



## Office of Inspector General Final Report

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# EPA Region III's Management of Tranguch Gasoline Site, Hazleton, Pennsylvania



Report No. 2001-P-00015

August 29, 2001

**Region Covered:**

**Region III**

**Program Office Involved:**

**Hazardous Site Cleanup Division**

**Resource Center  
Conducting the Audit:**

**Mid-Atlantic Division,  
Philadelphia, PA**

**Contributors:**

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Michelle Brown  
Kevin S. Good  
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### **Abbreviations**

EPA: U.S. Environmental Protection Agency

OIG: Office of Inspector General

PADOH: Pennsylvania Department of Health



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OFFICE OF INSPECTOR GENERAL  
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August 29, 2001

**MEMORANDUM**

SUBJECT: Final Report:  
EPA Region III's Management of Tranguch Gasoline Site,  
Hazleton, Pennsylvania  
Report Number 2001-P-00015

FROM: Carl A. Jannetti *Carl A. Jannetti*  
Divisional Inspector General for Audit  
Mid-Atlantic Division (3AI00)

TO: Thomas C. Voltaggio  
Deputy Regional Administrator  
Region III (3RA00)

In December 2000, the Environmental Protection Agency's (EPA's) Office of Inspector General (OIG) received a Hotline complaint alleging Region III's mismanagement of the Tranguch Gasoline Site, in Hazleton, Pennsylvania. There were numerous issues raised, the most serious an allegation that EPA had been untimely in addressing hazards in residents' homes. We found that, overall, remediation efforts taken by EPA appeared adequate and sufficient to ensure the safety of residents. However, we concluded that EPA Region III did not adequately communicate with the residents and Pennsylvania Department of Health, and could make improvements in that area.

This report contains findings that describe problems the OIG has identified and corrective actions the OIG recommends. This report represents the opinion of the OIG. Final determinations on matters in this report will be made by EPA managers in accordance with established EPA resolution procedures.

**ACTION REQUIRED**

In accordance with EPA Manual 2750, you are requested to provide a written response to this final report by November 27, 2001. Also, please submit an electronic copy of your response to [phillips.mark@epa.gov](mailto:phillips.mark@epa.gov). For corrective actions

planned but not completed by the response date, reference to specific milestone dates will assist in deciding whether to close this review. Your response should address all recommendations, and include milestone dates for corrective actions.

We have no objection to further release of this report to the public. If you or your staff have any questions regarding this report, please contact me or Mark S. Phillips at (215) 814-5800. For your convenience, this report will be available at <http://www.epa.gov/oigearth/eroom.htm>.

# ***Executive Summary***

## **Background and Purpose**

We conducted this review as a result of a hotline complaint alleging that the Environmental Protection Agency's (EPA's) Region III mismanaged the Tranguch Gasoline Site, in Hazleton, Pennsylvania. EPA had become involved in the site in 1996, following preliminary measures taken by Pennsylvania's Department of Environmental Protection after concerns arose in 1993 regarding gasoline spills stemming from corroded underground storage tanks. Our overall objective was to determine whether EPA had been timely and effective in addressing hazards in residents' homes.

## **Results of Review**

We determined that the remediation efforts taken by EPA appeared sufficient to ensure the safety of residents of the Tranguch site. EPA took timely and effective actions to address hazards in residents' homes. In particular, we noted that:

- Homes sampled in 1996 were representative of the spill area.
- EPA's decisions on taking remediation were sufficient.
- A federal buyout of residents' homes was not warranted.

However, we found that EPA should have communicated better with residents and the Pennsylvania Department of Health. EPA's poor communication resulted in many residents not trusting EPA, and EPA may have overcompensated by taking extra actions that may not have been needed. These actions may result in as much as \$2.8 million in unnecessary costs.

## **Recommendations**

We recommend that the Region III Administrator, to ensure better communication with the public at future sites, provide additional training to appropriate EPA personnel on risk communication, and develop a risk communication reference guide.

## **Region III Response and OIG Comment**

Region III officials stated they were pleased with the overall OIG conclusion that the Region's remediation efforts were sufficient to ensure the safety of residents. The Region acknowledged that their early communication efforts with residents were insufficient, and has taken a number of steps in the past six months, subsequent to our initial comments, to improve communication. Region III agreed to increase training on risk communication and to develop a risk communication reference guide. We consider those actions appropriate, pending our review of the reference guide that is developed.

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# *Introduction*

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## **Purpose**

In December 2000, the Environmental Protection Agency's (EPA's) Office of Inspector General (OIG) received a Hotline complaint alleging EPA Region III mismanagement of the Tranguch Gasoline Site, in Hazleton, Pennsylvania. The overall objective of our review was to determine whether EPA had been timely and effective in addressing hazards in residents' homes. While we looked into all allegations raised, this report focuses on the following allegations we considered most serious:

- Homes sampled in 1996 were not representative of the spill area.
- EPA's decisions on taking remediation were inappropriate.
- A federal buyout of residents' homes was warranted.
- EPA should have communicated better with residents and the Pennsylvania Department of Health (PADOH).

