



*John
Reader*

Interoffice Communication

To Gary Draper

From Tom Grumbles

Date December 8, 1981

Subject INDUSTRIAL HYGIENE AUDIT OF LAKE CHARLES CHEMICAL PLANT

I would like to do an industrial hygiene audit of the Chemical Plant on January 20, 21, and 22. The emphasis of the audit is an overall review of the Plant's industrial hygiene activities, and the extent and administration of policies relating to those activities. Although a walk-through survey of the plant will be conducted, this is not an "inspection-oriented" audit.

On the first morning of the audit an opening conference will be held with you and other staff personnel involved in the audit. During this time we will further explain the audit and arrange times to see other plant personnel as necessary. These would include engineers involved in health and safety projects, the laboratory director, and others involved in the industrial hygiene activities. A closing conference will be held on the last day to discuss audit findings and report content.

The audit criteria is enclosed for your review. Let me know if you have any questions on the content or audit process in general. Also please let me know if the above dates are acceptable. Further details will be supplied at that time.

Thomas G. Grumbles

ajo

Enclosures

cc Sid Pitts
Ralph Ferrell

CCR 000001668

AUG. 17, 1976

Union Carbide Says Byproduct Causes Skin Cancer in Mice

* * *

Tests by Firm Disclose Effect
Of Pyrolysis Fuel Oil; 50
Workers Directly Exposed

By a WALL STREET JOURNAL Staff Reporter

NEW YORK—Union Carbide Corp. said it found in laboratory tests that certain tarry residues, which are a by-product of its olefin operations, cause skin cancer in mice.

The residues, known as pyrolysis fuel oil, come from the company's operations that make olefins, a group of basic chemicals used to make other chemicals and plastics.

Pyrolysis fuel oil produced by Union Carbide is used as a supplementary fuel at olefin-operation sites, including Taft, La.; Texas City and Seadrift, Texas; Torrance, Calif., and Ponce, Puerto Rico. Union Carbide said about 50 workers are directly exposed to the fuel oil.

The company made these tests during a two-year program at Carnegie-Mellon Institute of Research to monitor the potential health hazards of its products and operations. Union Carbide said it has submitted its findings to the National Institute of Occupational Safety and Health and to the industrial processors who buy a small amount of the oil from Union Carbide.

Union Carbide said the mice were painted with the oil three times a week on the skin of their backs. Nearly all the mice developed skin cancer over 19 months. A few of the animals also developed other types of cancer.

~~Union Carbide said the tests were not intended to show that the oil caused cancer in humans.~~
~~It said the tests were only for mice.~~
~~Union Carbide said the tests were not intended to show that the oil caused cancer in humans.~~
~~It said the tests were only for mice.~~
"for any effects on humans under normal working conditions." However, the company added that the tests are a warning of possible health risks and dictate the continuing control of human exposure to the oil.

Union Carbide said the workers involved in handling equipment that may expose them to the oil wear protective clothing and where there is a chance of exposure to liquid mists, a filtered air respirator. The company added that a task force will reexamine olefin operations and work practices and determine if epidemiological studies may be appropriate.

CCR 000001667

CONOCO CHEMICALS: INDUSTRIAL HYGIENE AUDIT SYSTEM

- Basic Goals:
1. To assure that all feasible steps are being taken to adequately protect the health of Conoco Chemicals employees.
 2. To assure compliance with federal and local regulations.
 3. Assess adherence to company policies and good practice.
 4. Identify areas of need based on the above and make recommendations to aid in meeting those needs.

Procedure: Each plant will be audited at least every two years with actual frequency determined by need. The audit will be conducted in three phases as outlined below.

1. Pre-Audit - prior to the audit the plant will be contacted to arrange a time of visit agreeable to all. The time spent in the plant will vary dependent on size of the plant and extent of the existing program.

The plant to be audited will be notified of the audit criteria to enable preparation of necessary materials for review and assure the availability of key personnel to be interviewed.

