



BP AMERICA

Memorandum

January 28, 1991

Subject: API Task Group- Benzene

The API Task Force on benzene has been meeting monthly. This is an update of their activities during the past three months.

Regulatory Developments

ACGIH TLV- In May, 1990, the American Conference of Governmental Industrial Hygienists (ACGIH) proposed a Threshold Limit Value (TLV) for benzene of 0.1 ppm for an 8 hour workday. The current TLV is 10 ppm and the current OSHA limit is 1 ppm. While the TLV's are used as only guidelines, they are often the basis for setting future legal standards in the U.S. and worldwide. A 0.1 ppm TLV would substantially impact the petroleum industry.

Task Force Strategy- API is teaming up with the Chemical Manufacturer's Association to provide oral testimony to ACGIH on March 26, 1990. API is also submitting written comments. Attached is a draft strategy plan.

State Environmental Airborne Benzene Legislation- Approximately a dozen states have either proposed or final regulations that limit the amount of airborne benzene emitted at the facility fence line. The most common control criteria cited in the legislation is to prevent 1 in a million (10^6) people from contracting cancer after exposures for 70 years at the fence line. 37 parts per trillion benzene is the controlling air limit most often cited. North Carolina has been leading the states on this issue.

Task Force Strategy- The state of North Carolina held a meeting to discuss the North Carolina's Petroleum Council's (NCPC) request for a one year's extension to the proposed regulation. API and NCPC made a presentation. The final vote on the extension will take place in February.

Many states were holding back their legislation on this issue until the revised Clean Air Act was passed. Now that it has passed, the States are likely to continue forward. The States will likely take their cue from Revised Clean Air Act and base their regulations more on technology feasibility and less on risk potency estimates.

The revised Clean Air Act called for the creation of a special task force in the National Science Advisory Council to consider the establishment of guidelines on risk potency. There is some indication that benzene might be the chemical chosen as the first test case.

California's New Source Review for Toxic Carcinogens- The Southcoast Air Quality Management District (SAQM) has passed requirements for controlling airborne emission of toxic/carcinogens from new sources. The risk criteria has been set at the 10^4 level (1991-1995) and 10^5 level (1995-). Unlike other states, California is proposing a risk level based upon animal rather than human data which means a 500 ppt fenceline limit at the 10^4 risk level and a 50 ppt fenceline limit at the 10^5 risk level.

Task Force Strategy- The SAQM District is delaying the issuing of approximately 1000 permits for modifications to service stations in Southern California. The permits cover a wide range of modifications including the installation of new underground storage tanks, multi-point dispensers, etc. The Western States Petroleum Association (WSPA) plans to petition the SAQM for exemptions for underground tanks and multi-point dispensers. SAQM also plans to hold a workshop towards the end of February on alternative exposure assessments. For additional information, Scot Folwarkow of WSPA can be contacted.

RESEARCH PROJECTS

Pliofilm Studies- From 1935-1976, Goodyear manufactured a plastic film in two locations in Ohio. Pliofilm was manufactured by dissolving rubber into benzene and then evaporating off the benzene. In 1981, Rinsky of NIOSH published an epidemiological study on the Pliofilm workers which showed a 21 fold excess risk of leukemia from exposure to benzene. In the US and throughout the world, the so-called Rinsky Study has been cited by government bodies as the most solid evidence that benzene is a human carcinogen. EPA and ACGIH are both heavily relying on the results of this study to develop estimates of risk.

Task Force Strategy- The Task Force has spent hundreds of thousands of dollars to further investigate the Pliofilm cohort. By interviewing former workers and gathering more data on medical records and production, API is able to show that the exposures to benzene to the Pliofilm workers were likely very high (>100 ppm) and bear no resemblance to what would be considered normal concentrations in the workplace. The Task Force expects a paper on this subject will be ready for publication in the next 3-6 months.

Epidemiology- Meta Analysis- Bids have been solicited from contractors to conduct a meta-analysis of past epidemiological studies related to benzene. Meta-analysis is an analytical technique to prove the "negative", i.e. to use the data from various epi studies to prove that benzene does not cause cancer at certain levels of exposures.

Various toxicology research studies are under on-going contract at several universities to help better define benzene toxicity mechanisms.

