

Housatonic Environmental Action League, Inc.

Raising Awareness – Sharing Knowledge – Bridging Advocates

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VIA EMAIL (r1housatonic@epa.gov)

GE-Housatonic River Site Public Comments
EPA Region 1
5 Post Office Square (Mail Code SEMD-07-01)
Boston, MA 02109-3912

RE: 2020 Proposed Revised Cleanup Plan for the Rest of River

Dear Mr. Deziel:

Please accept these comments on behalf of the Housatonic River Initiative, Inc. (HRI) and Housatonic Environmental Action League, Inc. (HEAL) on the General Electric Company (GE) and EPA's 2020 Proposed Revised Cleanup Plan for the Rest of River Area of the Housatonic River (Revised Plan). Our comments fall into three categories: 1) The inadequacy of the proposed remedy, both in terms of the total mass of PCB contamination being remedied and the failure to remediate huge stretches of the River; 2) The unsuitability of the proposed site where EPA seeks to place the Upland Disposal Facility; and 3) The agency's failure to consider or incorporate alternative technologies into the proposed remedy.

1. The Inadequacy of the Proposed Remedy

With the Revised Plan, EPA and GE propose to remove slightly more sediment from Reaches 5-8 compared to the 2016 Plan. However, the Revised Plan still does not do what its name would suggest: it does not "clean up" the "rest of the river." Instead, it primarily proposes "monitored natural attenuation," a euphemism for doing nothing – no baseline testing, no standards for remediation, no remediation at all.

In its presentation of the revised 2020 plan to the community, EPA stated that 3,500 more pounds of PCBs will be removed from the river system compared to the 2016 Plan, but avoids the question of how many more pounds will remain. EPA's

current estimates are that there are between 100,000 and 600,000 pounds of PCBs in the Housatonic River and its floodplain. The estimated mass of PCBs to be removed under the Revised Plan is only 50,500 pounds. Even using EPA's lowest estimate, only about half of the PCB mass in the River will be removed, and using EPA's high end estimate, only 8% of total PCB mass will be removed. Several years ago, HRI interviewed GE's Former Manager of Tests, Ed Bates, whose job was to calculate loss rates from Pyrenol used at GE's manufacturing facility in Pittsfield. According to Mr. Bates, 4,000 to 5,000 pounds of PCBs were lost per week into the ground and into the Housatonic River. Mr. Bates told us that between 1981 and 1990 approximately 1.5 million pounds of PCBs made their way into the river. By that estimate, the 50,500 pounds that GE is proposing to remove is only 3% of the total PCBs that GE wrongfully dumped into our communities.

With hundreds of thousands of pounds left in the river and floodplain soils, it is likely that PCBs will continue to plague our communities and our environment from Berkshire County, Massachusetts to Long Island Sound. Extreme weather events are becoming more common and will inevitably mobilize the PCBs that are left in the river after GE washes its hands of the problem – a problem GE created. When that happens, the communities along the river will be left without the resources to clean up the rest of GE's mess.

The portions of the Housatonic River downstream of Woods Pond in Massachusetts (reaches 7-9) and the Connecticut portions (reaches 10-17) continue to be neglected in the Revised Plan. EPA acknowledges that contamination has spread into Connecticut approximately 140 miles from GE's Pittsfield facility. Yet, the Revised Plan does not require this contamination to be cleaned up in any meaningful way and does little to even assess the extent of the contamination in the downstream reaches. Nor does the Revised Plan set any standards to be achieved for the downstream reaches, even if PCBs are discharged during remediation or during major storms. Focusing only on areas where the most PCBs are found does not mean that the levels of PCBs in other areas of the river are acceptable. Nor does focusing on areas where the most PCBs are currently found guarantee that any measures will be taken to protect the other reaches when PCBs are transported to them.

The data about PCB levels in the Connecticut portions of the river is completely inadequate. A member of HEAL attended a Citizens' Coordinating Council meeting during which a representative of the Connecticut Department of Environmental Protection stated that he did not want to know if there were PCBs in Connecticut because then something would have to be done about them. This comment sadly mirrors the current proposed approach to contamination in the Connecticut reaches.

