BEFORE THE ENVIRONMENTAL APPEALS BOARD UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C.

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In the Matter of:

GENERAL ELECTRIC COMPANY) Modification of RCRA Corrective Action) Permit No. MAD002084093)

RCRA Appeal No. 16-01

REGION 1'S RESPONSE TO GENERAL ELECTRIC COMPANY'S PETITION FOR REVIEW OF FINAL RCRA CORRECTIVE ACTION PERMIT MODIFICATION ISSUED BY REGION 1

Respectfully Submitted,

/s/ Timothy M. Conway Timothy M. Conway Joanna Jerison Samir Bukhari U.S. Environmental Protection Agency, Region 1 5 Post Office Square, Suite 100 Boston, MA 02109 P: 617-918-1705; 617-918-1781; 617-918-1095 F: 617-918-0705; 617-918-0781; 617-918-0095 Conway.tim@epa.gov; Jerison.joanna@epa.gov; Bukhari.samir@epa.gov

Of Counsel:

Tracy Sheppard U.S. Environmental Protection Agency Solid Waste and Emergency Response Law Office Office of General Counsel

David Dowton U.S. Environmental Protection Agency Office of Site Remediation Enforcement Office of Enforcement and Compliance Assurance

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EPA Guidance Documents

EPA, "Guidance for Conducting Remedial Investigations and Feasibility Studies under CEPCLA Interim Final," OSWER Directive 0255.2.01 (October 1008)	
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Attachment 1	AR593921	2016 RCRA Corrective Action Final Permit Modification (Permit)
Attachment 2	AR9420, 38256, 38258	Excerpts from Consent Decree in <i>United States et al. v. General Electric Company</i> Civil Action No. 99-30225-MAP <i>et seq.</i> (October 27, 2000) (Consent Decree, Decree, or CD), including excerpts from Appendix E to the Decree and Annex 1 to Appendix E
Attachment 3	AR586286	Excerpts from EPA's Statement of Position in Support of the Intended Final Decision on the Modification to the Reissued RCRA Permit and Selection of CERCLA Response Action (February 29, 2016) (Region SOP)
Attachment 4	AR593922	Excerpts from EPA's Response to Comments on Draft Permit Modification and Statement of Basis for EPA's Proposed Remedial Action for the Housatonic River "Rest of River" (RTC)
Attachment 5	AR558621	Statement of Basis for EPA's Proposed Remedial Action for the Housatonic River "Rest of River," released June 2014 (Statement of Basis or Stmt/Basis)
Attachment 6	AR38267	Excerpts from Reissued RCRA Permit, Appendix G to the CD (Note: permit was reissued in October 2000 and again effective December 7, 2007) (CD-Permit)
Attachment 7	AR586286	Timeline for Opportunities for GE and the Public to Comment during Rest of River Process (Attachment A to EPA's SOP)
Attachment 8	AR472605, 580275	Excerpts from General Electric's Revised Corrective Measures Study Report, Housatonic River, Rest of River (October 2010) (RCMS)
Attachment 9	AR508662	Housatonic River Status Report: Potential Remediation Approaches to the GE-Pittsfield-Housatonic River Site "Rest of River" PCB Contamination, released May 2012 (Status Report)
Attachment 10	AR557091	Excerpts from Comparative Analysis of Remedial Alternatives for the GE-Pittsfield/Housatonic River Project Rest of River (May 2014) (CA or Comparative Analysis)
Attachment 11	AR593967	Excerpts from EPA's Final Decision in Dispute of EPA's Notification of Intended Final Decision on Rest of River Remedy (October 13, 2016) (Regional Counsel Decision)
Attachment 12	SEMS593981	2016 EPA Fact Sheet "EPA Releases Final Permit Modification for Cleanup of Housatonic River 'Rest of River'"
Attachment 13	AR593972	Commonwealth Concurrence, GE – Housatonic Rest of River Site Final Permit Modification (October 19, 2016)
Attachment 14	SEMS 29935	<i>United States et al. v. General Electric</i> , No. 99-30225, slip op. at 4 (D. Mass. Filed Oct. 27, 2000) (Municipalities and GE Responses)

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Attachment 15	SEMS596379	Response to EPA's Notice of Uncontested and Severable Permit Conditions, Letter from GE to EPA, December 21, 2016 (GE Response only)
Attachment 16	N/A	Complaint: <i>United States v. General Electric Company</i> (Municipalities Response only)
Attachment 17	AR518898	Excerpts from the Regional Response to the National Remedy Review Board Comments on the Site Information Package for the GE-Pittsfield/Housatonic River Project, Rest of River (August 3, 2012) (HRI Response only)

*Cross-references with AR numbers indicate the document numbers in EPA's Administrative Record for the October 2016 Final Modification of the Reissued RCRA Permit (October 2016). SEMS numbers are for documents in the GE-Pittsfield/Housatonic River Site file, but not in the Rest of River Administrative Record.

GLOSSARY OF TERMS

ACEC	Area of Critical Environmental Concern
ANPR	Advanced Notice of Proposed Rulemaking
AR or Record	Administrative Record
ARARs	Applicable or Relevant and Appropriate state and federal Requirements
Att.	Attachment to this Response
Board or EAB	Environmental Appeals Board
CA or Comparative Analysis	EPA's Comparative Analysis of Remedial Alternatives for the GE-Pittsfield/Housatonic River Project Rest of River
CD or Decree	Consent Decree in <i>United States et al. v. General Electric Company</i> , Civil Action No. 99-30225-MAP <i>et seq</i> . (October 27, 2000)
CD-Permit	Reissued RCRA Permit (reissued by EPA in October 2000 and again effective December 7, 2007), incorporated into Consent Decree
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
C.F.R.	Code of Federal Regulations
CMR	Code of Massachusetts Regulations
CMS	Corrective Measures Study
Draft Permit	2014 RCRA Corrective Action Draft Permit Modification
E.A.D.	Environmental Appeals Decision
EPA	U.S. Environmental Protection Agency
ERA	Ecological Risk Assessment
Fed. Reg.	Federal Register
FERC	Federal Energy Regulatory Commission
FP	Floodplain
GE	General Electric Company
GHG	greenhouse gas
HHRA	Human Health Risk Assessment
HI	Hazard Index
I, M&M	inspection, monitoring and maintenance
IMPG	Interim Media Protection Goals

GLOSSARY OF TERMS (CONTINUED)

MESA	Massachusetts Endangered Species Act
mg/kg	milligram per kilogram (equivalent to parts per million)
NCP	National Contingency Plan
NPDES	National Pollutant Discharge Elimination System
NRD	Natural Resource Damages
O&M	operation and maintenance
OSWER	Office of Solid Waste and Emergency Response
РСВ	polychlorinated biphenyl
Permit	2016 RCRA Corrective Action Final Permit Modification
Pet.	Petition
RCMS or revised CMS	Revised Corrective Measures Study Report
RCRA	Resource Conservation and Recovery Act
Region	U.S. Environmental Protection Agency, Region 1
RTC	EPA's Response to Comments on Draft Permit Modification and Statement of Basis for EPA's Proposed Remedial Action for the Housatonic River "Rest of River"
SED	sediment
SEMS	Superfund Enterprise Management System
SOP	Statement of Position
SOW	Rest of River Statement of Work
States	Massachusetts and Connecticut
Status Report	"Potential Remediation Approaches to the GE-Pittsfield- Housatonic River Site 'Rest of River' PCB Contamination," released May 2012
Stmt/Basis	Statement of Basis for EPA's Proposed Remedial Action for the Housatonic River "Rest of River," released June 2014
T/D	treatment and/or disposition
TSCA	Toxic Substances Control Act
U.S.C.	United States Code

I. INTRODUCTION

This appeal arises from EPA Region 1's ("EPA") October 2016 issuance of a Permit Modification ("Permit") (Attachment ("Att.") 1) to General Electric Company ("GE") concerning a portion of the Housatonic River ("Rest of River"). The Permit was issued pursuant to a process set forth in a 2000 consent decree ("Consent Decree," "Decree," or "CD"), Att. 2. The Decree provides that the remedy for the Rest of River will be selected and reviewed as a RCRA permit and implemented as a CERCLA cleanup.¹ Att. 2, CD ¶22.q (review of Permit Modification and remedy selection under RCRA), ¶22.z (remedy implementation under CERCLA). In selecting the remedy set forth in the Permit, EPA relied upon its scientific, technical and policy expertise, following a decade and a half of analysis, modeling, risk assessments, independent external peer review, and internal EPA reviews. To arrive at the appropriate level and method of cleanup for the Rest of River, including different components of the remedy, EPA first evaluated a large and complex Administrative Record ("Record" or "AR")² comprised primarily of scientific and technical material. EPA then exercised its scientific and policy discretion to select among the range of possible alternatives. This lengthy scientific analysis was informed by an extraordinary degree of public participation. EPA repeatedly sought the input and involvement of GE, the States of Massachusetts and Connecticut (collectively, "the States"), and the public.

¹ Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. §§6901 *et seq.*, and Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"), 42 U.S.C. §§9601 *et seq.*, respectively.

² The Record includes information EPA considered or relied on for the Rest of River remedy evaluation, proposal and selection. The Record is a subset of the overall Site file for the GE-Pittsfield/Housatonic River Site, that also includes information related to the other response actions undertaken pursuant to the Decree, as well as other Site-related information.

Against this backdrop, GE's Petition is flawed for four principal reasons. First, although its Petition turns on interpretations of record materials that are largely technical, GE in significant measure simply expresses differences of opinion on inherently technical matters within EPA's expertise. While GE may agree with alternative technical theories on various issues, simply articulating these preferences does not demonstrate error. Rather, determinations made on the record by EPA's experts, even in the face of other plausible options, deserve deference from the Board.

GE's approach of simply articulating its differences, rather than attempting to carry its "particularly heavy" burden of demonstrating clear error on the part of EPA, stems from the Petition's second infirmity. *In re D.C. Water & Sewer Auth.*, 13 E.A.D. 714, 742 (EAB 2008). In order to side-step this deferential standard of review, GE labors to convert this matter into a contractual dispute governed by common law, and to hold in abeyance generally-applicable principles of deference to expert agency decision making, as reflected in the Board's regulations and precedent. But there is no appeal as of right from the Regional Administrator's permit decision to the EAB. *In re Miners Advocacy Council*, 4 E.A.D. 40, 42 (EAB 1992). GE has sought appeal to the EAB and must abide by its regulations—GE cannot simply wish away the applicable "clearly erroneous" standard of review governing RCRA permit appeals. GE's Petition must therefore be adjudicated according to the same rules that would normally apply to any other party appearing before the Board.

Third, GE challenges the Permit by viewing it as so many disconnected components and then attacking them in isolation. Yet the record demonstrates that EPA's remedy decisions were not made in isolation. Contrary to GE's approach, the Decree and CD-Permit mandated consideration of the remedy as a whole. In selecting a remedy for the Rest of River pursuant to

the CD-Permit, EPA determined what combination of remedy components is best suited to meet the CD-Permit's general standards in consideration of the CD-Permit's decision factors, including a balancing of those factors against one another. EPA performed that evaluation and balancing in selecting the remedy based upon a Record that supports its decision.

Finally, GE makes an unsupported demand for virtual certainty and finality in the cleanup, yet:

[i]n almost every case, more data can be collected, models further calibrated to match real world conditions; the hope or anticipation that better science will materialize is always present, to some degree, in the context of science-based agency decisionmaking. ...As in many science-based policymaking contexts [...] the EPA is required to exercise its judgment even in the face of some scientific uncertainty.

Upper Blackstone Water Pollution Abatement Dist. v. United States EPA, 690 F.3d 9, 23 (1st Cir. 2012), cert. denied, 133 S. Ct. 2382 (May 13, 2013).

GE never justifies why EPA's decision to proceed in the face of unavoidable uncertainty was unreasonable, nor why its exercise of discretion in selecting a cleanup based on the CD-Permit criteria was flawed. While GE may have opted for a different approach, one where the uncertainties and additional costs were more heavily borne by the public, this difference of opinion does not constitute reviewable error or abuse of discretion.

