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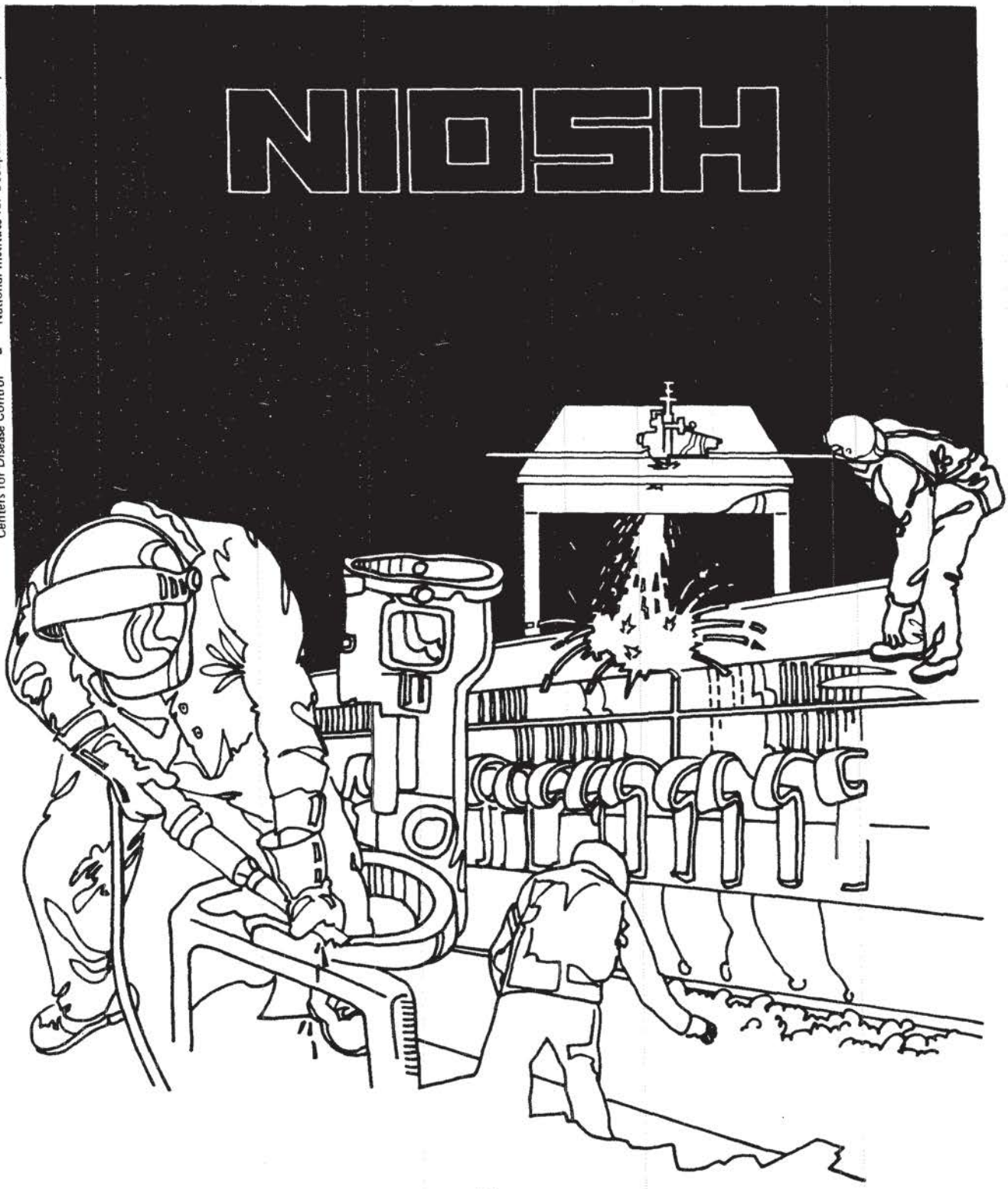

Health Hazard Evaluation Report

HETA 81-213-886
GREIF BROTHERS CORPORATION
NIAGARA FALLS, NEW YORK

PREFACE

The Hazard Evaluations and Technical Assistance Branch of NIOSH conducts field investigations of possible health hazards in the workplace. These investigations are conducted under the authority of Section 20(a)(6) of the Occupational Safety and Health Act of 1970, 29 U.S.C. 669(a)(6) which authorizes the Secretary of Health and Human Services, following a written request from any employer or authorized representative of employees, to determine whether any substance normally found in the place of employment has potentially toxic effects in such concentrations as used or found.