## **Background**

Between September 1993 and January 1994, a gasoline spill stemming from corroded underground storage tanks at the Tranguch Tire and Auto Service Center, as well as from four other nearby businesses, caused major concern for residents in the area. Evacuation of several homes in this Laurel Gardens neighborhood occurred due to gasoline vapors. The vapors entered homes largely through the sanitary sewer system. During this time period, the Pennsylvania Department of Environmental Protection installed ventilation systems in 13 of the affected homes.

The main chemical of concern was benzene, which is a component of gasoline and a known human carcinogen. Benzene is a colorless to light-yellow liquid with an aromatic odor, noticeable when concentrations are in the low parts per million range.

In March 1996, EPA took responsibility for the site at the request of the Pennsylvania Department of Environmental Protection. Visible petroleum sheen was observed by EPA's On-Scene Coordinator in the Black Creek, which is in the remediation area. Consequently, EPA obtained Coast Guard funding from the Oil Spill Liability Trust Fund of the Oil Pollution Act of 1990 to conduct an extensive contamination study, and began efforts to remove the gasoline from the subsurface. These Coast Guard funds were sought because problems related to petroleum are not covered by Superfund.

Because the residential vapor problem was believed to have been controlled and stabilized, EPA sought to follow the Oil Pollution Act mandate of protecting surface waters. Also, EPA collected subsurface data and evaluated cleanup options, which resulted in the installation of a Soil Vapor Extraction System at the Tranguch property in 1999.

In the Summer of 2000, a group of residents requested sampling, and benzene was detected in several homes at levels representing a concern for chronic exposure. At the time EPA was following an action level for benzene contamination of  $32 \mu\text{g}/\text{m}^3$  (micrograms per cubic meter), which was PADOH's action level. When testing at homes yielded some results above that action level, EPA began taking steps to make those homes safe.

The total estimated Tranguch project cost was \$26 million.

## Scope and Methodology

This review was conducted by OIG in response to a Hotline complaint alleging Region III's mismanagement of the Tranguch Gasoline Site. Subsequently, we met with the complainant, a local citizens' group (Group Against Gas), and staffers for Pennsylvania's two U.S. Senators, and arrived at numerous issues that we should review. This report presents our conclusions on what we considered the major issues. We had numerous interviews, including with: Region III Removal managers, a Senior PADOH representative, Region III Office of Regional Counsel personnel, various On-Scene Coordinators, Greater Hazleton Sewer Authority personnel, Pennsylvania Department of Environmental Protection personnel, EPA contractors, and residents.

We collected various documents from the initial complainant and Group Against Gas members. We reviewed the National Contingency

Plan and the Oil Pollution Act. In addition, we reviewed Region III's Tranguch site files, Pollution Reports, site maps, an EPA Tranguch web site, a Group Against Gas web site, and lab results. We participated in a site tour.

We addressed each of the issues by:

- Reviewing the source documentation.
- Interviewing parties/officials most knowledgeable about the concern, to compile all of the facts.
- Determining whether the concern had any merit or was based on miscommunication or misunderstanding between parties involved.

An OIG Environmental Scientist was a member of the review team to provide assistance with all technical issues.

We performed our review in accordance with the *Government Auditing Standards* (1994 revision), issued by the Comptroller General of the United States. However, we did not follow all of the elements of the planning standards in Chapter 6, because our review emphasis was on evaluating EPA's actions in regard to issues raised by the complainant, local citizens, and staffers for Pennsylvania's two U.S. Senators.

We began our field work on January 4, 2001, and concluded it on May 30, 2001. We issued our draft report to Region III on July 12, 2001. In addition, we briefed Group Against Gas members on the draft report on August 2, 2001. The group's members involved in the briefing said they basically agreed with our findings. We had also offered to brief the complainant and staffers for Pennsylvania's two U.S. Senators, but they declined. Region III responded to the draft report on August 14, 2001. The Region generally agreed with our findings. We include all of Region III's response as Appendix 1 to this report. We made changes in the report as a result of those comments whenever deemed appropriate. We had an exit conference with Region III on August 27, 2001.



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## ***Remediation Efforts for Homes Found to Be Sufficient***

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The remediation efforts taken by EPA appeared sufficient to ensure the safety of residents of the Tranguch site. EPA took timely and effective action to address hazards in residents' homes. Homes sampled were representative of the spill area, remediation decisions were sufficient, and a federal buyout was not warranted. However, we found that EPA did not adequately communicate with the residents and PADOH. EPA's poor communication resulted in many residents not trusting EPA, and EPA may have overcompensated by taking extra actions that may not have been needed. These actions may result in as much as \$2.8 million in unnecessary costs.