The Board should deny the Petition.

II. STATEMENT OF THE CASE

II.A Statutory and Regulatory Background

This case involves an unusual combination of EPA's authority under CERCLA and

RCRA. In 1980, Congress enacted CERCLA in response to the serious environmental and health risks posed by industrial pollution. CERCLA was designed to promote the "timely cleanup of hazardous waste sites" and to ensure that the costs of such cleanup efforts were borne by those responsible for the contamination. *Burlington Northern and Santa Fe Ry. v. United States*, 556 U.S. 599 (2009). CERCLA is essentially a remedial statute designed by Congress to protect and preserve public health and the environment. "We are therefore obligated to construe its provisions liberally to avoid frustration of beneficial legislative purposes." *Dedham Water Co. v. Cumberland Farms Dairy*, 805 F.2d 1074, 1081 (1st Cir. 1986).

Enacted in 1976, RCRA empowers EPA "to regulate hazardous wastes from cradle to grave...." *Chicago v. EDF*, 511 U.S. 328, 331 (1994). As part of RCRA, Congress established a permitting program for facilities that treat, store or dispose of hazardous waste and directed EPA to implement the program. 42 U.S.C. §6925. In 1984, Congress amended RCRA, providing that any person seeking a RCRA permit must perform any "corrective action" necessary to clean up releases of hazardous wastes or hazardous constituents from any solid waste management unit at the facility. 42 U.S.C. §6924(u), (v).

Under the Decree, the parties voluntarily submitted to the Board's jurisdiction to review the Permit as governed by the requirements of 40 C.F.R. §124.19. Att. 4, CD ¶22.

II.B Factual and Procedural Background

II.B.1 The Housatonic River and the "Rest of River" Contamination

The Housatonic River begins immediately north of Pittsfield, Massachusetts, and continues through Massachusetts and Connecticut to Long Island Sound. Att. 1, Permit, Figure 1. In Pittsfield, the Housatonic River flows adjacent to a former GE facility, where GE used PCBs extensively from 1932-1977. EPA Statement of Position ("SOP") at 5 (Att. 3). PCBs are classified as a known human and animal carcinogen, and have been linked to a number of other adverse health effects in humans and animals. EPA Response to Comment ("RTC") Response

42 *et al.* 39-42, Response 85 *et al.* 43;³ Statement of Basis for EPA's Proposed Remedial Action for the Housatonic River, "Rest of River" ("Stmt/Basis") at 14-18. (Att. 4 and Att. 5, respectively). During this time, GE's Transformer Division manufactured and repaired transformers containing PCBs. Att. 3, SOP 5. Significant amounts of PCBs and other hazardous substances were released to soil, groundwater, Silver Lake, the Housatonic River and were disposed of within and around the facility in landfills, former river oxbows, residential yards, and other locations, including downstream through migration. A former GE manager estimated that 1.5 million pounds of PCBs entered the river system. AR512751. GE itself estimated that between 111,000 and 576,000 pounds of PCBs remain in sediment and floodplain. AR260320, Tables 2-7, 2-8. In light of the foregoing, EPA concluded that PCBs have contaminated the riverbed, riverbanks, floodplain, fish, ducks, other biota, and their habitats, and have created unacceptable risks to human health and the environment. Att. 5, Stmt/Basis 14-18.

II.B.2 Decree and CD-Permit

In 2000, Plaintiffs the United States, the States, and Defendant GE, entered into a Decree to address PCB contamination from the former GE facility in Pittsfield. The Decree provides for investigation and cleanup of PCBs and other hazardous substances released from GE's former Pittsfield facility, which migrated to numerous areas in Pittsfield and the Housatonic River. The Rest of River is one component of the Decree. The "Rest of River" is defined under the Decree to include approximately 125 miles of riverbed and banks, and the associated floodplain and backwaters. Permit, Figures 1 and 2.

³ In this Response, the terminology of "RTC ____" refers to the page(s) of the EPA Response to Comments on which a reference is located.

Many of the areas requiring investigation and/or cleanup under the Decree incorporate Performance Standards and corrective measures for addressing PCBs and other hazardous substances. Att. 1, Permit II. However, at the time of Decree entry, the Rest of River investigation was not complete. Therefore, the Decree included a RCRA permit to govern the Rest of River investigation, corrective measures alternatives analysis and remedy selection process. Att. 2, CD ¶22; Att. 6, CD Appendix G (the "CD-Permit"). The Decree also provides that, as part of this process, EPA would modify the CD-Permit to address the risks posed by GE's PCBs in the "Rest of River" through the Permit. Att. 2, CD ¶22.p. Following issuance of the Permit and resolution of any challenges to the Permit, GE was required to perform the Permit's selected Rest of River Remedial Action and operation and maintenance, pursuant to CERCLA and the Decree. Att. 2, CD ¶122.p., z.

II.B.3 Rest of River Remedy Selection Process and Decision

The Decree established a process for selecting a cleanup for the Rest of River. This process, which spanned more than a decade, included efforts by EPA (beyond those legally required) to solicit and respond to the views of the public, including GE.⁴ Technical/scientific milestones in the Decree included EPA's river modeling (AR258097), Human Health Risk Assessment ("HHRA") (AR219190) and Ecological Risk Assessment ("ERA") (AR215498), and five independent peer reviews of the modeling and risk assessments. After each peer review, EPA issued a Responsiveness Summary and revised document.⁵ This body of scientific evidence demonstrated unacceptable threats to human health and the environment in the Rest of River system. Att. 4, RTC 39-42; Section IV *infra*. Also, GE submitted its analysis of the nature and

⁴ For more details on EPA's specific public involvement steps, see Att. 7, Timeline for Public Comments.

⁵ HHRA (AR204922, 219190), ERA (AR204922, 215498, 580279, 580280, 580281), Modeling (AR65093, 204991, 65093, 229322, 237323, 252993, 258098).

extent of Rest of River contamination (RCRA Facility Investigation, (AR49294), its identification of preliminary cleanup standards (Interim Media Protection Goals, AR248143), and, in 2008 and 2010, two versions of a Corrective Measures Study to analyze different remediation alternatives. AR283374, 472605. Of the proposed options, GE's recommendation from its 2010 Revised Corrective Measures Study (RCMS) opted for the one that entailed the second-least amount of PCB removal from Rest of River, with on-site disposal of the PCB-contaminated material. Att. 8, RCMS 11-1 to 11-2.

Based on that work and public input, EPA in 2011 presented a potential remedy for review by two national EPA advisory review boards. AR487308. Following that review, EPA entered into technical discussions with the States. In May 2012, the EPA/States' discussions yielded a jointly-prepared Status Report of potential remediation approaches. Att. 9, Housatonic River Status Report.^{6,7} Following the Status Report's issuance, at GE's request, EPA and GE entered into seventeen months of remedy discussions above and beyond the process opportunities afforded in the Decree. AR558617.

In May 2014, EPA proposed a Rest of River remedy for public comment. Draft Permit Modification ("Draft Permit"). AR558619. The rationale for the proposed remedy is documented in EPA's Comparative Analysis of Remedial Alternatives ("CA"), Att. 10, and the Statement of Basis, Att. 5.

EPA's remedy proposal followed its evaluation of a wide range of alternatives to address the unacceptable risks posed by GE's PCB contamination. Att. 5, Stmt/Basis; Att. 10, CA. The

⁶ "Potential Remediation Approaches to the GE-Pittsfield-Housatonic River Site 'Rest of River' PCB Contamination" ("Status Report"), released May 2012.

⁷ GE, in its petition, incorrectly suggests that Massachusetts' current position is identical to its 2011 comments. Massachusetts agreed on this Status Report, which includes significant changes from Massachusetts' 2011 position.

CD-Permit describes nine criteria for consideration. There are three threshold "General Standards" to be met: (1) Overall Protection of Human Health and the Environment ("Protectiveness"); (2) Control of Sources of Releases; and (3) Compliance with ARARs.⁸ And there are six additional "Selection Decision Factors" to be balanced against one another including: (1) Long-Term Reliability and Effectiveness; (2) Attainment of Interim Media Protection Goals;⁹ (3) Reduction of Toxicity, Mobility, or Volume of Wastes; (4) Short-Term Effectiveness; (5) Implementability; and (6) Cost. Att. 1, CD-Permit II.G. EPA evaluated all the alternatives against these criteria (referred to herein as "CD-Permit criteria" or "nine criteria") and any other relevant information in the Record.

EPA conducted a multi-layered analysis of the remediation and disposal alternatives against the CD-Permit criteria. For remediation of PCB contamination in sediment and floodplain, EPA reviewed nine separate remediation alternatives (denoted the "SED/FP" alternatives). Att. 10, CA at 10, Table 1, Combination Alternatives Matrix, and at 9-59. Similarly, in evaluating alternatives for treatment/disposition of the excavated PCBcontaminated material, EPA evaluated five alternatives (denoted as "T/D" alternatives). Att. 10, CA at 59-78. Based on that comprehensive review, EPA proposed a remedy referenced in EPA's Comparative Analysis as "SED 9/FP 4 MOD and TD 1/TD1 RR" that was in its judgment best suited to meet the CD-Permit's General Standards in consideration of the CD-Permit's Selection Decision Factors, including a balancing of those factors against one another. Att. 10, CA at 59, 77.

⁸ ARARs are Applicable or Relevant and Appropriate state and federal Requirements.

⁹ Interim Media Protection Goals, or "IMPGs", are media-specific protection goals used in the Corrective Measures Study as part of the evaluation of remedial alternatives.

The distinction between the threshold General Standards and the balancing Selection Decision Factors is important. The CD-Permit describes the process as determining which corrective measure or combination of corrective measures "is best suited to meet the general standards ... in consideration of the decision factors..., including a balancing of those factors against one another." Att. 1, CD-Permit II.G.3 (emphasis added). Accordingly, EPA's evaluation of the three threshold criteria – Protectiveness, Control of Sources of Releases, and Compliance with ARARs – requires that those standards be met. ¹⁰ In contrast, EPA's consideration of the latter six Selection Decision Factors includes the balancing of those factors against one another. EPA's RCRA Corrective Action guidance includes a very similar structure, establishing a two-phase evaluation for remedy selection. "During the first phase, potential remedies are screened to see if they meet "threshold criteria; remedies which meet the threshold criteria are then evaluated using various 'balancing criteria' to identify the remedy that provides the best relative combination of attributes." "Corrective Action for Releases from Solid Waste Management Units at Hazardous Waste Management Facilities, Advanced Notice of Public Rulemaking" ("ANPR"), 61 Fed. Reg. 19431 (May 1, 1996) (AR593978). With respect to the Selection Decision Factors, or balancing factors, no one factor is preeminent among them. EPA has stated, any one of the balancing criteria might prove to be the most important at a particular site. ANPR at 19449.

CERCLA's National Contingency Plan ("NCP") structure, while not identical, is similar.¹¹ It has two threshold criteria (Protectiveness, and Compliance with ARARs) that relate

¹⁰ See also, 1990 Proposed Subpart S (proposed 40 C.F.R. 264.525(a), cited at Corrective Action for Solid Waste Management Units (SWMUs) at Hazardous Waste Management Facilities, 55 Fed. Reg. 30798, 30823 (Jul. 27, 1990), which specified that remedies must meet the threshold criteria); ANPR at 19449 (AR593978).

¹¹ While the Comparative Analysis was performed in accordance with RCRA, reference to guidance under CERCLA can be instructive in light of the Agency's desire for parity between the programs. ANPR at 19439, 19449: "As a general philosophy, EPA believes that the RCRA and CERCLA remedial programs should operate consistently and result in similar environmental solutions when faced with similar circumstances." ANPR, 19439

to statutory requirements that each alternative must satisfy in order to be eligible for selection, and another set of "balancing criteria." "The Feasibility Study: Detailed Analysis of Remedial Action Alternatives," OSWER # 9355.3-011FS4 (March 1990).

