Meeting Minutes
Cleanup Standards Scientific Advisory Board
Hybrid In-Person Meeting (Room 105 of RCSOB)/Virtual Meeting (Webex)
August 11, 2021

CSSAB Members Present:

Chuck Campbell, Chairman
Joel Bolstein
James Connor
Colleen Costello
Annette Guiseppi-Elie
Michael Meloy
Craig Robertson
Mark Smith
Mark Urbassik
Don Wagner

Department of Environmental Protection (DEP) Staff Present:

Abbey Cadden
Troy Conrad
John Gross
Darek Jagiela
Mike Maddigan
Frank Nemec
Nikolina Smith
Brie Sterling

Open Meeting

CSSAB Chairman Chuck Campbell commenced the meeting at 0930 starting with introductions and roll call of those attending virtually.

Mr. Campbell requested approval of the draft revised CSSAB meeting minutes from the July 30, 2020 virtual meeting. These minutes were approved by the Board with no further revisions requested. Mr. Campbell noted that names of DEP volunteers for proposed subcommittees had not yet been received by the Board. Mr. Campbell requested comments, if any, of the draft CSSAB meeting minutes from the December 16, 2020 virtual meeting. No comments were received, and the minutes were approved.

Administrative Issues: Mr. Campbell emphasized the need for implementing subcommittee meetings as well as the inclusion of DEP staff as subcommittee members. Additionally, the Board is seeking DEP feedback regarding the technical memo authored by the Board pertaining to the option of averaging of lead in soil for attainment of a statewide health standard. Similarly, the Board is seeking access to technical memos and issue papers created by the DEP, if any, regarding issue(s) that may be of interest to the Board for the record and for Board member review.

Membership: Mr. Troy Conrad reviewed CSSAB membership and current member expired terms (Ms. Tina Serafini, term expired Sept. 2019, Mr. Mark Urbassik, term expired July 2016, and Mr. Campbell, term expired December 2013). Members whose term has expired may continue to serve on the Board until reappointment or replacement. Additionally, two vacancies remain on the CSSAB. Mr. Conrad noted that Board membership reappointments and vacancy appointments have been a challenging issue across all agencies of the Commonwealth due to lack of qualified volunteers and/or lack of Commonwealth evaluating staff. Mr. Urbassik reported that he is actively pursuing reappointment with his senator's office as well as attempting to get his alternate appointed.

Land Recycling Program (LRP) Update

Personnel Update: Mr. Conrad named the current Environmental Program Managers and Land Recycling Program Section Chiefs in each of the six regional offices and key personnel in Central Office. The Board inquired about progress regarding hiring a DEP toxicologist. Mr. Conrad reported that efforts to hire a DEP toxicologist are ongoing.

Hazardous Site Cleanup Fund update: Mr. Conrad reported that the LRP is continuing to search for a permanent funding source since the phaseout of the Capital Stocks and Franchise Tax (CSFT). The program currently has sufficient funding to last until the end of the 2022-23 fiscal year. This is due to a smaller contingent of staff than originally anticipated, less spending on state-directed cleanup sites due to the ongoing COVID-19 pandemic, and unexpected income originating from trailing revenue from CSFT. Mr. Joel Bolstein inquired if ISRP (Industrial Sites Reuse Program) funding is available. Mr. Conrad reported that those figures could be determined and shared after the meeting. Mr. Conrad also reported that an initial slowdown of new LRP projects was observed in conjunction with the onset of the pandemic. Mr. Campbell requested the number of sites entering the program in pandemic vs. non-pandemic years. Mr. Michael Meloy requested statistics regarding approvals vs. disapprovals on a region-by-region basis. It is perceived that the percentage of disapprovals across the state has been increasing lately. Mr. Bolstein asked how much of the HSCF annual budget is spent on personnel and how much is spent on site cleanups. Mr. Conrad reported that the annual budget is approximately $50 million with half spent on site cleanup costs and the other half is spent on administrative costs including personnel costs, ISRP funding, and miscellaneous operating costs. Mr. Conrad stated that requested statistics will be compiled and shared with the Board.