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Our review of actions taken by EPA since taking over the Tranguch site in 1996 indicated that EPA took timely and effective actions. Of the 362 homes considered part of the site, EPA sampled 53 homes in August 1996, shortly after becoming responsible for the site. EPA determined that the benzene levels for 52 of the 53 homes sampled were below EPA's standard removal action level of  $21.5 \mu\text{g}/\text{m}^3$ , which was below the Pennsylvania level of  $32 \mu\text{g}/\text{m}^3$  at that time. (The 53<sup>rd</sup> home, while above  $21.5 \mu\text{g}/\text{m}^3$ , was below  $32 \mu\text{g}/\text{m}^3$ .) Based on those results, EPA did not think remediation in the homes was necessary. EPA then took monitoring actions to keep track of the groundwater pollution levels, installed a Soil Vapor Extraction Unit to remove benzene from the ground, and took cleanup action at Black Creek.

In addition to the initial testings in August 1996, EPA did retests at 30 of the 53 homes in November-December 1996. However, we noted that the sampling instrument used for the second set of tests was not capable of measuring down to the  $32 \mu\text{g}/\text{m}^3$  action level. While such an instrument is useful at other sites, it was not of use in this instance, and the retest results were not of value. Nonetheless, we do not believe that diminishes the conclusion from the initial testings in the summer of 1996 – that remediation in the homes was unnecessary.

Our specific reviews regarding the representativeness of samples, remediation decisions, the need for federal buyouts, and the adequacy of communication disclosed the following.

## Homes Sampled in 1996 Representative of Spill Area

The homes sampled by EPA in 1996 were representative of the site. Of the 362 homes in the affected area, we concluded that the homes EPA chose for testing were either directly over the plume (the area of contamination) or in close proximity. Specifically, of the 53 homes chosen for testing by EPA, we researched the locations of each and were able to determine the precise location for 50 of the homes. Based on our research, we concluded that:

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12 homes were directly over the plume (out of a possible 16)

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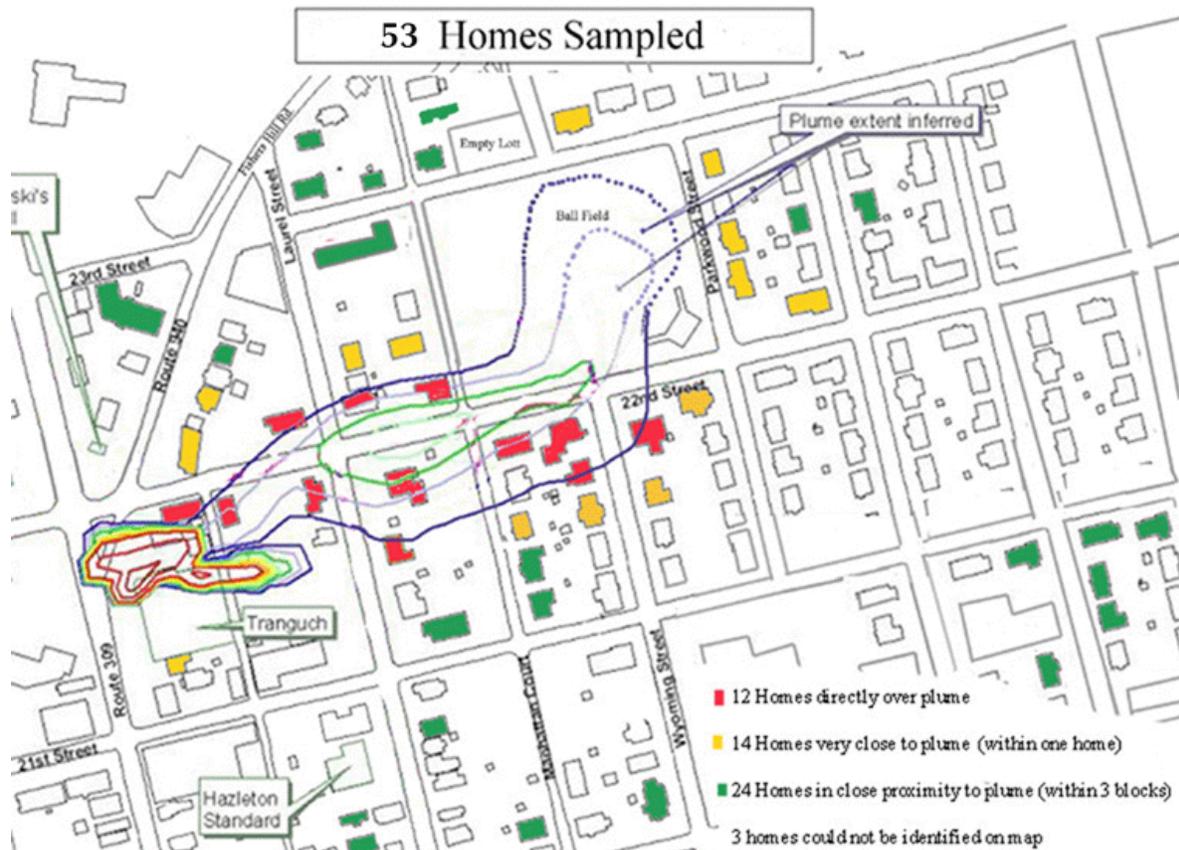
14 homes were in very close proximity to the plume  
(the house was adjacent to but not actually within the plume)

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24 homes were within 3 blocks of the plume

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Therefore, we concluded that EPA's sample of the 53 homes was representative of the site area. (See map below.)



