

FILE NAME: Oil Industry and American Petroleum Institute (API)

DATE: 1955-1957

DOC#: API191

DOCUMENT DESCRIPTION: API History of the Subcommittee on Carcinogenicity

API
HISTORY
OF THE
SUBCOMMITTEE
ON
CARCINOGENICITY
1955-1957

7

THE STANDARD OIL COMPANY

April 15, 1955

Dr. R. E. Eckardt, Director
Medical Research Division
Esso Research & Engineering Co.
P.O. Box 51
Linden, New Jersey

WCH
1955

Re: OCCUPATIONAL CANCER HAZARDS
by W. C. Hueper, M.D.

Dear Dr. Eckardt:

In reference to our recent correspondence regarding the above subject and our telephone conversation of today, I am enclosing two (2) copies of this article by Dr. Hueper distributed March 9, 1955 to members of the NPA Fire and Accident Prevention Department by E. H. Fallon of the National Petroleum Association in Washington.

Very truly yours,

J. W. Osborn, M.D.

JWO:amd
Enc. (2)

CC: Dr. George M. Saunders
Mr. D. V. Streop ✓

OCCUPATIONAL CANCER HAZARDS

by

W. C. Hueper, M.D., National Cancer Institute

(The article reprinted herewith was prepared for the March-April, 1955 issue of "Safety Standards" a publication of the U. S. Department of Labor.)

The rapid development of modern industrialism has been associated with the appearance of many new occupational health hazards of which those causing cancers occupy an important position.

The term "occupational cancer" is applied to malignant tumors originating in individuals during the course, and/or as the result of the regular and usually prolonged exercise of certain occupational activities entailing contact with some exogenous, physical, chemical or parasitic agent acting in proper intensity. Occupational cancers thus are caused by specific agents or etiologically related to well-defined occupational conditions which form an integral part of the ordinary working environment. They differ through these aspects from the accidental occupational cancers which result from or follow upon some extraordinary, unforeseen, accidental injury sustained at work and being of a nonspecific nature.

Types and Nature of Occupational Carcinogens

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Occupational agents which are known or strongly suspected as having caused cancer of various organs in workers who became exposed to them are largely chemicals. Some of these chemicals are well defined (arsenicals, chromium compounds, nickel, asbestos, benzidine, beta-naphthylamine, 4-aminodiphenyl, benzol), others consist of variable mixtures of a large number of chemical compounds, a few of which possess carcinogenic properties and some of which have been identified (soot, coal tar, pitch, bitumen, tar oils, creosote oil, anthracene oil, lamp black, lignite tar and crude paraffin oil; shale oil and various petroleum fractions (industrial fuel oils, diesel oils, lubricating oils, cutting oils, crude paraffin oils, petroleum tars, pitches, asphalt and coke), and crude isopropyl liquor produced in the manufacture of isopropyl alcohol).

A second group of occupational carcinogens is composed of agents characterized by their ionizing and nonionizing radiation (x-radiation, radioactive substances, ultraviolet radiation). The third group is represented by environmental agents and conditions which sometimes have an occupational association, and which may be related to certain infections (schistosoma hematobium) or several specific climatic, geologic, dietary, and nutritional conditions, and which in part have a more or less indirect relation to carcinogenesis (malnutrition with protein and vitamin B-complex deficiency).

In addition to these established occupational carcinogens there are a number of potential human carcinogens which have been shown to elicit cancers in experimental animals and to which workers become exposed during their regular occupational activities (synthetic estrogens, chlorinated aliphatic hydrocarbons, methylated naphthalenes, diethylene glycol, p-thiourea, thio-acetamide, light green SF, brilliant blue FCF, fast green FCF, butter yellow, beryllium, selenium, cobalt, and various polymerized plastics). These potential agents also must be considered in the adjudication of compensation claims.

Evaluation of Evidence

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For the establishment of casual relations between an exposure to these agents and the subsequent development of a cancer of an occupational genesis and therefore compensation claims, the following conditions must be fulfilled:

NATIONAL PETROLEUM ASSOCIATION

MUNSEY BUILDING

WASHINGTON 4, D. C.

F&S 55-3

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FAYETTE B. BOW
GENERAL COUNSEL
DONALD C. O'HARA
ASSOCIATE COUNSEL
E. H. FALLIN
TECHNICAL AND SAFETY DIRECTOR
HORACE L. LOMNES
ATTORNEY
WILLIAM B. PIERCE
CORPORATE COUNSEL
R. A. MILLER
EXECUTIVE ASSISTANT

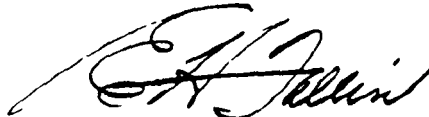
March 9, 1955

TO: MEMBERS NPA FIRE AND ACCIDENT PREVENTION DEPARTMENT

In comparatively recent years, cancer hazards in industry have been recognized as of increasing importance and magnitude. Several organizations are devoting considerable study to the problem and health authorities in many large cities are watching the situation very closely in the areas of their jurisdiction so that necessary rules and regulations may be enacted if, in their opinion, they become necessary for the safety of workers.

