

legislative study which has recently been completed in California. The study explores the concept of a definition of the profession of "Conservator." It has gone on practically unnoticed by those in the field. Although unplanned, Dr. Tobey's comments set the stage for a lively discussion which was to follow on the subject "Legitimate Goals of Professional Evaluation of Conservators." An analysis by Dr. Tobey of the probable impact of the governmental study will appear in the Winter issue of the WAAC Newsletter.

WAAC officers for 1985 are JOHN TWILLEY - President, ROBERT FUTERNICK - Vice President/President Elect, BENITA JOHNSON - Secretary/Treasurer (continuing), with SCOTT HASKINS, CHARLES PATTERSON, and CHRIS STAVROUDIS - Members-at-large. CAROLINE BLACK has generously agreed to continue as Newsletter Editor.

## TECHNICAL NOTES

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### ETHYLENE OXIDE STUDY

During 1984 eleven New England institutions responded to a survey regarding the use of ethylene oxide (ETO) in Vacudyne and Kewaunee manufactured vacuum chambers. The survey was organized by conservators ROBERT HAUSER (New Bedford Whaling Museum) and ROBERTA SAUTTER (John Hay Library, Brown University) with assistance from Columbia University conservation student Elizabeth Morse, as a result of the 1983 MIT conference on this subject.

Survey findings were summarized and presented at the New England Archives, Library and Museum ETO Study Group in October 1984. Five discussions sessions, chamber operations, monitoring practices, sterilization versus fumigation, aeration of collections and fumigation shutdowns allowed representatives from each institution to evaluate their varying fumigation practices and compliance with OSHA and state regulations. An aspect of fumigation not well understood is the reactivity of ETO with protein materials and the presence of chlorides to form ethylene chlorohydrin. Another is retention of ETO by certain library materials and what are the acceptable aeration periods for these materials. A direct result of the survey and meeting was an offer of assistance from Patricia Circone, Chief of Laboratory, Division of Occupational Hygiene, Commonwealth of Massachusetts, to study the fumigation and aeration of materials at the New Bedford Whaling Museum, so that the New England Study Group can better understand the aeration problem and how to comply with the OSHA standards. Another meeting is planned that could include speakers from industry, government, and scientific specialties concerned with fumigation.

Anyone wanting copies of the survey questions, summary and list of participants, should send a pre-addressed and postpaid envelope to Fumigation Study, New Bedford Whaling Museum, 18 Johnny Cake Hill, New Bedford, MA 02740.

ROBERT HAUSER

### CHIPS

The U.S. Environmental Protection Agency has developed a program for gathering and publishing information on specific chemicals and chemical compounds called CHIP (Chemical Hazard Information Profile).

The Office of Toxic Substances selects for assessment chemicals with a high potential for adverse environmental and health effects.

Previously unpublished information on the chosen chemical is solicited and published information is reviewed.

Data on the chemical's potential impact on health and environment are then summarized in a CHIP.

CHIPS will be stored at the Kingle Mansion so that they will be readily available for use by AIC members.

If you are interested in setting up such a file, please send the names of your favorite chemicals to me. (PO Box 387, Cooperstown, NY 13326).

ANN WAGER  
Health and Safety Committee

### CHLORINE DIOXIDE HEALTH HAZARDS

Chlorine dioxide, sometimes used to bleach paper in conservation work, is potentially very hazardous. Exposure to the gas can cause permanent lung damage or even death. The Rocky Mountain Regional Conservation Center recently invited Mr. Jack Geisert from the Occupational Health and Safety Section of Colorado State University to monitor the air near the operator during a paper bleaching using chlorine dioxide.

A careful procedure for the bleaching was strictly followed, including the proper use of a functioning laboratory fume hood. Nonetheless, dangerous levels of the gas were measured outside the hood, and lethal quantities were measured inside it. 0.5 parts per million (ppm) were found in the vicinity of the operator, while more than 50 ppm were found in the ventilated hood. OSHA enforces a workplace exposure limit of 0.1 ppm average concentration for an eight-hour workday. The American Conference of Governmental Industrial Hygienists recommends a fifteen minute Short Term Exposure Limit (STEL) of 0.3 ppm. In spite of all possible precautions, the STEL was exceeded by 0.2 ppm. There is a reported death of an industrial worker who entered an enclosed tank which contained 19 ppm.

The limited air monitoring studies at the RMRCC suggest that chlorine dioxide bleaching could be extremely hazardous without stringent precautions. It is important to note that air purifying respirators are not an effective precaution against dangerous concentrations of the gas. Only a full-face supplied air respirator is effective. One should never use chlorine dioxide in an enclosed room, or even a room without an enclosing local exhaust ventilation hood. Consider the possibility of a power failure, an overheated exhaust fan, or a spill. In short, chlorine dioxide bleaching should be considered one of the most hazardous processes in conservation. Before anyone considers using this material, contact a qualified industrial hygienist to specify precautionary measures and perform air monitoring to ensure safety (from Rocky Mountain Regional Conservation Center Conservation News).

### EFFECTS OF ELECTROSTATIC COPYING ON PHOTOGRAPHS

Research on the effects of electrostatic copying on photographs is being conducted by Gary D. Saretzky. Anyone aware of related research or desiring information regarding his work is encouraged to contact him at Educational Testing Service, Archives 30-B, Princeton, NJ 08541. (from CAN, 7/84)