## EPA Decisions on Remediation Actions Sufficient

### *Benzene Levels in 1996*

We found that the benzene levels in 1996 at the Tranguch site did not require remediation in the homes. In 1996, the EPA action level for benzene during sampling was  $21.5 \mu\text{g}/\text{m}^3$ , and, as already noted, the levels were under that amount for 52 of the 53 homes sampled. Therefore, we considered the decision not to take remediation action in the homes to be appropriate.

PADOH's action level for benzene in 1996 of  $32 \mu\text{g}/\text{m}^3$  was higher than EPA's  $21.5 \mu\text{g}/\text{m}^3$ . However, in January 2001, PADOH recommended to EPA that there should be a "non-detect" level of benzene at the Tranguch site. When EPA indicated that was too vague, EPA and PADOH agreed that a "non-detect" level could be  $8.3 \mu\text{g}/\text{m}^3$ , since that was the lowest reading of benzene that could accurately be read using the laboratory instruments available to the Region.

We noted that while EPA and PADOH agreed that  $8.3 \mu\text{g}/\text{m}^3$  should be the action level for benzene for the Tranguch site, PADOH did not apply that level anywhere else in Pennsylvania – the action level remained at  $32 \mu\text{g}/\text{m}^3$ . While we agree that the ideal safe level for benzene would be zero, that is an unattainable goal because of the widespread presence of benzene in everyone's daily lives. For example, anyone who pumps their own gasoline is exposed. Benzene is a solvent used in cosmetics and to clean metal parts in industrial settings, and there are trace amounts present in some household items. Moreover, national studies show that benzene can normally be found in homes at up to  $60 \mu\text{g}/\text{m}^3$ . Background levels of benzene exist almost universally in any home that has an attached garage with an automobile, gas cans, and lawn mowers.

Based on scientific evidence, we believe that both the  $21.5$  and  $32 \mu\text{g}/\text{m}^3$  actions levels are extremely low levels and protective of human health. While having a level of  $8.3 \mu\text{g}/\text{m}^3$  is desirable, we do not believe it is appropriate to strive for such a level, particularly when such a low level is not applied anywhere else in Pennsylvania or the United States. We researched that this level is not used elsewhere.

## ***Benzene Levels in 2000***

In the summer of 2000, residents expressed concerns and asked for testing, which was conducted. Also, EPA contracted to have sewer vents installed starting in September 2000. The levels of benzene following vent installations at 267 homes as of June 2001 were:

<b>Post-Vent Benzene Levels</b>			
<b>Action Level</b>	<b>No. of Homes Below Action Level</b>	<b>No. of Homes Above Action Level</b>	<b>% of Homes Above Action Level</b>
32 $\mu\text{g}/\text{m}^3$	260	7	2.62%
21.5 $\mu\text{g}/\text{m}^3$	252	15	5.62%
8.3 $\mu\text{g}/\text{m}^3$	202	65	24.34%

Concern had been expressed that EPA initially promised remediation for all homes above the 8.3  $\mu\text{g}/\text{m}^3$  level but, subsequently, started using the 8.3  $\mu\text{g}/\text{m}^3$  level to only *consider* whether a home was a candidate for remediation. Specifically, if a home tested at above 8.3  $\mu\text{g}/\text{m}^3$ , EPA first would perform an inspection to determine whether anything within the home other than the Tranguch spill was causing the reading (such as gas cans, gasoline fumes from cars, paints, solvents, and other household goods). Only after EPA determined that the reading was not caused by such substances would remedial action be initiated. We consider such a procedure to be appropriate.

## **Federal Buyout Not Warranted**

The complainant and many in the Group Against Gas residents' organization stated they thought government officials should declare the neighborhood a disaster zone and issue a buyout. EPA and PADOH had never characterized the health concerns of chemical exposure at the Tranguch site as "very serious," and have indicated that any potential problems can be remediated. EPA and PADOH agreed that there was no health-based cause for consideration of permanent relocation, and we determined that their positions were valid. It appears that residents were asking for buyouts because of an inaccurate perception of the risks posed by the gasoline spill.

## EPA Should Have Communicated Better

We found EPA did not effectively communicate with residents of the Tranguch site or with PADOH. We believe many of the complaints and the general mistrust occurred because of this poor risk communication.

