

Henry S. Cole & Associates, Incorporated
Science and Solutions for the Environment & Sustainable Communities

7611 South Osborne Road, Suite 201, Upper Marlboro, MD 20772
Phone: (301) 780-7990, Fax: (301) 780-7988, hcole@hcole-environmental.com

Henry S. Cole, Ph.D., President

Website: www.hcole-environmental.com

STATEMENT OF HENRY S. COLE

**HOUSE COMMITTEE ON SCIENCE AND TECHNOLOGY, SUBCOMMITTEE
ON OVERSIGHT**

***Hearing on The Agency for Toxic Substances and Disease Registry:
Problems in the Past, Potential for the Future?***

March 12, 2009

1.0 Introduction: First, let me thank Chairman Miller, Ranking Member Broun and the other members of the subcommittee for the opportunity to present my views on the future of ATSDR.

By way of introduction, I am President of Henry S. Cole & Associates, Incorporated, a Washington DC area-based environmental consulting company now in its 16th year. I received my Ph.D. in atmospheric sciences at the University of Wisconsin in 1969. My career in atmospheric and environmental sciences is approaching the 40 year mark. During the 1970's, I served as an associate professor of environmental earth sciences at the University of Wisconsin-Parkside and conducted a research project involving air pollution meteorology. From 1977-1983, I then served as senior scientist with U.S. EPA's Office of Air Quality Planning and Standards and Chief of the Modeling Application Section. This section focused on the relationship between sources, emissions, weather conditions and ambient concentrations. From 1983-1993, I served as Science Director of the Clean Water Fund.

My consulting firm, founded in 1993, has provided scientific research and technical advice to support the efforts of dozens of community-based organizations to improve the environmental health and sustainability of their communities. A significant portion of my

work has been funded by community-based organizations that receive Superfund Technical Assistant Grants (TAGs) from U.S. EPA. Other clients have included

neighborhood associations, state and national environmental organizations and local governments. ATSDR conducted public health assessments and consultations in a number of these communities. An additional line of work is scientific support for companies with technologies that are more sustainable than market standards.

From 1994 to 2003, I served as a consultant to the Agency for Toxic Substances and Disease Registry (ATSDR) in order to help the agency improve its community involvement programs and practices. In this capacity I provided advice to former Administrator Barry Johnson and prepared a report based on case studies of numerous communities where ATSDR provided health assessments or studies. Finally I served as an advisor to the Agency's "Community and Tribal Subcommittee." The subcommittee included leaders of communities and tribes in which ATSDR had worked. For additional details see attached CV and www.hcole-environmental.com.

2.0 Is ATSDR Fulfilling It's Mission?

ATSDR describes its mission in the following way:

ATSDR's mission is to serve the public by using the best science, taking responsive public health actions, and providing trusted health information to prevent harmful exposures and disease related exposures to toxic substances.

The Oversight Subcommittee has performed a great service by examining ATSDR's handling of the FEMA trailers case in which hundreds of Katrina victims were exposed to formaldehyde. The Subcommittee report demonstrates that ATSDR was negligent in the conduct of its duty. In its efforts to play down the dangers, the Agency exercised a callous disregard for both science and for the health of those exposed in the trailers.

In my experience, however, the FEMA trailer case is not an isolated case where the Agency has failed to live up to its mission. Unfortunately, the Agency's performance in a substantial number of communities has undermined its most valuable commodities, the ability to provide "trusted health information" and the ability to "prevent harmful exposures" and their effects.

I believe that the Agency has improved the overall quality of its Public Health Assessments¹ and community involvement programs since the early 1990s.² However, the Agency will have to make some monumental changes in the conduct of science and in its relationship to communities to warrant its continued use of tax payer dollars. Such changes will require real leadership and a rededication to science and public health even when the evidence requires expensive corrective measures and opposition by federal agencies or by business. Moreover, uncertainty is not an excuse to play down community concerns, but to dig further and to err on the side of caution.

3.0 ATSDR's Perma-Fix Health Consultation: Today, I will focus on a very recent example, of an ATSDR Health Consultation that has failed the Agency's mission – a consultation dealing with a Dayton, Ohio community affected by a plant in their midst that processes industrial and hazardous wastewaters, sludges and oils. The company is Perma-Fix of Dayton (PFD).³ My association with this case included technical consultation to the Dayton Legal Aid Society in 2004 and pro-bono advice to community leaders.