Because certain petroleum products or materials produced in the refining of crude oil are among those listed as occupational carcinogens, a recent article appearing in the March-April, 1955 issue of "Safety Standards" a booklet published by the Bureau of Labor Standards of the United States Department of Labor, should be of particular interest to all those concerned with the protection and safety of workers. The article referred to in "Safety Standards" titled, "Occupational Cancer Hazards" by Dr. W. C. Hueper, M.D. of the National Cancer Institute, is, in our opinion, of sufficient importance for us to reproduce it for your information and file. A copy of Dr. Hueper's article as it appeared in "Safety Standards" is attached hereto.

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industry
(N. & P. A. Assn)
1955*



E. H. FALLIN

API 06064

a. Definite evidence must be available indicating that the claimant had occupational contact with any one of the various agents listed; that this contact was either of prolonged nature extending as a rule over periods of at least 6 months; and was of adequate intensity for eliciting a cancerous response, according to any previous experience which might be available on this point. Single exposures may be considered to be effective if the causal agent consists of external ionizing radiation or the exposure mechanism favors the production of a carcinogenic depot in the tissues from which a prolonged exposure of the host organism may ensue.

b. The route of exposure to or introduction of the carcinogenic agent in addition to its specific chemical properties and metabolic peculiarities determine the site of the organ or tissues in which a cancer is elicited. Therefore, not any cancer, but only cancers of specific sites are related to any particular carcinogenic agent.

c. The type of exposure does not need to be continuous or extend up to the time of appearance of the cancer, but may be intermittent. In fact, any contact with the occupational carcinogenic agent may have ceased many months to years, or occasionally, even decades before the cancer becomes manifest. Effective carcinogenic exposures may be sustained not only by the ordinary operators employed in operations with occupational carcinogenic hazards, but also by workers entering such operations on a transitory basis, such as supervisors, maintenance personnel, repairmen, truckers, loaders, yardmen, and workers employed in rooms and buildings near the hazardous operations, if housekeeping and exhaust disposal methods are inadequate and environmental contaminations result.

d. Occupational Medical Stigmata--For the establishment of causal relations between occupational exposures to carcinogens and subsequently appearing cancers, it is of distinct value to analyze the medical history of affected persons for functional or anatomic disease manifestations characteristic of a pathogenic action of the particular carcinogen allegedly involved. Such noncancerous and often preparatory or precancerous symptoms of etiologic specificity act as stigmata or biologic fingerprints supporting not only the actuality of a previously sustained specific exposure, but also its causal relationship to the cancer present. Symptomatic manifestations possessing such a significance are, for instance, chronic radiodermatitis, chronic tar dermatitis, arsenic dermatosis, chronic solar dermatitis, chronic radiation periostitis, asbestosis of the lung and leukemoid reactions after exposure to benzol and ionizing radiation. Chemical analyses of tissues for the incriminated chemical also may sometimes help in establishing previous contact with any specific occupational carcinogens, such as arsenic, chromium, nickel, radioactive substances, and benzol.

It is important, however, to note that these procedures are not applicable for all occupational cancers. Some carcinogens do not produce any etiologically characteristic symptoms; in fact, they may not elicit any preliminary toxic or other disease phenomena despite a persistent and prolonged carcinogenic exposure. Thus, cancers of the bladder in dye and rubber workers may develop in the absence of any preliminary local or general warning symptoms after more than one or two decades of continuous, intermittent, or discontinued exposure to certain carcinogenic aromatic amines.

There also does not exist any parallelism between the toxic and/or irritative properties of any chemical and its potential carcinogenic qualities, nor, is there a relationship between the degree of toxicity of any particular carcinogen and its relative carcinogenic potency.

e. Extensive experience with occupational cancers indicates that there usually elapses a latent period of years, if not decades, between the onset of exposures to a carcinogenic agent and the appearance of the resulting cancer. It is for this reason most unlikely that occupational cancers become manifest within the first year following the inception of contact with a carcinogenic agent. In fact, all cancers which make their appearance during the first three years of occupation in a carcinogenic environment should be subjected to severe scrutiny for a more probable nonoccupational origin before they may be considered from an occupational viewpoint.

The relative effectiveness of any medical, sanitary and technologic control measures to be adopted can best be determined by ascertaining the changes in the occupational cancer incidence among the total population at risk occurring during some 10 to 30 years after their introduction. It is therefore desirable that provisions be made for routinely recording all cancer cases occurring among worker groups exposed to occupational carcinogens. All precancerous and cancerous lesions observed among members of such groups should for this reason be made notifiable with the State health agency. All persons having knowledge of these cancers should be held responsible for such reporting. The adoption of such measures represents an important step from a public-health viewpoint, because there is a growing urgency to determine the environmental causes responsible for significant changes in the incidence rates of several cancers.

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What, Then, Are the Conclusions?

