

ABSTRACT

HEALTH HAZARD EVALUATION DETERMINATION

REPORT NO. 73-58

Toxic Substances: Paint, paint constituents, paint solvents

Industry: Television Scenery Production

Study Data: Employee interviews
Paint constituent determinations
Work practices

Study Date: August 8, 1973

Study Results: A small paint operation (7-8 "Artists") was investigated for possible health effects. No environmental samples were taken. Ninety-eight per cent of the spray paint is water-based latex-type compounds. No highly-toxic substances, i.e., lead, are found in any of the paints. Spray operations are sporadic and limited. Artists use a spray booth when possible and have respirators available as needed.

Toxicity Determination: It was determined that the potential for toxicity was low. This determination was based upon employee interviews, lack of complaints or adverse symptoms, lack of highly toxic paint constituents, lack of a history of adverse effects from spray operations, and the limited and sporadic exposure of employees.

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH
CINCINNATI, OHIO 45202

HEALTH HAZARD EVALUATION DETERMINATION
REPORT NO. 73-58

ABC-TV STUDIOS
4151 Prospect Ave.
LOS ANGELES, CALIFORNIA
NOVEMBER 1973

I. TOXICITY DETERMINATION

Based upon information obtained during an investigation conducted on August 8, 1973, it is determined that the potential for toxic effects from paint spray operations to employees located in the production services building is at a minimum as long as existing materials, precautions, and controls are employed. Recommendations have been made to management and labor to further enhance the safety and well-being of employees. This determination is based upon (1) employee interviews in which relatively few complaints were expressed, and no adverse health effects were evident, (2) no past history of adverse health effects traceable to paint spray constituents as would be reflected in the OSHA Form 102, (2) lack of any highly toxic materials in any of the paints used on the premises, and (4) sporadic, limited, and portable nature of spray operations which tends to minimize long-term exposures.

II. DISTRIBUTION AND AVAILABILITY OF DETERMINATION REPORT

Copies of this Determination Report are available upon request from the Hazard Evaluation Services Branch, NIOSH, U.S. Post Office Building, Room 408, 5th and Walnut Streets, Cincinnati, Ohio 45202. Copies have been sent to:

- a) The ABC-TV Studios, Los Angeles, California
- b) Authorized Representative of Employees
- c) U.S. Department of Labor - Region IX
- d) NIOSH - Region IX

For purposes of informing the affected employees, the employer will promptly "post" the Determination Report in a prominent place(s) near where affected employees work for a period of 30 calendar days.

III. INTRODUCTION

Section 20(a)(6) of the Occupational Safety and Health Act of 1970, 29 U.S.C. 669(a)(6), authorizes the Secretary of Health, Education, and Welfare, following a written request by 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 National Institute for Occupational Safety and Health received such a request from an authorized representative of employees regarding paint spray operations in the production services building.

IV. HEALTH HAZARD EVALUATION

On August 8, 1973, NIOSH Representative D. Jeff Burton conducted an investigation at the ABC-TV Studio, production services building. Through the assistance of the Manager, Scenic Services; the Director, Production Services; the Director, Special Services; and the Shop Steward, the following pertinent information was obtained. The Scenic Services Department builds and provides all of the scenery and props required by the ABC-TV Studios at this location. The Art and Painting Department, made up of 7-8 artists, provides necessary painting. The Drapery Department, which is adjacent to the Art Department, makes all cloth materials such as curtains, table cloths, etc. The Special Effects Department makes all other props as required.

The Hazard Evaluation Request was prompted by the employees of the Drapery Department who wondered if paint mists drifting into the drapery area constituted any health hazard.

An investigation of paint operations, and personal interviews with employees yielded the following pertinent information:

- (1) Painting is sporadic in its intensity with late summer-early fall being the time when the paint schedule is heaviest.
- (2) 98% of all paint operations use water-based rubber-type paints. Other types used included lacquers, oil based paints, etc.
- (3) Brush and roller painting techniques are preferred to spraying.
- (4) A 7' x 8' paint booth with adequate ventilation is used when possible.

(5) Adequate respirators are available and apparently used by painters as needed.

(6) No highly toxic substances were found in any of the paints.

(7) No history or complaints of adverse health effects traceable to paint constituents were evident, or expressed, with only one exception. This particular artist had noticed on rare occasions an adverse reaction when spraying lacquer. He was advised to wear appropriate respiratory protection when spraying lacquer.

V. RECOMMENDATIONS

Recommendations made to management and labor at the exit interview included:

(1) Roof exhaust fans be activated when building lights are turned on. The present system of separate activating switches results in the situation where the fans don't run consistently.

(2) Improvements in the respirator program to include (a) improved maintenance, (b) improved availability, (c) employee education.

(3) Maximize substitution of brush roller techniques for spray techniques.

(4) Maximum use of the spray paint booth.

(5) Spray paint large objects outside when feasible.

(6) Provide waterless hand cleaners, lanolin based hand creams, and gloves to painters.

(7) Provide exhaust ventilation for welding operations.

(8) Provide safety glasses with side shields to welders and other employees working in special effects area.

(9) Provide periodic safety and health education to employees. It was recommended that the paint companies be requested to provide information to management and employees as to (a) paint constituents, (b) hazards and non-hazards associated with paint and painting, (c) safe and healthful techniques to be used when painting; etc.

VI. AUTHORSHIP

Report Prepared By: David J. Burton
Sanitary Engineer/Project Officer
DTS/SLC

Originating Office: Jerome P. Flesch, Chief
Hazard Evaluation Service Branch