

**Meeting Minutes
Cleanup Standards Scientific Advisory Board
Rachel Carson State Office Building – Room 105
June 12, 2019**

CSSAB Members Present:

Chuck Campbell, Chairman	Michael Meloy
Joel Bolstein	Craig Robertson
James Connor	Mark Smith
Colleen Costello	
Annette Guiseppi-Elie (via telephone)	

Department of Environmental Protection (DEP) Staff Present:

Neil Bakshi	Lee McDonnell
Abbey Cadden	Frank Nemec
Troy Conrad	Brie Sterling
Mike Maddigan	

Others Present:

Jeff Christopher – GTA
Will Hitchcock – Manko Gold
Jenny Kachel - GHD
Neil Ketchum – Groundwater Sciences Corporation
Kay Linnell - Langan

Call to Order

Mr. Chuck Campbell, Chairman of the Cleanup Standards Scientific Advisory Board (CSSAB), called the meeting to order at 0935. Around the room introductions proceeded.

The draft meeting minutes of the February 13, 2019 CSSAB meeting were approved unanimously with one revision. The word “many” was struck from the following sentence regarding the discussion of proposed capping guidance addendum to TGM: “In addition, SERO has experienced ~~many~~ instances of failure to document construction of caps after workplan approval has been issued.”

Membership update: Mr. Lee McDonnell reviewed Board member status. The terms of CSSAB Chairman Campbell, Mr. Joel Bolstein, Ms. Colleen Costello, Ms. Annette Guiseppi-Elie, Mr. Michael Meloy, Mr. Craig Robertson, and Mr. Mark Urbassik have all expired. In addition, there are currently two vacancies on the Board: a House Minority appointment and a Senate Minority appointment. Mr. Michael Maddigan will continue to assist the Board members under the

secretary's jurisdiction with the reappointment process and will assist the other Board members as much as possible with their reappointments. Mr. Troy Conrad reported that obtaining member reappointments and filling vacancies on a timely basis has been problematic for many DEP advisory boards.

Land Recycling Program (LRP) Update

Personnel update: Mr. McDonnell reviewed updates to Bureau personnel. Deputy Secretary of Waste, Air, Radiation, and Remediation George Hartenstein retired in March 2019. Mr. Dave Allard, Bureau Director for Radiation Protection is now acting Deputy Secretary. Field Operations Deputy Secretary is now Mr. Joe Adams, previously SCRO Regional Director. In the Division of Cleanup Standards, interviews for the vacant Environmental Group Manager position are being conducted.

Funding Update: Mr. McDonnell gave an update on the status of the Hazardous Sites Cleanup Fund (HSCF), which funds the operating budget of the Bureau of Environmental Cleanup & Brownfields (BECB). With the current HSCF balance, the program can be funded through June 2020 and likely into the following fiscal year. The Agency is continuing to explore possible funding sources for beyond this date. Mr. Conrad reported that Per- and Polyfluoroalkyl Substances (PFAS) water sampling will be implemented by DEP using HSCF. A priority ranking system has been implemented for remaining active HSCA cleanup sites, which will be utilized for fund preservation. Mr. Bolstein inquired if PA DEP will develop a Licensed Site Remediation Professional (LSRP) program such as the one existing in New Jersey. Mr. Conrad stated that there are currently no plans to develop a LSRP program in PA.

Per- and Polyfluoroalkyl Substances (PFAS) Action Team update from Mr. McDonnell:

- Department of Health (DOH): DOH has hired a State Toxicologist and is working on securing an additional toxicologist. DOH is also working with the Agency for Toxic Substances and Disease Registry to secure grant funding to study the health impacts of PFAS in Pennsylvania communities.
- DEP: As part of the drinking water sampling plan, DEP will begin to collect samples next month and is planning to release the results on a quarterly basis. Additionally, DEP finalized an emergency Request for Proposal to onboard a toxicologist contractor, who will focus on evaluating current health studies and assist the Department with promulgating an MCL for PFAS constituents in drinking water. Finally, the Bureau of Waste Management is reviewing Pennsylvania's disposal options for fluorinated foams and soil contaminated with PFAS compounds.
- Firefighting Foam Workgroup (DEP, PennDOT, Turnpike Commission, Dept. Military and Veterans Affairs, Office of the Fire Commissioner): This workgroup is capturing the quantity of stored foams and evaluating disposal programs. Additionally, they are updating agency contracts to ban the use of aqueous film-forming foam (AFFF) by contractors. Additionally, the workgroup is actively working with federal counterparts to research foam alternatives.

