



American Cyanamid Company
Organic Chemicals Division
Wayne, NJ 07470

July 28, 1983

AUG 1 1983

James J. Concannon, Director
Office of Variance Determination
Department of Labor
Occupational Safety and Health Administration
Washington, D.C. 20210

Re: American Cyanamid's Temporary Variance Request
from 50/40 ug MRP Trigger Levels

Dear Mr. Concannon:

The following is in response to the information you requested in a letter to William N. Hall, Esq. dated June 6, 1983 about the Chicago plant of American Cyanamid Company. Your request is in reference to the Chicago plant's application dated February 25, 1983 for a temporary variance and interim order from the 50/40 ug trigger levels under the medical removal protection (MRP) requirements of the OSHA lead standard (§§ 1910.1025(k)(1)(i)(D) and (k)(1)(iii)(A)(3)).

1) Are administrative controls implemented to reduce employee exposure to lead? Because of the small size of the Chicago plant and the small number of employees (21), administrative controls are impractical and ineffective to reduce worker exposure to lead. Employee rotation and scheduling are ineffective because all employees in the plant experience relatively high air-lead exposure, although exposure does vary somewhat. Moreover, there are no jobs in the plant which do not involve significant lead exposure. As a result, to minimize employee lead exposure, the Chicago plant has relied on respiratory protection, past engineering controls, a blood-lead incentive program, employee training, and work practice measures, including housekeeping and personal hygiene rules.

2) Have you developed job activities in areas where lead exposure is minimal? There are no job activities in the Chicago plant where the air-lead level would be considered minimal. As explained in response to question 1, the plant is

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small and therefore all workers must be flexible in job assignments and must work in all areas of the plant.

3) Is there a cleaning crew? Other than vacuuming, how are floor surfaces cleaned (i.e., dry or wet sweeping)? All employees are responsible for maintaining housekeeping standards in their work area. Such housekeeping is supplemented by a clean-up crew consisting of the plant janitor and the litharge operator who works on clean-up part of the time when his unit is idle (50 percent of the time). The plant is serviced by two built in and one portable vacuum cleaning systems. All cleaning is accomplished by vacuuming.

4) Are separate containers provided in the change room to place contaminated clothing? Yes, separate containers are provided for contaminated clothing outside the "dirty-side" of the locker room. This clothing is deposited in a chute which goes to the receptacle outside of the locker room. After changing out of his work clothes at the end of a shift, the worker then goes into the shower and, after showering, goes to the "clean side" of the locker room where his street clothes are stored. When the workers arrive for their shifts, they conversely enter the "clean side" of the locker room and change into clean work clothes before starting their shift.

5) Is applying cosmetics prohibited in the workplace? Yes, the application of cosmetics, as well as eating and smoking, is prohibited in all work areas.

6) Have copies of the lead standard and its appendices been made available to the employees? The lead standard and the relevant appendices are discussed with the employees two times a year and copies of the standard and appendices are made available to employees for their review.

7) How often do you conduct medical consultations? Each employee receives a complete medical examination on an annual basis. Medical examinations also are given prior to a new employee starting work and as soon as possible for any employee with symptoms of lead poisoning or any employee having difficulty in breathing during the use of a respirator. The Chicago plant has a contract with the Clearing Industrial Clinic of Chicago, Illinois for the clinic to provide medical assistance and advice when it is needed.

8) If available, submit studies and engineering plans for controlling employees' exposure to lead. The variance application describes in detail the engineering controls installed in the Chicago plant over the past 12 years to

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control employee exposure to lead. See pages 27-31 of temporary variance application.

9) List engineering controls scheduled for completion within the next 18 months or submit the written compliance program. The Chicago plant has undertaken all feasible engineering controls and other measures to comply with the OSHA lead standard and thus does not expect to install further engineering controls. In a separate submission dated February 14, 1983, American Cyanamid applied to OSHA for a determination that it is infeasible for the Chicago plant to meet the present air-lead requirement of 200 ug/m³ solely through the use of engineering and work practice controls. This submission details the data on the air-lead levels in the Chicago plant and how it has installed all feasible engineering and work practice controls in an effort to lower the air-lead levels in this plant. Because these feasible controls have not accomplished this objective, American Cyanamid has requested a determination from OSHA that it may continue to supplement such controls by the use of respiratory protection in complying with the air-lead requirements of the lead standard.

