March 26, 2019

VIA ELECTRONIC MAIL
Catherine.McCabe@dep.nj.gov
Catherine McCabe, Commissioner
New Jersey Department of Environmental Protection
Mail Code 401-07
401 East State Street
P.O. Box 402
Trenton, NJ 08625-0420

RE: NJDEP SOIL REMEDIATION STANDARDS

Dear Commissioner McCabe:

On behalf of our members, the Chemistry Council of New Jersey (CCNJ) and the Site Remediation Industry Network (SRIN) would like to share our concerns regarding the upcoming New Jersey Department of Environmental Protection (NJDEP, the Department) rule proposal that is expected to update various Soil Remediation Standards (SRS) and also change Impact to Ground Water (IGW) and Vapor Intrusion (VI) screening levels into remediation standards. In current form, we believe that these proposed SRS will remove the professional judgment and flexibility that was the premise for creating the Licensed Site Remediation Professional (LSRP) Program. Speeding up clean-ups and redevelopment is something we feel is critical in New Jersey today as we lag behind the rest of the country in our economic recovery.

Though CCNJ/SRIN participated in the NJDEP SRS stakeholder meetings held throughout 2014 and 2015, and very much appreciated the opportunity to do so, we felt that our voices were largely ignored as the draft 2016 rule proposal did not consider, address, or incorporate our concerns and feedback. At the December 18, 2018 SRS briefing, the NJDEP stated that the new 2018 rule proposal currently under legal review is essentially the same as the 2016 version. Therefore, we still have significant concerns that we would like to formally express to you.

Please find attached CCNJ/SRIN's document previously submitted to Dr. Teruo Sugihara via email on September 16, 2014 outlining our technical topics and arguments related to the SRS stakeholder review process. Below are some highlights for a quick reference.

Regarding the NJDEP's expected proposed SRS, our priorities focus on maintaining the consistency of the hierarchy of the toxicity information for the SRS calculations in order to ensure transparency in the science utilized as well as maintaining an equal and level playing field with our neighboring states.

It is expected that the NJDEP will propose to drop the residential SRS for Ethyl Benzene (EB) by three (3) orders of magnitude (i.e. 7,800 mg/kg to 10 mg/kg). The NJDEP is deferring to the California

Environmental Protection Agency (Cal EPA), which utilized 1999 studies to classify EB as a possible human carcinogen; however, science stemming from the process established by the United States Environmental Protection Agency (USEPA) Integrated Risk Information System (IRIS) review of EB did not agree with Cal EPA's position. In 1991, the USEPA concluded that EB was considered not classifiable as to human carcinogenicity. Based on the hierarchy of toxicity information, USEPA IRIS (Tier II) outranks Cal EPA (III) and, therefore, the NJDEP was being selective and inconsistent with this preference.

Regarding the NJDEP's expected proposal to change IGW and VI screening levels into remediation standards, CCNJ/SRIN are concerned about the Department's rationale on setting standards for ground water and air vs. maintaining screening levels. We believe that there is an important distinction that needs to be considered in this area. In summary, screening levels are derived using conservative safety factors so that scientists, risk assessors, and LSRPs are able to use professional judgement and expertise to apply the actual standards that we must all meet. The problem is that if these inherently conservative screening levels were to become remediation standards, then, we have defined the endpoint with the incorporation of these additional safety factors removing the premise upon which the LSRP Program was adopted – professional judgement. For VI investigations, this is especially true when dealing with the effects of indoor air background. Accordingly, the NJDEP, USEPA, and virtually all other state agencies recommend a multiple lines of evidence approach.

For example, the NJDEP conducted a review of recent literature regarding indoor air background levels of Volatile Organic Compounds (VOCs) in homes (NJDEP, August 2016 (attached)). The NJDEP document reviews seven contemporary residential background studies, as well as a thorough review conducted by the USEPA (USEPA, 2011 (attached)). By definition, indoor air background is a measure of the concentration of chemicals in indoor air in the absence of a release. As demonstrated in these peer-reviewed papers and documents, Benzene was detected in up to 100% of background samples tested, including with 25th percentile values that are already greater than the current NJDEP indoor air screening level of 2 µg/m^3. Simply stated, promulgating an indoor air standard at a level that 100% of homes already exceed due to background sources will create confusion and a significant amount of burden for both the Department and regulated community if this screening level were to become a standard. We would expect to see similar confusion/burden with EB, which is highly common in background and already has a low indoor air screening level.