Let's imagine for the moment that you live in this community, know as Drexel. Your homes and those of your neighbors are small. The community has experienced economic stress for years – not just lately. You have complained to various levels of government for years about the frequent and sometimes overpowering odors that occur when Perma-Fix is processing waste. These odors often make doing something out of doors intolerable and when you get upset enough you call the Regional Air Pollution Control Agency. Although RAPCA inspectors have confirmed the validity and intensity of complaints for many, the problem continues unabated. You also suspect that a high incidence of health problems has something to do with emissions from this plant.⁴

¹ Under cooperative agreements, Public Health Assessments are often conducted by State Health Departments. I recently reviewed the Ohio Department of Health / ATSDR assessment on the Armco-Hamilton Site in Ohio (former steel mill and coke ovens along the Great Miami River). In my judgment, this assessment did a reasonably good job in scoping out the information existing and referred to U.S. Geological Survey documents which described the vulnerability of groundwater to contamination and the close downgradient vicinity of the Hamilton North municipal well field. The Health Assessment also recommended that fish be tested for persistent, bioaccumulative contaminants such as PCBs. See: Agency for Toxic Substances and Disease Registry (ATSDR), *Public Health Assessment for Armco Hamilton Plant*, 2005.

² For example, ATSDR adopted a number of ideas from its community and tribal advisory group, including the initiation of health-related Technical Assistance Grants, which allow community organizations to hire independent experts to serve as advisors pertaining to health assessments and health studies.

³ ATSDR, *Health Consultation, Exposure Investigation Report, Airborne Exposures to Select Volatile Organic Compounds, Perma-Fix Of Dayton, Inc*, Dec. 15, 2008

⁴ According to the *Health Consultation*, health-related concerns include headaches, nausea, vomiting, nose bleeds, numbness in legs and hands, heart, gastrointestinal and respiratory disorders, burning eyes, sore throats, unexplained rashes, premature births, and birth defects.

Then, in 2003, your neighborhood group hears about ATSDR, that it's a government agency that can help environmentally stressed communities with various studies. Agency officials respond to a call from the group and your visit the community and appear to be friendly and sympathetic. They tell you how to petition the Agency and with hopes high your community group does so.

Now lets take a look at what actually happened.

ATSDR accepted the community petition and agreed to do a *Health Consultation* in March 2004 based on an *Exposure Investigation*. . The purpose of the investigation was to determine whether volatile emissions from Perma-Fix (PFD) were exposing residents to harmful levels of any of 100 chemical species tested. To do this ATSDR conducted an air monitoring program in the neighborhoods surrounding the plant. The number of days utilized in the investigation was extremely low; only 6 days during the 13 month period from June 2007-June 2008.

More than four years after the petition, ATSDR published its *Health Consultation* document just this past December (2008). The principal findings of the *Health Consultation* on PFD are listed below:

- *Although the data only represent ambient air concentrations during the time of sampling, none of the more than 100 compounds analyzed were detected over health-based values.*
- *“The differences between the average concentrations of volatile organic compounds (VOCs) for downwind and upwind samples were not statistically significant. This lack of difference may be due to the small sample size.”⁵*
- *ATSDR’s review of information on the wastes accepted and the treatment processes used by PFD did not reveal an obvious source for the observed odors in the neighborhood.*
- *ATSDR’s outdoor air sampling revealed one compound, ethyl acetate – which has a low odor threshold and the characteristic odor of fingernail polish remover – may be the source of the reported solvent-like odors. That same odor was observed by ATSDR staff while touring the PFD facility and was most noticeable in the filter press room and testing laboratory.*

The sole recommendation found in the *Health Consultation* is as follows:

- *"To reduce solvent-like odors, PFD should determine if there is a source of ethyl acetate in their waste streams and seek to eliminate or treat it if it is present."*

To understand why community members were frustrated and angry we need to look not only at study's outcome (after four years) but also at several inter- related problems

⁵ ATSDR, *Health Consultation*, p. 13.

including serious deficiencies in the Agency's science, its failure to utilize critical information and its flawed community involvement process.