Mr. Bolstein inquired how PFAS will interact with Act 2 cleanups. Mr. Conrad explained that initially there will be no requirement for responsible parties to sample for PFAS. DEP is also monitoring EPA's evaluation of PFAS substances as a hazardous substance. Mr. Bolstein commented that U.S. military entities should contribute funding in this area due to their prolific usage of these chemicals.

New Rulemaking Timeline: Mr. McDonnell reported that DEP is planning to submit the Chapter 250 regulation package to the Environmental Quality Board (EQB) by October/November 2019. The Chapter 250 rulemaking package would need to be completed by the end of July for a proposed October review by the EQB. DEP is aiming for the proposed rulemaking to be published by December 2019/January 2020 with publication of the final rulemaking by January/February 2021.

Mr. McDonnell issued a progress report regarding sites entering the LRP and sites completing the Act 2 process. From 10/1/2018 through 3/31/2019, LRP staff received 121 new Notices of Intent to Remediate and approved a total of 187 site work projects. Through March 2019, a total of 6,984 sites have completed the Act 2 process, and 1,562 sites remain in progress. Following this progress report, several Board members inquired how internal tracking of Act 2 sites is implemented. Ms. Costello recommended implementing meetings during the report review timeframe. Mr. Bolstein suggested that Central Office interact with project officers for all pending Act 2 project disapprovals. Ms. Costello inquired if training will be available for the January 2019 Technical Guidance Manual. Mr. McDonnell replied that training is currently in development but will not be ready until approximately the summer of 2020.

Discussion of revisions to proposed capping guidance addendum to TGM

Mr. Maddigan presented an overview of the proposed revisions to the TGM capping guidance addendum proposed by the CSSAB and highlighted the resulting revisions DEP made to the document.

Following Mr. Maddigan's presentation, Ms. Jenny Kachel, chair of the CSSAB capping guidance workgroup, presented five specific items for discussion regarding the proposed capping guidance. The following summarizes the five discussion points:

- Use of the words "contamination", "contaminant", and "contaminated" and their linkage to a risk-based approach in the document as opposed to their definition by statute;
- Use of the terms "impermeable caps" and "greatest extent practicable" in reference to reduction of infiltration and concern that these terms may be misunderstood to mean a requirement for a RCRA cap;
- Acceptable contaminant concentration criteria for soil to be used as soil cap material to eliminate the direct contact pathway;
- Use of a residual risk assessment to demonstrate attainment of the site-specific cleanup standard for areas remaining uncapped; and
- Incorporation of language excluding existing structures which are not used to prevent migration of regulated substances from maintenance and inspection requirements.

Additional Board comments: Mr. Bolstein requested that this guidance addendum should contain language stating that it is not to be used retroactively for sites having already completed the Act 2 process. Mr. Bolstein also inquired whether future failure of a soil cap is sufficient means for an Act 2 re-opener; also, would it be prudent to simply add more soil to the cap than is necessary and forego all future inspection requirements. Mr. Mark Smith suggested that using a geotextile membrane under a layer of gravel may result in puncturing of the membrane. Mr. Meloy suggested removing all provisions of inspections and maintenance from the guidance and referring to those requirements in the post-remedial care plans and environmental covenants necessary to complete the Act 2 process. Mr. Meloy also questioned how a cap can be utilized as an institutional control as it is suggested in the draft guidance text.

It was determined that DEP will consider all of the concerns and proposed revisions to the capping guidance addendum proposed by the CSSAB. After the final revisions are made, the guidance document addendum will be published draft for public comment.