2. Site Visit - the on site audit will consist of two basic parts.
 - a. The majority of the audit will be performed "in-office". An opening conference will be held with management and other affected staff personnel to describe the purpose and process of the audit. The major activity will involve review of written programs, air sampling data, recordkeeping, and overall administration of the program. The specific aspects of this review are attached as Appendix I.
 - b. The second phase of the audit will involve a walk-through inspection of the plant. This walkthrough will be done in OSHA style to identify obvious areas of non-compliance as well as allow for an assessment of administration and success of written programs.
 - c. A closing conference will be held with appropriate plant management before the audit team leaves the plant. Audit findings, preliminary recommendations, and report format and distribution will be discussed.
3. Post-Audit - A written report of the audit findings will be addressed to the plant manager, with a copy to the Vice President of Operations, General Manager of Manufacturing, and Medical Director.

Audit Team: The audit will be conducted by the Director of Industrial Hygiene, a Corporate Medical Department Hygienist, and a Person involved in hygiene activities from another Conoco Chemicals Plant.

INDUSTRIAL HYGIENE AUDIT

ON-SITE CRITERIA

The following items will be considered where applicable to the given facility or operation under review. This list is a guideline and not intended to be all inclusive or totally limiting.

A) Program Administration

- 1) Definition of Responsibilities (Departments, People)
- 2) Structure of the program
- 3) Administration of the program
- 4) Communications (in-plant, external)

B) Review of Written Programs

- 1) Chemical Exposure Abatement Programs
- 2) Written determinations
- 3) Portions of Safety Procedures with reference to industrial hygiene procedures (if applicable)
- 4) Other specific programs (i.e. Respiratory protection, education programs) will be reviewed at other times during the audit.

C) Plant Recognition of Hazards

- 1) Chemicals present in the plant
- 2) Current list of chemicals
- 3) Availability of MSDS's or similar information on chemicals in the plant
- 4) Communication with the purchasing group
- 5) Review of new chemicals or new uses of chemicals in the plant
- 6) Periodic review/updating of material
- 7) Inventory of radiation devices

D) Hazard Evaluation Programs

- 1) Sampling program review
 - a) what agents/chemicals are sampled
 - b) sampling frequency
 - c) criteria for sampling frequency
- 2) Program Administration
 - a) placement of sampling devices
 - b) observation of sampling
 - c) job/task information for overexposure determinations
 - d) sample retrieval and labeling
 - e) sample storage
- 3) Sample Analysis
- 4) Reporting of Results
 - a) format
 - b) distribution
- 5) Input to Industrial Hygiene Computer Storage and Retrieval System
- 6) Sampling Records
- 7) Sampling Equipment and Methods
 - a) what's available
 - b) Calibration of equipment (frequency, records, methods)

CCR 000001670

E) Hazard Control

- 1) Review of specific control procedures
- 2) Input and review of proposed process or equipment changes
- 3) Evaluation of newly installed controls
- 4) Ventilation systems review
 - a) needs and use
 - b) testing of devices (hoods, exhausters, etc.)
 - c) maintenance of systems
 - d) records of inspections
- 5) Respiratory Protection Program
 - a) review of program for compliance with OSHA regs
 - b) administration of program
 - c) record keeping
- 6) Other personal protective equipment
 - a) need
 - b) selection
 - c) availability and use
- 7) Radiation
 - a) surveys by qualified person
 - b) test of on/off mechanisms for sealed sources
 - c) permits

F) Review Of Exposure Records

- 1) Regulatory compliance
- 2) Compliance with company policies
- 3) Record keeping

G. Education Programs

- 1) Present program review
- 2) Frequency of training
- 3) Administration of programs

H) Medical Surveillance Programs

- 1) Administration of program
- 2) Results of review of program previously done by Dr Massad will be discussed

I) Storage and Handling of Hazardous Materials

- 1) Facilities
- 2) Equipment used
- 3) Methods used
- 4) Labeling/identification in plant

J) General Sanitation

- 1) Eating facilities
- 2) Restrooms
- 3) Change rooms
- 4) Potable water supply
- 5) General housekeeping

K) Employee Awareness of Hazards

- 1) Personnel interviews to be conducted
- 2) Work practices observed

CCR 000001671

L. Miscellaneous

- 1) Sign-posting in plant
- 2) Light levels in work areas