

9498.1994(03)

CLASSIFICATION OF A MERCURY RECOVERY UNIT

United States Environmental Protection Agency
Washington, D.C. 20460
Office of Solid Waste and Emergency Response

May 26, 1994

MEMORANDUM

SUBJECT: Classification of Olin Mercury Recovery Unit

FROM: Michael H. Shapiro, Director
Office of Solid Waste

TO: Joseph Franzmathes, Director
Waste Management Division
U.S. EPA Region IV

This is in response to your April 4, 1994, memorandum requesting additional guidance on classifying Olin Chemical's mercury recovery unit located in Charlestown, TN, as an industrial furnace.

After review of the design and use of the mercury recovery unit in December, 1993, we determined that the unit is a type of smelting, melting, or refining furnace and is therefore an industrial furnace (under the definition in 40 CFR 260.10) subject to the boiler and industrial furnace (BIF) rule promulgated on August 21, 1991. As we stated in our December 17, 1993, memorandum to you, however, a smelting, melting, or refining furnace unit would be eligible for an exemption from the permitting, emissions standards, and certain other requirements of the BIF rule if it engages solely in metals recovery, as provided by 40 CFR 266.100(c). One of the conditions qualifying the unit for such an exemption is that the heating value of the waste cannot exceed 5,000 Btu/lb; otherwise the waste would be considered to be burned partially for energy recovery.

Subsequently, Olin notified you that at least two of their waste streams introduced into the mercury recovery unit do not qualify for the exemption because the wastes have a heating value

exceeding 5,000 Btu/lb. These wastes are already subject to the land disposal restrictions (LDR) treatment standard that requires thermal recovery of mercury as the method of treatment. See the Table of Treatment Standards in 40 CFR 268.40. Thus, under these circumstances, EPA believes that it would be anomalous to consider these wastes to be burned for a purpose other than metal recovery based on the Btu content alone.

The Agency is aware of this inconsistency and is considering whether a regulatory amendment is appropriate. If one is developed and promulgated, it will likely be implemented in a fashion similar to lead-bearing materials processed in exempt lead smelters at Appendix XI to Part 266 and will likely include activated carbon and decomposer graphite mercury wastes whose fuel value may exceed 5,000 Btu/lb and whose LDR treatment standard requires thermal recovery of mercury as the method of treatment. The Agency is also evaluating how best to address debris that contains high levels of mercury and is generated from the electrolytic mercury cell process used for the production of chlorine.

If you have any further questions on the matter, please feel free to contact Nick Vizzone of my staff at 703-308-8460.

CC: Judy Marshall, EPA Region IV
Sonya Sasseville, PSPD
Bob Holloway, WMD
Nick Vizzone, WMD

Attachment

United States Environmental Protection Agency, Region IV
345 Courtland Street, N.E.
Atlanta, Georgia 30365

April 4, 1994

MEMORANDUM

SUBJECT: Request for Additional Guidance on the
Mercury Recovery Unit at
Olin Chemicals, Charleston, Tennessee

FROM: Joseph R. Franzmathes, Director
Waste Management Division

TO: Michael Shapiro, Director
Office of Solid Waste
OS-320W

In a memorandum from you dated December 17, 1993, your office advised Region IV, at our request, as to the regulatory status of a mercury recovery unit operating at the Olin Chemicals facility in Charleston, Tennessee. A copy of this memorandum is attached for your convenience. In the memorandum, it was determined that Olin's mercury recovery unit is properly regulated as an industrial furnace eligible for an exemption from certain requirements of 40 C.F.R. Part 266.

As a result of this determination, Olin Chemicals submitted the attached letter, dated March 16, 1994, claiming the exemption at 40 C.F.R. § 266.100(c)(1)(i) but contesting the regulatory status of the unit. It is because of Olin's letter that we are seeking additional guidance from your office.

It appears that at least two of the waste streams introduced into the mercury recovery unit do not qualify for the exemption because the waste streams have a heating value of 5,000 BTU/hr or more (see 40 C.F.R. § 266.100(c)(2)(ii)). Region IV wants to be certain that your office is aware of these waste streams, and we are requesting guidance from you as to whether this fact changes your determination of the unit's status. If not, then Region IV

requests guidance from your office on whether a variance to the exemption allowing the processing of these waste streams is available to Olin and if so, what the procedures are for Olin to obtain such a variance.