GE has not conducted baseline monitoring in the Rest of the River, there is no approved plan for baseline monitoring in the Rest of the River, and, under the Revised Plan, there are no binding performance standards for addressing most of the reaches of the Rest of the River. Very little sampling has been done in water and sediment in the Connecticut portions of the river and it cannot be reliably assumed that the levels of PCBs in reaches 10-17 are currently protective of human health and the environment or that they will attain protective levels post-remediation. Since 1988, surface water sampling investigations have focused primarily on the Massachusetts portions of the river, with most sampling locations upstream of Woods Pond Dam. Within the last 20 years, GE's surface water sampling program has been limited to ten locations in Massachusetts, only five of which are located in the Rest of the River. In 2016, data collected in reaches 5, 6, and 8 had average PCB concentrations of 31-125 ng/L (or .000031- .000125 mg/kg), with maximum data points as high as 1,400 ng/L (.0014 mg/kg) (and maximum data points were much higher at all stations). EPA studied surface sediments in the Rest of the River between 1998 and 2002, but the focus was on reaches 5-6, with a much smaller number of sampling locations in Connecticut. Between EPA, Connecticut agencies, and other parties, only 540 total samples have been collected in the Connecticut portions of the river between 1980 and 2005.

Of the limited samples in Connecticut (reaches 10-16) EPA found PCB concentrations in sediment averaged 0.062 mg/kg, with maximum samples reaching 0.47 mg/kg. When combined with data from other parties, PCB concentrations averaged 0.18 mg/kg, with maximum concentrations of 2.33 mg/kg in reaches 10-16 (combing all data between 1998 and 2015, a total of only 155 data points). PCB concentrations were higher in those sediment samples deeper than one foot. The State of Connecticut has a water quality standard for freshwater aquatic life of 0.014 mg/kg and a human health standard based on human consumption of water and organisms of 0.000064 mg/kg. Doing nothing in terms of cleanup while PCB concentrations exceed state water quality standards is not an acceptable permanent solution for these reaches, particularly since the data is so limited. The RCRA permit should hold GE accountable for attaining performance standards for the "rest" of the river – not just "some" of the river.

To the extent there has been testing of living organisms in the Connecticut portions of the river, the results have trended in the wrong direction. Although GE has sampled PCB concentrations in a few species of fish in Connecticut, the results have shown elevated levels of PCB concentrations in fish tissue, which have in fact increased in recent years. In 2014-2016, the proportion of fish with PCB concentrations above the U.S. Food and Drug Administration's tolerance limit of 2.0 mg/kg was 20%-60% for Smallmouth Bass and 60%-80% for Brown Trout. Thus, the limited data available show that Connecticut's environmental and cultural values continued to be threatened by ongoing PCB contamination caused by GE.

“Monitored Natural Recovery” is no solution for the large mass of PCBs in the Housatonic River. EPA’s documents confirm that:

- “The PCBs found at this site are persistent in the environment and resistant to biodegradation. As a result, the rate of natural degradation of the type of PCBs in the Housatonic River is very slow --- on the scale of hundreds of years.”
- “Natural recovery from this contamination in the absence of cleanup in the river and floodplain is a very slow process that will take decades if not hundreds of years before PCB concentrations in fish decrease to a level that will permit unlimited consumption.”

A fishable river is a reasonable goal, and one that our members have been fighting for over many years. It is especially important in these times of widespread food insecurity to recognize that families in both Massachusetts and Connecticut continue to be harmed by being unable to safely consume fish from the Housatonic River.

The Revised Plan does not even adhere to the few standards that exist for the use of “Monitored Natural Recovery.” “Monitored Natural Recovery” is only appropriate (1) when it will be capable of achieving site-specific remediation objectives within a timeframe that is reasonable compared to other alternatives; (2) when it is adequately supported with site-specific characterization data and analysis, including a quantitative understanding of source mass, groundwater flow (including preferential pathways), contaminant phase distribution and partitioning between soil, groundwater, and soil gas, rates of biological and non-biological transformation, and an understanding of how all of these factors are likely to vary with time; and (3) when it will continue until remediation objectives have been achieved, and longer if necessary to verify that the site no longer poses a threat to human health or the environment. (Final OSWER Directive “Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action, and Underground Storage Tank Sites, Directive No. 9200.4-17P,” US EPA April 21, 1999).