### ***Communication with Residents***

To build trust, the Agency needs to involve the public and be credible. However, EPA did not:

- Contact residents who had their homes tested in 1996 to disclose the results of the tests.
- Effectively communicate to residents tested in particular and the community in general that the levels of benzene in the community were low and did not present health risks.
- Effectively communicate why the estimate for the size of the spill, initially placed at 900,000 gallons based on a best guess estimate, was reduced to 50,000 gallons after performing calculations on some limited records.
- Ensure that the numbers in the Pollution Reports prepared by EPA's On-Scene Coordinator were accurate.
- Initially involve the community regarding the type of carbon filters that would be installed in their homes (various options were available).
- Effectively explain the meaning of the various

**A University of Texas study, *Communicating about Environmental Risk with Stakeholders*, reached the following conclusions after conducting focus groups in several communities near gasoline stations:**

- **Most people want to be informed about a potential chemical-release problem even before there is a known problem (as soon as the sampling phase of investigation begins).**
- **Overwhelmingly, people want to be informed through face-to-face meetings. Their second choice is written materials.**
- **People . . . want access to as much information as possible, they want to know how to compare their situation with other similar ones, and they want to have their**

action levels (32, 21.5, and 8.3  $\mu\text{g}/\text{m}^3$ ), as well as other technical information.

EPA should have foreseen concerns and potential fears in the community, knowing that the residents were aware that: (1) EPA was in the area performing a cleanup; and (2) EPA came into their homes (or their neighbors' homes) and performed sampling. These concerns and fears may have been allayed if EPA had communicated with them better. Having the community's trust and support greatly helps diminish the chances a community will oppose an agency's action. EPA officials, in hindsight, acknowledged they should have communicated better with residents.

If EPA had used the report *Improving Dialogue with Communities: A Risk Communication Manual for Government*, which had been prepared for the New Jersey Department of Environmental Protection, many of the problems at the Tranguch site could have been avoided. EPA would have better known to account for intense citizen concerns and seek to build trust with the community by informing it about the spill and involving the community in the decision making. This has worked well for the New York Department of Health as well as the New Jersey Department of Environmental Protection.

**Some agency representatives feel that the best interaction with the public is no interaction. They fervently hope that the risk communication techniques will make the public go away and leave the agency to make decisions in peace. However, there is a strong consensus among experienced practitioners that the solution to the problems described is more, rather than less, interaction.**

***Improving Dialogue with Communities: A Risk Communication Manual for Government***

### ***Communication with PADOH***

Although EPA believed the involvement of PADOH was not necessary in 1996, we think communication with PADOH would have been beneficial. EPA had knowledge that a potential health threat existed in 1996, and had even written in a 1996 Pollution Report that, potentially, "the gasoline poses an imminent and substantial threat to the public health of the residents . . . ." PADOH officials indicated they should have been involved, stating that a health agency should be

called in to assess a situation and decide from a health perspective whether any risks exist. EPA officials agreed that health officials from either the state or federal level should have been involved at some point.

Further, the inadequate communication helped result in the revision of the action level for benzene at Tranguch to the excessively conservative  $8.3 \mu\text{g}/\text{m}^3$ . When PADOH had made the recommendation for the  $8.3 \mu\text{g}/\text{m}^3$  action level, EPA was caught off guard, stating that PADOH never consulted them about this change. Up to this point, EPA had relied on PADOH recommendations for setting action levels, and believed there was a need to continue to do so. If EPA had maintained more effective communication with PADOH, perhaps they would have known of PADOH's recommendation far enough in advance so that they could have discussed not making the change to  $8.3 \mu\text{g}/\text{m}^3$ . However, because EPA allowed the lines of communication to slip, they had little recourse but to follow the recommendation of  $8.3 \mu\text{g}/\text{m}^3$ .

## Unnecessary Remediation Actions May Have Been Taken

It appears inappropriate that homes are being remediated to  $8.3 \mu\text{g}/\text{m}^3$  at this site while at any other site in the country, including those in Pennsylvania, EPA would only remediate to  $21.5 \mu\text{g}/\text{m}^3$ . The conservative sampling level resulted in the following actions that we believe may have been excessive:

- **Placing sewer vent traps in all homes.** In our opinion, sewer vent traps are only justified in homes with readings over EPA's action level of  $21.5 \mu\text{g}/\text{m}^3$  or Pennsylvania's level of  $32 \mu\text{g}/\text{m}^3$ . If these levels had been used, EPA would have only installed between 10 and 20 sewer vent traps, as opposed to more than 360. We consider the decision to install vents in homes below the  $21.5 \mu\text{g}/\text{m}^3$  level to be questionable. The cost for sewer vents at homes below the  $21.5 \mu\text{g}/\text{m}^3$  action level totaled approximately \$850,000.
- **Followup sampling in homes with levels below  $21.5 \mu\text{g}/\text{m}^3$ .** Even though EPA's normal protocol is to wait for odor complaints before taking air samples, we agree that sampling all the homes in the area was a reasonable and proactive step. However, using the overly conservative action level of  $8.3 \mu\text{g}/\text{m}^3$  as the criterion for followup air sampling resulted in increased costs of about \$200,000.