You will also note from Olin's letter that Olin intends to pursue further interpretation of the unit's status and/or a request for regulatory rulemaking which will exempt mercury recovery units from 40 C.F.R. Part 266. Olin claims that the requirements of 40 C.F.R. Part 266 conflict with the description of its unit at 40 C.F.R. § 268.42, Table 1, which only requires compliance with applicable air regulations. Thus, Region IV is also requesting guidance from your office regarding this issue.

Because Region IV intends to meet with Olin in early May to discuss these issues, we would be very appreciative of your expeditious review of the above. Your guidance in these matters will be extremely helpful to us in determining the appropriate regulatory requirements of Olin's mercury recovery unit. If you have any questions regarding the circumstances described above, you may contact Judy Marshall, of my staff, at (404) 347-7603.

Attachments (2)

-----Olin

Chemicals
P.O. Box 248, 1186 Lower River Road
Charleston, TN 37310
Phone: (615) 336-4000

CERTIFIED

March 16, 1994

Joseph R. Franzmathes, Director
United States Environmental Protection Agency-Region IV
Waste Management Division
345 Courtland Street, NE
Atlanta, GA 30365

RE: Notice of Violation Olin Chemicals, TND 003 337 292

Dear Mr. Franzmathes:

In response to your letter received March 7, 1994, Olin's Charleston facility is claiming a metals recovery exemption for its Thermal Mercury Recovery Unit as provided by 40 CFR 266.100(c)(1)(i). This claim is based on the following:

- * All hazardous waste to be introduced into the unit will be processed solely for metal recovery consistent with the provisions of 40 CFR 266.100(c)(2);
- * All hazardous waste introduced into the unit contains recoverable levels of mercury;
- * Olin will comply with the sampling, analysis, and recordkeeping requirements of 40 CFR 266.100(c)(1)(ii) and (iii).

It should also be noted that Olin has worked in good faith with both USEPA and the State of Tennessee over the past four years during the technology development, construction, and startup of this unit to ensure that all applicable regulations were identified and adhered to. Previous guidance from both EPA and the Tennessee Department of Environment and Conservation indicated that the unit

was classified the same as previous retort units utilized for years to recover mercury from chlor-alkali waste streams - that is as an exempt recycling process unit as identified in 40 CFR 261.6(c)(1). Olin still believes this to be the proper regulatory status of the unit, but is filing the above notification because you have required it in your March 7, 1994 NOV. It should also be noted that Olin intends to pursue further interpretation of this ruling and/or a request for regulatory rulemaking which exempts mercury recovery units from the administrative requirements of 40CFR 266 Subpart H, if necessary.

Olin is also requesting a meeting with EPA Region IV to discuss issues arising from the above notification. In particular, the RCRA Land Disposal Requirements stipulate that all high level (>260 ppm) mercury wastes be processed for mercury recovery. One of the highest level mercury wastes generated on a routine basis in mercury cell chlor-alkali facilities is graphite decomposer packing. This material has historically been processed for mercury recovery in onsite retort units. Due to the chemical makeup of the packing, this material can exhibit a BTU content in excess of the criteria required in 40CFR 266.100(c)(2)(ii) which is intended to prohibit the sham recycling of organic BTU-rich streams for energy recovery. In addition to decomposer packing, historically large quantities of activated carbon used for mercury removal in water has also been similarly processed. Neither of these streams are consumed by burning and are not of significant fuel value as fired. The LDR BDAT requirements under 40CFR 268 Table 1 stipulates that these materials be processed for mercury recovery (RMERC) in a unit subject only to the applicable air permitting requirements. In our opinion, this conflicts with the application of the requirements identified in 40CFR 266 Subpart H. Olin would like to discuss this and other pertinent environmental issues arising from Region IV's reclassification of the Thermal Recovery Unit as a BIF. Please contact me at the number below at your earliest convenience to schedule a meeting with you and appropriate members of your staff as well as State personnel, if necessary.

If you have questions or need additional information, please contact either me at (615) 336-4234 or Steve Barnes at (615) 336-4185. Your assistance in this matter is greatly appreciated.

Sincerely,

Olin Corporation

J. P. Newman Manager
Quality Assurance & Environmental Control

cc: Tom Tiesler, TDEC
Janet Dutto, TDEC
Matt Strauss, USEPA, OSWER