.

In addition, because pulp mills are critical employers in their areas, if a mill were to close, the state would be well aware of that action. If a mill is going to change its operations in some other manner, the state will know about it because of necessary changes in air and water permits, economic issues, etc. Additional notification is unnecessary.

Finally, mills report quantities of spent pulping liquor under the Chemical Data Reporting Rule (formerly called the Inventory Update Rule). Additional reporting would be duplicative and inconsistent with the Paperwork Reduction Act.

F. Applying the “contained” standard to pulping liquor is not necessary and not authorized.

As noted before, pulp and paper mills have taken major strides in containing spent pulping liquor because it is such a valuable commodity. It is not managed in a haphazard fashion. Plus, as noted earlier, other statutes work in conjunction with the current strictures of the RCRA rules to provide significant disincentives for leaks from management units.

Management of spent pulping liquor (as well as turpentine and tall oil) is discussed in EPA’s Kraft Pulp Mill Compliance Assessment Guide (EPA/310-B-99-001). That document includes information on evaluating mill management of pulping liquors – both white and black. EPA has provided ample assistance to the states and regions to evaluate whether mills are managing spent liquors in compliance with the exclusion. If a spill were to occur, nothing in the new containment standard would change the possibility of the spill or the mill’s response to it.

G. Applying the legitimacy criteria to pulping liquor is unnecessary.

1. EPA has already determined that reclamation of pulping liquor is legitimate.

Particularly for those exclusions that address on-going processes which are critical to the overall operation of a facility, EPA has made generic, industry-wide determinations that these materials are not solid waste. These determinations were based on application of legitimacy criteria. If nothing has changed in the way that those materials are generated, managed or reclaimed, regular evaluation of the legitimacy of the reclamation is unnecessary and a waste of resources.

Generically, management of spent pulping liquor meets at least the first three criteria. The spent pulping liquor is regenerated in the recycling process. The process produces a valuable product (cooking liquor) and valuable energy. The spent liquor is managed in a manner that protects public health and the environment.

However, the fourth factor – regarding contaminants – is problematic. This is because it is not possible to identify what constitutes the “analogous product” from virgin raw materials versus the product made from reclaimed secondary materials. If it is the cooking liquor, the process rarely “begins” with new chemicals. Make-up chemicals address losses in the system, but they are generally added as either the sodium hydroxide or sodium sulfide – rarely the combination. Comparing cooking liquor generated through the reclamation process with synthetic cooking liquor (that is, liquor made up of new chemicals), it is suspected that there would be no difference between the two, although there are no measurements to demonstrate that.

Alternatively, if the analogous product is the final product of the process – the pulp itself – rather than the intermediate (cooking liquor) we would be comparing the product to the product. Regardless of these two choices, the act of sampling and analyzing the products would be a ridiculous waste of resources and provide no new information demonstrating that the spent pulping liquor is being legitimately reclaimed and reused in the pulping process. Further, as a result of the uncertainty regarding this factor, AF&PA believes that many of the 113 facilities recycling pulping liquor will seek a legitimacy variance.

2. Nothing is gained by adding the requirement to demonstrate legitimacy criteria on a regular basis.

EPA will not learn anything new about the way in which spent pulping liquor is handled by requiring application of the legitimacy criteria on an on-going basis. The Agency has all of the information it needs to assure that the reclamation is a legitimate operation. The pulping process is not changing – so the requirement to undertake some kind of periodic review is unnecessary and a waste of resources.

3. If EPA finalizes its proposal to make all pre-2008 recycling subject to the legitimacy criteria, it should make a generic finding in the final rule that recycling of pulping liquor is legitimate -- just as EPA is proposing to do for foundry sands.

If EPA proceeds with finalizing the requirement that all pre-2008 exclusions be subject to the legitimacy criteria, EPA should make the same generic finding in the final rule that reclamation and reuse of spent pulping liquor is legitimate and no additional showings are necessary on an on-going basis.

