

Remedial Standards Stakeholder Committee

Meeting summary for April 15, 2014 with external stakeholders

1pm in Public Hearing Room (PHR) of 401 East State Street

Attendees: see attached list

T. Sugihara (TS) welcomed the audience of 29 external stakeholders and 13 Department personnel.

The decision to not move forward with a hexavalent chromium standard until IRIS had evaluated the toxicity research had been omitted from the posted March 11, 2014 external stakeholder meeting record. TS asked for comments on the amended meeting summary which had been sent out to all via email. There were none and the amended meeting summary will be posted online as final. The amended meeting summary will also serve as the summary of the previous meeting.

TS mentioned the GoTo Meeting option would be available for the next meeting for the already invited external stakeholders. K. Kunze (KK) is to be contacted to coordinate on the necessary arrangements if this option is desired by the individual stakeholders.

TS indicated the agenda for today's meeting would be a presentation by B. Frasco (BF) on the list of contaminants to be proposed as standards followed by presentations by L. Cullen (LC) and A. Motter (AM) on the ingestion/dermal and inhalation pathways, respectively. TS stressed that the pathway presentations would be on how to calculate the final standards and not what values the standards will be.

BF went over the list of contaminants and the number of compounds to be addressed in this remedial standards effort. All present received the latest handouts of the proposed contaminant list and the comparison of this list to the existing standards. There were some minor changes from the documents previously emailed to the external stakeholders. The latest versions will also be posted on the stakeholder website as part of the record for the current meeting.

BF explained that the proposed contaminant list is a modification of the USEPA Target Compound List/Target Analyte List (TCL/TAL). The decision to use the TCL/TAL list as a basis was primarily because the current Technical Requirements for Site Remediation (TRSR) focus on the TCL/TAL list for its investigative approach.

Previously the list of direct contact soil remediation standards (DCSRS) consisted of 134 contaminants. The proposed list of DCSRS is currently 137. Of the 134 on the existing list, 121 contaminants continue to be included on the new proposed list of 137. Deleted are 13 contaminants that were previously DCSRS. Some of these are analyzed primarily to assess analytical interferences rather than as remediation goals. 16 new contaminants are being

proposed to be DCSRS for the first time. The reason for their inclusion is primarily based on the need to determine a remediation goal.

BF indicated that for contaminants that do not have a standard, the interim remediation standard option is intended as the mechanism for developing one if needed, assuming the necessary information is available to do so. Similarly, an existing standard could be modified through the use of the alternative remediation standard (ARS) option. If justified by the need, amendment of the remediation standard rule could eventually be accomplished to permanently establish the value as a standard.

Questions were raised that identified the following topics or concerns:

1. Should the contaminants proposed for deletion be retained and will there be an explanation of why they were dropped?

The deleted standards can always be recovered through the interim remediation standard option if needed. The explanation of their elimination will be part of the Rule language.

2. Do all the DCSRS have parallel Ground Water Quality Standards?

No, because some do not have toxicity information available.

3. Several questions related to the extractable petroleum hydrocarbons (EPH) proposal were raised.

Responses to these questions were generally deferred to the next meeting when EPH will be one of the main topics presented.

4. The combined or "total" approach to setting standards for similar chemicals was questioned, particularly with respect to Arochlors.

This topic will be revisited by the committee to include reevaluation of the available toxicity information for mixtures.

AM introduced both the ingestion/dermal pathway and the inhalation pathway. AM emphasized the reliance on USEPA to include risk equations, toxicity databases, and guidance. He also explained the process for determining the DCSRS and indicated that the ingestion/dermal pathway derived standards would be more numerous than the inhalation pathway standards as DCSRS. AM also pointed out that the inhalation pathway approach is based on soil concentration measurements and that the analogous vapor intrusion pathway approach relies on measuring atmospheric concentration directly.

LC followed with an in depth presentation of the ingestion-dermal pathway calculations. Exposure equations for both cancer and noncancer health endpoints were explained for residential and nonresidential exposure scenarios. Details of both the ingestion and dermal

components of this approach were given to highlight the DEP Group C Carcinogen policy and changes/updates that are proposed for this amendment. These changes/updates include a modified ingestion-dermal contaminant list, a hierarchy of toxicity sources (including relative use), updated toxicity values, updated dermal absorption fractions, and new residential equations for 11 carcinogenic contaminants with a mutagenic mode of action.

Questions were raised that identified the following topics or concerns:

1. Inquiry was made about background and its consideration.
Incorporation of background into the development of standards is challenging because of the variation in the presence of the contaminants across the state and even between sites. While it was done for arsenic, the cost and resources to do so for all the standards is not feasible. BF indicated the Department intends to continue to address background through the use of case-specific background studies as is allowed by the TRSR.
2. Inquiry was made about the C carcinogen policy consistency with USEPA for naphthalene. BF indicated that USEPA programs handled the issue differently and this was an attempt to be consistent within the Department as well as with the 2008 Remediation Standards.
3. Inquiry was made about using a subchronic toxicity in the noncancer residential ingestion/dermal pathway exposure equation because of the emphasis on the 0 to 6 year old child as the most sensitive receptor.
LC indicated the chronic toxicity was used, but the applicability of the approach (as a remediation standard and not a screening value) will be verified.
4. Inquiry was made about how the DCSRS was selected.
LC indicated the lower of the two pathway values was selected and that both pathways would not be combined.
5. Inquiry was made why the outdoor worker exposure scenario was selected.
LC responded that it was the most conservative. In addition, it was more relevant to assessing the desired exposure than the construction or utility worker scenarios.
6. Inquiry was made regarding the review of toxicity information changes.
LC indicated toxicity values for all tiers change continually. These changes are monitored and assessed regarding the need to take action. TS cautioned that making these changes on an interval such as annual or every two years is being considered to avoid having adverse impacts on the development of work plans (and also the evaluation of these plans) because of a constantly changing list of standards. BF added that there is a process whereby Integrated Risk Information System and/or Drinking Water Quality Institute data could be used to update the standards via notice in the New Jersey Register, since those sources are peer-

