

Non-Hazardous Secondary Materials (NHSM) Rule Update

September 10, 2014

Council of Industrial Boiler Owners

Background

- ▶ NHSM rule clarifies which secondary materials are, or are not, solid wastes when burned in combustion units for energy recovery.
- ▶ Why important:
 - ▶ Units that burn **SOLID WASTE** subject to requirements under CAA section 129 solid waste incinerator regulations.
 - ▶ Units that burn materials that are **NOT A SOLID WASTE** subject to requirements under CAA section 112 boiler regulations.
- ▶ Key decisions in solid waste determination: has the NHSM been **DISCARDED**; if discarded, has it been **PROCESSED** into a **LEGITIMATE** fuel product
- ▶ Criteria for determining legitimacy as fuel:
 - ▶ Managed as a valuable commodity;
 - ▶ Has meaningful heating value and combusted in a unit that recovers energy
 - ▶ Has contaminants or groups of contaminants comparable to or less than those in the traditional fuel the unit was designed to burn.

Background

- ▶ NHSM Regulations
 - ▶ Final Rule (March 21, 2011)
 - ▶ Revisions Rule (February 7, 2013)
 - ▶ Proposed Amendments (April 14, 2014)
- ▶ February 2013 amendments listed particular NHSMs as “categorical non-waste fuels”:
 - ▶ Scrap tires managed under established tire collection programs;
 - ▶ Resinated wood;
 - ▶ Coal refuse recovered from legacy piles;
 - ▶ Dewatered pulp and paper sludges burned on-site.
- ▶ Received comments that additional NHSMs should be categorically listed as non-waste fuels.

Summary of Proposed Categorical Non-Wastes

- ▶ Rule proposed to add 3 materials to the list of categorical non-waste fuels.
 - ▶ C&D wood processed from C&D debris according to best management practices (BMPs).
 - Combustors must obtain written certification from C&D processing facilities that C&D wood has been processed by trained operators in accordance with BMPs.
 - BMPs must include sorting by trained operators that excludes or removes the following materials from the final product fuel:
 - non-wood materials (e.g., PVC and other plastics, drywall, concrete, aggregates, dirt, and asbestos), and wood treated with creosote, pentachlorophenol, chromium copper arsenate, or other copper, chromium, or arsenical preservatives. In addition:

Summary of Proposed Categorical Non-Wastes

C&D Wood continued

- ▶ (i) C&D processing facilities that use positive sorting—where operators pick out desirable wood from co-mingled debris—must either: (1) exclude all painted wood from the final product fuel, (2) use X-ray Fluorescence to ensure that painted wood included in the final product fuel does not contain lead-based paint, or (3) require documentation that building has been tested for and does not include lead-based paint before accepting demolition debris from that building.
- ▶ (ii) C&D processing facilities that use negative sorting—where operators remove contaminated or undesirable materials —must remove fines (*i.e.*, small-sized particles that may contain relatively high concentrations of lead and other contaminants) and either: (1) remove painted wood, (2) use X-ray Fluorescence to detect and remove lead-painted wood, or (3) require documentation that a building has been tested for and does not include lead-based paint before accepting demolition debris from that building.

Summary of Proposed Categorical Non-Wastes

- ▶ Paper recycling residuals, including old corrugated cardboard (OCC) rejects, generated from the recycling of recovered paper and paperboard products and burned on-site by paper recycling mills whose boilers are designed to burn solid fuel.
- ▶ Creosote-treated railroad ties (CTRT) that are processed and combusted in units designed to burn both biomass and fuel oil.
 - ▶ Elevated levels of fluorine and nitrogen when compared to fuel oil; but within comparable levels for those contaminants when compared to biomass.
 - ▶ Elevated levels of PAHs in CTRT when compared to biomass; but within comparable levels when compared to fuel oil. Therefore, CTRT can only be combusted in units designed to burn both fuel oil and biomass.
 - ▶ New data indicates major source paper mills switching to natural gas from fuel oil due to lower compliance costs and higher Btu Value.

Summary of Proposed Categorical Non-Wastes

CTRTs continued:

- ▶ In response, Agency considering approach that would include CTRT that are:
 - Combusted as part of normal operations in existing units designed to burn both fuel oil and biomass;
 - Combusted in units at major source paper mills that are being modified in order to use clean fuel, such as natural gas instead of fuel oil.

- ▶ CTRT must meet certain conditions to ensure discard is not occurring:
 - Burned in existing stoker, bubbling bed or fluidized bed boiler;
 - Comprise no more than 40% of the fuel used on a monthly basis;
 - Combusted in boiler designed to burn both biomass and fuel oil
 - Boiler is modifying its design to also burn natural gas.

Proposed Rule Comments

Comments were received on the following:

- ▶ C&D Wood
 - ▶ Decision to “balance” elevated formaldehyde - rather than specifically requiring that resinated wood be excluded or removed.
 - ▶ Whether written certifications that take the form of purchase agreements and contracts or a separate statement is more effective as a certification that C&D processing meets BMPs.
 - ▶ Need for formal training programs as part of BMPs.
 - ▶ Inclusion of disaster debris as part of categorical listing

- ▶ Paper Recycling Residuals
 - ▶ Decision that PRRs have meaningful heating value even though Btu/lb are lower than general guideline
 - ▶ Whether categorical listing should include PRRs burned off-site.

Proposed Rule Comments

Comments were received on the following:

- ▶ Creosote Treated Railroad Ties
 - ▶ CTRT as critical component to fuel mix
 - ▶ Design to burn criteria - - decision regarding the contaminant comparison of CTRT to multiple traditional fuels (biomass and fuel oil) in order to meet legitimacy criterion.
 - ▶ Whether additional approach should be included; should approach also be applied to other industries besides pulp and paper mills.

Current Status/Contact Info

- ▶ Comment period ended June 13, 2014
- ▶ Docket ID: EPA-HQ-RCRA-2013-0110
- ▶ Final listing rule and proposed rule on other treated wood to be issued 2015
- ▶ Comp fuels rule status

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