The Hazard Evaluations and Technical Assistance Branch also provides, upon request, medical, nursing, and industrial hygiene technical and consultative assistance (TA) to Federal, state, and local agencies; labor; industry and other groups or individuals to control occupational health hazards and to prevent related trauma and disease.

HETA 81-213-886
May 1981
Greif Brothers Corporation
Niagara Falls, New York

NIOSH INVESTIGATOR:
John R. Kominsky, IH

I. SUMMARY

On March 6, 1981, the National Institute for Occupational Safety and Health collected environmental samples for Mirex and lindane at the old manufacturing plant of Greif Brothers Corporation in Niagara Falls, New York. The testing was requested by the United Steel Workers of America - Local No. 12256 after settled dust samples obtained in December 1979 at the new manufacturing plant adjacent to the old plant showed contamination with Mirex and lindane.[1] (The new plant was decontaminated in July 1980.[2]) The Greif Brothers facility is located approximately 100 meters north of the Hyde Park Chemical Disposal site.[3]

The possible presence of Mirex and lindane was tested by collecting three settled dust samples from various horizontal surfaces in the old plant and one sample from the center conveyor system in the new plant. The samples were obtained by vacuuming an area of approximately 100 square centimeters using a mixed cellulose-ester membrane filter attached to a portable air sampling pump operating at 4.0 liters per minute. The samples were analyzed for Mirex and lindane using a gas chromatograph equipped with an electron capture detector.

Table 1 presents the analyses reported as micrograms of chemical per 100 square centimeters surface area. No Mirex and lindane were detected. The lower limits of the analytical method are 0.4 and 0.04 ug per sample for Mirex and lindane, respectively.

Based on the analyses of settled dust samples, a potential health hazard to Mirex and lindane does not exist for the employees who may work in the old manufacturing plant.

SIC 2879 - Pesticides & agricultural Chemicals

KEYWORDS: Mirex, lindane, settled dust, hazardous waste site and chemical disposal site.

II. AUTHORSHIP AND ACKNOWLEDGEMENTS

Evaluation Conducted and Report Prepared by: John R. Kominsky, Industrial Hygienist, Industrial Hygiene Section

Originating Office: Hazard Evaluations and Technical Assistance Branch, Division of Surveillance, Hazard Evaluations and Field Studies

Report Typed by: Jackie Woodruff, Clerk/Typist, Industrial Hygiene Section

III. REFERENCES

1. Kominsky, J.R. and P.J. Landrigan. Summary of Mirex, lindane and tetrachlorodibenzo-p-dioxin sample analysis, Hyde Park Landfill Chemical Disposal Site, Niagara Falls, New York, January 1980. Hazard Evaluation and Technical Assistance Branch, Project No. TA 79-22, National Institute for Occupational Safety and Health, Cincinnati, Ohio 45226.

2. Kominsky, J.R. Health Hazard Evaluation and Technical Assistance Report No. HETA 80-087-771, National Institute for Occupational Safety and Health, Cincinnati, Ohio 45226.

3. Singal, M., Kominsky, J.R., Schulte, P.A., et al: Health Hazard Evaluation and Technical Assistance Report No. HETA 79-022-789, National Institute for Occupational Safety and Health, Cincinnati, Ohio 45226.

IV. DISTRIBUTION AND AVAILABILITY OF REPORT

Copies of this Determination Report are currently available upon request from NIOSH, Division of Technical Services, Information Resources and Dissemination Section, 4676 Columbia Parkway, Cincinnati, Ohio 45226. After 90 days, the report will be available through the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22151. Information regarding its availability through NTIS can be obtained from the NIOSH Publications Office at the Cincinnati address.

Copies of this report have been sent to:

1. Industrial Relations Manager, Greif Brothers Corporation, P.O. Box 518, Niagara Falls, New York 14302.

2. President, Local No. 12256, USWA, Greif Brothers Corporation, P.O. Box 518, Niagara Falls, New York 14302.

3. U.S. Department of Labor-OSHA, Region II.

4. Regional Program Consultant-NIOSH, Region II.

Table I

Analysis of Mirex and Lindane in Settled Dust

Greif Brothers Corporation
Niagara Falls, New York

March 6, 1981

Sample Location	Micrograms per 100 Square Centimeters Surface Area	
	Mirex	Lindane
Old Plant: Structural member	N.D.*	N.D.
Old Plant: Window ledge - south wall	N.D.	N.D.
Old Plant: Structural member	N.D.	N.D.
New Plant: Center conveyor system - west Dravo unit	N.D.	N.D.

* None Detected - The lower limit of detection for Mirex is 0.4 micrograms and for lindane is 0.04 micrograms.