- **Remediation in homes with levels below 21.5  $\mu\text{g}/\text{m}^3$ .** The questionable remediation in homes with levels below 21.5  $\mu\text{g}/\text{m}^3$  will cost approximately \$1.7 million.

In conclusion, if EPA had communicated more effectively with residents and PADOH, as much as \$2.8 million in potentially excessive expenditures may have been avoided.

## Recommendations

We recommend that the Region III Administrator take the following actions to ensure better communication with the public at future sites:

1. Provide all On-Scene Coordinators and their managers with additional training in risk communication.
2. Develop a risk communication reference guide or adapt an existing guide to their needs.

## Region III Response

Region III officials stated they were pleased with the overall OIG conclusion that the Region's remediation efforts were sufficient to ensure the safety of residents. The Region acknowledged that their early communication efforts with residents were insufficient, and has taken a number of steps in the past six months, subsequent to our initial comments, to improve communication.

Despite the general agreement with our draft report, there were a few points of disagreement:

- The Region thinks that improved communications with PADOH would not have avoided the PADOH shift in the benzene action level to 8.3  $\mu\text{g}/\text{m}^3$ . The Region contends they had regular communications with PADOH, and the shift in the benzene standard should be recognized as a reaction to deal with intense public pressure and criticism.
- The Region contends that the additional costs predicted in the audit for in-home remediation systems (\$1.7 million estimated) are not materializing due to EPA's extensive efforts to screen for household sources of benzene.

Regarding Recommendation 1, the Region stated it will place more emphasis on communication in the training currently provided to On-Scene Coordinators. Regarding Recommendation 2, the Region stated it will consider adapting an existing EPA communication guide, developed in August 2000 for classic emergency responses, to satisfy the recommendation.

## OIG Evaluation

Region III generally agreed with our conclusions and the general need to better communicate with residents when implementing future remediation efforts. We consider Region III's planned actions to provide increased risk management training and develop a risk communication reference guide to be appropriate, pending our review of the guide prior to its implementation.

The Region agreed with most of the specific points we raised in our report. Regarding the few points of disagreement:

- We did not claim that improved communications with PADOH would have avoided the benzene action level shift to  $8.3 \mu\text{g}/\text{m}^3$  – we only stated it was a possibility. We do not think it really matters whether the change to  $8.3 \mu\text{g}/\text{m}^3$  was a result of poor communication (as we contend) or a reaction to deal with intense public pressure (as the Region contends) – the change took place and was inappropriate.
- We do agree that the \$1.7 million in costs from unnecessary remediation in the homes may not have materialized at this time. The \$1.7 million was only an estimate; only after all the in-home remediation efforts are completed will there be an accurate number.



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## ***Other Matters***

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In addition to the issues already discussed, we looked into numerous other concerns of the complainant, Group Against Gas, and staffers for Pennsylvania's two U.S. Senators. Some of these issues are discussed below.

### **No Inappropriate EPA Discharge Into Sewer System**

There was an allegation of inappropriate discharges into the local sewer system. However, according to the Greater Hazleton Sewer Authority, their engineer contractor, and all the applicable documentation that we reviewed, EPA had never placed any inappropriate discharges into the Greater Hazleton Sewer Authority's conveyance and treatment facility.

### **“Point-in-Time” Test Sampling Was Appropriate**

There was concern that the sampling done by EPA was flawed because it was “point-in-time” test data. One of EPA's main sampling instruments were “SUMMA” canisters, which are used to sample air in a home over an 8-hour period. EPA contends this method has the highest confidence level of any air sampling method available. In addition, EPA knew of no continuous monitoring devices that could have been placed in each home that would have provided the same low level of detection required. Because EPA had chosen to take action on the basis of very conservative action levels, the SUMMA canisters were the most appropriate sampling instruments to use. Our engineering staff confirmed the validity and appropriateness of EPA's test procedures.

### **State Provided With Enough EPA Information**

There was an allegation that EPA had not provided enough data for PADOH to analyze.

EPA stated, and PADOH confirmed, that EPA had been collecting indoor air samples at the frequency and quantity requested by PADOH for the determination of remediation recommendations. Both EPA and PADOH explained that the statement that there was not enough data only related to research data nationwide on the direct human health

effects of benzene. Scientific studies where humans might be exposed to benzene in a controlled manner and then observed for health effects were not available.

Our engineering staff believed the expectations of the complainant were unrealistic. Except for long-term studies in which test animals were subjected to very low doses of benzene over their lifetime, there were no realistic means to determine the amount of risk, if any, to which residents were exposed. The concentrations of benzene to which some residents may be exposed were at the limit of measurement of the most sophisticated testing available.