During the more than four-month public comment period, EPA received over 2,000 pages of comments from over 140 commenters, including from GE and the States.¹² Following EPA's review of the comments, but prior to issuance of the Permit and the Response to Comments, the CD required EPA to identify to GE EPA's Intended Final Decision, and allow GE the opportunity to contest the Intended Final Decision in informal and formal administrative dispute resolution. Att. 2, CD ¶22.0. For purposes of the Intended Final Decision (AR582991), and to address GE's and other comments on the remedy proposal, EPA made several modifications to the remedy. The Decree's dispute resolution process included an informal period administered by a neutral third-party mediator, followed by a formal dispute, including written SOPs by GE (AR586218, 587218) and EPA (AR586286).

That process concluded on October 13, 2016 with the decision by the Regional Counsel of the Region that supported EPA's decision-making process. The Regional Counsel provided that "[g]iven the scope and variability associated with a site of this size and complexity, EPA's development of a cleanup approach overall is entirely reasonable and is supported by the data and information in the administrative record." Att. 11, EPA Final Decision at 10. The Regional Counsel concluded, "…I find that overall EPA's reasoning, rationale and analysis are sound and

⁽AR593978). Referencing a 1990 RCRA proposal, EPA stated that one of the Agency's primary objectives was "to achieve substantial consistency with the policies and procedures of the Superfund remedial program. The logic behind that concept is that since both programs address cleanup of potential and actual releases, both programs should arrive at similar remedial solutions. EPA's position is that any procedural differences between RCRA and CERCLA should not substantively affect the outcome of remediation." ANPR 19441 (AR593978).

¹² Public comments are at AR565679, 567442, 568076, 568088, 568410, 568471, 568474, 568476 to 568479, and 579608 to 579621.

adequately supported by the data and information it has carefully considered." *Id.* Later that month, EPA finalized its Permit to include its selected remedy, and issued its Response to Comments. That remedy relies on a combination of cleanup approaches to address PCB contamination, reduce downstream transport of PCBs, reduce PCBs in fish tissue and allow for greater consumption of fish, and avoid, minimize or mitigate impacts to sensitive areas, species and habitats. Att. 12, 2016 EPA Fact Sheet.

II.B.4 Position of the States

The selected remedy reflects EPA's coordination with, and support from, both States. Both States worked with EPA in developing the remedial approach outlined in the 2012 Status Report, and those key principles remain integral components of the selected remedy. Connecticut's 2014 supportive comments on the remedy note that "when fully implemented [the remedy] will reduce the downstream migration of PCBs to Connecticut to an acceptable level." AR568089. In 2014, Massachusetts provided its written support of the proposed remedy. AR568093. In 2016, Massachusetts formally concurred with the remedy. Att. 13, Commonwealth Concurrence. Both States have expressed support for the Permit, and neither State challenges the Permit before the Board.

III. STANDARD OF REVIEW

The Board's review of the Permit is governed by 40 C.F.R. 124.19. Att. 2, CD 22.q. Therefore, it will deny review and not remand unless the Permit decision either is based on a clearly erroneous finding of fact or conclusion of law, or involves a matter of policy or exercise of discretion that warrants review. 40 C.F.R. 124.19(a)(4)(1)(A)-(B).

To the extent the Board's process of reviewing the Permit under 40 C.F.R. §124.19 requires interpretation of any ambiguous terms of the Decree itself, common-law principles of

contract interpretation of public interest decrees would apply to that particular interpretation. The First Circuit recognizes that district judges are granted certain discretion in interpreting public law decrees to best achieve their complex goals in the public interest. See, e.g., Mass. Ass'n of Older Ams. v. Dep't of Pub. Welfare, 803 F.2d 35, 38 (1st Cir. 1986) (in public law litigation, "broad 'judicial discretion may well be crucial' for the district judge to secure 'complex legal goals'" (citation omitted)); see also United States v. Charter Int'l Oil Co., 83 F.3d 510, 517 (1st Cir. 1996) (upholding district court's interpretation of CERCLA decree, including where defendant's interpretation would be "contrary to the public interest" in giving up too much to receive too little for the public). Here, the District Court found, when it entered the Decree, that the Decree was in the public interest. United States et al. v. GE, No. 99-30225 (D. Mass. Oct. 27, 2000), slip opinion at 4, Att. 14. As explained by the Court in addressing a later billing dispute arising under the Decree, "while courts generally construe commercial-litigation consent decrees like contracts, 'programmatic decrees entered into in public law litigation will often warrant a more flexible approach.' ... Such judicial discretion in public law litigation may be crucial for the court to secure complex legal goals." United States v. GE, 986 F. Supp. 2d 79, 86 (D. Mass. 2013). In the billing dispute, the court distinguished the cost dispute before it from the "deference to an administrative agency's technical expertise" appropriate for such flexibility. Id. Here, in contrast, the Board's review under 40 C.F.R. §124.19 requires analysis of a challenge to EPA's technical expertise in addressing contamination in over 125 miles of Rest of River to protect the public interest.

IV. ARGUMENT

IV.A GE's Rejection of the Board's Deferential Review Standard for Technical Determinations Is Wrong

GE asserts that "[w]ith respect to those issues raised in this Petition requiring the interpretation of the CD, *including the CD-Permit, EPA is entitled to no deference* because the CD-Permit constitutes a contract and must be interpreted using standard contract principles." Pet. at 8 (emphasis added). GE's conclusory claim does not identify which issues concerning the Permit it is claiming do not deserve deference. Moreover, this characterization undermines the point that, first and foremost, the Board's review is under 40 C.F.R. §124.19(a)(4). Att. 2, CD ¶22.q. There is no basis for the Board to depart from its ordinary procedures for reviewing final permit decisions, or to refrain from applying its customary deferential standard of review, using the procedures set forth in 40 C.F.R. §124.19. GE's argument should be rejected.

First, GE's argument is waived. Although the legal argument was clearly available to GE during the public comment period on the Draft Permit, GE failed to raise it. As such, it should be denied. 40 C.F.R. §§124.13, 19(a)(4)(ii); *In re City of Taunton Dept. of Public Works*, NPDES Appeal No. 15-08, slip op. at 6 (EAB May 3, 2016), 17 E.A.D. ____ (citations omitted).

Second, such an approach runs counter to the express terms of the Decree. The Decree is clear that the Board's review of the Permit provisions is under the "clearly erroneous" standard set forth in 40 C.F.R. §124.19(a)(4), since that standard is explicitly included in the Decree's provision that governs the Petition. The Decree provides that upon receipt of EPA's Permit, GE "shall have the right to seek review of that permit modification decision in the EPA Environmental Appeals Board within 30 days pursuant to 40 C.F.R. §124.19." Att. 2, CD ¶141.b(ii); *see also* ¶22.q. In contrast, when the parties intended that "standard contract principles" would apply to disputed proceedings under the Decree, they said so. For example,

for disputes pertaining to the reissuance of the 2000 CD-Permit, the Decree provides: "The Parties hereby stipulate that after lodging and prior to entry of this Consent Decree, *such dispute shall proceed under this Paragraph as a contractual matter*." CD ¶10.c (emphasis added); *see also* CD ¶16.a. Att. 2.

By re-characterizing detailed technical determinations into mere matters of contract for which deference is inappropriate, GE's theory of review would also alter the burden assigned to a party seeking review of a permit. The burden of demonstrating that review is warranted rests squarely with the petitioner. 40 C.F.R. §124.19(a). Yet, even though the matters to be decided are self-evidently scientific and technical in nature, and ultimately governed by 40 C.F.R. §124.19(a), GE's incongruous proposal requires the Board to elide that fact, and to instead treat complex technical analyses as contractual terms (not even as terms of a Decree in the public interest). In so doing, GE conveniently attempts to assume a less demanding burden of proof. This is impermissible. The challenge squarely at issue before the Board—whether EPA's technical judgments in addressing contamination in over 125 miles Rest of River were rationally based in the administrative record—can be resolved by straightforward application of §124.19 procedures, with its attendant principles of deference on matters within EPA's technical expertise.

IV.B The Off-Site Disposal Requirement Is Not Clearly Erroneous

GE first states that EPA, in its analysis of disposal options, is limited to the nine selection criteria in the CD-Permit. Pet. at 10. GE argues that the off-site disposal requirement conflicts with the nine criteria because: (1) there is no justification for the large cost disparity between on-site and off-site disposal; (2) on-site disposal is at least as protective and effective as out-of-state disposal; (3) compliance with ARARs does not justify the selection; and (4) EPA improperly

relied on state and community opposition, because such views are not remedy selection criteria, do not affect the "implementability" of the remedy, and were inappropriately considered as "other relevant information in the Administrative Record," in violation of basic contract principles. As the Record shows, none of these arguments is valid, and thus should be rejected.

IV.B.1 EPA Appropriately Weighed the Cost Criterion among the Six CD-Permit Balancing Criteria

EPA fairly considered cost in its balancing among the CD-Permit decision factors. As explained above, EPA must select a remedy that meets the three threshold General Standards, but in doing so balances the six Selection Decision Factors against one another. Att. 1, CD-Permit II.G.3. Cost is one of the six "balancing" factors, not a threshold standard. While costlier than GE's favored approach, off-site disposal is less costly than two other alternatives considered and rejected by EPA. Att. 10, CA at 78; Att. 3, SOP 42. The Record is clear that EPA carefully considered all nine criteria, including cost, but that the higher cost and increased short-term impacts of off-site disposal were more than offset by its better performance on all three of the threshold general standards, as well as other balancing factors, including implementability and long-term reliability and effectiveness. *See* Att. 4, RTC 269, Att. 3, SOP 43-44, 51.¹³

This conclusion is also consistent with Agency guidance. For example, "the term 'costeffective' does not necessarily imply least costly." ANPR at 19448, n. 5 (AR593978). Also, "the balancing criteria¹⁴ were not ranked in terms of relative importance.... [A]ny one of the balancing criteria might prove to be the most important at a particular site." *Id.* at 19449. GE simply disagrees with the conclusion EPA reached after balancing cost among the other selection

¹³ GE's citation to *Michigan* v. *EPA*, 135 S. Ct. 2699 (2015), is inapposite. That case held that EPA acted unreasonably when it considered cost *irrelevant* to a rulemaking. Here the Record supports that EPA considered cost as a balancing factor.

¹⁴ The five criteria identified in the ANPR are the same as in the CD-permit, with the CD-Permit including a sixth, attainment of IMPGs.

decision factors, but this simple difference of opinion on a technical matter is insufficient to garner review.

IV.B.2 Off-Site Disposal is More Protective of Human Health and the Environment

The Record provides ample support for EPA's site-specific determination that off-site disposal is more protective of human health and the environment than on-site disposal. First, EPA has significant support for determining that an existing, licensed off-site facility is more likely to be protective than the on-site options for disposal that GE identified: Woods Pond, Rising Pond, and Forest Street. Att. 3, SOP 51-52; Att. 4, RTC 238-241 (discussing the basis for EPA's determination). For example, GE admits that none of its proposed landfill sites meets the Toxic Substances Control Act ("TSCA") requirements for soil characteristics, including permeability, and that none of its sites meets all of TSCA's requirements for hydrology, such as the bottom liner being at least 50 feet from the historical high water table, avoidance of groundwater recharge areas, and avoiding hydraulic connections between the site and a surface waterbody. See 40 C.F.R. §761.75(b)(3); Att. 4, RTC 238-241, Att. 3, SOP 51-52, Att. 8, RCMS 9-48 to 9-50. In addition, the Forest Street Site would not meet the TSCA requirement of §761.75(b)(5) that a landfill be located in an area of low to moderate relief to minimize erosion and landslides or slumping. Att. 8, RCMS 9-49. By contrast, off-site facilities would be fully licensed and regulated under federal law, and are generally constructed in areas best suited for that use considering soil and hydrology. Att. 3, SOP 51.