Presentation of revisions to proposed Chapter 250 rulemaking

Mr. Maddigan presented an overview of revisions to proposed Chapter 250 rulemaking for the CSSAB to consider. Discussion points during the presentation included:

- The Board discussed omitting § 250.6(c)(4) from the regulations which is related to public participation in the development and review of the remedial investigation report, risk assessment report, cleanup plan and final report. Because public notice requirements, notice to municipality, notice of submission to newspaper and providing DEP with notice of publication already exist for each report, the Board suggested adding the proposed language to this section would cause confusion and is not necessary. As an alternative to omission, examples such as those provided in Act 2 that clarify the meaning of this provision in the rulemaking could be added.
- It was noted that the grammar of § 250.409(1) may not be correct.
- § 250.410(d) states that a cleanup plan is required when an institutional or engineering control is used as a remedy to address current and future exposure pathways or exposure pathways that existed prior to submitting an NIR. This regulation was discussed; however, a consensus of agreement was not reached at this time.

Discussion and recommendations from the Board

- Chlorides: Mr. Robertson inquired why DEP will not promulgate an MSC for chlorides in soil. As discussed in previous meetings, Mr. Robertson explained that chlorides should have a soil MSC of 190,000 mg/kg based on the physical limitation of the soil to contain chlorides as described in § 250.305(b). This approach is consistent with other constituents that have secondary MCL values. Failure to promulgate a chlorides MSC with the new Chapter 250 regulations forthcoming could be problematic for the regulated community as well as DEP. Mr. Conrad responded that because toxicity information/data does not exist for chlorides, DEP is not inclined to promulgate an MSC for the constituent in soil. Mr. Robertson later pointed out that the chlorides MSC would be reduced by a factor of 10 to 19,000 mg/kg to protect ecological receptors if the

language in § 250.311(c) were amended to accommodate substances with MSC based on the physical limitation. Mr. Conrad stated that DEP would take this under consideration.

- PCBs and Aroclors: Ms. Costello and Mr. Campbell presented the Board's recommendation for the proposed MSC revisions to PCBs and Aroclors. In general, the Board finds it inconsistent to retain two specific Aroclors (1016 and 1254) while deleting all the other individual Aroclors and adding total PCBs to the draft MSC tables. Oral reference doses (RfD_o) do not exist for total PCBs, therefore it would be inconsistent to retain total PCBs on the MSC tables while deleting all the individual Aroclors that also do not have a RfD_o. Ms. Costello also recommended replacing DEP's proposed organic carbon partition coefficient (K_{oc}) from EPA's EPI Suite for total PCBs with a K_{oc} value calculated using ASTDR's measured octanol-water partitioning coefficient (K_{ow}). Ms. Costello went on to explain that a total PCB analysis utilized during site characterization may result in detections that are not related to a release at the property. The Board recommended retaining total PCBs in the MSC tables but also retaining all of the individual Aroclors in the tables.
- Vanadium Toxicity Values: Mr. Will Hitchcock presented the Board's recommendation regarding the soil MSC for vanadium. DEP's current MSC for direct contact residential soils is 15 mg/kg. The Board questioned why the Agency, in calculating the current soil MSC for vanadium, chose the Provisional Peer-Reviewed Toxicity Value (PPRTV) value instead of the Integrated Risk Information System (IRIS)-derived vanadium toxicity value provided in EPA's Regional Screening Levels (RSL) table. The IRIS-derived toxicity value was calculated by EPA using the IRIS value for vanadium pentoxide. Mr. Hitchcock's rationale for preferring the IRIS-derived vanadium toxicity value included the application of a lower uncertainty factor and a longer study period. Mr. Conrad, with no objections from the Board, stated that the Agency will consider rescinding the MSC for vanadium in soil. However, the MSC will not be revised.
- Polycyclic Aromatic Hydrocarbons (PAHs) Toxicity Values: Mr. Hitchcock presented the Board's concerns regarding several PAH groundwater MSCs, which are now based on theoretical solubility limits instead of risk. Mr. Maddigan responded that according to § 250.304(f), the groundwater MSC is limited by the solubility of a substance in water. If the calculated value exceeds the solubility limit, then the solubility limit becomes the MSC. The solubility limits are selected from a number of sources and a hierarchy referenced in § 250.304(f) and (g).

Other Business/Closing Issues

Mr. Conrad requested a letter of support from CSSAB for the forthcoming Chapter 250 rulemaking. Chairman Campbell decided to forego a vote from the Board regarding the rulemaking until items discussed in today's meeting are considered further, including reinstating individual Aroclors back into the MSC tables, and rescinding the MSC for vanadium in soil. Further questions or discussions regarding the capping guidance addendum should be directed to the capping guidance workgroup.

Meeting Adjourned at 1540.