However, this is merely restating the 1985 rule that excluded spent pulping liquor as legitimate reclamation and reuse. Therefore, EPA should avoid this duplication and revert back to the 1985 rule as it currently stands.

H. Turpentine and Tall Oil

1. History

EPA has already made a regulatory determination that turpentine and tall oil are not solid wastes. See August 8, 2002, letter to Richard Wasserstrom of AF&PA, from Elizabeth Cotsworth, then Director of the Office of Solid Waste.

In this letter, EPA determined that crude sulfate turpentine is a commercial chemical product which is itself a fuel, and therefore is not a solid waste (and hence not a regulated hazardous waste) when it is burned for energy recovery. EPA based this determination on the longstanding use of turpentine as a fuel and its fuel value. Because it was a traditional fuel, EPA concluded that turpentine — extracted from wood chips during the pulping process -- is a commercial chemical product that is itself a fuel. Such material is not a solid waste when burned for energy recovery under 40 C.F.R. 261.33 (exclusion from the definition of solid waste for commercial chemical products that are fuels and are burned for energy recovery); 40 C.F.R. 261.2(c)(2)(B)(ii) (commercial chemical products that are listed in section 261.33 are not solid wastes if they are themselves fuels); and 50 Fed. Reg. 14216, 14219 (Apr. 11, 1985) (applying the same logic to commercial chemical products that are not listed wastes but exhibit a hazardous characteristic).

The August 8, 2002, letter also recognizes that Tall Oil is another by-product of the pulping process, referred to in the letter as an “extractive.” Tall Oil is a resinous yellow-black oily liquid composed of a mixture of many cyclic chemical compounds, principally pinenes and terpenes. It is obtained as a byproduct in the production of pulp from pine trees and is used especially in making soaps, coatings, and oils. Forchem, a Finnish tall oil refiner describes tall oil as follows:

Tall oil products are natural raw materials for many industrial processes which serve us in a variety of ways. They are used, for example, in paints and coatings, coating additives, surfactants, metalworking, oilfield chemicals, oil and fuel additives, pulp and paper chemicals, printing inks, adhesives or bio fuels.

The New Zealand Institute of Chemistry notes that:

Tall oil is one of the two commercially important by-products of the paper making process, the other being turpentine. It is produced by coniferous trees, and put to a wide variety of end uses. In the fuel crisis much research was done into the

use of tall oil as an alternative fuel, and hormones were developed that made young trees produce 5 to 10 times their normal tall oil yield.

The main product groups distilled from the crude tall oil are tall oil fatty acid (TOFA), distilled tall oil (DTO), tall oil rosin (TOR) and tall oil pitch. Tall oil is an internationally traded commodity. In early January 2009, Business Wire, a trade website, noted that ResearchandMarkets.com published a new report on "Tall Oil: Trends and Prospects in International Trade." The Pine Chemical Association submitted test plans for evaluation of Tall Oil under EPA's High Production Value testing program. It is clearly recognized as a commodity.

As with any commodity, its market is cyclical. When prices for crude tall oil are lower than the cost of energy, a mill may decide to burn the tall oil. Tall oil has high energy value (17000 Btu/lb) and has similar physical properties to No. 6 fuel oil. Like turpentine, tall oil is a commercial chemical product. It is not a solid waste – regardless of whether it is sold for further refining or burned for energy recovery.

EPA must clarify in its final rule that it is not revisiting regulatory determinations such as that made in the August 8, 2002, letter regarding turpentine and tall oil.

2. Turpentine and Tall Oil Generation¹⁷

a) *Turpentine is an oil obtained from pine trees*

Crude Sulfate Turpentine generated by pulp mills is a very important substance with many applications as a solvent, in the pharmaceutical industry and in the production of oils, resins and varnishes. It is also used as the starting material to manufacture a variety of other products, including pine oil and turpentine.