Although the regulations allow EPA to consider a risk-based approval that does not meet all TSCA siting requirements, the point remains that, given the large volumes of PCBcontaminated soil and sediment and the expected length of remedy implementation, it is more than reasonable to favor an off-site disposal alternative that has been sited based on its suitability

to accept PCB wastes, rather than on-site locations where multiple protectiveness-related provisions cannot be met.

Second, GE asserts that the use and protectiveness of off-site disposal facilities is unknown. Pet. at 12. This is incorrect. EPA analyzed the risks of off-site disposal, CA 59-77, and noted that "only minor on-site short-term impacts would occur …." Att. 10, CA 3.2 at 61; *see also* Att. 3, SOP 51-52; Att. 4, RTC 238-241. Off-site disposal facilities to be used will be fully licensed and approved in compliance with EPA's Off-site Rule and subject to ongoing verification of protectiveness under governing regulations. 40 C.F.R. §300.440(a)(4); *see also* 40 C.F.R. §761.75 for TSCA landfills and 40 C.F.R. §264.303 for RCRA hazardous waste landfills. EPA routinely obtains and verifies information concerning the effectiveness of current off-site facilities that GE has used in other response actions under the Decree.

Third, GE uses faulty, incomplete, or misleading information to claim that because onsite disposal was selected elsewhere it would be equally protective here. For example, GE cites on-site disposal in Pittsfield of contaminated materials during the prior non-Rest of River removal actions as justification for requiring additional on-site disposal now. The comparison is inapt. The Decree allowed GE to dispose of contaminated soil and sediment in two consolidation areas: on top of an existing landfill, the "Hill 78," and directly adjoining the existing landfill, in an area called "Building 71." Att. 2, CD ¶15. Hill 78 was a pre-existing landfill, not an area with no known contamination such as GE's preferred disposal locations. Moreover, because the Decree restricts the footprint and height for Hill 78 and Building 71, CD ¶15, CD Appendix E, it necessitates off-site disposal of remaining wastes. Att. 2. The collective on-site disposal volume at these facilities is effectively limited to approximately 245,000 cubic yards, a fraction of the anticipated Rest of River volume. To date, approximately 100,000 cubic

yards of material from the non-Rest of River areas have been transported off-site for disposal, as will be the case for any additional material generated during the completion of the non-Rest of River cleanups. Att. 4, RTC 240-241.

GE also relies on an inaccurate and misleading table from its 2014 comments that discusses disposal decisions at other sites. Pet. at 13. Additionally, as provided in more detail in RTC 240, several of the sites referenced by GE included both an on-site and an off-site disposal component. Att. 4. Indeed, EPA has chosen off-site disposal at some of the nation's largest PCB-contaminated sediment sites. Taken together, the volume of sediments for disposal off-site at three of the largest sites alone exceeds the volume of sediments disposed on-site at other sites around the country. Att. 3, SOP 50.

Thus, the Record supports EPA's evaluation that off-site disposal is more protective than on-site disposal. The selection of a properly-sited off-site disposal facility meets – rather than waives– soil permeability and hydrologic connection factors in the regulations, and is remote from – rather than proximate to – sensitive habitats and residential populations, as discussed more fully below. It is the best choice to assure protection of human health and the environment.¹⁵

IV.B.3 Off-Site Disposal Complies Better with ARARs

Based on the Record, EPA fairly considered off-site disposal more favorably than on-site disposal for compliance with ARARs. There is no disagreement that the on-site disposal locations that GE proposes would not meet the requirements of ARARs, absent waivers.

¹⁵ GE's citation to *South Shore Hosp., Inc. v. Thompson*, 308 F.3d 91, 103 (1st Cir. 2002), is inapposite. GE plucked out of context a partial quotation that sounds good. In fact, the complete quotation, and the case itself, supported the Agency: "Although patently inconsistent applications of agency standards to similar situations are by definition arbitrary, *the law does not demand perfect consistency in administrative rulemaking.*" *Id.* (emphasis added) (upholding decision by Secretary of Health and Human Services to deny hospital's application for relief from certain Medicare cost limits).

Therefore, in evaluating this CD-Permit threshold criterion, EPA reasonably considered the statutory and regulatory provisions where one or more of GE's potential disposal locations would not comply with ARARs and contrasted that with off-site disposal at a location in compliance with the law (as required by the CERCLA Offsite Rule, 40 C.F.R. §300.440(a)(4)).¹⁶ *See* Att. 10, CA 63; Att. 3, SOP 51-52; Att. 4, RTC 234-273 generally, and RTC 241-242, 246, and 245-250.

For example, GE's proposed Woods Pond facility does not comply with regulations prohibiting permanent disposal of hazardous waste, and solid waste, in an Area of Critical Environmental Concern ("ACEC") designated by Massachusetts. 310 CMR 708, and 310 CMR 16.40, respectively; Att. 4, RTC 246. EPA's temporary storage of excavated material is distinguishable from permanent disposal along Rest of River, even though, depending on particular circumstances, temporary staging of excavated material in the ACEC may require an ARAR waiver. EPA is potentially waiving the requirement for temporary storage because it is technically not feasible to conduct the remediation without storing some amount of material within the ACEC for some period of time. Att. 1, Permit, Attachment C at 12-14. In contrast, off-site disposal is a practicable alternative, therefore technical impracticability provides no basis for waiving the ARAR allowing permanent disposal in an ACEC, and there is no other valid basis for waiver. Att. 3, SOP 53.

Other examples include wetlands ARARs for Forest Street, and habitat ARARs for Rising Pond. The Forest Street proposed landfill location is within a regulated wetland area, potentially implicating requirements designed to protect such areas. Att. 4, RTC 250. Similarly,

¹⁶ While GE says there is potential non-compliance at a licensed off-site disposal facility, EPA verifies compliance before sending CERCLA wastes to such a facility. It is mere speculation that in the future an off-site facility may fall out of compliance, and that is equally possible for an on-site facility.

the Rising Pond site directly abuts 25 acres of Priority Habitat for the state-listed Wood Turtle, potentially implicating the Massachusetts Endangered Species Act. Att. 4, RTC 241-242.

Additionally, the proposed Woods Pond facility violates State siting requirements, because it is located near a drinking water source and above a medium yield aquifer. GE's RCMS does not mention the aquifer, but does note that the Massachusetts hazardous waste regulations provide that a hazardous waste landfill may not be located within 1000 feet of an existing private drinking water well or within the groundwater flow path of such a well, or within the flow of groundwater supplying a "potential private underground drinking source" or on land overlying or within the flow path of a potential underground drinking water source." Att. 4, RCMS 9-54; 310 CMR 30.704, 30.703(4), 30.010; Att. 3, SOP 52-53. Indeed, GE acknowledges that the area "would potentially not meet some other of the locational requirements." Att. 8, RCMS 9-54.

In short, the Record shows that it was reasonable for EPA to conclude, in evaluating the threshold "Compliance with ARARs" criterion as part of its analysis of disposal alternatives, that off-site disposal facilities met the criterion better than on-site facilities.

IV.B.4 Off-Site Disposal Controls Sources of Releases Most Effectively

Of the treatment/disposition alternatives evaluated in the CA, off-site disposal best met the threshold criterion of Control of Sources of Releases. Att. 10, CA 62. ("[P]lacement of the removed PCB-contaminated sediment and soil in a permitted off-site landfill or landfills would effectively isolate those materials from being released into the environment."). GE did not directly address this requirement. ¹⁷ Placement in a landfill sited for the purpose of PCB disposal

¹⁷ Regarding potential future releases, GE argues at footnote 10, Pet. at 17, that the long-term presence of a permanent PCB disposal site along the Housatonic should be evaluated as equal to an existing licensed facility not in the Housatonic watershed. While operation and maintenance requirements are designed to prevent any such

assures a higher likelihood of controlling sources of releases than the GE-proposed locations that would not satisfy regulatory protectiveness or ARAR requirements.

IV.B.5 "Implementability" Explicitly Requires Considerations Relating to State and Community Concerns

EPA's 1994 RCRA Corrective Action Plan highlights that "implementability will often be a determining variable in shaping remedies." OSWER Directive 9902.3-2A (May 1994) at 55; *see also* ANPR at 19437. GE argues, however, that State and community opposition should not be considered within that selection decision factor, and that EPA's consideration of State and community views was inappropriate. That is incorrect. Although EPA did not consider "state and community acceptance" as an independent criterion in its analysis of disposal options, public and legal opposition to on-site disposal is squarely within the plain meaning of the term "implementability" because it will jeopardize the ability to carry out, or implement, the remedy. See Att. 4, RTC 262, 264-266. It is not reasonable that GE could ignore a community's views when siting a new permanent PCB disposal facility at a location that does not meet the relevant PCB landfilling requirements, or that goes against a State law on wetlands protection, or that will be placed in a state-designated ACEC.

GE simply disregards the CD-Permit's terms in its contention that these views are irrelevant. Att. 4, RTC 260-64. On the contrary, the sub-criteria for "implementability" require consideration of the state's and public's views. Att. 1, CD-Permit II.G.2.e.(3), (5), (7). Outlined below are three relevant sub-criteria. *See also* Att. 4, RTC 258-267.

release over the lifetime of facilities, it remains a fact that if such a release occurs along the Housatonic, the risks to the Rest of River are greater than if it occurred at a licensed off-site facility, particularly given the shortcomings noted for the potential on-site facilities (e.g., TSCA landfill requirements, proximity to the River, ACEC). Att. 4, RTC 245, citing RTC 238-39.

IV.B.5.a Coordination with Other Agencies

GE argues that coordination with other agencies is not relevant because CERCLA allows for permit and ARAR waivers. Pet. at 21-22. Coordination with other agencies, however, is an important component of any remediation project, and is not negated by any statutory exemption. In fact, in its RCMS, GE acknowledged that "both prior to and during implementation of [on-site disposal] at any of the three potential locations, GE would need to coordinate with EPA, as well as state and local agencies to provide support with public/community outreach programs." Att. 8, RCMS 9-71; Att. 4, RTC 260.

IV.B.5.b Regulatory and Zoning Restrictions

GE argues that the sub-criterion of regulatory and zoning restrictions is only intended to be applied to an evaluation of off-site facilities. Pet. at 22. This is wrong. There is no such qualifier on these sub-criteria. Notably, in the Reduction of Toxicity, Mobility or Volume of Wastes criterion, each sub-criterion begins with the clause "if applicable". Att. 1, CD-Permit II.G.2.c.(1)-(5). In contrast, no such clause accompanies the description of the Implementability sub-criteria at issue.

The CD-Permit explicitly requires consideration of regulatory and zoning restrictions. As explained more fully in RTC 260-261, regulatory and zoning restrictions can have a direct impact on implementability. Att. 4. Even if CERCLA may preempt such restrictions, the State or local concerns or public views underlying those regulations or zoning restrictions must be factored into the CD-Permit evaluation. This sub-criterion is also consistent with EPA's 1988 guidance, which provides that in addition to ARARs, "other federal and state criteria, advisories, and local ordinances should also be considered, as appropriate, in the development of remedial action alternatives." (EPA, "Guidance for Conducting Remedial Investigations and Feasibility

Studies under CERCLA," OSWER Directive 9355.3-01, 1988). Here numerous Federal and State regulations and local zoning requirements cut against implementing GE's proposed on-site disposal facilities. Att. 4, RTC 260-261. Accordingly, it was rational for EPA to consider the ACEC designation and relevant zoning conflicts in evaluating whether on-site disposal is as implementable as off-site disposal.¹⁸

IV.B.5.c Availability of Suitable Disposal Facilities

GE is wrong to claim that "suitability" is a technical consideration that cannot be affected by public opinion. Reviewing a facility's suitability would not be successful without consideration of whatever factors affect the success of a facility. EPA considered a number of factors in evaluating the "suitability" of the proposed on-site versus off-site facilities. Att. 4, RTC 258-267. EPA's evaluation of this sub-criterion, and of the drawbacks that can render onsite locations less suitable for a permanent disposal facility, were appropriate components of the analysis under the CD-Permit.

