

US EPA ARCHIVE DOCUMENT

COPY

BEFORE THE NEBRASKA DEPARTMENT OF ENVIRONMENTAL QUALITY

IN THE MATTER OF  
MOLEX, INC.,

Applicant.

)  
)  
)  
)

CASE NO. 1898

ORDER FOR A  
TEMPORARY VARIANCE

This matter comes before the Director of the Department of Environmental Quality (DEQ) on the application of Molex, Inc. (Molex), for an Order granting a temporary variance pursuant to Title 128, Rules and Regulations Governing Hazardous Waste Management in Nebraska, Chapter 5, Section 001.04. The variance requests a temporary exemption from the classifying as solid waste of segregated sludges generated during wastewater treatment at the Molex Upland facility located at 700 Kingbird Road, Lincoln, Nebraska. The purpose of the variance request is to allow Molex sufficient time to collect information to demonstrate that segregation and separate treatment of various wastestreams at its facility results in a significantly reduced metals content in its wastewater effluent discharge to the City of Lincoln's publicly owned treatment works (POTW) and produces a readily recyclable sludge with market value. The variance is necessary to remove a regulatory barrier which would otherwise classify the sludges generated from the segregation and treatment of wastewater from Molex's electroplating operation as a solid waste and a listed hazardous waste. The sludge generated from wastewater treatment at the Molex facility, prior to the implementation of process changes to segregate and separately treat wastestreams, was considered a recyclable material utilized for precious metal recovery subject to reduced management requirements under Title 128, Chapter 7, Section 010. The Director has investigated the claims made by the applicant and the interests of others likely to be affected and the general public.

The Director finds that the application of the regulation which would classify the sludge generated from the treatment of electroplating wastestreams at the Molex facility as a listed hazardous waste as applied to the applicant discourages innovative treatment by greatly increasing the cost and ability of the company to continue the recycling of the sludges. However, the Director possesses insufficient information to determine whether the sludges generated from the segregation and separate treatment of wastestreams should not be classified as solid waste because they have been reclaimed and are commodity-like, but must be reclaimed further.

The Director finds that the granting of a temporary variance to allow Molex to obtain this information removes a significant barrier to the achievement of the environmental performance goal of a cleaner effluent discharge from the facility and reduced mass metals loading on the POTW and continued recycling of sludges. Among the factors to be considered in any final variance determination are:

- The degree of processing the material has undergone and the degree of further processing that is required;
- The value of the material after it has been reclaimed;
- The degree to which the reclaimed material is like an analogous raw material;
- The extent to which an end market for the reclaimed material is guaranteed; and
- The extent to which the reclaimed material is handled to minimize the loss.

The Director further finds that the granting of this temporary variance fosters the incentive for innovation demonstrated by Molex and provides an opportunity to test monitoring requirements that may result in modified performance standards for the material at issue.

IT IS THEREFORE ORDERED that the temporary variance request for up to two years from classification as solid waste of the sludges generated from the segregation and treatment of wastestreams at the Molex facility is granted subject to the following conditions and requirements:

1. The temporary variance is limited to three sludges which are being recycled to reclaim nickel, copper, and tin/lead. These sludges shall not be mixed with each other or any other materials at the Molex facility.
2. Molex shall maintain records to document the volume of these materials generated, stored, and recycled during the two years this temporary variance is in effect.
3. Within 30 days of the date of issuance of this variance, Molex shall conduct an initial waste analysis on all three sludges (nickel, copper, and tin/lead) for TCLP and total metals (to be reported in milligrams per kilogram dry weight) in accordance with the procedures found in 40 C.F.R. Part 261, Appendices I, II, and III, and for pH and moisture content and report this analysis to the DEQ within 30 days of receipt of analytical results. This data shall be included in the initial baseline report required in paragraph 10.
4. Molex shall conduct waste analysis for a representative composite sample from each shipment of sludge prior to shipment for reclamation for the following parameters: Total copper, nickel, lead, tin, zinc; pH; and moisture content; to be reported in milligrams per kilogram dry weight.
5. The DEQ reserves the right to require additional waste analysis based on the results of any waste analysis performed on the sludges, including any testing conducted by the DEQ.