Attached are the minutes of the last several meetings. If there are any questions, please feel free to contact me.


R. D. Wagner

benzene .aa7

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ACGIH Presentation
Draft 1/23/91

BENZENE TASK FORCE
PLAN FOR ACGIH PRESENTATION

DATE OF PRESENTATION: Tuesday, March 26

PLACE: CINCINNATI

PARTICIPANTS AND ALLOTTED TIME:

2 hours

API - 45 minutes
CMA - 15 minutes
WSPA - 15 minutes
OSHA - 15 minutes *Peter Infante*
Questions & Discussion - 30 minutes

NOTE: THE CANADIAN PETROLEUM INSTITUTE WILL NOT MAKE AN ORAL PRESENTATION, BUT WILL SUBMIT INFORMATION IN WRITING. THE CONTACT, IN OTTAWA, IS GUY ETHIER. (613/232-3709) GUY IS BEING CONTACTED TO COORDINATE EFFORTS AND SHARE INFORMATION.

ACGIH STAFF CONTACT: Bill Wagner, (513/661-7881)

PRESENTATION OUTLINE/PRESENTER:

Written comments Feb 22
Dennis Raustein
CMA - Bond; DOW epidemiology study analysis
API - DiPerna; The background of the Plioform study
WSPA - Joe Rodericks (ENVIRON); Update of Rinsky Cohort using other model shows that 1 ppm provides the same safety factor as the same data analyzed using the first model.

OSHA - Peter Infante. While we do not know what Peter's presentation will be, Jim Vail believes that it will relate to an Epidemiology study conducted in D.C. which focusses on gasoline. It is our understanding that we will know in advance of the meeting what he will be doing.

ASSIGNMENTS FOR PRESENTATION:

CMA - Carol Stack
API - Paul Price & Louise Scott
WSPA - ENVIRON
COORDINATOR WITH ACGIH & OTHER PARTICIPANTS : Louise Scott

FEBRUARY MAILING TO THE TLV COMMITTEE:

MAILING DATE: February 22
GREEN SLIP DATE: February 15
NUMBER OF COPIES : 25

ACGIH Presentation
Draft 1/23/91

FORMAT: 3-ring binder

CONTENTS: - Summary of presentation
- Copies of pertinent Literature
- Discussion of other activities such as Pastenbach and update of Rinsky Cohort.
- Presentation of other information: Micronuclei, Multiple myeloma, SPEAR (sp?)

SCHEDULE: MAIL BACKGROUND TO ACGIH: February 22
COMPLETE PRESENTATIONS: By February 15
GREEN SLIP: February 15
DRY RUN: March 14
REVISIONS: March 15-18
DRESS REHEARSAL: March 21, Cincinnati

HOTEL: To be decided

WHO WILL GO ? Di Perna
Price
Rodericks
Bob Drew or Louise Scott

TO BE DECIDED:

1. How do we participate in discussion?
2. Are there others who need to go?
3. Should we present additional material, given that we have 45 minutes?

WHO PREPARED THE ACGIH DOCUMENTATION?

- The primary author is not revealed by ACGIH
- The task group members are: (according to Wagner) Wilhight, a toxicologist with CA Toxic Substances Control
Fleming, an M.D. (epi?) with the Univ. of Florida
Schnider (sp?), with the Water Resources Board in CA
Roger Smith, a toxicologist from Dartmouth

WHO IS OUR AUDIENCE?

- The entire TLV Subcommittee for organics 25 people
- The Chairman is Raghubir Sharma, DVM, who is presently at the University of Utah

NOTE: According to Bill Wagner we can challenge their analysis and conclusions and are not limited to the presentation of new information.

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PRODUCT SAFETY & TOXICOLOGY

JAN 2 1991

DATE: December 27, 1990

TO: Benzene Task Force

FROM: Paul Price *Paul Price*

SUBJECT: Action Items

For your information, here are the Action Items from the December 11th Task Force Meeting. The full meeting minutes will be mailed out in mid-January in preparation for the next meeting which will be held on January 24th in Los Angeles. If you have any questions or concerns about either the action items or the upcoming meeting, please call me at (202) 682-8477.

