

Background and suggested language on NHSM Petition, per OMB discussions on June 15, 2023
(June 16, 2023)

Twenty million rail ties are replaced every year. For the small business short-line railroads, the number of ties replaced and removed is expected to increase in the near future, due to Congressional legislation providing needed financial assistance to improve many miles of dated track.

If used rail ties cannot be beneficially used as a biomass fuel in permitted boilers and facilities operated by pulp and paper mills and energy producers, these ties will likely be sent to landfills. The annual number of ties replaced is equivalent in volume to a football field 70 stories high or the solid waste generated by the entire city of Houston, Texas.

In terms of greenhouse gas emissions (largely from methane, 30 times greater in impact than CO₂), the annual emissions generated by the volume of ties that would be sent to landfills is equivalent to an additional 630,000 cars on the roads of the U.S. The Administration has made it a policy priority to reduce methane emissions, since they constitute one-third of all greenhouse gas emissions.

If rail ties cannot be used as fuel, new landfills will have to be built or current ones expanded. According to EPA reports, landfills are the third-highest source of environmental justice impacts in the U.S. The major influx of rail ties to landfills that this rule will cause will increase negative impacts on environmental justice communities by substantial proportions.

The reason for the adverse consequences is the existing rule's requirement that creosote- or creosote-borate rail ties (the vast majority of ties being taken out of service) can be burned as fuel *only* in facilities that were designed to burn fuel oil and biomass or facilities that were designed to burn fuel oil and biomass but were later converted to burn biomass and natural gas – but with further conditions: (a) those converted facilities must have been built *before* 2014 *and* (b) the amount of tie-based fuel can be no more than 40% of the total mass annually.

One source estimates the number of facilities that would be disqualified by these limitations at 58%, with the number increasing every year that facilities built before 2014 age out and must be replaced. This is true despite the fact that the disqualified facilities are all subject to stringent permits that limit what can be burned as fuel and what emissions are allowed.

To solve this problem, the language of 40 C.F.R. § 241.4 should be modified by the addition of new subsections to § 241.4(a)(7) and (8) as follows (new language in bold):

(7) Creosote-treated railroad ties that are processed and then combusted in the following types of units.

Processing must include, at a minimum, metal removal and shredding or grinding.

(i) Units designed to burn both biomass and fuel oil as part of normal operations and not solely as part of start-up or shut-down operations, **[delete: and]**

(ii) Units at major source pulp and paper mills or power producers subject to 40 CFR part 63, subpart DDDDD, that combust CTRTs and had been designed to burn biomass and fuel oil, but are modified (e.g., oil delivery mechanisms are removed) in order to use natural gas instead of fuel oil, as part of normal operations and not solely as part of start-up or shut-down operations. The CTRTs may continue to be combusted as product fuel under this subparagraph only if the following conditions are met, which are intended to ensure that the CTRTs are not being discarded:

(A) CTRTs must be burned in existing (i.e. commenced construction prior to April 14, 2014) stoker, bubbling bed, fluidized bed, or hybrid suspension grate boilers; and

(B) CTRTs can comprise no more than 40 percent of the fuel that is used on an annual heat input basis; **or**

(iii) Units subject to 40 CFR part 63, subpart DDDDD, that combust CTRTs and operate in compliance with all applicable permits.

(8) Creosote-borate treated railroad ties, and mixtures of creosote, borate and/or copper naphthenate

treated railroad ties that are processed and then combusted in the following types of units. Processing must include, at a minimum, metal removal and shredding or grinding.

(i) Units designed to burn both biomass and fuel oil as part of normal operations and not solely as

part of start-up or shut-down operations; **[delete: and]**

(ii) Units at major source pulp and paper mills or power producers subject to 40 CFR part 63, subpart DDDDD, designed to burn biomass and fuel oil as part of normal operations and not solely as part of start-up or shut-down operations, but are modified (e.g., oil delivery mechanisms are removed) in order to use natural gas instead of fuel oil, The creosote-borate and mixed creosote, borate and copper naphthenate treated railroad ties may continue to be combusted as product fuel under this subparagraph only if the following conditions are met, which are intended to ensure that such railroad ties are not being discarded:

(A) Creosote-borate and mixed creosote, borate and copper naphthenate treated railroad ties must be burned in existing (i.e., commenced construction prior to April 14, 2014) stoker, bubbling bed, fluidized bed, or hybrid suspension grate boilers; and

(B) Creosote-borate and mixed creosote, borate and copper naphthenate treated railroad ties can comprise no more than 40 percent of the fuel that is used on an annual heat input basis.

(iii) Units meeting requirements in paragraph (a)(8)(i) or (ii) of this section that are also designed to burn coal; **or**

(iv) Units subject to 40 CFR part 63, subpart DDDDD, that combust creosote-borate treated railroad ties, and mixtures of creosote, borate and/or copper naphthenate treated railroad ties that are processed and then combusted and operate in compliance with all applicable permits.