Turpentine is initially generated from wood chips after they have been "cooked" in the Kraft paper-making process. It is separated off from the cooked chips as a mixture of water and turpentine vapors. That mixture then further divides because turpentine is much lighter than water.

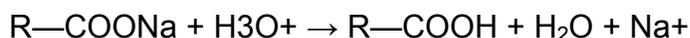
This turpentine is then distilled into "heads" (volatile compounds with no commercial value), and α - and β -pinene. Of these, β -pinene is sold as is and α -pinene is further processed to make pine oil by reacting it with phosphoric acid. Pine oil is used as a solvent, disinfectant and deodorant, and β -pinene is used to produce camphor and insecticides. A further, less valuable, solvent, dipentene, is produced as a by-product of this process.

¹⁷ New Zealand Institute of Chemistry, <http://nzic.org.nz/ChemProcesses/forestry/4F.pdf>

b) Tall oil is an extract from the pulp process

Tall oil is generated when black liquor is concentrated and left to settle. The top layer is known as "tall oil soap" which is skimmed off. The rest of the black liquor is recycled for further use in paper making.

The second step involves the production of crude tall oil from the soap. The tall oil soap is reacted with acid to form crude tall oil. The following reaction occurs:



The acids formed from this reaction, along with small quantities of other compounds of similar volatility, make up the crude tall oil.

In the third step, the crude tall oil is distilled. The oil is distilled into five components with different boiling points: heads (which boils first), then fatty acids, distilled tall oil (a mixture of fatty and resin acids), resin acids (collectively known as rosin) and pitch (the residue). All of these can be used in various industries as is, but some of the rosin is also further processed on site.

3. There are no data showing mismanagement of turpentine or tall oil

EPA has provided no data suggesting that there has been mismanagement of either turpentine or tall oil. They are both valuable commodities and are treated as such, regardless of whether they are used as ingredients to produce other products or used for their fuel value. There are no damage cases concerning either commodity.

4. Applying the "contained" standard to turpentine and tall oil is not necessary and not authorized.

EPA has not provided justification for requiring application of the "contained" standard to turpentine or tall oil. There have been no damage cases identified for either commodity. Spills are remediated immediately and, if necessary, the mill would report them to the National Response Center or the applicable state if appropriate. These materials are commodities – regardless of how they are managed (if they are not discarded) and thus EPA has no authority to require specified containment standards for them.

5. Requiring notice of use of turpentine and tall oil under RCRA is unnecessary.

EPA receives information about turpentine and tall oil under the Chemical Data Reporting Rule. Additional notification is unnecessary and burdensome. EPA did not address such double reporting under the Paperwork Reduction Act analysis.

6. Applying the legitimacy criteria to turpentine and tall oil is unnecessary.

EPA has already determined that turpentine and tall oil are not solid wastes as long as they are not discarded. EPA's letter identifies turpentine extracted from wood chips during the pulping process as a commercial chemical product and therefore is not a solid waste when burned for energy. The materials are managed as valuable commodities. Applying the legitimacy criteria on an on-going basis is unnecessary and a waste of valuable resources.

7. As non-wastes, turpentine and tall oil can be transferred to third parties.

Because EPA has already determined that turpentine and tall oil are commercial chemical products which are widely bought and sold in the marketplace, EPA cannot restrict the transfer of these materials to third parties.

IV. Other Issues

A. Assumed Benefits in the RIA are Inaccurate.

EPA has made a number of assumptions regarding the benefits of changing the existing regime of regulating hazardous secondary materials that are recycled. These assumptions are not based on evidence, nor do they apply to the pulping liquor exclusion:

1. Reduction in future environmental damage cases associated with industrial recycling

Nothing in the proposed regulations will change the way in which pulp mills generate, manage, or reclaim spent pulping liquor. As noted earlier, EPA has not identified any damage cases associated with pulp mills. Spent pulping liquor is a very valuable material that is treated as any valuable chemical. While there have been periodic spills of liquors, they are cleaned up immediately. Therefore, EPA's assumption that future environmental damage cases will be reduced by applying the legitimacy criteria to existing exclusion is false.