Per- and Polyfluoroalkyl Substances (PFAS) Action Team update: Mr. Conrad reported the following developments: 1) PFAS substances are to be added to the Medium Specific Concentration (MSC) tables in the upcoming Chapter 250 final-form regulation publication; 2) Bureau of Environmental Cleanup and Brownfields and the Safe Drinking Water Program are partnering with USEPA to perform non-targeted sample analysis at six sites across PA; 3) DEP is continuing oversight of the assessment of PFAS at 34 sites across PA. For the majority of these sites, the source of the PFAS contamination has been attributed to the use of firefighting foam; DEP is continuing work on developing SOPs for the collection of media contaminated with PFAS; 4) In partnership with the state fire commissioners office, DEP is continuing the education of firefighters across the state regarding the hazards associated with exposure to PFAS

in firefighting foam and guidelines for its continued use; 5) the Safe Drinking Water Program is continuing the sampling of at-risk public water supplies and the Clean Water Program has completed a targeted surface water assessment for PFAS compounds. Mr. Bolstein reported that preliminary results of a pilot test remedy (PlumeStop®) utilized at a PFAS site (Ridge Run) look very promising and asked if additional details can be shared. Mr. Conrad agreed that results appear promising, but no additional details about performance are available for this meeting. Ms. Costello inquired about the Safe Drinking Water Program's work regarding the Drexel University's request to establish Maximum Contaminant Limits (MCLs) which are lower than the proposed MSCs. State-proposed MCLs are projected to be much lower than the MSCs, which are established by statute. Final decisions regarding this issue will be determined by the legal and policy offices of DEP. Mr. Don Wagner added that DEP has not followed the state's policy regarding setting MSCs with respect to MTBE. Mr. Meloy inquired whether DEP has conversed with US EPA regarding using the MSCs for 1,4-Dioxane as ARARs (Applicable or Relevant and Appropriate Requirements). Mr. Conrad wasn't aware of any consultation with US EPA regarding this matter.

Concepts for Potential Regulatory Changes for the Chapter 250 Rulemaking

Mr. Michael Maddigan presented an overview of the concepts for potential regulatory changes for the Chapter 250 rulemaking.

Lead and soil lead averaging: Mr. Campbell stated that the new IEUBK model, indicating a blood lead level of 5 ug/L in a child, resulting in a residential MSC of 200 mg/kg, is calculated with a number of statistical safety factors, resulting in the actual blood level to drop below 5 ug/L in children. Regarding the proposed use of averaging to demonstrate attainment of lead in soil, the September 2020 CSSAB technical memo regarding this issue shall be considered in the upcoming lead workgroup meeting(s). There is concern amongst DEP staff regarding the interaction of lead averaging with other statistical tests already accepted to demonstrate attainment of an MSC, such as the ad hoc 75/10X rule, or 95% UCL. It was determined that a more in-depth discussion and analysis of this topic will be covered by the lead workgroup.

PAH MSC Calculation Process: Mr. Meloy stated if PAH MSCs are based on the surrogate toxicity of benzo(a)pyrene (BaP), when the proposed MSC for BaP rises, a "ripple" effect should occur with other PAHs, but that is not happening in the new Chapter 250 MSCs. Therefore, the surrogates utilized to calculate other PAH MSCs should be investigated by a PAH workgroup. Mr. Conrad cautioned that DEP is not committing to revision of the PAH MSCs but is open to discussing the process regarding what surrogates are considered to establish the MSCs. Mr. Meloy commented that several PAH MSCs are based on solubility limits which are more conservative than necessary to be protective of human health. Ms. Colleen Costello added that filtering groundwater samples for PAH laboratory analysis was another consideration for this workgroup.

Toxicity value used to calculate vanadium soil numeric values: Mr. Conrad reported that DEP is considering a different vanadium toxicity value which would result in revised vanadium numeric values for the next rulemaking. Mr. Meloy stated that the PPRTV value is not suitable for use in

this instance. Mr. Conrad responded that the Department has not decided which toxicity value to use. Mr. Meloy responded that a separate corrective rulemaking addressing only vanadium should be implemented as soon as possible. Mr. Bolstein reported a recent experience where an entire project for redevelopment was cancelled due to the presence of vanadium in soil above the clean fill values. Mr. Bolstein also stated that because of the overly conservative vanadium soil values, redevelopment projects are avoiding the Act 2 process.

