CORRESPONDENCE/MEMORANDUM

State of Wisconsin

DATE: May 26, 2021 FILE REF: BRRTS 02-05-000254

TO: Sarah Rolfes USEPA

FROM: DNR NER RR: Bill Fitzpatrick and Sarah Krueger

SUBJECT: WDNR Comments on WPSC's February 19, 2021 Sediment Remedial Investigation Report – Revision 1 Former WPSC Green Bay MGP, Green Bay, Wisconsin, Wisconsin Public Service Corporation CERCLA Docket No. V-W-06-C-847, CERCLIS ID – WIN000509948

Thank you for the opportunity to provide comment on the Green Bay MGP Sediment Remedial Investigation Report Rev 1. Below are the Department of Natural Resources' (DNR's) comments. Please contact me if you have any questions.

Specific Comments

1. Section 3.4.3, Page 23 and Section 4.1.1.3, Page 31, NAPL Mobility: NAPL product in soils and sediment are a risk due to toxicity to receptors and contribution to contamination of groundwater, surface water, and pore water. NAPL can be mobilized by pore to pore movement, facilitated transport via fissures and higher permeability lenses, preferential pathways, and transport of particles, including colloidals, containing NAPL in surface water and groundwater.

    a. Testing of NAPL mobility using water drive lab procedures measures only one potential transport mechanism, which may not evaluate the risk to other media and receptors from the presence of NAPL.

    b. The water drive procedure is not an appropriate test procedure to use on sediments which are not lithified, contain 50%+ water by weight (50%-70% liquid by volume), and behaves more as a liquid than a solid. Water drive testing SOPs specify minimum disturbance of samples in collection and handling. Sediment cores collected for testing commonly do not meet QA requirement of the test procedures due to recovery ratios below 100%, fluid saturations below in situ conditions, and cores are generally disturbed by the collection method which can induce drag down smearing and reorientation of sediments during collection.

    c. The water drive procedure was used at the Ashland MGP Superfund site for soils. The study results from the Ashland site were rejected by both USEPA and DNR; neither agency accepted the study results for use in predicting the mobility of NAPL in groundwater. Groundwater NAPL extraction wells used at the site for the recovery of MGP product later showed the mobility results were incorrect and not predictive of actual site conditions.

Comments on Baseline Risk Assessment Appendix K

2. The RI BLRA is unacceptable. The BLRA relies on unapproved risk evaluation documents, specifically the "multi-site model" that has not been accepted by EPA or DNR at this or other Wisconsin MGP investigations.
    a. The BLRA does not present the multi-site model and refers the reader to the Two Rivers MGP BLRA as a source for an updated version of the model. The Two Rivers documents mention a multi-site model but does not include the model in the site BLRA or the attachments.
3. The multi-site model offers a tPAH evaluation tool based on aggregated data from 4 Wisconsin MGP sites. The tPAH evaluation tool is unacceptable and unnecessary.
    a. The multi-site model also referred to as the "2015 Model" is part of a proposal from WPSC submitted in 2016 for a risk-based sediment remediation approach for Wisconsin MGPs. The 2016 proposal and supporting documents were not accepted by the agencies and will not be accepted at this time.
    b. The multi-site model tPAH evaluation is based on a single study that was not peer reviewed and originated from a SETAC poster. There is limited information regarding the approach.
    c. The multi-site model used censored data; growth toxicity testing data was censored and not used as part of the model development.
    d. The multi-site model risk evaluation underpredicted toxicity by 42% and 62% at 2 of 4 sites (SETAC Poster Presentation, Appendix K, of the Oshkosh MGP RI, Attachment 4, Attachment 1).
    e. The multi-site model is unnecessary given more the extensive studies of PAH toxicity on benthic invertebrates such as MacDonald et al. (2000), which was used to develop the CBSQG guidance DNR uses to evaluate sediment.
    f. The 2015 multi-site model was not and will not be approved for use on Wisconsin MGP cleanups.
4. Section 5.4.6, Page 36, The text states that the multi-site model used 28-d survival and growth endpoints for Hyalella azteca to compute PAH toxicity. The model censored the growth data from all sites to estimate toxicity.

Reference

MacDonald, D.D., C.G. Ingersoll, and T.A. Berger. 2000. Development and evaluation of consensus-based sediment quality guidelines for freshwater ecosystems. Arch. Environ. Contam. Toxicol. 39:20- 31.