1. The increasing rate at which occupational carcinogens have been discovered during recent decades suggests that only a fraction of the actually existing industrial carcinogens are known and that heretofore unknown and new occupational carcinogens may be added to the present industrial environment through the development and use of new chemicals and production methods.
2. There is a great deal of evidence indicating that only a relatively small fraction of the cancers produced through contact with occupational carcinogens has been recognized and/or placed on record. Because of the established widespread industrial contact of large worker groups with known occupational carcinogens, the potential scope of the occupational cancer problem evidently is much larger than apparent from the reported number of occupational cancer cases and hazardous industrial operations.
3. Medicolegal decisions in compensation procedures of occupational cancer claims should be based on a competent and critical evaluation of the entire evidence related to the exposure conditions of the claimant, the presence or absence and the type of any symptomatic manifestations observed during the latent and developmental periods of the cancer and characteristic for a particular agent, the length of the latent period, the site of the cancer, any specific histologic and histochemical characteristics, the production of corresponding cancers in experimental animals by the incriminated agent and pertinent epidemiologic data.
4. Schedule coverage laws are inadequate for providing proper protection against occupational cancer hazards because of the dynamic state of modern industry resulting in the constant addition of new chemicals and production methods which may entail heretofore unknown occupational cancer hazards. The statute of limitations contained in the general coverage laws represents its main defect in the fair and equitable application of this type of workmen's compensation law to occupational cancer hazards.
5. Since the prevention of occupational cancer hazards and not financial compensation for established occupational cancers appears to be the more sensible and humane method of control, labor codes should be properly adjusted and enforced so as to eliminate or reasonably contain occupational cancer hazards in modern industries.
6. For ascertaining the actual scope of the occupational cancer problem and for the institution of adequate control measures, it is essential that occupational cancers and precancerous conditions are made notifiable with local and State health and labor authorities.
7. A comprehensive study of occupational cancer hazards will provide a sound basis for an equally urgent investigation of the apparent extension of industry-related cancer hazards to large parts of the general population.

Subcommittee on Carcinogenicity
API Medical Advisory Committee

Epidemiological Studies
Kettering Laboratory

Buffalo, New York
April 23, 1955

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Status

(Covers
p. 3)

I. Central Registration

No tabulations of the newly reported cases have been prepared for review at this time. This does not imply that progress has not been made during the past year, but is due rather to the extensive changes in our methods of handling the reports. As noted at the last meeting of this Subcommittee, use of the Key Sort Cards (hand tabulation) was discontinued and IBM equipment (electronic tabulation) substituted.

This action was taken in order to obtain greater flexibility and to permit the study of more variables with less effort. However, it did require the preparation of an entirely new code since more items in some detail were included; clerks had to be trained to code and punch; and the necessary basic equipment had to be assembled. These activities are still in progress.

Although additional clerical assistants were assigned to this particular project, much more time will be necessary before the change-over is completed. To date only some 17% of the more than 1800 records now on file have been recoded. It is anticipated, however, that the staff engaged in this effort can be further augmented this summer.

During this period the number of cases reported to the Central Registry also has increased significantly. Over 500 new records have been received since January 1, 1954, the date of the last complete report. Two more companies have begun to send in their records, and the others generally are making every effort to keep up with their current cases. A table is appended giving the number of cases reported each year since the establishment of the registry. (The participating companies have been given a code number, but each will be notified separately how to identify their record.)

Geographical coverage of the industry is now almost complete. Efforts in the future will be directed to improve the accuracy of the reporting and to include a larger number of employees in the reporting base. Some participating companies are represented by a single refinery. It can be anticipated, however, if this progress is maintained, that significant figures soon will be forthcoming.

practical for use in refinery operations. However, this bridge presumably can only be crossed when we come to it. At the present time the laboratory estimates that it will take six generations of mice at a minimum to obtain the necessary answers to the above equation. With a minimum life of nine months for each generation and assuming that each step proceeds without any hitch, this represents a minimum of fifty-four months of additional work by the laboratory in the solution of this problem.

The report by Dr. Phair shows encouraging results in attempts at making statistical evaluations of cancer in the various participating companies. It is, however, discouraging to realize that only sixteen of twenty-five companies have participated in this effort and that in the last few years the number of participants may have diminished even more than this. For instance, in 1954 only twelve companies participated in the epidemiological studies. It should be quite apparent to the medical members of the Medical Advisory Committee that if there is any hope of accomplishing anything with these epidemiological studies this hope resides in the full cooperation of all of the participating companies. This would then provide a large enough sample so that significant statistical analysis could be made and leads shown which might permit more detailed studies by individual companies or by the group as a whole. Nonetheless it must be recognized that if participation does not continue in this project it is doomed to failure through no fault of Dr. Phair, but strictly due to the failure of cooperation

the part of the participating companies and their medical directors on the Medical Advisory Committee. Since the Subcommittee has been emphasizing the epidemiological aspects on this problem so long and intends to push the epidemiological studies, even at the expense of the experimental studies, it therefore seems apparent that if we are unable to obtain cooperation the epidemiological studies might just as well be terminated. The Subcommittee is in no position to do anything but make suggestions to the individual medical directors who sit in on the Medical Advisory Committee, but it is the suggestion of this Subcommittee that the experimental work in and of itself has no real value since it has no direct tie in with the human experience. The whole meat of all of the work which has been sponsored by the Subcommittee on Carcinogenicity lies in an attempt to develop an understanding of things that may be of importance to man and if the studies on man, namely the epidemiological studies, are not successful then all of the work of the Subcommittee will have been in vain. The Subcommittee simply wishes to re-emphasize that for the past five or six years it has been stressing and encouraging all medical directors to participate in the epidemiological studies.