American Cyanamid does not have a written compliance program to submit because the provision requiring such plans under the lead standard has been stayed for the lead chemical industry. See 47 Fed. Reg. 54433, 54434 (Dec. 3, 1982). However, in general, we have attempted to meet the current MRP requirements through the use of the engineering controls which have been implemented over the past 12 years, a sophisticated respiratory protection program, employee training, a blood-lead incentive program, and work practice measures, including personal hygiene and housekeeping rules. The Chicago plant has invested \$654,700 in capital costs and incurs \$281,200 in annual costs for the engineering controls, work practice controls and personal protective measures used to minimize employee exposure to lead. The measures used are described on pages 20-31 of the application for a temporary variance.

10) Did your compliance schedule specify the steps you have taken and will take to come into compliance by September 1, 1984? While a written compliance program is not required for the Chicago plant, we believe that the measures described on pages 20-31 of the temporary variance application will assist in reducing blood-lead levels over time.

11) Does the compliance schedule indicate that the PEL and/or the interim level can be achieved in the time set forth in the schedule, solely by engineering and work practice controls? As previously explained, American Cyanamid has

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requested a determination from OSHA that it is infeasible for the Chicago plant to meet the present air-lead requirement of 200 ug/m³ solely through the use of engineering and work practice controls. The Company has requested a determination that it may continue to supplement the present controls with the use of respiratory protection which complies with 29 C.F.R. § 1910.1025(f).

12) Was air-monitoring data considered in the development of the compliance program? Air-monitoring data has been evaluated. These data showed that the Chicago plant can achieve compliance with the PEL only by supplementing engineering controls with the continued use of respiratory protection.

13) Is the compliance plan being implemented according to schedule? As previously explained, no written compliance program for the Chicago plant is currently required under the lead standard.

14) Are employees given a copy of the standard operating procedures governing the selection and use of respirators? Employees receive initial and periodic training with respect to the selection and use of respirators. This training information is contained in the plant safety manual and is kept in the foremen's office for additional employee reference. Additional training in this regard includes an employee hand-out booklet on respiratory protection prepared by NIOSH. The quantitative and qualitative respirator fit test procedures and results are discussed at length with employees.

15) What alternate proposals have you considered for production planning and shift changes? As previously explained in the response to question 1, shift changes and different production schedules would not be practical or effective in reducing employee exposure levels because of the small size of the plant, the small number of employees, and the current air-lead levels throughout the plant.

16) Submit a copy of the medical surveillance program. See attached.

17) Written acceptance of the terms of the enclosed interim order. American Cyanamid accepts the terms of the interim order specified by OSHA in its letter dated June 6, 1983. In addition, American Cyanamid will submit the following information by September 30, 1983 to the Office of Variance Determination: (a) blood sampling test results conducted from March 1, 1983 to September 1, 1983 for each affected employee,

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and (b) an average of the last three blood sample tests or an average of all blood sampling tests for the six month period specified in (a) above.

If you have any questions about the above, please do not hesitate to contact our industrial hygienist, Cliff Hellings at (201) 831-3028.

Sincerely,



Dr. G. M. Saluti
Manager, Plastic Additives Dept.

Attachment

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American Cyanamid Company
Wayne, NJ 07470

July 28, 1983

Mr. William N. Hall
Cleary, Gottlieb, Steen & Hamilton
1752 N Street, NW
Washington, DC 20036

Dear Mr. Hall,

The following medical surveillance program is in effect for the Chicago Plant. Medical examinations are made available to all employees consistent with the final occupational exposure to lead standard as issued by OSHA on 11/14/78. Please note that physical examinations are given annually regardless of the employees' age and blood lead levels are taken on a monthly basis. The medical surveillance program follows the requirements of the standard as noted in Paragraph ("J"), ("3"), ("I") and ("ii") Content, as found on page 53010.

- (A) A detailed work history and a medical history, with particular attention to past lead exposure (occupational and non-occupational), personal habits (smoking, hygiene), and past vascular, reproductive and neurological problems;
- (B) A thorough physical examination, with particular attention to teeth, gums, hematologic, gastrointestinal, renal, cardiovascular, and neurological systems. Pulmonary status should be elevated if respiratory protection will be used;
- (C) A blood pressure measurement;
- (D) A blood sample and analysis which determines:
 - (1) Blood lead level;
 - (2) Hemoglobin and hematocrit determinations, red cell indices, and examination of peripheral smear morphology;
 - (3) Zinc protoporphyrin;

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- (4) Blood urea nitrogen, and,
- (5) Serum creatinine;
- (E) A routine urinalysis with microscopic examination; and
- (F) Any laboratory or other test which the examining physician deems necessary by sound medical practice.

Yours truly,

AMERICAN CYANAMID COMPANY


Charles A. Petersen, M.D.
Director of Employee Health

CAP:kn

cc H. C. Gaffney
H. M. Utidjian, MD
J. C. Caporossi
C. S. Hellings

Chicago
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