

The following letter presents the concepts that were voiced by JoAnn Held in her presentation on October 14, 2014 at the External Stakeholder Meeting on the Remediation Standards Amendment Effort.

Joann L. Held

Air Toxics Analysis Services

PO Box 920.

Pennington, NJ 08534

Phone (609) 737-0867

Joannheld@comcast.net

Teruo Sugihara
Site Remediation Program
NJ Dept. of Environmental Protection
P.O. Box 420
Mail Code 401-04M
Trenton, NJ 08625

RE: Issues for Remediation Standards External Stakeholders Process

Dear Dr Sugihara:

Thank you for the opportunity to participate in the Remediation Standards External Stakeholders Group. The periodic updating of the Remediation Standards is an important process that I have been following for the past 30 years, sometimes as an active participant but always as an environmental scientist who is concerned about protecting the people of New Jersey from hazardous exposure to toxic substances.

As the Department goes through the current process of updating the standards, I recognize your desire to be consistent with USEPA guidance wherever possible, but in some instances it may be necessary to enhance the approaches adopted by USEPA in order to ensure protection of those who live near one or more of the approximately 14,000 contaminated sites that have been identified in our state. The assumptions in the USEPA guidance are generally well-supported and health-protective, but they are designed to address the experience of the whole nation. Because of this they tend to ignore important elements of exposure potential in densely populated and industrial areas that are commonly found in New Jersey.

I am attaching comments that address some of the basic risk assessment steps involved in the standard setting process. I look forward to the continuation of the Stakeholder process.

Sincerely,

Joann L. Held

Enclosure: CONCERNS RELATED TO THE ANTICIPATED REVISIONS TO THE NJDEP
REMEDATION STANDARDS

CONCERNS RELATED TO THE ANTICIPATED REVISIONS TO THE NJDEP REMEDIATION STANDARDS

Joann Held
October 9, 2014

TOXICITY ASSESSMENT

Hierarchy for selecting Toxicity Information

The hierarchy for selection of the toxicity information to be used as a basis for each standard is well thought out. However, the Department should prepare a written justification for the hierarchy, list factors that would result in straying from the hierarchy, and commit to explaining which factors were in play for each toxicity factor that deviates.

Class C Carcinogen policy

The 10-fold adjustment to a Reference Dose or Reference Concentration for Class C Carcinogens is certainly better than deriving a value based on a highly uncertain slope factor. I would support this approach.

EXPOSURE ASSESSMENT

Exposure Duration

When selecting the exposure duration parameters to be used in the Soil Remediation Standards, it is important to keep in mind that many New Jersey residents do not simply live near a single contaminated site in an area that is otherwise pristine. In New Jersey it is common to find 20 or more known-contaminated sites within a single neighborhood. So when someone leaves their home, they may be traveling to an equally contaminated location, either because of the proximity to other contaminated sites, or nearby industrial emissions, or clouds of diesel truck emissions from an adjacent roadway, or the polluted plume of air coming from a nearby urban area. This is especially the case for residents of environmental justice neighborhoods. (See for example, Camden Waterfront South Air Toxics Pilot Project at: www.nj.gov/dep/ej/camden/index.html)

24-hour/day Exposure to Outdoor Air

Some people are fond of pointing out that exposure to indoor sources of air pollution is far higher than exposure to pollutants from outdoor sources. This is certainly true in many, many cases. However, it also means that exposure to outdoor sources are in addition to all those indoor exposures. Our models do not account for that cumulative exposure. We also do not account for the exposures that people experience in their daily commute, or their work environment, or from second hand smoke. Given these considerations, it seems inadvisable to narrowly define the amount of time that a person might be outdoors and exposed to suspended particulate or volatile organics that may come from contaminated soils.

26-Year Exposure Duration

When people move away from a contaminated site, they don't necessarily move to a place that is pristine, or even a lot cleaner than their old neighborhood. When data are collected on how often people move, they do not consider how far the person moves or how different or similar their new environment may be. People who live in a community like the Waterfront South neighborhood in Camden could move from place to place within the same area and never really escape toxic exposures from hazardous sites, since this one-square mile is home to 22 Known

Contaminated Sites. And there are many similar neighborhoods scattered around this state, mostly in areas with a high proportion of impoverished residents who are eating poorly and have limited access to medical care. Because of these considerations, I believe that the 26-Year Exposure Duration assumed by USEPA is not protective of public health for many New Jersey communities.

CUMULATIVE IMPACT ASSESSMENT

Persons living or working near a contaminated site may be exposed to multiple contaminants through multiple exposure routes. I understand that the DEP is prohibited in this case from considering exposure to multiple pollutants, and addressing multiple routes of exposure for generic scenarios can be problematic. The risk assessment method used to develop remediation standards also does not address the synergistic effects of exposure to multiple pollutants (including existing exposures from sources other than contaminated sites). Therefore, it is important to continue to rely on conservative assumptions to define the Reasonable Maximum Exposure in order to balance off all the things that we are not accounting for, and to ensure that the risk experienced by ALL of our residents is minimized.