IV.B.6 "Other Relevant Information" in the Record Includes State and Community Views

The Record demonstrates that on the basis of the nine CD-Permit criteria alone, EPA's selected remedy is the best-suited alternative. Beyond that, GE's argument – that EPA may not consider other relevant information in the Record including State or community views – should be rejected. Pet. at 22. The CD-Permit provides that EPA may also consider "any other relevant information in the Administrative Record for the modification of this Permit" in proposing and selecting the remedy. Att. 1, CD-Permit II.J. GE argues that EPA cannot use the term "any

¹⁸ Nothing in the CD-Permit's language supplies any credence to GE's view that the nine-criteria evaluation can be simply superseded by waiving or pre-empting all ARARs, regulations and zoning restrictions. Att. 1, CD-Permit, II.G.

other relevant information in the Administrative Record" as an excuse for considering community acceptance because, if community acceptance were "relevant," it would have been listed as a criterion. Pet. at 22-23. This argument is specious. It rests on the erroneous assumption that there is no "other relevant information," because anything "relevant" would have to be explicitly listed. GE's argument would needlessly eviscerate a provision of the Decree.¹⁹

Therefore, GE is wrong to contend that because "state and community acceptance" is not enumerated in the nine criteria set forth in the CD-Permit, EPA may not consider the public's views. The Decree envisions active public and state participation in the remedy selection process. Att. 3, SOP 46-47.

Reflecting RCRA guidance at the time, the CD-Permit does not explicitly list community and state acceptance as stand-alone remedy selection criteria. ANPR at 19449 (AR593978), RCRA Corrective Action Plan at 54. Nonetheless, these and other RCRA and CERCLA guidance and regulations call for EPA to consider the public's views as part of its remedy selection and permit decisions. Att. 3, SOP 45-47. Indeed, the Decree provides for such public involvement, including the requirement that GE submit a CMS Proposal and CMS Report to the States, CD ¶22.j, k, and that EPA provide notice and public comment on the draft permit modification, CD ¶22.n. Att. 2. The additional "relevant information" that the CD-Permit directs EPA to consider appropriately includes public and governmental comments received throughout the remedy selection process.

¹⁹ GE also asserts that EPA relied on factors outside the Decree, and thus was "arbitrary and capricious" (Pet. at 10). On the contrary, EPA's selection of off-site disposal was in fact "rational, based on consideration of the relevant factors, and within the scope of the authority delegated to the agency". *Motor Vehicle Mfrs Ass'n v. State Farm Mut. Auto Ins. Co.*, 463 U.S. 29, 42 (1983). EPA did not rely on factors which "Congress has not intended it to consider," and its reasoning has been clearly explained. *Id.* at 43.

Thus, although the specific term "community acceptance" is not one of the enumerated criteria in the CD-Permit, EPA has an obligation under RCRA and the Decree to consider the public's concerns, and to evaluate how those concerns inform the CD-Permit criteria analysis. The Record includes numerous community and state comments regarding on-site disposal relevant to the nine criteria, such as how on-site disposal would: affect the overall protection of human health and the environment, comply with ARARs, and affect the implementability of the remedy. Att. 3, SOP 47-50. Additionally, while GE has opposed off-site disposal based on its cost relative to on-site disposal, public comments have expressed concerns regarding the externalized costs of on-site disposal to communities. *Id*.

In sum, a plain reading of the Decree and CD-Permit demonstrates that EPA never intended to exclude consideration of public views in its remedy decision. It is GE, not EPA, that is "rendering contract terms meaningless" by urging this Board to ignore the explicit terms of the Decree and the CD-Permit that require EPA to consider coordination with other agencies, regulatory and zoning restrictions, and suitability, and other relevant information in the Record. *Summit Packaging Sys. v. Kenyon & Kenyon, 273 F.3d 9, 12 (1st. Cir. 2001).*

As evidenced by the above, EPA was well within its discretion to choose off-site disposal from the range of alternatives. GE has not shown any reviewable error or abuse of discretion.

IV.C The Woods Pond Remedy Is Not Clearly Erroneous

GE argues that EPA's Woods Pond remedy conflicts with the Decree's CD-Permit remedy-selection criteria because it is allegedly too expensive and environmentally disruptive to remove the selected amount of PCB contaminated material from the Pond. Pet. at 25-26. Yet, EPA followed the CD-Permit's decision-making criteria in its consideration of costs and shortterm impacts, and ultimately selected the Woods Pond's remedy because it is the best-suited

alternative under *all* the relevant criteria, including source control, a threshold criterion. GE fails to explain how EPA's exercise of its expertise in analyzing all the relevant factors is clearly erroneous.

Also, GE's contentions merely restate its arguments presented in its 2014 comments and dispute resolution. EPA addressed these comments in the RTC 159-164 (Att. 4) and SOP 27-31 (Att. 3). Accordingly, the Board need not hear these issues. *In Re City of Pittsfield*, NPDES Appeal No. 08-19, at 11-13 (EAB Mar. 4, 2009) (Order Denying Review).

Substantively, the fact that one remedy is more expensive than another does not by itself render it unreasonable. Although GE claims that "EPA improperly minimizes" costs that will be incurred and overemphasized benefits, Pet. at 25, this allegation is not supported by the Record. EPA fully and explicitly accounted for cost, but weighed cost, as it was entitled to do, against other countervailing criteria, and arrived at a balance, in accordance with the CD-Permit criteria. While GE may hold a different opinion as to the specific weight afforded cost, it has not identified any objective reason why EPA's assessment was incorrect. Merely citing to the magnitude of cost, or differences in cost associated with different remedies, does not make for error, unless GE provides a reason that a particular dollar amount or variation violates a specific aspect of a selection criterion, which it has not. Rather, EPA weighed all nine criteria, including cost, as well as source control, a threshold criterion, in its decisionmaking. Att. 4, RTC 161-164.

GE's complaint that the selected remedy would result in greater "community and environmental impacts" in the form of greenhouse gas emissions is similarly misguided. Pet. at 26. As with cost, EPA considered these potential impacts, and weighed them along with other balancing criteria, against the threshold criteria, including source control, and determined that the selected remedy is best-suited. Att. 4, RTC 161-164.

GE also argues that EPA's reliance on the benefits of "mass removal" is unjustified because the "remedy-selection criteria do not include 'mass removal." Pet. at 27. This is an overly-narrow reading of the criteria, which are not intended to explicitly prescribe a particular outcome in advance, but instead are intended to guide decision-making through application to the facts in the Record to generate a remedy; their terms do not delineate the universe of possible remedies. Here EPA's reliance on the benefits of PCB removal is rooted in the threshold selection criterion for Control of Sources of Releases, including "how each alternative ... would reduce or minimize possible further releases." Att. 1, CD-Permit II.G.1.b. More extensive source control – removal – leads to the twin benefits of (1) reduced risk of release, including downstream transport, and (2) increased long-term effectiveness. Therefore, the benefits of eliminating the risks posed by PCB contamination behind Woods Pond dam through removal are significant given potential flood events or the failure of Woods Pond Dam. Att. 4, RTC 162, 186-187. Accordingly, EPA's remedy adheres to the remedy-selection criteria with more fidelity and certainty over the long-term than any of the alternative, smaller remedies preferred by GE because the contaminated sediment is being permanently removed from the environment.

Although GE cites computer model projections as a basis to reduce the remedy, it fails to show any clear error by EPA. GE argues that the models demonstrate "the same reductions in PCB concentrations in fish" and "comparable reductions in direct contact and ecological risks," Pet. at 28, but this ignores that fact that the model's conclusions cannot account for extrinsic events, such as weather, engineering errors and dam breach or failure. Att. 4, RTC 162. EPA's precautionary approach, which will necessarily mitigate these risks as a function of permanently removing pollutants from behind the dam, is a rational way to proceed.
To the extent that GE argues that the benefits of removal are speculative and unnecessary, Pet. at 25, EPA disagrees. By permanently *removing* pollutants from Rest of River, EPA's approach is more protective than GE's, which entails *leaving* pollutants in Rest of River, where they could be released. Put otherwise, under this logic GE's remedy "might" end up being as proactive as EPA's, but only if a variety of risks or adverse events do not materialize, i.e., no floods, no dam breach, no cap breach. EPA's decision to account for these contingencies through the straightforward mechanism of pollutant removal was reasonable, and was a fair evaluation of the CD-Permit criteria. GE would have chosen a different path, but a difference of opinion regarding a technical matter is not a basis for review, where EPA's chosen approach is cogently explained in the Record.

GE's objection to EPA's consideration of future risks as being in "perpetuity" and potentially imposing never-ending obligations, is unpersuasive. Pet. at 29. GE claims that EPA's long-term horizon for risk evaluation would effectively provide "no practical limits" to GE's obligations, contrary to the selection criteria. *Id.* The selection criteria, however, do not establish specific time frames, so EPA's decision to adopt a long-term view, which is consistent with PCBs' tendency to persist in the environment, cannot be inconsistent with the CD-Permit Criteria or the Decree. Moreover, GE's conjectural argument about never-ending obligations must fail, as the only requirements at issue are the ones that have actually been imposed. The requirement to dredge Woods Pond according to specific parameters set out in the Permit is not a "requirement with no practical limits."

GE and EPA differ on the estimates of the volume of materials required to be excavated from Woods Pond. Pet. at 26. GE provides no new rationale that rebuts EPA's estimate, and provides no support for its 340,000-cubic yard figure. Att. 4, RTC 161; Att. 3, SOP 27, n. 119.

Moreover, even if GE's figures were correct, EPA's analysis would not change for the reasons previously explained.

GE also objects to EPA's position on the "trapping efficiency" of Woods Pond to reduce downstream transport of PCB's, claiming that solids removal does not equate to PCB removal and that EPA's selected remedy is only marginally more effective at trapping downstream transport. Pet. at 30. EPA disagrees with GE's analysis and conclusions. Even if the approach chosen by EPA is only marginally more effective, a point that EPA questions, there is nothing in the selection criteria that precludes EPA from proceeding along a path such that incremental gains accrue to the environment and the public. Att. 4, RTC 162-163.

Finally, EPA's remedy selection was performed not only at the specific remedy component level, but also in consideration of remedy as a whole. For example, an overall remedy with no or minimal PCB source removal in Reach 5B, or Reaches 9-16, but providing for significant source removal in Woods Pond, is justified under the remedy selection criteria.

IV.D The Rising Pond Remedy Is Not Clearly Erroneous

GE alleges that the remedy selected by EPA for Rising Pond impermissibly conflicts with the CD selection criteria, because "it would not have greater risk-based benefits than smaller, less disruptive, and less costly alternatives." Pet. at 30.

GE misapprehends the relevant standard for selecting a remedy under the Decree, cherrypicking criteria. EPA's analysis must meet the three General Standards, in light of the six balancing factors. The Rising Pond remedy, reached through a thorough evaluation of the CD-Permit criteria, is supported by the Record.

GE's objections follow the same broad strokes as its challenge to the Woods Pond remedy. GE contends that its preferred solution of limited dredging in shallow areas, with no

excavation in deeper areas, and placement of a six-inch cap would result, under EPA's model, in the same or greater environmental results, both in the Pond and downstream. Pet. at 31. These conclusions are premature, and in any event, GE waived any challenge based on cap thickness.

First, with regard to cap thickness, Permit Section II.B.2.i. includes design and Performance Standards for Engineered Caps and a process to determine cap thicknesses through the remedial design. GE did not contest the Engineered Cap Performance Standards in its Petition. On the contrary, GE's Petition admits that the thickness of the cap may be greater than six inches. Pet. at 31. ("The fact that the precise thickness of the cap has not yet been designed..."). Moreover, GE's own RCMS cost estimations include ranges of cap thickness in Rising Pond from 1 to 1.5 feet (Att. 8, RCMS Table 6-1, Alternative SED 9). In sum, GE has elsewhere admitted that it is premature to specify the cap thickness now, and thus waived any argument that EPA should have done so. 40 C.F.R. §124.19(a)(4)(ii).

