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HEAT RECOVERY UNIT AS A BOILER OR AN INCINERATOR

SUBJECT: Reicholds Chemical in Elizabeth, NJ

FROM: Robin Anderson (WE-563)
Permits Branch

TO: John Brogard
Region II

As you requested, I have reviewed the heat recovery unit for Reichold Chemicals in Elizabeth, New Jersey, to determine if it should be classified as a boiler and, thereby, exempt from RCRA regulations under 40 CPR 261.6 based on energy recovery. The applicant has requested that a variance be granted under 40 CPR §260.32 to classify the unit as a boiler. The request is primarily based on the efficiency of the heat recovery unit (i.e., 65% heat recovery), the fact that 100 percent of the thermal energy generated in used throughout the year, and because the applicant claims the system provides better destruction of hazardous constituents than boilers as defined under §260.10.

Although the intent of the operation appears to be legitimate energy recovery under §261.6, the boiler variance cannot be granted because the heat recovery unit, which is the Dean Energy Recovery System, is an add-on device. Further, the the classification of such a unit would set a precedent which may be contrary to EPA regulations to be proposed in June 1986. The combustion system is properly classed as an incinerator, and must be permitted as such under RCRA Subpart O to ensure the adequate treatment of the hazardous waste. The definition of a "boiler" under §260.10 requires the energy recovery system to be of integral design to the combustion chamber and specifically excludes a unit in which the combustion chamber and the recovery chamber is joined by ducts or connections carrying flue gas. The variance procedures should not be used to evade a restriction definitely states. The procedure was meant to apply to devices not fully considered by the definition and, therefore, such variances should be few.

With regard to the destruction efficiency of a "boiler" as defined under §260.10 the Agency agrees that some boilers may pose a hazard when burning certain hazardous wastes, and is developing regulations for boilers. The hazardous and Solid Waste Amendment of 1984, Section 3004(q), requires that Agency to develop standards for the burning of hazardous waste as a fuel within two years of enactment. As part of this activity the Agency has proposed regulations (50 FR 1684-1724, January 11, 1985) to provide administrative control of hazardous waste burned in boilers. The final rule, t be published shortly in the Federal Register, will prohibit the burning of hazardous waste in non-industrial boilers (e.g., boilers used in a residential, commercial, and institutional setting) unless such activity was permitted are presently being developed which would regulate the burning of hazardous waste in industrial boilers and industrial furnaces regardless of the purpose of the activity.

The Reichold system was also reviewed by Marc Turgeon of the Waste Treatment Branch and he is in agreement that the system cannot be classified as a boiler under RCRA for the reasons presented of this issued in needed.

cc: Peter Guerrero
David Sussman
Art Glazer
Marc Turgeon
Incinerator Permit Writers Work Group