## **Response to Odor Complaints Was Appropriate**

The complainant asserted that it was wrong for EPA to respond only to gasoline odor complaints. The complaint pointed out that the odor threshold for benzene is much higher than the danger level; thus, you may not smell benzene while being unsafely exposed to it.

EPA explained that the standard methodology for investigation of a gasoline spill is to respond to odor complaints in homes nearby and perform an investigation with a hand-held, direct reading instrument that detects the presence of gasoline chemicals. According to our engineering staff, EPA's standard methodology to investigate in response to odor complaints, rather than testing homes that had no complaints, is logical.

Despite this standard methodology, in January 2001, in an effort to be more proactive, EPA started to test all homes within the site area with SUMMA canisters and not just those where there were odor complaints.

## **“Tranguch” Was Not a Misleading Name for Cleanup Site**

The complainant asserted that “Tranguch” was an intentionally misleading name for the spill site, since other parties were also responsible. According to the complainant, people who lived near those unnamed responsible parties would not know they lived in a potentially dangerous area.

EPA contended that in 1996, when the Pennsylvania Department of Environmental Protection requested their assistance at Tranguch, the State had referred to the site as the “Tranguch Site.” Thus, for

consistency's sake, EPA adopted the name Tranguch Gasoline Site, even though there were three other facilities in addition to Tranguch that contributed to the spill. Regardless of the site's name, EPA determined the site boundaries based on contamination from all potential contributors. Therefore, residents should have known whether they lived within the boundaries of a gasoline spill.

## **Other Responsible Parties Pursued**

The complainant asserted that other "politically connected" responsible parties were not named or pursued along with Tranguch.

As noted, EPA found that three other facilities in addition to Tranguch, contributed to the gasoline spill. They were Orloski's Shell (now Choice, owned by UniMart); Sam's Amoco (tanks and pipelines owned by Pipeline Petroleum); and Hazleton Standard Oil. These facilities were investigated in 1996 by EPA and found to have leaks at that time. The Pennsylvania Department of Environmental Protection had focused on Tranguch because, in their opinion, it had contributed the most to the spill.

We reviewed Region III's responsible party records and found EPA had pursued the other three responsible parties as well as Tranguch. We found that Tranguch was bankrupt. According to EPA personnel, EPA had offered Administrative Consent Orders to the other responsible parties, but none had agreed to participate in the cleanup. EPA had subsequently decided not to pursue Unilateral Administrative Orders because staff were still in the process of gathering evidence of who was actually responsible for the spill, and at the time it appeared that the other responsible parties might be "de minimis" (minimal) contributors to the contamination. Thus, the Tranguch project became a "government lead," meaning that the government would pay for the cleanup and then seek cost recovery from the responsible parties. EPA contended these decisions were not politically influenced, and we found no evidence to the contrary.



**APPENDIX 1 - REGION III RESPONSE**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION III  
1650 Arch Street  
Philadelphia, Pennsylvania 19103-2029

AUG 14, 2001

**SUBJECT:** Draft Report - EPA Region's Management of  
Tranguch Gasoline Site, Hazleton, PA  
Assignment #2001-000533

**FROM:** Thomas C. Voltaggio   
Acting Regional Administrator (3RA00)

**TO:** Carl A. Jannetti  
Divisional Inspector General for Audit  
Mid-Atlantic Division (3AI00)

Thank you for the opportunity to review and comment on your draft report regarding EPA Region III's management of the Tranguch Spill site. We are pleased with your overall conclusion that the Region's remediation efforts have been adequate and sufficient to ensure the safety of residents. We also acknowledge that our early communication efforts with residents were insufficient. As you are well aware we have taken a number of steps in the past 6 months to improve our communications.

Outlined below per your request are our comments on the report's specific findings and recommendations.

Findings

A) Homes Sampled in 1996 Representative of Spill Area (page 6)

- We agree with the OIG's conclusion that the homes sampled in 1996 were representative of the site area.

B) EPA Decisions on Remediation Actions Sufficient (pages 7-8)

- We agree with the OIG's opinion that given the benzene data available in 1996 that a decision at that time not to remediate in the homes was appropriate;

- We agree with the OIG's opinion that the revised benzene action level of 8.3 ug/m<sup>3</sup> as established by the PA Department of Health (PADOH) for Tranguch is not consistent with the PADOH action level for benzene used elsewhere in Pennsylvania. Furthermore we agree that the level is so low that it is in the range of benzene levels routinely found as background in homes in Pennsylvania and across the United States.



- We agree with the OIG's position that a screening of homes for internal sources of benzene is appropriate before further remediation in the home (i.e., an air filter) is performed.

#### C) Federal Buyout Not Warranted (page 7)

- We agree with the OIG's opinion that buyouts are not warranted based on the health risks in the community. We also agree that in many cases residents are seeking a buyout because of a misunderstanding over the risks posed by the spill.