In fact, far from being clear error, in selecting the Rising Pond remedy, EPA focused on satisfying the threshold criteria of overall protectiveness and control of sources of releases. EPA's approach for setting cap thicknesses ensures that the Engineered Caps will protect the PCB-laden sediments from further future exposure based upon technical methodology. Att. 4, RTC 185-86, 208-210. Thus, GE's arguments on the volume of material to be removed in the shallow area are irrelevant, because those volumes will be determined by cap thickness, which is yet to be determined.

Second, GE also argued that EPA erred in rejecting GE's capping proposal for the deep areas because EPA's finding that a cap without excavation could decrease flood storage capacity is not borne out by EPA's model. Pet. at 31-32. This argument is also wrong, and ignores EPA's obligation to ensure protectiveness and to control releases. Modeling the flooding

impacts depends on knowing the thickness of the cap – which will not be determined until design. If the cap thickness has not been determined, the final bathymetry cannot be determined, and thus the increase in flood stage cannot be properly modeled. GE's desire for reduced costs should not outweigh a protective cap design.

Similarly, GE reasserts its position that the risks of a dam breach are small, Pet. at 32, discounting the fact that breach of Rising Pond Dam has already occurred, and that the issue is still a concern. Att. 4, RTC 186. The fact that the risk of occurrence may be small must be weighed against the consequences were the breach actually to occur.

Finally, GE reprises its claim that EPA's selected remedy would result in greater GHG emissions than GE's alternative. Pet. at 32. But EPA found that, although short-term impacts of the proposed remedy, like the cost, are higher for the selected remedy than some other alternatives, RTC 186-188 (Att. 4), the selected remedy, when evaluated and balanced against all of the Selection Decision Factors, in addition to the General Standards, is the best-suited alternative.

None of GE's arguments shows that EPA made a clear error in its evaluation of the CD-Permit criteria.

IV.E EPA's Restoration Requirements Are Not Clearly Erroneous

GE alleges that the Permit's restoration provisions are vague and based upon unsupported assumptions and inadequate study, because restoration is unlikely to be successful in restoring Rest of River to pre-remediation conditions. Pet. at 33. The Record, however, documents EPA's review of the necessity, and likelihood of success, of restoration of areas to be disturbed by the remediation. Att. 4, RTC III.B.2, 83-133, Att. 3, SOP 77-80. GE's attempt to confuse the issues

through ignoring or selectively considering relevant information fails on procedural and substantive grounds.

As a procedural matter, GE simply rehashes its argument from its 2014 comments, including the difficulty of restoration of floodplain forests that EPA already addressed. Att. 4, RTC 119-121. Because GE fails to explain why EPA's response to that comment was clearly erroneous or otherwise warrants review, the challenge should not be reviewed by the Board. 40 C.F.R. § 124.19(a)(4)(ii). To the extent the Board chooses to review it, EPA disagrees with GE's contentions, RTC III.B.2 (Att. 4), including 119-121.

IV.E.1 The Record Demonstrates a Thorough Analysis of Restoration and Its Likelihood of Success

GE argues that the Region failed to adequately evaluate restoration and its likelihood of

success, Pet. at 34-37, contrary to the voluminous information in the Record discussed below.

Here, the Permit's restoration requirements are the product of many years of review by the

Region and GE of restoration-related research and experience, and discussions with

Massachusetts Fish and Game. The Record includes many studies of the availability, feasibility,

implementability, and likely success of restoration measures.

- In 2008, EPA provided GE with direction to study restoration.²⁰
- In its 2008 CMS and 2010 RCMS, GE detailed restoration techniques and methodologies. For example, Section 5 of GE's RCMS includes GE's anticipated processes to identify ecological functions; options to avoid or minimize ecological impacts; and, for each remedial alternative and habitat type, descriptions of the anticipated impacts of remediation, specific restoration methods, and post-restoration conditions. Att. 8, RCMS Section 5: 1-12, 22-24, 32-35, 53-56.

²⁰The following sources were included within EPA's direction: "This discussion will follow the principles outlined by EPA at http://www.epa.gov/owow/wetlands/restore/principles.html, the Massachusetts Wildlife Habitat Protection Guidelines for Inland Wetlands (2006), and the Society for Ecological Restoration International Guidelines for Developing and Managing Ecological Restoration Projects, 2nd Edition (2005)." AR293437 at 2-3.

- Based on its review of the CMS and RCMS and in developing the CA, EPA consulted with leading professionals regarding the feasibility of restoration of various habitats and methods for restoration. These discussions are synthesized in materials presented to the public during the April 2011 Mini-Workshops and May 2011 Charrette. AR508641.
- The CA includes in-depth analysis of specific topics including "Bank Erosion/Restoration" and "River and Floodplain Restoration. Att. 10, CA Attachments 11, 12.

These examples alone demonstrate ample support in the Record for evaluation of the use of restoration as a component of the remedy.²¹

To the extent that GE argues that such restoration cannot be successful, EPA disagrees.

Att. 4, RTC 108-109 (describing removal and restoration in riverbanks); see also Att. 10, CA

Attachment 11. The Permit is structured to facilitate restoration where possible, including by

incorporating a hierarchy of bank stabilization methods, RTC 102 (Att. 4), and emphasizing

bioengineering methods to provide a variety of habitats. Att. 10, CA Attachment 11.

In addition, in its consideration of the success and failure of restoration projects, EPA

evaluated a wide range of projects with differing project goals and habitat characteristics.

Attention was given to those projects that involved restoration following remediation of

contamination because of the comparable challenge posed by coordinating these two objectives

for Rest of River. Examples of relevant successful complex riverine restoration projects include:

- Loring Air Force Base, Maine, with a 35-acre contaminated wetland and 2.5-mile stream PCB remediation and restoration project, Att. 10, CA Attachment 12;
- Clark Fork River Site, Montana, where hazardous mining waste contaminated over 43 miles of river bed sediments and the adjacent floodplain, *Id.*;

²¹ This long-term compilation of restoration information demonstrates that EPA clearly evaluated this aspect of the problem of how best to address significant unacceptable threats to humans and the ecosystem from GE's PCB disposal. *Michigan*, 135 S. Ct. at 2606-2607.

• Housatonic River, Upper ¹/₂-Mile Reach, includes installation of instream rock weirs, and boulders to provide cover for fish and increase the diversity of flow velocities; and planting of native trees and shrubs. AR9678. See Photos.



River Channelization by USACE in 1940: Downstream of Newell Street



Upper ¹/₂-Mile Reach: Downstream of Newell Street. At the Initiation of the Remediation



Upper ¹/₂-Mile Reach: Downstream of Newell Street. 15 years after Remediation

• 1 ¹/₂-Mile Reach, included similar restoration requirements as for ¹/₂-mile Reach. AR480377, see Post-restoration photos.



1¹/₂-Mile Reach: Lyman Street, Looking Downstream. Immediately After Remediation



1 ¹/₂-Mile Reach: Lyman Street, Looking Downstream. 10 years after Remediation



1¹/₂-Mile Reach: Dawes Avenue, Looking Downstream. 10 years after Remediation

• 1 ¹/₂-mile Reach Floodplain Restoration, includes planting of native trees and shrubs and restoration of a Vernal Pool AR462575. See post-restoration photo.



1¹/₂-Mile Reach: Vernal Pool Restoration

While rivers are unique and restoration projects vary depending on project goals and the setting, the Record, including these and other example projects (Att. 10, CA Attachment 12), shows that restoration on the scale of the Rest of River ecosystem is feasible. "[W]hen the Board is presented with conflicting expert opinions over technical issues, 'we look to determine whether the record demonstrates that the Region duly considered the issues raised in the comments and whether the approach ultimately adopted by the Region is rational in light of all the information in the record." *In re Dominion Energy Brayton Point*, 12 E.A.D. 490, 510 (EAB 2006) (quoting, *In re Gov't of D.C. Mun. Separate Sewer Sys.*, 10 E.A.D. 323, 348 (EAB 2002).

GE next argues that because restoration will be achieved only to the "extent feasible" to pre-remediation conditions, it cannot be successful and that EPA relies on this qualification for the first time in its Response to Comments. Pet. at 39. The term, however, was included in the Draft Permit's definition of "restoration" (at 5) and in the requirements for a Restoration Plan (at 30). Moreover, simply because restoration will be accomplished to the "extent feasible," does not make restoration unsuccessful. In limited cases (e.g., support of infrastructure, landowner desires), the restoration following remediation may have competing objectives (e.g., protection of bridge abutments) and these competing objectives may influence restoration planning and implementation. Further, it is impossible to restore the system to *identical* conditions. For examples if 50-foot tall trees are removed, they will likely be replaced with smaller stock. This does not render remediation and its associated restoration unsuccessful. Over time, restoration is an effective measure to ameliorate the impacts of addressing hazardous substances in the environment.

GE criticizes EPA for allegedly relying on the creation of a "novel ecosystem" to justify the remedy and restoration. Pet. at 39. However, the term fairly recognizes the concept that there are external anthropogenic forces in a restoration trajectory outside those under control of the restoration scientist, such as changes in land use that may affect sediment loads and flow. Att. 10, CA Attachment 12. Thus, EPA recognizes that the river is already a "novel" ecosystem influenced by the contamination of PCBs and other anthropogenic historical alterations to the river course and floodplain. To summarize from the Record: "After remediation and restoration, it is understood that the Rest of River will not mirror what is observed today, *an environment compromised in many ways by high concentrations of PCBs, nor what was there 100 years ago before PCBs were released into the river when the area had been largely cleared for agricultural use.*" (emphasis added). Att. 4, RTC 91. Here, the restoration components of the remedy help achieve the CD-Permit's goals and GE's criticisms are unjustified in light of EPA's balancing of all relevant considerations under the CD-Permit.

IV.E.2 The Record Includes Potentially Applicable Specific Restoration Measures and It Is Premature to Select Among These Measures at this Pre-Design Stage

GE complains that the Record allegedly lacks sufficient information to select specific restoration approaches and that the Permit is required to select all the restoration measures even at this pre-design state in remedy implementation. Pet. at 33-37. Neither point is justified.

The Record includes numerous specific potential restoration approaches. GE's RCMS details specific restoration techniques and methodologies, including anticipated processes to identify ecological functions; options to avoid or minimize ecological impacts; and, for each remedial alternative and habitat type, descriptions of the anticipated impacts of remediation, restoration methods, and post-restoration conditions. Att. 8, RCMS Section 5, citations above. In GE's subsequent document, Supplement to Response to EPA's Interim Comments on the CMS Report: Evaluation of Examples Areas (February 2010), GE conceded that "*[t]his level of effort prior to a remedial decision by EPA is unprecedented*," at 1. (emphasis added), and provided a site-specific evaluation of potentially applicable restoration measures in six specific areas of the river. AR461087.

In addition, EPA's CA, Attachment 11, provides information regarding the specifics of potentially applicable restoration measures: it describes bank erosion processes for consideration and specific restoration measures, including creating bankfull benches, riffle/pool sequencing, woody debris bank toe protection, j-hook/log vanes, and use of live cuttings/brush mattresses. Att. 10. Similarly, CA Attachment 12 addresses the necessary elements of a successful river and floodplain restoration program. The Stream Restoration Design and its Supplements referenced in Attachment 12 provides specific engineering considerations and details of stream restoration measures, including channel plan form and cross-section design, streambank soil bioengineering methods and applications, soil and slope stability. Att. 10.

