American Petroleum Institute
1220 L Street, Northwest
Washington, D.C. 20005
202-682-8470

Martha A. Beauchamp
Director
Health & Environmental Affairs Department

TO: Members of the Health and Environmental Subcommittee
The Benzene Task Force
Waste Issues Group

FROM: Martha Beauchamp Martha

DATE: October 13, 1989

RE: **DATA NEEDED TO RESPOND TO PROPOSED BENZENE NESHAPS**

This memo is to follow up on last Friday's Benzene conference call. During the call, HES agreed to take the lead on gathering data to help respond to EPA's proposed National Emission Standard for Hazardous Pollutants (NESHAP) for benzene.

EPA intends to control emissions from benzene waste operations at any refinery or other facility that produces wastes containing more than 10 megagrams (metric tons) of benzene in a given year. The rule will require control procedures for any waste operation where benzene emissions are greater than 10 ppm. The proposed control requirements include: covers or enclosures for sources such as wastewater sewers and surface impoundments; treatment technologies to remove organics (steam strippers); waste incinerators; or modifications in processes (e.g., delayed coking, submerged filling of containers).

API needs your help! In order to influence the final rule, API's comments must be both compelling and grounded in facts. We are attempting to identify the specific engineering changes refineries and other petroleum facilities will have to make in order to comply with the proposed rule. To this end API will need assistance in the following activities.

I. COST OF CONTROL TECHNOLOGY AND RELATED IMPLEMENTATION ISSUES

I. Estimates of Refinery Waste NESHAP

1. API has been contacting refinery engineers at a number of companies. Based on these contacts API will be

constructing a specific compliance scenario for refineries by October 18. Please make your staff available for this effort.

2. Once, the compliance scenario is complete it will be applied to 4-6 refineries of different sizes, age, and geographical locations. API will need companies to volunteer refineries for this effort. Such refineries will have to develop detailed estimates of the costs and technical problems raised by the scenario. This effort must be completed within a very short timeframe.

3. If API is successful in obtaining an extension, API will need assistance in developing alternative regulatory strategies.

II. AMOUNT OF BENZENE

At each refinery, what is the annual amount (in metric tons) of benzene which is:

- o contained in materials recycled such as in process recycle streams, recycled off spec product, or recycled tank bottoms
- o contained in oil recovered from oily water recovery systems, DAF/IAF units, oil skimmers, and oil-water separators.
- o released to the waste water treatment unit

III. BENZENE MONITORING DATA

Provide any available monitoring studies of benzene concentrations at facility boundaries. If you are aware of state or regional monitoring data which is germane to estimating fenceline concentrations, please copies of those studies.

We appreciate your help. If you have any questions, please call Paul Price (202) 682-8477, Anita Ducca (202) 682 8326, or API's contractor Jim Sample (703) 281-2747.

cc: Health and Product Safety Program Group

John Blackburn (Refining)
Steve Chamberlain (Exploration)
Ken Leonard (Transportation)
Tim Sampson (Production)
Gerry Schanke (Marketing)
Jim Walters (Measurement)

American Petroleum Institute
1220 L Street, Northwest
Washington, D.C. 20005
202-682-8000

ELLEN SIEGLER
(202) 682-8271

MEMORANDUM

DATE: October 20, 1989

TO: Benzene Issues Group

FROM: Ellen Siegler Ellen Siegler

SUBJECT: October 17 Meeting with EPA on Proposed NESHAPS

On October 17, 1989, an API group met with representatives of EPA's Air Office in Research Triangle Park, North Carolina to discuss the proposed benzene NESHAP relating to waste operations.[1]

The meeting lasted two hours. We attempted, primarily, to advise the Agency that the waste proposal was too broad, significantly more costly than EPA had estimated, and did not call for reasonable controls. The main message we hoped to convey was that EPA must extend the comment period beyond November 13th to rectify the problems with the waste proposal. We brought to EPA Martha Beauchamp's letter dated October 16, 1989, requesting an extension of the comment period.[2]

While EPA was courteous and appeared interested in a number of the issues we presented, their main message was that we should not count on obtaining an extension but, instead, should send our comments advising EPA how to correct problems in the rule as soon as we could and not later than November 13th. Among other things, they expressed unwillingness to seek an extension of the February 1, 1990 promulgation date from Judge June Green because she has been hostile to EPA in the past.[3]

Because no EPA attorneys were present, we did not attempt to engage EPA in a detailed discussion of our contention that the

---

[1] A list of attendees is appended as Attachment A to this memorandum.

[2] A copy of our extension request is appended as Attachment B to this memorandum.

waste proposal for petroleum operations is not subject to the court's order. However, we emphasized that the scope of the rule extends far beyond those situations for which data was available and that this extrapolation is inappropriate. (This issue is addressed in some detail in our letter requesting an extension.)

EPA also confirmed that the effective date for the regulation will be 90 days after promulgation. Facilities may request a waiver of their deadline for periods of time up to 2 years.

The major issues discussed are summarized below.

