Attachment A

Rule Language and Preamble Language that is Consistent with a Contaminant by Contaminant and with a Fuel by Fuel Comparison Approach

Rule Language:

The non-hazardous secondary material must contain contaminants at levels comparable in concentration to or lower than those in traditional fuels which the combustion unit is designed to burn. Such comparison is to be based on a direct comparison of the contaminant levels in the nonhazardous secondary material to <u>*the traditional fuel itself*</u>*.* 40 C.F.R. 241.3(d)(1)(iii).

While the first sentence is written the plural, the second sentence is written in the singular.

Contaminants means <u>*any constituent*</u> *in non-hazardous secondary materials that will result in emissions of the air pollutants identified in Clean Air Act section 112(b) or the nine pollutants listed under Clean Air Act section 129(a)(4)) when such non-hazardous secondary materials are burned as a fuel or used as an ingredient, including those constituents that could generate products of incomplete combustion*. 40 C.F.R. 241.2.

Any constituent is written in the singular.

Preamble Language.

Comparison to one contaminant:

Lead:

A non-hazardous secondary material contains 500 parts per million (ppm) of lead, while the traditional fuel that would or could be burned in the combustion unit contains 475 ppm of lead. These levels would be considered comparable (since it falls within a small acceptable range) and thus, would meet this factor. If, on the other hand, the <u>*level of lead*</u> *in the non-hazardous secondary material was 1,000 ppm, these levels would not be comparable and it may indicate that the nonhazardous secondary material was being burned to dispose of the material and that the activity is sham recycling* 76 Fed. Reg. at 15524.

Barium:

A traditional fuel contains no detectable amounts of barium, while the non-hazardous secondary material contains a minimal amount of barium (e.g., 1 ppm). In this situation, the levels would be considered comparable since it falls within a small acceptable range.

If, however, the barium were at much higher levels in the non-hazardous secondary material (such as 50 ppm), the levels would not be comparable and it may indicate discard of the barium and sham recycling. 76 Fed. Reg. at 15524.

Formaldehyde:

The existing data we have is that resinated wood residuals contain ''free'' formaldehyde at levels less than 0.02 percent (or 200 ppm). In addition, new rules, as mandated by the CARB Composite Wood ATCM, per new Public Law 111–199, will reduce the formaldehyde levels even further to levels that are comparable to unadulterated wood. We also have limited data on the formaldehyde levels in traditional fuels. Specifically, we have limited data that natural wood has between 0.6 and 8.5 ppm of formaldehyde, but we have no data on formaldehyde levels in other traditional fuels, such as coal, oil, and natural gas. We do know, however, that organic materials produce formaldehyde. For example, studies have shown that formaldehyde is generated from coal piles. Thus, considering the fact that new rules will reduce the amount of formaldehyde to levels comparable to unadulterated wood, we have concluded that resinated wood residuals when burned as a fuel by the generator or outside the control of the generator and not discarded should be considered a non-waste fuel. However, as we have noted elsewhere, the generator of these secondary materials would still need to demonstrate that such residuals meet the legitimacy criteria. Thus, they would need to show that the levels of formaldehyde, as well as other possible contaminants, in the resinated wood residuals are at levels comparable to those found in traditional fuels, which in this case would be natural wood. We would note that we would not consider levels of formaldehyde of 200 ppm or slightly less to be comparable since the levels in unadulterated wood are at least two orders of magnitude lower. The levels would need to be lower to be considered comparable to those found in natural wood. Id.

Chlorine:

The proposed rule acknowledged a general lack of data regarding contaminant levels in pulp and paper sludges and specifically requested data on the issue in order to make a determination of whether pulp and paper sludges meets the third criterion of comparable contaminant levels to traditional fuels. The information we received indicates that these nonhazardous secondary materials meet the contaminant legitimacy criterion. We note that there is one sample in the submitted data set that has a chlorine concentration of 16,550 ppm. We do not consider this to be comparable to the levels found in coal and, where it is replacing coal, would consider this material to be a solid waste. However, since this was the only sample with such a high concentration of chlorine, we do not think that it is representative of pulp and paper sludges generally.. 76 Fed. Reg. at 15488

[C]hlorine levels in pulp and paper sludges should particularly be monitored and evaluated as part of a plants determination that their pulp and paper sludges meet the contaminant legitimacy criterion. 76 Fed. Reg. at 15489.

Hexachlorobenzene

Even though most creosote-treated wood is non-hazardous, the presence of hexachlorobenze[ne], a CAA 112 HAP, as well s the other HAPs, in creosote-treated lumber suggests that creosote-treated wood includes[s] contaminants at levels that are not comparable to those found in wood or coal, the fuel that creosote-treated wood would replace.

Evaluating contaminants as a group:

Another commenter argues that any comparison between contaminant levels in the non-hazardous secondary material and contaminant levels in traditional fuels should consider the entire characteristics of the material. Some non-hazardous secondary materials may have high concentrations of some constituents and low concentrations of others, relative to traditional fuels. Thus, decisions regarding legitimacy will not always be clear cut and the overall characteristics need to be considered qualitatively. In addition, given the variability of constituent concentrations in traditional fuels and non-hazardous secondary materials, solid waste determinations which requires a comparison, should allow for such variability in a reasonable manner.

. . . . .

We disagree with the commenters that comparison between contaminant levels in the non-hazardous secondary material and contaminant levels in traditional fuels should consider the entire characteristics of the material. Such an approach would suggest that contaminants can be present in the nonhazardous secondary material at levels that are not comparable in concentration to those contained in traditional fuel products, which could result in contaminants being combusted as a means of discarding them. 76 Fed. Reg. at 15525.

Comparison to one fuel type:

The data provided by one company demonstrates that C&D-derived wood can be sufficiently processed to meet the legitimacy criterion for four contaminants, even when these contaminants are compared to untreated wood concentrations presented in the background document. ... A complete determination, however, would include As and Cr concentrations. 76 Fed. Reg. at 15485.