By contrast, the Revised Plan does little more than invoke the term “Monitored Natural Recovery.” It does not set binding performance metrics to be achieved through Monitored Natural Recovery. It is not supported by detailed site-specific data showing whether and how Monitored Natural Recovery is expected to occur. It does not achieve remediation objectives because it does not provide for remediation at all. Thus, “Monitored Natural Recovery” is no more than a way for GE to avoid responsibility for its actions while shifting risks to the affected communities in Massachusetts and Connecticut. Instead of allowing GE to “do nothing” in the majority of the Rest of the River, EPA should insist that GE achieve performance metrics in all relevant media for all reaches of the river. GE profited for years by dumping its toxic wastes at the expense of our communities. We respectfully ask that the EPA hold GE accountable for the full

extent of PCB contamination it has caused in in all reaches of the Housatonic River and surrounding floodplains.

2. The Unsuitability of the Proposed Upland Disposal Facility

The proposed location of the Upland Disposal Facility (“UDF”) is entirely unsuitable. First of all, the EPA is proposing that the UDF be located approximately 1,000 feet directly uphill from the River. The UDF will not last forever, and the EPA has not claimed that it will. Therefore, when the UDF eventually leaks or fails at some point in the future, PCB-contaminated material is at risk of flowing straight back into the River and/or straight onto the properties of nearby residents of Lee and Lenox.

Moreover, the land upon which the UDF is to be built is a site that was previously used by the Lane Construction Company for its sand and gravel mining operations. Gravel pits are generally strongly disfavored as potential landfill sites (indeed, New York does not permit landfills to be placed in old gravel pits) because, among other things, they often lack an adequate layer of till beneath the gravel and above the bedrock. For any proposed landfill, it is critical that the landfill be placed above a continuous layer of impermeable, low hydraulic conductivity till of sufficient thickness to prevent (or at least minimize) the flow of any leaked contaminants into the bedrock aquifer. Without that protective natural barrier, any leaked contaminants can flow directly into the aquifer and be more readily distributed to adjoining properties and back to the River. In addition, when a site has been used as a gravel pit, there is a significant risk that excavating and bulldozing activity has disturbed any till that may exist, thereby rendering it more permeable. The Lane Construction Company is currently subject to an enforcement action and consent decree entered in May of 2019 under the Clean Water Act to address illegal discharges caused by erosion from gravel piles into the Housatonic River and destruction of the riverbanks adjacent to the gravel pit. EPA has not shown that this site will be structurally sound in the long term (that it will not further erode, sink, or cave in). Here, given the nature of the site’s prior use, there are serious concerns that the proposed UDF gravel pit site lacks the kind of subsurface characteristics that would make it appropriate for a landfill. EPA has not only failed to demonstrate the geological propriety of the proposed site, it has completely failed to evaluate it in comparison to other disposal locations.

Second, the proposed location for the UDF is in close proximity to residential homes, schools (including the Montessori School of the Berkshires), and businesses in the towns of Lee and Lenox. Specifically, the UDF will be less than two miles from three schools and less than a mile and a half from Lee’s town water supply. Therefore, individuals in the local community who have already had to live adjacent to a heavily contaminated river will now also be living next to a large dump filled with high

concentrations of contaminants. Should any part of the UDF leak or fail to perform as expected, these local residents will be subject to PCB contaminated material leaking directly onto their properties and their community. EPA no doubt recognized this risk when it offered to decommission the drinking wells on properties near the proposed UDF site. Indeed, EPA Region 1 has previously recognized that “there remains a non-zero potential” for releases to the Housatonic River over the long-term from an on-site disposal facility.

In addition, the UDF will undoubtedly negatively impact the property values of all those living in close proximity to the site. The residents of Lee and Lenox should not be forced to accept a significant reduction in the value of their homes as the price of removal of some PCBs from the River. Notably, although it is the residents of Lee and Lenox who will directly bear the burden and risks associated with the UDF, these residents never had an opportunity to directly vote on the proposal to locate the UDF in their communities. Instead, the decision was made by a handful of public officials in closed-door meetings that the communities only learned about once the deal was done. Had the residents actually had an opportunity to vote, it is exceedingly doubtful that the UDF ever would have been approved, as the local residents are strongly opposed to the UDF being placed in their communities and have voiced their opposition whenever they have been given the chance to do so.