EPI:
Failure
to get
cooperation
of Co.
Med.
Directors
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REE/jbm
October 31, 1955

The New York Times

TUESDAY, AUGUST 21, 1956.

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CANCER IS TRACED TO FOOD ADDITIVES

Experts' Symposium in Rome
Lists Many Dyes, Flavors,
Preservatives as Unsafe

ASKS LEGISLATIVE CURB

Appeals for International
Collaboration to Protect
Mankind From Hazards

By ARNALDO CORTESI

Special to The New York Times

ROME, Aug. 20.—A number of food additives used in the United States and Europe as dyes, thickeners, sweeteners, preservatives and the like were labeled cancer-producing today by a symposium of the International Union Against Cancer.

Other food additives were put on a suspect list as unsafe until their properties had been more thoroughly tested.

The cancer experts meeting in Rome acknowledged that this created a "serious public health problem." They unanimously recognized the "urgent necessity of international collaboration for the protection of mankind" against such hazards as cancer-producing food additives.

The participants in the symposium also acknowledged that food additives were only one part of the vast problem of environmental cancer, which includes occupational and lung cancers.

The symposium was attended by forty-two cancer experts from twenty-one countries, including seven Americans and four Russians. It was called by the congress of the International Union Against Cancer held in São Paulo, Brazil, in 1954.

Report Subject to Review

The joint report unanimously adopted by the symposium is subject to review by the Executive Committee of the International Union Against Cancer. It is, therefore, possible that some of its conclusions may be modified.

The report laid down the basic principle that no food additives should be used unless specifically permitted by legislation based on lists of substances that have been proved innocuous after stringent laboratory tests.

It went on to give the first lists of food preservatives and dyes that were found either acceptable, dubious or definitely dangerous. Dubious preservatives requiring urgent retesting included ethyl and butyl esters, thioldipronic acid, sulphurous acid and its derivatives and formic acid.

The dangerous preservatives condemned as "carcinogenic and to be avoided for human use" included thiourea, thiocetamide, 3-hydroxyquinoline and hydroquinone. Most and perhaps all of these are used in the United States and Europe.

The report said certain mineral oils and paraffins used for coating milk containers had produced cancer in mice and rats in experimental animals. It issued a warning against foodstuffs sterilized by radiation as potential cancer hazards and against the use of estrogens as fattening agents for poultry and meat animals.

It said that several detergents had "co-carcinogenic and prompting effects" and that their use for cleaning food containers therefore required caution.

Food Dyes Condemned

Food dyes came in for particularly severe condemnation from the symposium. Its report stated that no food dye at present met "agreed criteria of safety." Twenty-nine dyes were listed as "unsuitable" or "potentially dangerous" with the statement that they should on no account "be added to food or drink for men or animals."

Another list contained twenty-three dyes that might prove satisfactory after further tests.

The fundamental paper that formed the basis of the symposium's recommendations was read by Dr. Wilhelm C. Heuper, German-born member of the United States delegation. He is chief of the Environmental Cancer Section of the National Cancer Institute and is co-chairman of the symposium.

Dr. Heuper listed twenty groups of suspect food additives and seventeen groups of suspect food contaminants. Many of these agents, he said, have not been adequately investigated for carcinogenic qualities. The food additives included dyes, thickeners, synthetic sweeteners and flavors, preservatives, shortening, bleaches, oils and fat substitutes. The food contaminants included antibiotics and estrogen for fattening animals, pesticide residues, soot, chemical sterilizers, antisprouting agents, wrapping materials, radiation.

At the end of their labors the symposium and Executive Committee of International Union Against Cancer were received in audience by the Pope at his summer residence of Castel Gandolfo. He delivered a brief address and imparted an apostolic blessing to them and their work.

Ban on Three Dyes Upheld

More than two years ago, in the United States, the Federal Food and Drug Administration prohibited the use of three coal tar dyes on the ground that they were potentially harmful. Ten days ago the United States Court of Appeals upheld the ban on Orange No. 1, Orange No. 2 and Red No. 32.

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and to Item 12, page 4 of Dr. Huser's manuscript which lists "wrapping and coating materials (paraffin, waxes, resins, plastics)" as materials which contaminate foods, apart from any considerations of carcinogenicity.

These reports should not be treated as publications since they have not yet appeared in the published literature, but rather were supplied to us by Dr. Huser on the assumption that they would be used with appropriate discretion.