3.1 Inadequacies in the *Exposure Investigation's* Monitoring Study

1. The number of sample days (6 days over a 13th month period) was woefully inadequate, especially if they are attempting to look at health effects. Both emissions and weather conditions vary -- thus a much larger sample (days and locations) is needed to capture the worst cases.⁶
2. The kind of monitoring study conducted by ATSDR should have been supplemented with source testing and air quality modeling. ATSDR officials acknowledged that it did not include source testing. Testing stack and fugitive emissions could have given the Agency much better information on the chemicals being emitted from the plant.
3. Air quality *modeling* can estimate the distribution of concentrations from a source based on pollutant emission rates and multiyear data sets on weather conditions. Although modeling has limitations, the combination of monitoring and modeling provides better information than either alone.
4. Although, the report addresses wind speed and direction, it does not address the stability of the atmosphere (e.g. the presence or absence of temperature inversions). The combination of stable atmosphere with very slow wind speeds has the potential for worst case conditions. It is not certain whether ATSDR's sampling included such conditions. Moreover, as the *Health Consultation* acknowledges, the sample collection length (from 2 to 11 hours) would not provide information on peak concentrations of relatively short durations.
5. Samples were taken and analyzed on 6 different days. However, not all of the contaminants were analyzed for each of the 6 days. Thus the study may have failed to detect certain contaminants on some of the days.

3.2 Problems with the Health Consultation Process

1. Despite repeated requests, the protocol was not provided to the community for review and comment before the study was initiated. The potential deficiencies could have been discussed in advance of the study had a draft been provided in advance. This is a key requirement for effective and respectful public involvement. The Health Consultation does not include a response to citizen concerns and recommendations.
2. ATSDR failed to incorporate substantial information pertaining emissions including those of odors and hazardous air pollutants (HAPs) that were available in various

⁶ *The document does not state whether or not the company was notified as to the timing of testing in advance. Prior notification would have allowed the company to take preventive actions (e.g. not processing certain kinds of wastes) that are not normally employed.*

notices of government violations and suits filed by a resident and regulatory agencies against Perma-Fix (PFD). These include:

- In 2002, the Regional Air Pollution Control Agency (RAPCA) issued a Notice of Violation to Perma-Fix for the company's failure to comply with RAPCA's previous orders pertaining to odor and emissions controls from a number of sources within the plant.
- In 2005, U.S. EPA filed a "Finding of Violation" in regard to PFD's failure to control a variety of hazardous air pollution (HAP) emission sources regulated under the Clean Air Act.
- In May, 2006, the Justice Department in 2006, on behalf of U.S. EPA joined the suit of a local resident for injunctive relief and civil penalties against Perma-Fix for similar violations. The complaint again cited numerous failures to control emissions, e.g. the plant's bio-plant tanks and wastewater treatment plant and other sources. In addition, the company failed to keep records, conduct testing, or apply and receive permits as required by regulations. (See attached copy U.S. Justice Department complaint.)
- In 2007, the parties to the 2006 suit entered into a Consent Decree that imposed a civil penalty of \$360,000 and required PDF to (a) identify sources of emissions and odors (b) measure emissions (c) prevent and control emissions and odors and (d) obtain a Title V permit from U.S. EPA.

The filings associated with these complaints as well as a variety of documents (e.g. reports by expert witnesses) were readily available to the Agency on-line.⁷ The information contained in these sources would have been extremely useful to ATSDR in its design of the monitoring study and in generating a meaningful set of recommendations. For example, one memorandum contained in the docket provides specific information on waste streams and emission sources. I am also aware that community leaders made numerous attempts to persuade ATSDR officials to obtain and use this data. However, to my knowledge the Agency failed to do so; moreover, the Health Consultation is mum on the agency violations, the federal and citizen litigation and the resulting Consent Decree. (See Attached Documents)

Residents were so frustrated with ATSDR's handling of the study, that in July 2007 they petitioned the Agency once again – this time to *“halt all of its work regarding Perma-Fix until such time as it works out an acceptable protocol and public involvement process with the affected community.”*⁸ A copy of this letter is attached.