Third, the proposed location for the UDF is very close to the entrance to October Mountain State Forest, the largest state forest in Massachusetts (16,500 acres). Individuals from both the local communities and all over the Commonwealth and neighboring states regularly utilize this forest for, among other things, hiking (including a portion of the Appalachian Trail), camping (over 40 campsites within the forest), boating, canoeing, kayaking, cross-country skiing, picnicking, fishing, and hunting. It is a cherished natural resource in Western Massachusetts and contains a wide variety of animal and plant life. Having a toxic dump located right at the entrance to this picturesque, serene, biologically rich forest not only places this natural resource at risk of contamination should the UDF fail in any manner, it irreparably mars the experience for all those visitors who seek out October Mountain as a clean, natural escape.

Finally, EPA’s selection of the UDF as a substantial component of its remedy is not cost-effective. Any reduction in upfront financial costs associated with an on-site disposal solution is outweighed by the long-term costs of permanent monitoring and repairs to the UDF, as well as the costs to the local communities outlined above. Moreover, the effectiveness of the clean-up is compromised by selecting an on-site disposal solution because PCB-contaminated material will not truly be removed from the Housatonic River environment and will continue to present a threat of environmental harm over the long-term, a threat that will actually increase, not decrease, with time as the UDF ages.

By choosing to relocate PCB-contaminated materials from the River to a geologically inappropriate landfill, the EPA has elected to sacrifice the health, safety, and financial and emotional well-being of the local residents for generations to come. Such a decision does not further the goal of remediating the harm caused by GE's contamination; it simply shifts the location of that harm. EPA must abandon its current plan for the UDF and, instead, remove all PCB-contaminated material to an out-of-state disposal site.

3. Failure to Incorporate Alternative Technologies into the Remedy.

During the course of the appeal of EPA's 2016 remedy selection, *In re General Electric Co.*, RCRA Appeal Nos. 16-01 to 16-05, HRI pointed out that EPA had failed to comply with CERCLA's statutory mandate to use alternative treatment technologies "to maximum extent practicable," including failing to incorporate thermal desorption into the remedy selected. EPA asked the Environmental Appeals Board to reject HRI's comments because they were not offered "during the 2014 comment period," and, astonishingly, argued that "[r]aising an issue **prior to** the public comment period does not suffice." EAB Ruling, at 579, 583 (emphasis added).

In so arguing, EPA successfully urged the EAB to **ignore over 20 years of comments by HRI** seeking the incorporation of alternative technologies into the remedy selected for the Housatonic River. HRI became interested in alternative technologies to destroy PCBs as early as 1994 -- we didn't like the idea of sending our PCB problem to another community. In 1995, we began conversations with EPA about exploring the use of alternative technologies in the cleanup of the Housatonic River, and the same year, HRI actually hosted a conference on the use of such technologies. With the assistance of a TOSC grant, and help from Professor Ann Marie Desmaris of Tufts University, we choose several technologies to be discussed at the conference and invited representatives from the manufacturers to present their technologies. We had great interest from these companies and, as word spread, the public and industry professionals became interested in the conference. Well over 100 people attended the conference, and thus began HRI's decade's long unrequited effort to persuade EPA to incorporate new and emerging technologies in the cleanup of the Housatonic River.

After the commencement of meetings of the Housatonic River Citizens Coordinating Council ("CCC") in 1998, HRI continued to offer comments about relevant alternative technologies. At these meetings, which were always attended by EPA, and which were supposedly convened precisely **so that the community could**

give EPA input on cleanup decisions, the representatives of HRI repeatedly brought forward information about available alternative technologies, including:

- HRI's visit to view the thermal desorption equipment owned and operated by Maxymillian Technologies, one of GE's cleanup contractors.
- HRI's site visit to the Rose Site in Lanesboro, Massachusetts, where thermal desorption was used to clean up thousands of barrels of contamination buried in the ground by GE and its contractors.
- HRI's site visit to EPA's pilot project on the Hudson River, where EPA used an alternative treatment process in which PCBs were bound into cement for beneficial reuse.

Then again in the summer of 1999, HRI issued a newsletter (including to EPA) entitled "To Treat or Dump?" The newsletter pointed out that half of GE CEO Jack Welch's salary could pay for treating PCB soils and sediments from the Housatonic with alternative treatment technologies, and avoid the need for a PCB dump in Pittsfield.