Very truly yours,

R. E. ECKHART, M. D.

LEH:ejh

Attach.

cc: (w/attach.) - Dr. L. E. Curtis
Mr. D. V. Streep

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sending
papers on
food add
and cancer
RE
Eckhart

- 3) The chairman of the Subcommittee, after receiving Dr. Hueper's Rome manuscript and the resolutions of the Rome symposium, should write a letter to the Surgeon-General, with a carbon copy to Dr. Hueper, asking for clarification of the statements which appeared in THE NEW YORK TIMES. This should be done on AFI letterhead and the tenor of the letter should be dependent upon the text of Dr. Hueper's manuscript and the resolutions adopted in Rome. The letter will be circulated to the Subcommittee prior to being forwarded to the Surgeon-General.
- 4) It was the general consensus that insufficient data is presently available to permit adequate evaluation of the carcinogenicity of dairy waxes. The Kettering Laboratory was asked whether they would be interested in conducting the research necessary to clarify and establish the status of dairy waxes in regard to their carcinogenicity. The Kettering Laboratory expressed interest in this research program and promised to prepare definite proposals for such research with budget estimates as to the cost for a subsequent meeting of the Subcommittee, to be held in Chicago on October 20, 1956. Tentatively, the place of this meeting will be at the Drake Hotel, providing the chairman of the Subcommittee can obtain adequate accommodations for a meeting room for the Subcommittee on that date. At this time, the Kettering Laboratory will have specific proposals with, more or less, specific budgetary estimates for the research necessary to clarify this situation. In the meantime, the chairman of the Subcommittee will provide to Dr. Kenoe, a copy of the memorandum which is to be distributed under item #2 above.

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copy of
on milk
carton
waxes

Dr. Kenoe was reminded, just before the meeting adjourned, that there would be a meeting of the Subcommittee about the time of the IMA meeting in April and at this time, he would be expected to present budgetary figures for the year July 1, 1958 to June 30, 1959.

R. E. BEKARDT, M. D./ejh
Chairman, Subcommittee on Carcinogenicity
September 10, 1956

Attach. - ABSTRACT RELATIONSHIPS BETWEEN THE COMPOSITION AND
CARCINOGENIC PROPERTIES OF VARIOUS REFINERY STREAMS.

A. Wesley Norton, et al.

cc - D. V. Stroop
T. A. Kenoe



Socony Mobil Oil Company, Inc.

150 EAST 42ND STREET NEW YORK 17, N. Y.

24 September 1956

To: AFI Subcommittee on Carcinogenicity
Honors. R.E. Roberts, M.D. - Chairman
H.W. Adams
C.H. Kim, M.D.
H.K. Linder, M.D.
R.C. Mithoff
M.H. Neuprist, M.D.

Subj: Paraffin Wax

I believe the NAC Subcommittee on Carcinogenicity will be interested in the attached letter which was sent by Dr. W.C. Raper to Dr. Ernest Reed at Syracuse University concerning the statements made by the former at the recent Ross Conference.

In my opinion, Dr. Raper has a very sensible approach and is in conformity with present thinking of the subcommittee -- namely, that comprehensive experiments on paraffins of different derivation and purity be made.

It is possible the subcommittee may like to cooperate with or approach Dr. Raper regarding the initiation of such test work at the National Institute of Health because it seems Dr. Raper is primed to do this work and may do it independently.

This copy of Dr. Raper's letter was received "through channels" and I, therefore, believe it should be held more or less in confidence.

Very truly yours,

A. C. Pabst

Mobil's
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WCH

WCH letter) "very
rec'd) sensitive"
'Hara
(names) Pabst may
next pg) collaborate
"WCH?"

ACP:JM
attachment

cc: Mr. D.V. Strong - att.

API 06225

December 1, 1956

To: Members of the Medical Advisory Committee, API

From: Dr. John J. Phair

The accompanying statement describes the present status of the epidemiological studies conducted for the Medical Advisory Committee. This part of the report could not be prepared in time for distribution prior to the November meeting of the Medical Advisory Committee, but it should be attached to and considered as a section of the document circulated by Dr. Horton summarizing the biological and chemical studies.

*Phair's
trans-
letter to
MAC*


John J. Phair, M. D.

Attachment

API PROJECT
Epidemiological Work

December 1, 1956

Following the unexpected action of the Medical Advisory Committee that was taken during the spring meeting of 1956, the activities in this field were abruptly discontinued. This decision was arrived at for several reasons. First, after the report to the Subcommittee on Carcinogenicity, the statistical clerks were assigned to other work since they could not proceed with the coding and punching of approximately 50% of the reports until either Dr. Horton or Dr. Phair could review individual records and categorize the occupational histories.

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"Termination
of support
for Cancer
Registry"

As was indicated to the Subcommittee during the February meeting, this portion of the records was proving difficult to interpret, and many of the histories required a decision by someone with an adequate knowledge of the various processes employed by the petroleum industry and the job descriptions commonly used by various companies. This problem had not been attacked because of other commitments, and it was quite obvious that this particular and complex task could not be completed by July 1, 1956, the date given for the termination of the support of the Cancer Registry. Accordingly, it did not seem wise to waste effort and money on a project that could not be properly finished within the deadline.