⁷ Documents on the case of Fisher and the United States versus Perma-Fix of Dayton are available U.S. District Court, Southern District of Ohio (Dayton), CIVIL DOCKET FOR CASE #: 3:04-cv-00418-MRM

⁸ Letter from Laura J. Rench to Howard Frumkin, Director National Center for Environmental Health and ATSDR, July 25, 2007. (Attached)

In my judgment, it is unconscionable that the Agency failed to include in its *Consultation (2008)* the list of uncontrolled emission sources in the record and the extent which Perma-Fix was taking meaningful steps to meet the requirements of the 2007 Consent Decree. Instead, the *Consultation's* sole recommendation is of no real consequence or utility. Moreover, it could have been made back in 2004 without expending funds for a predictably inconclusive monitoring study. Most importantly, the tepid recommendation coupled with the implied finding that there is “*no evidence for concern*” can be readily translated to signify, “*no cause for concern.*” Had this report been issued earlier, it might have been used to impede the successful federal and citizen litigation against Perma-Fix and the relief it provides.

Thus, it is not surprising that residents of Drexel have grown frustrated and angry and have lost the trust they had in ATSDR. There are many similar stories and word gets around. For example, the Center for Health, Environment and Justice, an organization founded by activist Lois Gibbs, has warned in its publications that communities may opt to boycott ATSDR (and cooperating state health departments) unless the Agency negotiates with the community in good faith regarding study protocols and related issues of public concern.⁹

4.0 Recommendations: What is needed to create the needed change at ATSDR? First, I would propose that this subcommittee continue its valuable oversight of ATSDR. Secondly, the subcommittee should press ATSDR to adopt the following policies submit legislation that would mandate the changes if needed.

1. ATSDR should provide draft protocols for all exposure investigations and health studies for public review and comment. Upon the request of members of the public the Agency should be required to subject protocols to independent review.
2. ATSDR should undertake the following measures with regard to all community-related documents including health assessments, health studies, health consultations and exposure investigations:
 - Provide drafts of the documents for public review with a minimum 40 day comment period.
 - Upon request, subject the draft to peer review by a group of experts free of ties with ATSDR or facilities which are the subject of the investigation of concern.
 - Upon request, the Agency should hold a public meeting with regard to the draft document.
 - The final document should respond to all community and peer review comments.

⁹ Stephen Lester, Center for Health Environment & Justice, *Assessing Health Problems in Local Communities*, Updated April 2007.

3. In formulating its findings and recommendations, ATSDR should utilize *all* pertinent information including federal, state and local agency enforcement actions and evidence contained therein.
4. In any case where the Agency finds that it has insufficient evidence to support a finding (e.g. health effects), it should include clear language warning the public or business leaders *not to equate the absence of evidence signifies an absence of effect or concern. ATSDR should monitor press coverage of all of its community-based documents; where there are indications of confusing statements or misinterpretations, ATSDR should take immediate and public measures to correct such statements.*

5.0 An integrated approach to community restoration and health. Environmentally stressed communities approach ATSDR and other health agencies because they have serious concerns and badly need help. Low-income, minority and tribal communities often are impacted by a multitude of environmental stresses: e.g. a waste management facility, factory pollution, highly toxic diesel emissions, and unhealthful levels of inhalable particulates and/or ground level ozone. Perhaps there are sewerage related problems. There are other stresses as well – such as unemployment, no access to health care, aging populations, lack of adequate housing, etc. Health agency actions which focus on a single source are poorly equipped to deal with these situations.

Needs vary from one community to another; i.e. the local health clinic may need expertise to deal with environmental exposures, perhaps a local credit union or pension fund could invest in restoring homes to livability, or perhaps the need is set up volunteers to visit the homes of elderly neighbors on a continuing basis. Such efforts will require a different vision and much greater coordination between programs and agencies.

However, there are examples of community-based approaches which attempt to solve problems holistically. For example, in Trenton, a non-profit organization, Isles, Inc. has set up programs to remove lead from home environments and has trained residents to address these problems and to restore dilapidated buildings. These programs have led to employment and entrepreneurial opportunities. Trenton has the potential to bring in up to \$2.4 million for green collar jobs and career development activities, many of them connected to restoration and improved environmental health. See <http://www.isles.org/>

This program is by no means unique. In fact, President Obama's economic stimulus package contains funding for community-based training and employment in areas such as weatherization and renewable energy. (See also, *The Green Collar Economy* by Van Jones and Ariane Conrad, 2008 for many examples of community-based initiatives aimed to bring environmental health and economic progress to communities.

I believe that public health agencies including ATSDR could play an important role in fostering the kind of inter-agency and inter-departmental coordination that is needed to bring a more holistic and cost-effective approach to community health.