2. Improved environmental compliance

Nothing in the proposed regulations will improve the compliance by pulp mills with the existing spent pulping liquor exclusion. Spent pulping liquors are a critical piece of the pulping process. Mills have been treating these materials as valuable commodities and continue to do so. Mills track that the liquor is not speculatively accumulated. Notification, additional containment requirements, or regular demonstration that the

pulping liquor exclusion meets the legitimacy criteria will do nothing to improve compliance.

3. Reduced liability, less regulatory uncertainty, and lower legal and credit costs for recycling facilities

Pulp mills have had clear direction from EPA through the exclusion regarding the regulatory status of spent pulping liquors. There has been no regulatory uncertainty until EPA proposed to add administrative requirements where none are needed. States with pulp mills have adopted the spent pulping liquor exemption. Mill liability associated with pulping liquors has always been certain. These are chemicals that need to be managed carefully because they are valuable and if mismanaged could cause harm to human health and the environment. EPA's assertion that costs will be reduced is incorrect. Frankly, there will be additional costs for new administrative requirements which will not be trivial, as suggested in the Regulatory Impact Analysis.

B. The Information Collection Request Significantly Underestimates the Costs of Complying with Notification and Documentation of Legitimacy for Existing Exclusions

EPA assumes that it will cost approximately \$3.30 per year for pre-2008 exclusion facilities to regularly notify EPA. That estimate is seriously underestimated.

EPA does not estimate the amount of time needed to document legitimacy criteria in the first instance. Pulp mills have never had to document legitimacy criteria. The one condition that is found in section 261.4(a)(6) is that the spent pulping liquor must not be speculatively accumulated. Mills maintain records demonstrating that.

However, mills have never needed to evaluate the constituents of liquors and compared them to "virgin" liquor. Because the risk of not meeting a deadline or not keeping track of materials has huge ramifications, mills would set up compliance assurance programs and audit against them. Furthermore, any report into a regulatory body – particular new reports – will require significantly more management and legal scrutiny.

We estimate that the initial notification and legitimacy documentation will cost each mill: one month of work for two environmental associates at \$50 per hour, plus 16 hours of senior management and attorney hours at \$100 per hour which is equivalent to \$18600 for the first year. Each year thereafter will require approximately 40 hours of environmental time and 16 hours for management and legal review. That equates to approximately \$3600 per year thereafter. For the 113 mills covered by just the pulping liquor exclusion, that is equivalent to \$2.1 million for the first year and \$400,000 for each

reporting year thereafter. This does not address the non-specific recycling that may be done in other types of mills that we have not addressed in these comments.

This paperwork burdens are not necessary for EPA to perform its functions; are duplicative of information readily available; and fail to reduce burdens on persons providing the information. As such, EPA's proposed new conditions on recycling fail to meet the requirements of the Paperwork Reduction Act. 44 U.S.C. 3501, *et seq.*

V. Conclusion

To meet EPA's desire "to fulfill human needs while using less materials," as Assistant Administrator Stansilaus expresses in the Sustainable Materials Management policy, the Agency should be cautious about regulating recycling activities that do not need to be regulated.

In particular, EPA should not be adding new and unnecessary regulations on recycling activities that have been EPA-approved for decades. The proposed regulatory revisions are without justification, lack legal authority, are overly burdensome, and may very well drive manufacturers to recycle less, not more. The proposed revisions, especially as they apply to the pulp and paper industry, should be withdrawn.

Please do not hesitate to contact me or Amy Schaffer (amy_schaffer@afandpa.org) if you have any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "Paul Noe".

Paul Noe
Vice President for
Public Policy

Attachments

cc: Suzanne Rudzinski
Tracy Atagi