Subsequently, a request was made for funds to close out the work properly by tabulating the material presently contained in the files. This suggestion was accepted by the Medical Advisory Committee, and authority to proceed was given in September 1956. By this date, because of changes in the personnel of the statistical group and other demands on their time, this program could not be immediately resumed. However, arrangements were made early in November to pull all records requiring additional review and to have a professional person screen as many as possible. The remainder will be studied further by Dr. Horton and Dr. Phair. It may be necessary to tabulate separately the cases with poor histories of employment, but this decision must await the completion of the coding.

Preparation of the final tabulations has been set for the spring of 1957, and the completed analyses will be sent to the members of the Medical Advisory Committee at the earliest possible time. The exact date cannot be given now since it will depend in large part on the rapidity with which the coding of the occupational records can be accomplished and the availability of statistical clerks and equipment to complete the proposed tables.

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ESSO RESEARCH AND ENGINEERING COMPANY

(FORMERLY STANDARD OIL DEVELOPMENT COMPANY)

P O BOX 121, LINDEN, N. J.

MEDICAL RESEARCH DIVISION

ROBERT E ECKARDT PH D M D
DIRECTOR

N V HENDRICKS CH E
HEAD INDUSTRIAL HYGIENIST

MORACE W GERARDE PH D M D
HEAD TOXICOLOGIST

BERTRAND E BENNISON M D
CHIEF CLINICAL RESEARCH PHYSICIAN

January 7, 1957

Dr. L. A. Gossman
Surgical Advisor
The Johns Casualty and
Surety Company
Hartford 15, Connecticut

Dear Dr. Gossman:

Your letter of December 22, 1956 to the American Petroleum Institute was forwarded to me by Mr. Stroup, with a copy of his letter to you of December 27. The published information which I have on the carcinogenic properties of cutting oils are contained in the references listed below:

1. Grisham, C.H.B. and J. E. Squires: Skin Cancer in the Engineering Industry from the Use of Mineral Oil. *BRIT. J. INDUSTRIAL MED.* 1:11-11 (1950).
2. Grisham, C.H.B. and A. Gourevitch: Skin Cancer of the Hand and Forearm. *BRIT. J. INDUSTRIAL MED.* 2:74-79 (1952).
3. Kastrup, E.: Cutting Oils and Squamous-Cell Carcinoma. Part I: Incidence in a Plant with a Report of Six Cases. *BRIT. J. INDUSTRIAL MED.* 12:242-243 (1955).
4. Gilman, J.P.W. and E. B. Vassilovitch: Cutting Oils and Squamous-Cell Carcinoma. Part II: An Experimental Study of the Carcinogenicity of Two Types of Cutting Oils. *BRIT. J. INDUSTRIAL MED.* 12:244-248 (1955).
5. Harty, S. A.: Cancer of the Scrotum in Relation to Occupation. 112 p. N. Y., Oxford University Press, (1946).
6. Hager, W. G.: Occupational Tumors and Allied Diseases. 396 p. Baltimore, Md., Charles C. Thomas, (1942).

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cutting
oils 1957*

ESSO RESEARCH AND ENGINEERING COMPANY

(FORMERLY STANDARD OIL DEVELOPMENT COMPANY)

P. O. Box 121, LINDEN, N. J.

MEDICAL RESEARCH DIVISION

ROBERT E. ECKARDT, PH. D., M. D.
DIRECTOR

N. V. HENDRICKS, CH. E.
HEAD INDUSTRIAL HYGIENIST

MORACE W. GERARDE, PH. D., M. D.
HEAD TOXICOLOGIST

BERTRAND E. BENNISON, M. D.
CHIEF CLINICAL RESEARCH PHYSICIAN

January 11, 1957

Dr. Phillip Drinker
Harvard School of Public Health
55 Shattuck Street
Boston 15, Massachusetts

Dear Dr. Drinker:

Mr. Strong has advised me that it is not necessary for you to receive written authorization to proceed with the revision of the toxicological review. The \$6000 authorized at the last meeting will be available July 1, 1957. It is my understanding that there is a balance of \$4000 from a previous appropriation that is available now for this work.

For your information, I am enclosing a copy of the approved recommendations made by the Toxicology Sub-Committee at the last meeting.

If you have any questions on the above, please contact me.

Very truly yours,

R. W. GERARD, M. D.

RMG:mew

Enc. 1 Appendix C, Minutes of 2nd MAS Meeting, November 12, 1956.
cc. 1 Mr. David V. Strong - wa/enc.

Dr. L. E. Curtis

Dr. V. C. Baird

Dr. E. Davis

Drinker
revising
for
reviews
for
API
1957

STANDARD OIL COMPANY

(INDIANA)

910 SOUTH MICHIGAN AVENUE

CHICAGO 80, ILLINOIS

MEDICAL DEPARTMENT

YCE B. REEVE, M. D.
MEDICAL DIRECTOR

LEON W. BOLYARD, M. D.
ASSISTANT MEDICAL DIRECTOR

ORGE M. GOLDEN, M. D.