To the extent GE argues that the Permit should have specified all the details of these restoration measures, GE is wrong. Pet. at 35. For several reasons, allowing GE to propose and EPA to review proposed actions during the remedial design process is more appropriate. Att. 4, RTC 86.²² First, as supported by the Decree, guidance, and case law,²³ the Permit is intended to provide a framework for the transition into the next phase of the process, namely remedial design, but is not expected to provide all details of a remedial design. Att. 3, SOP 56-59. The approach of having Restoration Performance Standards specified in the Permit, but details proposed by GE for EPA review and approval, suits the specifics of Rest of River. There are varied habitats and species that may be affected, and it is appropriate that the specifics of remediation methods and equipment be proposed and approved in subsequent plans. Plans for the varied techniques needed for minimization of impact and restoration must be coordinated with the specific remediation that will be performed on a subarea-by-subarea basis. These areaspecific differences are obvious in GE's presentation of the approaches to the six example areas it analyzed at EPA's direction. AR461087. This approach also allows EPA and GE to capitalize on future advances in restoration science by incorporating an adaptive management approach. Att. 4, RTC 86-87. Requiring specific restoration plans in the Permit would preclude this sitespecific tailoring, eliminate opportunities for ongoing improvement and incorporation of new scientific developments, and limit dialogue among all project stakeholders in identifying the most appropriate and successful approaches. As GE concedes, restoration requirements are not severable from remedial requirements because restoration requirements "are inextricably related

²² GE will have the opportunity to propose the remedial design and restoration plans in the Rest of River Statement of Work (SOW) or the Work Plans for the Rest of River SOW, and at all four stages of the restoration process. Att. 2, CD \P 22.x.

²³ Note also, footnote 223 of the SOP (Att. 3), which cites to United States. v Hooker Chemicals & Plastics Corp, 540 F. Supp. 1067 (W.D.N.Y. 1982), and United States v. Akzo Coating, 719 F. Supp. 571 (E.D. Mich. 1989), supporting the conclusion that some uncertainty at the time of remedy selection is acceptable.

to and dependent on scope of the remedial action to be implemented for the river, the banks, and the floodplain. . ." Att. 15, GE December 21, 2016 letter.

IV.E.3 The Restoration Component of the Remedy Is Part of the Balance of Factors Considered in Selecting the Best-Suited Remedy

GE argues that EPA selected a remedy that requires too much PCB removal and that restoration will be inadequate in restoring the harm caused by this removal work. Pet. at 33-36. EPA disagrees. The selected remedy was chosen over other alternatives with more extensive PCB removal to reduce adverse ecological impacts while remaining protective of human health and the environment. Consideration was given to alternatives for the remediation of river sediment and banks, with estimated removal volumes ranging up to 2,252,000 cubic yards, and of floodplain soil with estimated removal volumes ranging up to 615,000 cubic yards. Att. 4, RTC 215-216. The selected remedy, which requires removal of an estimated 890,000 cubic yards of sediment and 75,000 cubic yards of floodplain soil, is not the environmentally ruinous approach portrayed by GE. Pet. at 33-36. EPA's approach of more limited PCB removal for the Reach 5B sediments, and the Reach 5 riverbanks, demonstrates EPA's thorough balancing of the CD-Permit criteria, including of the objectives of removing PCB risks and protecting against adverse ecological exposures. Att. 9, Status Report; Att. 1, Permit Attachment B; Att. 4, RTC 145-146, 147-150 (riverbanks), and at 216 (Floodplain Core Areas). Massachusetts concurs with this approach, and the Massachusetts' Fisheries and Wildlife Board expressed its support for EPA's balanced selection:

The remediation plan ... has been crafted to responsibly address public health risks while at the same time responsibly maintaining as much as possible of the

natural and recreational values of this section of the Housatonic. It's been a difficult balancing act, but it is a Housatonic plan, and it has our full support.²⁴

Att. 4, RTC 27.

IV.F Region's Requirements for Risk Reduction Are Not Clearly Erroneous

GE challenges EPA's scientific risk findings, and its CD-Permit evaluation of criteria regarding EPA's balancing of the CD-Permit criteria. GE's contentions should be rejected on both procedural and substantive grounds.

First, GE makes passing reference to its disagreement with EPA's determinations on the health effects of PCBs and the related toxicity values. EPA has responded to GE's contentions in this vein on multiple occasions, including Section II.F. of the RTC (PCB Toxicity and Risk Assessments) at 39-61. Att. 4. GE has only alleged error but not addressed why EPA's response warrants review. 40 C.F.R. §124.19(a)(4)(ii); *City of Pittsfield, supra*.

To the extent the Board addresses GE's petition substantively, EPA's RTC responses cited above adequately respond to GE's contentions. Those responses illustrate that EPA's rational, adequately-explained scientific judgment, reinforced by independent scientific peer review at both the EPA national level and for the Rest of River, supported EPA's approach to human health and ecological risk assessments.²⁵ Att. 10, CA 59; Section II.B.3. *supra*. Here, a contrary opinion by GE does not establish clear error or overcome the Board's traditional deference to regional technical determinations.

²⁴ GE misleadingly references a 2011 comment letter from Massachusetts, which does not represent its current position. Section II.A.5.d. above.

²⁵ GE also raised these same substantive issues during the independent peer reviews for the Rest of River risk assessments. HHRA: AR 200628, AR 45319; ERA: AR 200673, AR 200601.

Second, GE asserts that less extensive cleanup measures would achieve similar levels in reduction of fish consumption risks. However, procedurally, GE did not fully confront EPA's Response to Comments. GE's argument for less cleanup involves alternative SED-5, a remediation alternative focused on using of thin-layer capping instead of greater volume of removal of PCB-contaminated sediment. Pet. at 41. The RTC, at 172-73 (Att. 4), discusses how GE's evaluation in its RCMS, including the evaluation of SED 5, overstates the long-term effectiveness of thin-layer capping. GE's petition does not address that Response regarding thin-layer capping; accordingly, GE's argument should be dismissed. 40 C.F.R. § 124.19(a)(4)(ii).

Moreover, a more complete review of the Record against the CD-Permit criteria demonstrates the merits of EPA's decision. As shown in the CA, the selected sediment remedy is best suited to meet the CD-Permit Criteria. Att. 10, CA 59.

GE's argument favoring SED5 is incorrect, because SED 5 utilizes thin-layer capping, which EPA describes as "not a suitable technology considering the mass and high concentrations of PCBs in the sediment and is not expected to result in significant long-lasting benefits in the reaches for which it is considered." Att. 10, CA 12. GE's arguments provide no new information and amount to second-guessing EPA's evaluation of the CD-Permit criteria.

Additionally, GE argues that the Floodplain exposure assumptions are flawed, and that a less-disruptive remedy would protect public health. Pet. at 42. GE's arguments on floodplain risks provide no new information and its suggested alternative amounts to second-guessing EPA's evaluation of the CD-Permit criteria.

EPA responded to GE's comments on the floodplain exposure assumptions in the RTC at 49-60. Att. 4. GE has recycled its objections to the floodplain exposure assumptions without presenting new information or addressing EPA's RTC Responses. Moreover, these have been

addressed by EPA several times, including through the independent scientific peer review of the Human Health Risk Assessment, as well as the Response to Comments; thus they should not be allowed before the Board. Att. 4, RTC 49-60; Section II.B.3 *supra*.

With respect to its preferred remedy, GE did not raise the issue in its 2014 public comments. GE does not make the argument that the less disruptive floodplain remedy would protect human health. For that argument, GE has not shown, per 40 C.F.R. §124.19(a)(4)(ii), that this issue was raised during the public comment period. Should the Board entertain the arguments substantively, again EPA's analysis is based on all nine CD-Permit criteria, not solely how alternatives compare on a single criterion. GE cites FP-9 as an alternative remedy. FP 9 limits floodplain remediation to meet the least stringent acceptable cancer risk of 10⁻⁴. Here, the Permit remedy achieves a more protective cancer risk level in many locations - up to 10⁻⁵ - reduces ecological risks, and ensures long-term protection of the environment from risks posed by PCBs.

GE also argues for a less protective floodplain remedy, citing to EPA's sediment risk decision to accept achievement at the 10^{-4} cancer risk standard. Pet. at 43. However, just as the sediment remedy was not bound to the 10^{-5} standard chosen for other Rest of River risks, the evaluation of the remedy selection criteria for floodplain risks is a different analysis based on different facts from the evaluation for sediment risks. EPA's decision is fully consistent with the NCP risk standards, RTC 51– 52, and EPA selected a floodplain remediation alternative near the lower end of the volume scale. Att. 10, CA Table 1 at 10. GE has not shown any clear error in EPA's decision.

IV.G The Downstream Transport and Biota Performance Are Not Clearly Erroneous

GE wrongly criticizes two Performance Standards – the Downstream Transport and Biota Performance Standards – for their alleged failure to comply with the Decree because of their requirements to potentially obligate GE to undertake unspecified additional work to maintain their Standards and the protectiveness of the remedy in the future. Pet. at 43. GE unfairly claims that the potential obligation to maintain these Performance Standards exceeds the Decree's authority, because virtually all future actions to be required of GE must allegedly be included in the Permit. Pet. at 43-47. As explained below, these Performance Standards are lawful and no different than any of the other Performance Standards included in the Decree and Permit. Att. 2, CD ¶¶33, 34, Att. 1, Permit II.

First, as a procedural matter, GE has not raised any new issues regarding these Performance Standards not already considered and addressed by EPA. Att. 3, SOP 59-64, Att. 4, RTC 62-83. Further, GE's objections are based upon speculative concerns that may never arise. Therefore, the Board need not review this issue.

Turning to the substance of the issues, GE's arguments are not supported by the Record, and certainly do not demonstrate clear error. To be protective of human health and the environment, EPA selected Performance Standards for Rest of River, including the Downstream Transport and Biota Performance Standards. Att. 1, Permit II. The Downstream Transport Standard specifies certain values for PCB transport downstream after remediation. Att. 1, Permit II.B.1.(a)(1). Similarly, the Biota Standard specifies that a certain PCB concentration in fish fillets be achieved within 15 years after completion of remediation. Att. 1, Permit II.B.1.(b)(1). EPA also selected appropriate corrective measures to achieve and maintain these Performance Standards. Att. 1, Permit, II.J. Nonetheless, the Performance Standards require that if the standards are exceeded, GE evaluate and identify the potential cause(s) of the exceedance and propose additional actions necessary to achieve and maintain the Performance Standards, and that EPA determine any additional actions necessary to achieve and maintain the Performance Standards *in accordance with the Decree*. Att. 1, Permit II.B.1.a(2) and II.B.1.b(2) (emphasis added).

GE's argument that these Standards violate the Decree by imposing future unknown obligations ignores the Decree's many provisions that ensure long-term protectiveness of the remedy, including through future responsibilities to be defined at a later date. For example, the Decree obligates GE to achieve and maintain Performance Standards during the Rest of River Remedial Action, including through long-term Operation and Maintenance ("O&M"), all of which are components of the Rest of River SOW. Att. 1, Permit II.H. The Decree defines O&M to include "all activities required to maintain the effectiveness of the Remedial Action for the Rest of the River as required under an Operation and Maintenance Plan developed for the Rest of the River Remedial Action." Att. 2, CD ¶4. The O&M program required by the Permit and to be incorporated into the Rest of River SOW requires "other response actions necessary to achieve and maintain compliance with Performance Standards." Att. 1, Permit II.C.

The Decree also provides that GE shall "perform the response actions required under this Consent Decree to achieve and maintain the Performance Standards," CD ¶23; that EPA will establish such Performance Standards for the Rest of River in the Permit, CD ¶33; and that GE will achieve and maintain such standards, including through O&M. Att. 4, CD ¶¶22. p. 33. Further, as GE acknowledged, the Decree provides that, under specific circumstances, EPA may modify response actions required by the Rest of River SOW to achieve and maintain Performance Standards. Att. 2, CD ¶39.a.; Pet. at 45.