reviewed. If using another source or study was used to update or change a standard, that would require application of the ARS option.

7. Inquiry was made about monitoring USEPA's list of emerging contaminants.
BF indicated that the Department has been questioned on the process for emerging chemicals of concern; the Chemistry Council is pursuing this idea; and the Department is considering it.
8. Inquiry was made about inclusion of a dermal component using a default for those contaminants that lacked dermal information.
The Department will only include a dermal component if the necessary information is available for that contaminant.
9. Concern was expressed over the application of mutagenicity to the polycyclic aromatic hydrocarbons because of their already low standards.
The concern is noted and the subject will be revisited by the committee.

AM made an in depth presentation on the inhalation pathway calculations. Exposure equations for both cancer and noncancer health endpoints were explained for residential and nonresidential exposure scenarios. Consistency with the USEPA was emphasized and in particular the Risk Assessment Guidance for Superfund Part F. Consequently, route to route extrapolation except under rigorous evaluation was precluded. Vehicular impact assessment and separate calculations of consideration of inhalation standards for volatile and particulate forms of contaminants, which had been previously done in 2008, were eliminated in favor of a USEPA combined equation. The impact of the saturation concentration on determining a standard was also explained. The calculation of proposed standards is in part awaiting the expected update of an emission factor (Q/C). The topics of interim and alternative remediation standards were also discussed briefly.

Questions were raised that identified the following topics or concerns:

1. Will the toxicity and chemical/physical parameters be presented to the external stakeholders?
AM: That information will be provided for each pathway.
2. What is the hierarchy for the chemical and physical factors?
PS: The master source for the current effort is from the former Region 3 Regional Screening Level Table (which is now the "national" table) because it is more comprehensive than the no longer existing Superfund Data Matrix ever was and is updated every 6 months. In 2008, the USEPA soil screening level guidance was used.
3. There is concern that the chemical and physical factors derived from the Estimation Program Interface (EPI) Suite is outside the bounds of the actual measured values. Could an evaluation be done?

PS: The chemical and physical factors to be used by the Department are the same as those selected by the USEPA for use in generating their “national” table.

4. Inquiry was made about the interconnection between the inhalation pathway and the vapor intrusion pathway as well as the accuracy of indirect measurement via modeling. The suggestion was made to require vapor intrusion assessment for volatile compounds located near a building at a certain depth.

AM indicated that the two pathways are addressed separately, but that the committee will assess the probability of there being no real risk as well as evaluate the exposure assumptions used.

5. The suggestion was made to consider different exposure assumptions especially for the residential exposure scenario because the ones used are too conservative as no one is there 24 hours a day for 7 days a week.

TS: The assumptions used are the standard assumptions used by the USEPA with which the Brownfield and Contaminated Site Remediation Act requires consistency.

6. USEPA Region 2 is in flux regarding the use of the 2008 updated child exposure factors. What is the Department going to do?

The committee will have to examine this issue, but typically the goal is to be consistent with the other regulatory agencies if possible.

7. The suggestion was made to strongly recommend the use of ARS instead of DCSRS. This is because the site-specific conditions (such as geology) vary so much.

LC: No. We are looking to protect the maximally exposed persons and develop our numbers based on reasonable exposures. TS added that the Department is being consistent with the approach of the USEPA in developing the proposed standards.

The next external stakeholders meeting will be at 1:00 PM on Tuesday, May 13, 2014 in the Public Hearing Room of 401 East State Street, Trenton, New Jersey.

4/15/2014 External Stakeholder Meeting Attendees:

LSRPA

Caryn Barnes

Lisa Campe

Nick DeRose

Scott Drew

Rodger Ferguson

Laurie Gneiding
Kevin Long
Carrie McGowan
Steve Posten
Lisa Voyce

AEG

Theodoros Toskos
Niall Henshaw

Municipalities/County Planner

Jason Simmons

Environmental/EJ

Joann Held

SRIN

Steve Chranowski
Rayna Laiosa
Ashley Bell
Robin Austermann
Maria Kouris

CIANJ

John Brennan
Rose DeLorenzo
Paul Dritsas
Jennifer Solewski

NJBIA

Sara Bluhm
George Tyler
Dennis Toft
Sharon McSwieney

NJBA

Neil Rivers

Fuel Merchants NJ

John Donohue

NJDEP

Teruo Sugihara

Barry Frasco

Swati Toppin

Diane Groth

John Ruhl

Linda Cullen

Allan Motter

Paul Sanders

Anne Hayton

Kathleen Kunze

Kevin Schick

Nancy Hamill

David Haymes