PAUL D. HALLEY
INDUSTRIAL HYGIENIST

January 21, 1957

*Paul
Halley*

Amoco

1 H

1957

*Room 3-
1:00-5:00 P.M.*

Mr. D. V. Stroop
American Petroleum Institute
50 West 50th Street
New York 20, New York

Dear Dave:

In answer to your inquiry of January 11, I should like to request space Saturday, April 20, 1957 1:00 to 5:00 P. M. for a meeting of the Subcommittee on Industrial Hygiene.

If this request should be in conflict with other meetings, however, then it will be alright with me if you set us up for a morning meeting on the same day.

Yours truly,

Paul D. Halley

Paul D. Halley

cc: L. E. Curtis, M. D.



AMERICAN PETROLEUM INSTITUTE

50 WEST 50TH STREET
NEW YORK 20, N. Y.

March 1, 1957

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N H WHITE
A LEE
CHAS C W SE

Mr. D. T. Staples
Tidewater Oil Company
79 New Montgomery Street
San Francisco 20, California

Dear Mr. Staples:

With regard to your letter of February 12th, I have no objection to the proposed continuation of a study of carcinogenicity and concur that the sum of \$50,000 be made available to cover the cost of carcinogenic testing of waxes by an independent laboratory.

I believe that this action should not be linked in the manner shown in the draft letter to Dr. Burney, Surgeon-General of the U. S. Public Health Service. From the discussions in the Subcommittee on Carcinogenicity, it is apparent that there was misquotation and misinterpretation of the statements made by Dr. Hueper. These misinterpretations did lead to unfortunate publicity. However, I believe it would be a mistake to tie this in any way as a basis for the further cancer research proposal by the Medical and Health Committee of the API.

Therefore, it is my recommendation that the letter to Dr. Burney be omitted.

Cordially,

D. T. Colley

cc: Mr. Frank M. Porter

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Jr.)*
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API 06329

INVENTORY OF MAC CIRCULARS, REPORTS, ETC. ON HAND - FEBRUARY, 1957

Phillips
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NY Ca
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1957

No. of Copies	
100	"Occupational Cancer - A Challenge to the Physician," by the Office of Public Health Education, N. Y. State Department of Health.
58	"Appraisal of the Potential Carcinogenic Properties of American Petroleum Products," Report of the Progress in the Epidemiological Studies, The Kettering Laboratory, Dept. of Preventive Medicine & Industrial Health, College of Medicine, University of Cincinnati, Cincinnati, Ohio.
70	"Tabular Summary of Current and Completed Biological Experiments," API Res. Project MC-1, September 1, 1953, The Kettering Laboratory, Dept. of Preventive Medicine & Industrial Health, College of Medicine, University of Cincinnati, Cincinnati, Ohio.
38	"Skin Cancer of the Hand and Forearm," by C. N. D. Cruickshank and A. Gourevitch.
4	"Report of Progress in the Appraisal of the Potential Carcinogenic Properties of American Petroleum Products," The Kettering Laboratory, Dept. of Preventive Medicine & Industrial Health, College of Medicine, University of Cincinnati, Cincinnati, Ohio.
20	"Thermal Burns," Revised draft by Dr. A. O. Seeler.
7	"Report of Progress in the Appraisal of the Potential Carcinogenic Properties of American Petroleum Products," - The Kettering Laboratory, Dept. of Preventive Medicine & Industrial Health, College of Medicine, University of Cincinnati, Cincinnati, Ohio.
16	"The Cutting Oil Dermatoses - A Review," by Bertrand C. Kriete, A. B., Harvard School of Public Health, March 15, 1950.
100	"Estimated Budget of the Kettering Laboratory for the Investigation of Potential Health Problems of the Petroleum Industry Associated with the Presence of Carcinogenic Compounds in Certain Materials and Products API Research Project MC-1, July 1, 1954 - June 30, 1955."
25	"American Petroleum Institute Medical Advisory Committee Report for Period 1945 - 1952."
75	"Tabular Summary of Current & Completed Biological Experiments, September 1, 1953," The Kettering Laboratory, Dept. of Preventive Medicine & Industrial Health, College of Medicine, University of Cincinnati, Cincinnati, Ohio.
45	"BAL," by Raymond V. Randall, M. D., and Albert O. Seeler, M. D.
11	"Interim Report API Research Project MC-1, October 1, 1955," by The Kettering Laboratory, Dept. of Preventive Medicine & Industrial Health, College of Medicine, University of Cincinnati, Cincinnati, Ohio.
20	"Cutting Oil Dermatoses," by Harry Shapiro, M. D., N. Y. State Dept. of Labor Monthly Review, Division of Industrial Hygiene & Safety Standards.
3	"Supervisory Development Services Available from Public and Private Agencies and Institutions," compiled by the API Comm. on Supervisory Development.