HRI raised alternative treatment technologies yet again in 2000, when HRI offered comments, and sought to intervene in court to challenge the EPA's Consent Decree for cleanup of the first stretch of the Housatonic River. Indeed, HRI agreed to withdraw its motion to intervene based on a specific agreement by then-Regional Administrator Mindy Luber to pursue alternative technologies going forward. In announcing the agreement, Administrator Luber said:

The end result of these discussions was an agreement which only helps to enhance the public's confidence in the cleanups under the Consent Decree. The agreement includes among other things, the **EPA's commitment to identify and potentially test new and innovative treatment technologies** (emphasis added).

Despite this explicit agreement by EPA, HRI had to continue to press the agency to explore and implement alternative technologies as it deliberated what remedy to choose for the Rest of the River. In November 2006, HRI again hosted a "Symposium on Alternative Remedial Technologies to Destroy PCBs." In announcing the symposium, including in particular in its invitation to EPA (which attended the symposium), HRI said:

In keeping with HRI's policy to advocate for the destruction, rather than the storage of toxic waste, the Initiative has once again brought together experts in the field of remedial technology to discuss treatment strategies and options. In addition to providing an overview of the field, the experts will present information on a broad range of technologies; some proven and well established, others experimental but exhibiting substantial promise. . . .

The decisions regarding the cleanup of the “rest of the river” are imminent and will be finalized within the next year. We hope that this symposium will establish a framework and a base of information

(emphasis added).

In the decade that followed that symposium, while EPA was deliberating what remedy to implement for the Rest of the River, HRI continued to bring forward information about alternative technologies at CCC meetings (attended by EPA), such as information about bench scale testing of an enzyme-based *in situ* treatment technology by Oil Free Technologies, information about bench scale testing of bioremediation technologies by the University of North Carolina, and information about bioremediation carried out at the New England Log Homes site in Great Barrington, Massachusetts.

Despite EPA's explicit agreement to explore and test alternative remediation technologies on the Housatonic and literally decades of urging by HRI, the administrative record for the Rest of the River remedy cites only one example of bench scale testing of an alternative technology, a 2007 study of chemical extraction technology performed by GE. It cites no testing of thermal desorption at all. In other words, EPA has utterly failed to carry out CERCLA's statutory mandate to use alternative treatment technologies to the “maximum extent practicable” in the remedy for the Rest of the River.

In its current proposed remedy, EPA tries to remedy its utter failure to test or implement alternative technologies by giving lip service to an intention to do so in the future. It proposes the use of alternative technologies on vernal pools; it suggests that it *may* require GE to test other technologies, such as thermal extraction, in the future. In truth, GE and EPA have had 25 years to do pilot tests and bench scale studies for the Housatonic, and their failure to do so reflects what they are actually going to do, as does a new remedy that proposes to dump and leave massive amounts of PCB-contaminated sediment in and next to the River.

Moreover, any suggestion that alternative technologies would not be effective for the PCB contamination of the Housatonic is belied by the repeated

successful use of thermal desorption at major sites. As noted in the separate comments submitted by Mickey Friedman and by expert Peter deFur, thermal desorption has been successfully used on a large scale at the Ward Transformer Site in Raleigh, North Carolina, at the Da Nang Airport in Vietnam (see USAID, “Environmental Remediation” via <https://www.usaid.gov/vietnam/environmental-remediation>), and at numerous other sites. Indeed, according to EPA itself, “Thermal desorption is being used or has been selected for use at over 70 Superfund sites across the country.” A Citizens Guide to Thermal Desorption, EPA Office of Solid Waste and Environmental Protection, EPA 542-F-12-020, September 2012, Page 2, Emphasis added). (https://clu-in.org/download/Citizens/a_citizens_guide_to_thermal_desorption.pdf)

Conclusion

EPA simply should not proceed with the proposed remedy because: 1) the proposed remedy is inadequate, both in terms of the total mass of PCB contamination being remedied and the failure to remediate huge stretches of the River; 2) the proposed Upland Disposal Facility is entirely unsuitable to the site where EPA seeks to place it; and 3) the Agency has failed its statutory mandate to incorporate proven alternative technologies into the proposed remedy.

THE HOUSATONIC RIVER INITIATIVE

THE HOUSATONIC ENVIRONMENTAL
ACTION LEAGUE