1. Refineries

We pointed out that enclosing sewers would be a huge undertaking, costing in the range of $100 million per refinery, and would present feasibility and safety problems. EPA did not appear convinced that there would be safety problems. Some EPA representatives, however, appeared interested in seeing comments on alternative control requirements.

We stated that EPA's "point of generation" definition required monitoring of a vast number of wastestreams. EPA explained that the purpose of the requirement was to learn the concentration of benzene before there had been any possibility of volatilization. However, they did indicate that they had not intended for the rule to include stormwater contaminated by a single pump drip containing 10 ppm benzene. They are interested in a re-definition which would make more sense but which would capture "significant" benzene containing streams at the source.

EPA was interested in identifying the major sources of benzene in refineries. We replied that information on benzene content in specific waste streams throughout a refinery was not available to our knowledge but that we would expect it to be highly variable. EPA then asked about the potential impact of changing the 10 ppm concentration exemption cutoff to a higher number, such as 50 or 100 ppm. We did not respond but should prepare to do so in our comments. Our failure to respond specifically to these questions was taken by one EPA person to indicate that we agree with the scope of the regulation and differed only on what controls should be required.

EPA invited us to comment on the possibility of excluding from coverage such incidents as upsets, turnarounds, intermittent discharges, and stormwater. They said that our comments would have to address the possible impacts of such exclusions.

---

[3] They said, among other things, that they would not seek an extension from the court unless NRDC would agree to one.

Jack Farmer, the highest-level EPA representative at the meeting, mentioned that there were two possible approaches to this regulation: (1) identify what should be controlled; or (2) cover everything initially but create exclusions (the approach taken in the proposal). He implied that EPA did not know how to follow the first approach but invited us to comment on either approach.

We emphasized that recycled material should be weighted differently than waste material because of their more limited potential for emissions for purposes of the ten metric ton trigger for substantive requirements. We noted that it seemed inappropriate for certain small refineries to trigger the requirements because of the quantity of recycled materials that they handle. EPA said that they would look at this issue but that, in their view, certain recycling operations, such as slop oil systems, should be controlled. They recommended that our comments identify specifically recycling systems that would give rise to few (if any) emissions.

2. Non-refinery operations

We said that EPA should study exploration and production facilities themselves rather than rely on extrapolation from data on refineries.

We said that the Clean Air Act definition of "source" could be read to include entire leases and units, covering many square miles. We said that it would be inappropriate to consider contiguous, non-unitized facilities as a single source.

We pointed out that EPA had told API that the proposed rule's definition of "waste" would include reinjected produced water. EPA raised the possibility of a closed-loop exemption, such as is provided in RCRA, to exclude reinjected water.

In response to concerns we expressed about the potential cost of monitoring for exploration and production facilities, EPA suggested that our comments include possible alternatives to monitoring, such as methods of calculating whether a facility would trigger the regulation's substantive requirements. EPA asked us to provide data demonstrating our contention that most production facilities would have insufficient benzene to trigger the substantive requirements (i.e., would have below ten metric tons of benzene). EPA was interested in whether the benzene concentrations would fluctuate over the life of a production field.

EPA raised the possibility of a total mass emissions threshold which would be based on worst-case assumptions on

benzene concentrations in wastes and percent emissions.

We stated that the monitoring requirements for service stations could impose substantial unnecessary costs. It appeared that EPA would be receptive to comments substantiating a contention that service stations should be excluded because of the unlikelihood of their triggering the ten metric ton threshold. In connection with transportation and marketing facilities generally, one EPA representative suggested a tiered system for determining whether the substantive requirements would apply: for example, recordkeeping may be the only requirement for those facilities for which it is certain that the quantity would be below ten metric tons; more data would be required if there is a prospect of exceeding the threshold. (We were advised to examine a tiered approach of this type that was taken in the proposed NESHAP for radionuclides.)

With respect to marketing, we stated that EPA's definition of "waste" would include off-spec product, which might cause some bulk terminals to exceed ten metric tons. We objected to this result. It appeared that EPA might try to fashion some relief on this issue.

Attachments

cc: M. Beauchamp
M. Himmelstein

Attendees List

- Meeting with API
  October 17, 1989
  5th Fl Conference Room
  $10^{30} - 12^{30}$

Name	Affiliation	Phone
Debbie Stackhouse	EPA	(919) 541-5258
Jan Meyer	EPA	" 541-5254
Paul Price	[redacted] API	202 682-8477
Julie Murphy	Amoco	(312) 856-6053
Ellen Siegler	API	(202) 682-8271
Milton Wright	RTI	(919) 541-6557
Doug Dell	EPA	(919) 541-5568
RAY G. Collins	EXXON	(713) 656-3563
Susan Stark	ARCO Oil & Gas	214-880-5097
Clay Freeberg	Chevron	415-894-6879
Bob Ajax	EPA	919-541-5579
Fred Dimmick	EPA	919-541-5625
KC Hustvedt	EPA	919-541-5395
Marvin Branscome	RTI	919-541-6956
Susan Wyatt	EPA	919-541-5674
Jack Farmer	EPA	919-541-5572
Graham Fitzsimons	RTI	919-541-5604