In summary, two workgroups are proposed: a lead in soil workgroup and a PAH toxicity workgroup. DEP is targeting the December 15, 2021 CSSAB meeting to provide a draft proposed rulemaking to the Board. Ms. Costello volunteered to take the lead regarding logistics of starting the workgroups. The same CSSAB members who were previously in the lead workgroup will continue to participate.

Ms. Abbey Cadden stated that the Chapter 250 final-form regulations are expected to be published in early November 2021.

Mr. Bolstein inquired whether the Department can obtain statistics regarding which cleanup standard is being attained for lead cleanups at residential sites. In his experience, most sites are choosing the site-specific cleanup standard with pathway elimination. He inquired how a revision of the MSC for lead would affect the filing of a deed notice on a property (as per HSCA requirements). Mr. Conrad stated that specific contaminant cleanup statistics are not normally maintained, but Central Office will compile the requested statistics and share them with the Board. Any revision to an MSC will not result in a Department-action requiring additional investigative work if a report has been submitted or a Relief of Liability granted.

Audience member Mr. Brian Hillard inquired whether the proposed revision to the lead soil MSCs will be promulgated in the upcoming November 2021 Chapter 250 regulation publication. Mr. Maddigan reported that the proposed revisions to the lead soil MSCs will be rescinded until the lead workgroup meets and makes recommendations.

Challenges posed by PFAS Contamination at Act 2 Redevelopment Sites

Mr. Conrad requested any insight, information, and/or problems from the CSSAB in their remediation experiences at PFAS-contaminated sites. Mr. Campbell reported that PFAS and all its sampling challenges (e.g. extremely low detection limits required) became the sole focus once it was detected at a site. Mr. Bolstein reported of a site bordering a US Navy facility where PFAS was detected in the groundwater and active remediation via pump & treat was ongoing. Mr. Bolstein also noted that the US Navy has yet to take any responsibility for the PFAS groundwater contamination. NPDES requirements for the pump & treat effluent were required for the PFAS compounds which caused challenges to the project as the site RP was not responsible for the PFAS detected. Mr. Bolstein also stated that sites in Bucks and Montgomery Counties within the existing PFAS groundwater plume will be more likely to pursue the Background cleanup standard. Mr. Bolstein requested specific new guidance from the Department regarding attainment of the Background cleanup standard for PFAS due to the significant cost and effort required currently. Industrial sites undergoing due diligence are likely

to be investigated for historic fires and use of firefighting foam trucks. An additional question was posed from Mr. Bolstein whether PFAS poses a vapor intrusion risk.

Ms. Costello indicated that IDW (investigation derived waste) treated for PFAS is causing redevelopment plans to include the treatment of PFAS in construction features (e.g. sump pumps). Another issue observed indicated the need for soil management plans for PFAS-affected sites. Ms. Costello recommends forming a PFAS workgroup to study the unique fate & transport characteristics in groundwater with respect to attaining the Background cleanup standard.

Mr. Conrad reiterated that 34 sites statewide containing PFAS plumes are being tracked. Four sites are remediation sites with cleanups being financed by HSCF. Mr. Conrad offered to bring Southeast Regional Office to the next CSSAB meeting to brief the Board on updates to the Ridge Run and Easton Road PFAS sites.

Mr. James Connor reported that New Jersey DEP has adopted the Interstate Technology and Regulatory Council's (ITRC's) PFAS guidance and requires most site investigations to include a PFAS assessment. Ms. Costello mentioned that PFAS contamination has adversely affected property transactions in other areas of the country (New England, Upper Midwest). Other members of the CSSAB have had no or only very limited personal experience with PFAS investigations/transactions. In PA's voluntary cleanup program, Mr. Conrad reiterated that remediators remain free to choose the contaminants they can investigate which are generally based on former or present site operations. That protocol will not change.

Public Comment

The floor was opened for public comment. One public comment submitted: the vanadium issue needs to be fixed within Act 2 and Management of Fill Policy. Mr. Conrad responded on behalf of the Department: agree with the comment, and the Department is actively pursuing a remediation to the vanadium issue within both Act 2 and Management of Fill policy.

Mr. Conrad welcomed any additional developments/comments the CSSAB members may experience with respect to PFAS at any time going forward.

Meeting Adjourned at 1340.