CCNJ/SRIN would like to specifically highlight Haley & Aldrich's "Influences and Implications of Indoor Air Background Concentrations on Health Risks in Residences, Schools, and Commercial Buildings" presentation, which is also attached, along with the abstract. The authors looked at both residential and non-residential indoor air background, and below is a brief recap of their research and findings:

- Data was included from numerous studies, including Haley & Aldrich's 2005 study of 100 residences (also cited by the NJDEP and USEPA) and their more recent 2013 – 2015 study of indoor air background of 84 non-residential buildings conducted in 18 states (including 25 school building samples and 59 office building samples); there were no known/suspected contaminated sites on or nearby identified sampling locations.
- The analytical focus for the non-residential study was USEPA Method TO-15 (acquired in full scan mode – approximately 104 target VOCs), USEPA Method TO-15 (subset acquired in SIM mode – approximately 57 target VOCs), and Massachusetts Department of Environmental Protection (Mass DEP) Air-Phase Petroleum Hydrocarbons; there are approximately 15,000 non-residential indoor air background data points in their database.
- Conclusions support that hydrocarbons are ubiquitous in indoor air background:

- Benzene was detected in 91% of residential samples, as well as 96% of schools and 93% of offices.
- Ethylbenzene was detected in 86% of residential samples, as well as 100% of schools and 100% of offices.
- Toluene was detected in 96% of residential samples, as well as 100% of schools and 100% of offices.
- Xylenes were detected in 93% of residential samples, as well as 100% of schools and 100% of offices.
- Residential background indoor air is already associated with cumulative risks well above the threshold risk management levels used by most regulatory agencies.

In summary, hydrocarbons such as Benzene and Ethylbenzene are common to indoor air background and may be found at concentrations already above current indoor air screening levels. Setting or reducing these screening levels as promulgated indoor air standards nearly guarantees that most buildings already fail to meet the standard *in the absence of a release* and as solely due to indoor air background. This will surely result in a substantial burden to the NJDEP and the regulated community and, since background concentrations may be greater than the standards themselves, require regulatory response to achieve an objective that is impossible to achieve.

CCNJ/SRIN want to stress the fact that we supported the Site Remediation Reform Act (SRRA; P.L. 2009, c. 60), which made a number of changes to New Jersey's Site Remediation Program and also created the LSRP Program in our state. We commend the NJDEP for the level of effort and resources that have been expended since the enactment of SRRA, as well as the Site Remediation & Waste Management Program (SRWMP) management and staff being engaged with the numerous stakeholders through guidance committees, stakeholder meetings, the Site Remediation Advisory Group (SRAG), trainings, and individual consultations. We recognize the potential for the LSRP Program to be the vehicle that truly reforms the SRWMP, and continue to be supportive with our on-going efforts with "SRRA 2.0", which is why we ask you to seriously consider our feedback and input on the potential impact of releasing the numerous changes and additional requirements with the expected SRS rule proposal. As previously stated, we believe that these proposed SRS will remove the professional judgment and flexibility that was the premise for creating the LSRP Program to speed up clean-ups and redevelopment, while at the same time protecting the environment and our citizens.

We would greatly appreciate the opportunity to schedule a meeting with you to further discuss our concerns outlined above in-person, along with our CCNJ/SRIN members.

Thank you for your consideration of our comments on and meeting request regarding this very important issue. We look forward to continuing to work with the NJDEP on this and other matters of critical importance to CCNJ members. If I can be of further assistance, please let me know.

Sincerely,

Dennis Hart
Executive Director

cc: Mark Pedersen, Assistant Commissioner, NJDEP SRWMP

Attachments: CCNJ/SRIN Technical Topics – September 16, 2014
NJDEP "Background Levels of Volatile Organic Chemicals in Homes: A Review of Recent Literature" – August 2016
Haley & Aldrich "Influences and Implications of Indoor Air Background Concentrations on Health Risks in Residences, Schools, and Commercial Buildings" – Abstract, Slides
USEPA "Background Indoor Air Concentrations of Volatile Organic Compounds in North American Residences (1990 – 2005): A Compilation of Statistics for Assessing Vapor Intrusion" – June 2011