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RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

FEBRAURY 89

1. Coke and Coal Tar Recyclable Material Requirements

A facility owner/operator "blends" decanter tank tar sludge from coking operations (K087) with purchased creosote (a diluent) to use a fuel in an open hearth furnace to produce steel. Since creosote is derived from coal tar, would this K087/creosote fuel meet the exclusion in 40 CFR Section 261.6(a)(3)(vii) for coke and coal tar from the iron and steel industry that contains K087?

No. The exclusion in Section 261.6(a)(3)(vii) applies only to the coke and coal tar fuels that are derived from K087 waste. Coke is the residue from the destructive distillation of coal. The coke serves as both a fuel and a reducing agent in iron and steel production processes. Some coke plants recover by-products give off or created during the coke production process. The recovery of the by-products generates the tar decanter sludge, K087.

During the recovery of the volatile organics in the by-product coke production process, tar separates by condensation from coke oven gas and drains into a decanter tank. The tar sludge settles to the bottom

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1. Coke and Coal Tar Recyclable Material Requirements (Cont'd)

of the tank and is regulated as K087 (see Figure 1). K087 is considered hazardous because of the high levels of phenol and naphthalene which are toxic to humans and aquatic life (see Listing Background Document for K087).

Some coke plants use the decanter tank tar sludge (K087) as a raw material in either the sintering process or open hearth furnace operations. The sludge can be recycled by mixing it with coal before it is charged to a coke oven to produce coke (Figure 1). The coke product is then used as a fuel in steel blast furnaces. Additionally, the sludge is sometimes mixed back into the coal tar by-product which is also frequently used as a fuel.

In the January 11, 1985 Federal Register (50 FR 1684), the EPA proposed to exempt coke and coal tar fuel derived from K087 if sufficient data was provided to EPA to demonstrate that contaminants in the recycled waste did not add significant concentrations of contaminants to the coke fuel product (50 FR 1689-1690). The exemption was proposed to be applied narrowly and only to fuel products containing hazardous waste that was generated by the production process itself. The exemption would only apply to the coke and coal tar hazardous waste fuel. It would not apply to fuels containing other wastes and would not apply to wastes before they are reintroduced into the production process. Thus, generators would have to comply with the storage requirements of 40 CFR 262.34 or the facility standards per 40 CFR 264/265 (50 FR 1689-1690).

In the November 29, 1985 Federal Register, the EPA finalized the exemption for K087 waste derived coke (a hazardous waste fuel) and the exemption of coal tar produced from coal tar decanter sludge (see Figure 1). Coke and coal tar fuels derived from K087 are excluded from regulation when used to produce coke because the contaminants levels in the coke do not appreciably increase by recycling the tar sludge (K087). Both of these wastes derived fuels are exempt per 40 CFR 261(a)(3)(vii) (see 50 FR 49170-49171).

Therefore, in this situation, where the decanter tank tar sludge (K087) is mixed or blended with purchased creosote, the exemption would not apply because coal tar is not being recycled and no coke fuel is derived (see Figure 2). The owner or operator of the process in question in mixing hazardous waste (K087) with creosote. The burning of this hazardous waste would be subject to the incinerator regulations under 40 CFR Part 264/265 Subpart O.

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