6. Molex shall maintain records of test results, waste analyses and other determinations made in accordance with this temporary variance.
7. Within sixty days of the date of issuance of this variance, Molex shall notify the DEQ of the name, address, and facility contact for each facility to which material is sent for reclamation and provide a description of the processing to be done on the sludge, including specifications on material which the facility will accept for processing.
8. Molex shall maintain non-hazardous waste manifests identifying the specific shipment by an individual number, the date on which the material was shipped and confirmation from the reclamation facility of the date on which the shipment is received.
9. The sludges containing nickel and copper destined for reclamation pursuant to this temporary variance shall not be accumulated at the facility for longer than 180 days. The sludge containing tin/lead destined for reclamation pursuant to this temporary variance shall not be accumulated at the facility for longer than one year. These materials shall be stored in closed containers which are clearly marked to identify the contents and the date on which accumulation in the container began. Containers shall be stored in a secure location, inspected on a weekly basis, and otherwise managed to prevent any exposure to the environment. Materials subject to this variance shall be transported in accordance with U.S. Department of Transportation requirements for hazardous materials, including use of a non-hazardous waste manifest.

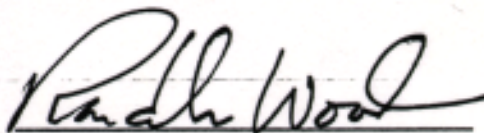
10. Within 60 days of the date of issuance of this variance, Molex shall provide an initial report in accordance with Attachment 1 describing baseline data for: (a) the combined treatment system for the most recent 12 month period prior to implementation of the segregated treatment system, including a description of the wastewater treatment process, estimated daily average metals mass loading and pH measurement in the effluent discharge, capital and operating costs of the combined treatment system, volume and fate of the sludge, TCLP and total metals analysis of the sludge if previously done, reclamation value of the sludge and the associated costs to Molex for the storage, transportation, and reclamation of the sludge, and (b) the segregated treatment system including descriptions of each wastewater treatment process, capital costs of the segregated treatment system, the proposed volume and fate of the sludge, and an estimate of the cost to transport and treat or dispose of the sludge as hazardous waste based on anticipated generation rate and transportation and treatment or disposal costs.
11. Quarterly reports in accordance with Attachment 2 shall be due on the last day of the month every three months after the initial report describing current data for the segregated treatment system including the actual daily average mass metals loading in the facility discharge and associated metal effluent concentrations including pH measurements; operating costs of the segregated treatment system; storage, recycling volume, and fate of the sludge; waste analysis of the sludge; and reclamation value of the sludge and the associated costs to Molex for the storage, transportation, and reclamation of the sludge.

12. Within 90 days of the end of this two year temporary variance, Molex shall provide a final report that: (a) provides an overview of the demonstration project; (b) incorporates the initial report and quarterly reports as appendices; (c) describes the technical aspects of the project; (d) describes and quantifies the environmental aspects of the project; (e) describes and quantifies the economic aspects of the project, including a comparison of the mass treatment system to the segregated treatment system and calculation of costs saved by this variance.

IT IS FURTHER ORDERED that Molex shall at all times remain in compliance with its Pretreatment Permit #NE0131776 and comply with all other applicable requirements in Title 128 and Nebraska law.

IT IS FURTHER ORDERED that this temporary variance shall expire two years from the date signed below. This temporary variance shall be subject to cancellation at any time for violation of any of the conditions and requirements identified in this temporary variance or refusal to conduct any additional waste analysis required pursuant to paragraph 5 above.

BY THE DIRECTOR:



Randolph Wood, P.E.  
NEBRASKA DEPARTMENT OF  
ENVIRONMENTAL QUALITY

Aug 7, 1998

Date