#### D) EPA Should Have Communicated Better (pages 8-11)

- We agree that overall our communications with the residents have not been as effective as they needed to be, and that as a consequence a general mistrust has developed which has hampered our response.

- We disagree that we did not communicate with residents and the community early on about the potential health risks. We also believe that we communicated with the community regarding the change in the estimate of the spill size. We would however, acknowledge that our efforts in those regards generally proved ineffective.

- We agree that PADOH involvement in 1996 may have been appropriate from a coordination perspective but we emphasize that from a remediation decision-making standpoint it did not matter as the benzene action level ( $21.5\mu\text{g}/\text{m}^3$ ) used by EPA was more conservative than the statewide standard ( $32\mu\text{g}/\text{m}^3$ ) used by PADOH.

- We disagree with the suggestion that improved communications in late 2000 - early 2001 with PADOH could have avoided the PADOH shift in the benzene action level to  $8.3\mu\text{g}/\text{m}^3$ . During this period we had regular communications with PADOH, sometimes daily, regarding site conditions and citizen health concerns. The shift in the benzene standard should be recognized for what it was - a reaction to deal with the intense public pressure and criticism that the  $32\mu\text{g}/\text{m}^3$  cleanup level was insufficient to protect public health.

- We agree that EPA had little recourse but to implement actions to meet the new PADOH recommendation of  $8.3\mu\text{g}/\text{m}^3$  but we disagree that doing so resulted because the lines of communication had slipped. Rather EPA decided to implement the recommendation because of our previous publicly stated commitment to the community; that we would implement measures to protect public health based on the recommendations of the lead health agency, PADOH. Furthermore, it should be noted that EPA did seek advice from ATSDR evaluating the cleanup action level after PADOH lowered the level to  $8.3\mu\text{g}/\text{m}^3$ . ATSDR in their April 17, 2001 Health Consultation supported the  $8.3\mu\text{g}/\text{m}^3$  standard saying it would be protective of public health.

## E) Unnecessary Remediation Actions May Have Been Taken (pages 11-12)

- We agree that some additional costs have been incurred by using the more stringent benzene action level of  $8.3\text{mg}/\text{m}^3$  although we should note that even before the PADOH recommended action level was lowered to  $8.3\text{ug}/\text{m}^3$ , EPA had committed to provide each home with a sewer vent trap. That commitment was based on the initial PADOH health consultation. Furthermore, while increased air sampling costs will result because of the  $8.3\text{ ug}/\text{m}^3$  action level, the additional costs predicted in the audit for in-home remediation systems ( $\$1.7\text{M}$  estimated) are not materializing at this time due to EPA's extensive efforts to screen for household sources of benzene.

- The report leaves a perception that all of the additional sewer work announced in late May 2001 is not based on technical merit. We disagree with such a suggestion. We would acknowledge that further investigations as originally planned could have helped EPA better define additional sewer locations. However, the reality is that the time to complete those studies would have pushed the actual remediation past the current construction season, likely resulting in cost escalation. Ultimately additional sewer work was expected; we had even outlined such in our February 27, 2001 Response and Cleanup Plan. Furthermore, we had already been investigating the groundwater conditions for over 3 years and the incremental increase in information from further investigations may have only marginally modified (decreased) the scope of the additional sewer work. Given the Agency's responsibility to protect public health and the environment, we determined that it was prudent to act sooner on the additional sewer replacement work.

### Recommendations

- 1) All of the Region III OSCs and their managers receive formal and informal (primarily on-the-job) training during their careers on communications and risk management. However, given our experiences with the Tranguch site, we would agree that additional training focusing on risk communications would be appropriate and valuable. In particular we see a need to especially focus on those situations where our investigations and response actions take us directly into the houses of a multi-home community.
- 2) We would agree that a reference guide on risk communications would also be appropriate and we will consider the adaption of an existing communication guide developed in August 2000 for classic emergency responses. That guide outlines a structure, roles and responsibilities for communicating with the public, media and elected officials during an emergency incident.



## **APPENDIX 2 - DISTRIBUTION**

### **EPA HEADQUARTERS**

Assistant Administrator for Solid Waste and Emergency Response (5101)  
Associate Administrator for Congressional and Intergovernmental  
Relations (1301A)  
Associate Administrator for Communications, Education, and Media  
Relations (1101A)  
Director, Office of Regional Operations (1108A)  
Comptroller (2731A)  
Agency Followup Official (2710A)  
Agency Audit Followup Coordinator (2724A)  
Office of Inspector General (2410)

### **EPA REGION III**

Regional Administrator (3RA00)  
Assistant Regional Administrator, Office of Policy and Management (3PM00)  
Director, Hazardous Site Cleanup Division (3HS00)  
Director, Office of Communications and Government Relations (3CG00)  
Chief, Grants and Audit Management Branch (3PM70)  
Region III Library (3PM50)