ACTION ITEMS: BENZENE TASK FORCE DECEMBER 11TH MEETING

North Carolina

- I. Mr. William Weatherspoon will produce a summary of the North Carolina meetings and the hearing on the proposed postponement of the benzene standard.
- II. Copies of the written materials developed for North Carolina SAB and AQC meetings will be sent out to the Task Force.

Pliofilm Exposure Paper

- III. Will Ollison will prepare a transcript of the Hanning interview. Paul Price will prepare an analysis of the impact of the testimony on the Paustenbach exposure estimates. These analyses will be completed by the end of December.
- IV. Will Ollison will continue to follow up on possible additional interviews of Pliofilm workers.
- V. A meeting will be held January 10 to revise the exposure estimates of the Paustenbach paper. The attendees for the meeting will include: Jeff Grandville, Don Bea, Dick Russell, Wolf Wagner, Carol Phillips, API staff, Derrick Peterson, Jim Jernigan, and Dennis Paustenbach. Dennis Paustenbach will act a facilitator for the meeting.
- VI. Revised estimates of worker exposures produced at the meeting will be sent to Environ, Kipen, and ChemRisk for immediate use in the next stages of the benzene risk assessment efforts. Contractors should plan to begin work by January 15th.
- VII. A revision of the Paustenbach paper will be prepared by ChemRisk as soon as possible after the meeting. Attendees of the January 10 meeting will review the draft. A corrected version will be submitted to a journal as soon as possible.
- VIII. Once the paper is submitted, a presentation of the material will be scheduled for EPA.
- IX. Will Ollison will continue to follow up on possible additional interviews of Pliofilm workers.
- X. Hugh Spitzer will take his revised analytical paper to the Industrial Exposure Workgroup for Review.

NIOSH FOIA

- XI. API's Office of General Council will begin the legal process of bringing suit on NIOSH for failure to release the update of the cohort in early January.

Endpoints paper

- XII. The Endpoints paper will be tabled at this time. Portions of the paper are expected to be incorporated in the benzene epidemiology project being run by the Epidemiology Task Force. The work will also be incorporated into the final benzene risk assessment.

Nonlinear models

- XIII. The Benzene Task force will solicit proposals to develop a non-linear model for benzene. The task will be to carry out the directive of the Georgetown Committee. Efforts will focus on a linear-quadratic. Detailed proposal will be solicited from three sources:
- A. ChemRisk (Note: a general task on this topic was proposed by Dennis Paustenbach last summer, but the proposal did not describe his approach in detail.)
 - B. Dr. Curtis Travis
 - C. Dr. Sielkin

PS7 and Biologically Based Risk Assessment (BBRA) workgroup

- XIV. The PS7 workgroup will meet once every three months with CIIT in attempt to get the CIIT efforts back on track. PS7 will push for CIIT's meeting the original schedule's goals. Bob Drew will supply the benzene Task Force a copy of a letter sent to CIIT expressing API's concern over CIIT's progress.
- XV. Peter Craig will confirm that the final draft of Tony Cox's paper on benzene metabolism was reviewed by Dr. Ross.
- XVI. Hugh Spitzer will schedule a meeting of the BBRA workgroup in January to review Tony Cox's proposals for 1991.

Budget

- XVII. WSPA will work on the hypothesis that an additional 300K will be need for benzene efforts in 1991.
- XVIII. WSPA will fund the Environ proposal to reanalyze the Pliofilm cohort given the new data.

ACGIH

- XIX. WSPA, CMA, and API will all submit letters to ACGIH requesting time at the March 27 hearing on benzene. Louise Scott will draft a letter for API and provide copies for CMA and WSPA.
- XX. API will hire Joseph Rodericks of Environ to speak on the Rinsky risk assessment issue. Dr. Wong will speak on his epidemiology study. Richard Irons will speak on the genogenic effects of benzene.
- XXI. Someone will run the Travis mouse and man PBPK models to demonstrate that 1 ppm inhalation corresponds to a much higher inhalation level in man. This analysis is needed to rebut the studies showing genogenic effects in mice in the low ppm range.

Next Meeting

- XXII. The next meeting will be on January 24, 1991 in Los Angeles at a hotel near the LAX airport.

State of California

- XXIII. Pat Beatty will attempt to set up a meeting with Lauren Zeise of the State of California on API/WSPA's benzene efforts. The preferred date is January 25.