COPY

COPY

S o c c n y M o b i l O i l C o m p a n y, I n c.
150 East 42nd Street, New York 17, N. Y.
August 20, 1957

Subcommittee on Carcinogenicity

Dr. R. E. Eckardt, Chairman	Dr. E. K. Linder
Mr. E. W. Adams	Mr. R. C. Mithoff
Dr. C. H. Hine	Dr. M. N. Newquist

U. S. PHARMACOPEIA REVISION

I have just noticed the following announcement in a recent issue of
CHEMICAL AND ENGINEERING NEWS:

USP REVISION

The revision program leading to publication of the 16th revision of the U. S. Pharmacopeia has begun. Selection of drugs to be included is going on and the list is well under way. A call will be issued shortly for volunteers to read USP proof. Meanwhile, constructive suggestions for changes in the present USP general tests chapters are invited. They should be addressed to the USP headquarters at 46 Park Avenue, New York 16, New York.

It seems like this would be a good opportunity to investigate the possibility of revising USP requirements for paraffin. As you know, present requirements are archaic and do not list tests presently used by the industry for maintaining quality.

In our opinion, the specifications could be considerably improved by changing the melting point range, requiring an ASTM color test, and oil content. Also, eliminating the USP acid color test.

Sincerely yours,

/s/ A. C. Fabst

A. C. Fabst
Industrial Hygienist
Medical Department

ACP:lgp

cc: E. O. Mattocks

*Pabst -
line to A
USP in
revision
on paraffin
presently
"archaic"
text needs
present
tests used*

API 06387

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(FORMERLY STANDARD OIL DEVELOPMENT COMPANY)

P. O. BOX 43, LINDEN, N. J.

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BERTRAND E. BENNISON, M.D.
ASSISTANT DIRECTOR

V. HENDRICKS, CH.E.
HEAD INDUSTRIAL HYGIENIST

ORACE W. GERARDE, PH.D., M.D.
HEAD TOXICOLOGIST

October 1, 1957

Dr. R. A. Kehoe
University of Cincinnati
Kettering Laboratory
College of Medicine - Eden Avenue
Cincinnati 19, Ohio

Dear Dr. Kehoe:

I would greatly appreciate it if you could arrange to send a copy of Dr. Horton's Interim Report dated September 26, 1957 to each member of the Medical Advisory Committee. THIS COULD PROBABLY BE ARRANGED THROUGH MR. E. O. MATTHEWS' OFFICE OF THE API, IF YOU COULD PROVIDE HIM WITH THE MASTER STENCILS OF THIS REPORT.

I am sending you three copies of the minutes of our meeting in Chicago. I would be very interested in your comments or criticisms of these minutes, as well as those of Dr. Horton and Dr. Phair. Most important, however, it would be of great interest to me as Chairman of the Subcommittee, to learn of your response and/or reaction to the suggestion that you be retained by the NAC as a consultant following the completion of the work with Dr. Horton. Your answer to this will of course, in great part, influence the ultimate recommendations of our Subcommittee to the NAC. It is our hope that you will look with favor upon this suggestion if such a proposal is formally made to you by the NAC, since we believe that you could bring valuable advice and guidance to the NAC in years to come. Certainly we have found that Prof. Drinker has provided us with this advice and guidance and I would anticipate that you could do the same on a slightly different standpoint.

Unfortunately we did not have time in Chicago to discuss this with you prior to our departure, but it was the consensus of the Subcommittee that they would like to know your feelings towards such a possible future arrangement to guide them in making their advice to the NAC. I would therefore greatly appreciate it if you would let me have your comments concerning this.

Very truly yours,

R. E. ECKARDT, M. D.

REE/cjh

Enc. - Minutes of the Subcommittee on Carcinogenicity Held at the Blackstone Hotel in Chicago Friday, September 27, 1957 (October 1, 1957). (3)

cc: Mr. E. O. Matthews

API 06388

Eckardt
asks
Kehoe
to be
an NAC
consultant
like Phil
Drinker
1957

per gram of wax. It was the considered opinion of Dr. Shubik that he believed this quantity of the known carcinogen, 1,2,5,6-dibenzanthracene, in milk carton wax is undesirable and that the petroleum industry should establish an immediate standard which does not permit this much carcinogen in the finished product. Long range work then would attempt to establish a standard based upon biological testing.

In discussions which the Chairman had with Dr. Hueper at the recent Lung Cancer Workshop at the American Cancer Society, Dr. Hueper indicated that he was willing to sit still as long as the industry was willing to approach this problem with a reasonable, rational attitude, and as long as he was kept informed of the results of any work which was done. The Chairman indicated to the Subcommittee that the Three-Man Wax Committee appointed by the Medical and Health Committee of the Board, had met in Chicago on October 24 and unanimously recommended to the Medical and Health Committee, that work be done on waxes to the extent of approximately \$100,000 a year for the next three to five years in Dr. Shubik's laboratory. Copies of the report of the Three-Man Wax Committee will be made available to the members of the MAC through Mr. E. O. Mattocks' office of the API.

The meeting was adjourned at approximately 10:30 a.m.

R. E. ECKARDT, M. D./cjh
Chairman, Subcommittee on Carcinogenicity
November 14, 1957

Wax Situation
WCH sent
samples to
Shubik lab.
Shubik tells API this finds
4 ppm
of known
carcinogen
in milk carton
*wax **

Ca subc.
had asked
major study
be approved
100k/yr X33
because
of WCH who
tried to
work up
them