Likewise, Decree Paragraph 39.a clearly applies to these protectiveness obligations. GE argues that Paragraph 39.a-the paragraph regarding modification of the Rest of River SOW to achieve and maintain Performance Standards—is inapplicable to this stage of the remedy selection process because allegedly "EPA can demand modifications only of work already 'specified in the ... Rest of River SOW.'" Pet. at 45. Yet, any additional work required to achieve and maintain these Performance Standards will be a modification of the Rest of River SOW because the Rest of River SOW sets the parameters for both the Remedial Action and O&M work plans. Att. 1, Permit at II.H. Moreover, if the Rest of River SOW can be modified according to the provisions of Decree Paragraph 39.a., and the Permit establishes the requirements for submittal and approval of the Rest of River SOW, obviously the Permit can provide that the Rest of River SOW be modified according to the provisions of Decree Paragraph 39.a. Here, the Permit's Performance Standards provide for the modification of the Rest of River SOW "in accordance with the CD," which obviously includes Paragraph 39.a. Att. 1, Permit II.B.1.a(1); II.B.1.b(1)(a) (emphasis added). Accordingly, these Performance Standards are, by the Permit's own definition, in accordance with the Decree.²⁶ EPA's incorporation of them into the Permit was not clearly erroneous.

Alternatively, GE argues that the Decree requires EPA to select all the response actions in the Permit to achieve and maintain the Performance Standards. Pet. at 44. This level of detail is not required by the Decree during remedy selection and will be developed during remedy implementation. Att. 3, SOP 56-59. The Decree specifically anticipates that additional actions

²⁶ Similarly, to the extent that GE argues that the Performance Standards cannot require "additional actions" because of limitations in Paragraph 39.a., achievement of the Performance Standards is part of the response action; thus, additional actions to achieve and maintain those Performance Standards are consistent with the scope of the response action as required by Decree Paragraph 39. There could be additional actions that are consistent with the scope of the response action that do not modify Performance Standards. Precluding any additional response actions at this point would render Paragraph 39.a. meaningless. Att. 2.

may need to be developed to achieve and maintain Performance Standards. Att. 2, CD ¶¶22, 33, 39. Thus, even though the CD-Permit calls for EPA to set forth "the appropriate corrective measures necessary to meet the Performance Standards," CD-Permit II.J. (emphasis added) (Att. 6), the Decree recognizes that it will not always be possible or *appropriate* to identify all corrective measures necessary to meet and maintain the Performance Standards at the time of the Permit. Att. 2, CD ¶39.a. Indeed, the Decree specifically recognizes that there is no "warranty or representation of any kind" that compliance with the selected corrective measures will achieve Performance Standards. Att. 2, CD ¶ 40. These terms should not be interpreted to render the provisions superfluous, and GE's argument would render these provisions meaningless. Summit *Packaging, supra* at 12. Here, it is not appropriate or even possible for the Performance Standards and response actions established in the Permit to spell out every detail of how these Performance Standards will be achieved and maintained during Remedial Action and/or O&M over the next 50 years or even longer. For example, the post-remediation sampling data to be collected to determine whether the Downstream Transport or Biota Performance Standards are achieved necessarily cannot be gathered until after the remedy construction activities are completed. The Decree provides practical flexibility for the Rest of River SOW, including the O&M plan developed pursuant to the Rest of River SOW, to incorporate modifications to achieve and maintain Performance Standards. Att. 2, CD ¶39.a. These Performance Standards are no violation of the Decree's terms and inclusion of them in the Permit is not clearly erroneous.

Further, none of the Decree provisions relied upon by GE – Paragraphs 22.n, 162, 163, and CD-Permit II.J. – support its argument that additional future work cannot be required during implementation of the remedy to achieve and maintain Performance Standards. For example, the

reopener provisions at Paragraphs 162, 163 are one such avenue of requiring additional obligations, but are not a prerequisite for relying upon other Decree provisions -- they do not answer the question of what actions GE may be required to undertake to achieve and maintain Performance Standards. Att. 4, RTC 69. Similarly, Decree 22.n and CD-Permit II.J. do not obligate EPA to specifically identify in the Permit each and every action that may be required during the anticipated 50 or more years of a complex Remedial Action and subsequent O&M in Rest of River. Decree 22.n simply explains that the Permit "will set forth the proposed Remedial Action for the Rest of River," and CD- Permit II.J. explains that EPA will "propose Performance Standards, and the *appropriate* corrective measures necessary to meet the Performance Standards." *Id.* (emphasis added). Notably, CD-Permit II.J. does *not* require that EPA propose *all* corrective measures necessary to meet the Performance Standards. Nothing in the Decree prohibits EPA from adopting Performance Standards that allow for additional actions to achieve and maintain the effectiveness of the Performance Standards.

Finally, GE's interpretation of the Decree defies common principles of environmental protection. For this public interest Decree to have no mechanisms to ensure future protectiveness is antithetical to CERCLA's objectives of timely cleanup of hazardous waste sites and ensuring that the costs of such cleanup efforts are borne by those responsible for the contamination. The Decree's text fails to support such a radical deviation from these principles.

IV.H Permit Provisions on Legally Permissible Future Work Are Not Clearly Erroneous

GE challenges responsibility for its residual PCB contamination. Pet. at 48. For areas where remaining PCB contamination precludes unrestricted use, GE challenges Permit conditions in these areas that impose additional requirements, such as sampling, materials handling, and off-site disposal, triggered by future projects, work or use ("Future Work"). Att. 1, Permit II.B.2.j, k, l; II.B.6.b, c. The provisions disputed by GE reflect EPA's consideration of residual risks posed by GE's PCB contamination, and are supported by the Record. EPA's determinations deserve deference. GE's attempt to refashion this remedy selection issue into a contractual matter fails because, first, the matter is a fundamental technical decision supported by the Record, and second, even if evaluated through a contractual lens, no support exists for GE's contentions.

IV.H.1 Disputed Provisions Are Simply Part of Responsible Risk Management

The Permit's selected remedy is based upon examination of numerous alternatives for a number of geographic sediment and floodplain remedy components, and represents a balanced approach to addressing risks posed by PCB contamination, with significant elements of PCB removal, containment, and Monitored Natural Recovery. Att. 10, CA 6. A consequence of the selected remedy is that a significant amount of PCB contamination will remain in Rest of River. GE seeks to avoid responsibility for addressing the PCB contamination. GE's arguments must fail. These Future Work provisions are a logical and common approach to ensure that the residual PCB contamination will not impede future protectiveness. EPA's considered judgment in establishing Future Work requirements to address residual PCBs should be affirmed.

Initially, as with GE's challenge to the Downstream Transport and Biota Performance Standards, the Decree and Permit simply do not support GE's notion that all potential actions that may be needed in the future to ensure protectiveness, specifically those that are currently unknowable, have to be spelled out in the Permit. Section IV.G. *supra*.

Further, far from being unspecified, Pet. at 49, Future Work requirements serve as a limit on the scope of required corrective action. First, the project cannot be simply a speculative

activity, but has to be "Legally Permissible" and require the appropriate government approvals or authorizations. Att. 1, Permit Def.18, at 2-3. Second, the requirements for Future Work in Reaches 10-16 and in certain floodplain areas are constrained to areas with PCBs greater than 1 mg/kg. Att. 1, Permit, at II.B.2.1 and II.B.6.c. Moreover, additional remediation requirements for properties with a change in use are constrained by requiring GE to only achieve the appropriate risk-based cleanup levels provided in Tables 3 and 4 of the Permit. Accordingly, any potential Future Work would have specific limits.

By contrast, GE is seeking a free pass on its responsibility for addressing the hundreds of acres of contaminated river and floodplain. Pet. at 48-50. GE's view conflicts with Decree: "[t]he Consent Decree establishes a process intended to ensure that the Remedial Action to be selected for the Rest of the River will be protective of human health and the environment." Att. 2, CD ¶8.c. GE is not being required to remove all the PCB contamination – GE is simply tasked with managing its residual contamination during Future Work in a way that is protective of human health and the environment and meets Performance Standards.

GE also asserts that the Future Work provisions have not been adequately evaluated by EPA. Pet. at 48-49. As referenced above in Section IV.F and SOP 57-59 (Att. 3), that is inconsistent with the CD-Permit and Agency guidance. The CD-Permit and EPA guidance on selecting either RCRA or CERCLA remedies only require "appropriate" analysis of the remedy under the relevant criteria, and recognize that the ultimate weight given to the factors, and how they will be balanced, depends on the risks posed by the facility "and the professional judgment of the decision-makers."²⁷ The Record demonstrates that EPA more than adequately evaluated all relevant information.

²⁷ 55 Fed. Reg. at 36824-5.

GE next attempts to bypass the Board's "clearly erroneous" review standard. Pet. at 50. GE's mischaracterization should not prevail because first, as stated above, GE agreed to the Board's standard of review in the Permit. Section IV.A. supra. Second, EPA's selection of an approach to ensure protectiveness in the event of future work in Rest of River is totally rational, and supported by the Record. Third, no Future Work responsibilities have to date been placed on GE. Despite GE's concerns about future Agency actions, such a conflict has not presently occurred, and may not occur at all, so it is not presently ripe for adjudication.²⁸ Generally, a claim is not ripe for adjudication "if it rests upon contingent future events that may not occur as anticipated, or indeed may not occur at all." Tex. v. United States, 523 U.S. 296, 300 (1998). Courts must "evaluate both the fitness of the issues for judicial decision and the hardship to the parties of withholding court consideration" so as to "prevent the courts ... from entangling themselves in abstract disagreements." Abbott Labs v. Gardner, 387 U.S. 136, 148, 49 (1967). GE cannot allege a current violation of MESA, or any direct hardship. Failure to meet even just one prong is sufficient to dismiss GE's case, see Ernst & Young v. Depositors Econ. Prot. Corp., 45 F. 3d 530, 535 (1st. Cir 1995), and GE meets neither.

IV.H.2 The CD and CD-Permit Clearly Authorize These Potential Actions

GE claims that Future Work (implemented through Conditional Solutions) is not authorized by the Decree and does not apply to Rest of River. Pet. at 48-49. To the contrary, the Decree states that, "[t]he Performance Standards for a Conditional Solution shall include all the requirements identified as Performance Standards for a Conditional Solution in the [non Rest-of -River] SOW attached to this Consent Decree, *and that may be identified as a Performance*

²⁸ For any disputes during remedy design/implementation, GE has administrative and judicial dispute resolution rights. CD XXIV.

Standard for a Conditional Solution in the Rest of River SOW . . ." (emphasis added) CD ¶34, see also CD ¶56.e. Att. 2. Paragraph 34.d. also introduces the concept of limiting Conditional Solutions ". . . to be protective of any legally permissible future use." Att. 2, CD ¶34.d. Clearly the Decree contemplated the concept of Legally Permissible Future Work, and the use of Conditional Solutions for Rest of River. The Performance Standard and corrective measures regarding Future Work are clearly within the EPA's authority for remedy selection. Att. 4, RTC 71.

GE also insinuates that the provisions conflict with the Decree's reservation of rights for future United States actions, also known as "reopeners." Pet. at 51. The remedy components, including Future Work, are not "additional" actions per the reopener provisions because they are part of the work to be performed under the Permit. GE has implemented many Conditional Solutions for the Removal Actions Outside the River under the Decree without EPA invoking the "reopeners." Examples include AR512771, 527928. The Performance Standards and related requirements in the Decree, including the Conditional Solutions, do not trigger the reopener requirements, and neither does Future Work.

Moreover, these Future Work provisions were incorporated into the Intended Final Permit (and the Final Permit) as a result of GE's comments on the Draft Permit. GE invoked dispute resolution on the Intended Final Decision, and then expressed these same concerns. EPA addressed GE's concerns in EPA's SOP 64-71. Att. 3.

GE attempts to transform this clear remedy selection issue into a contractual matter. Pet. at 50. That attempt should fail, for three reasons. First, as described in Section IV.A above, this is at heart only a remedy selection dispute, without any need to debate purported contract issues. Second, as described above, the provisions underpinning Future Work requirements are clearly

spelled out in the Decree; there is no unstated contract term. Third, even if there were a contract dispute and an unstated contract term, the Record, and the discussion above demonstrate that for a remedy that has considerable residual PCB contamination, protectiveness depends on prudent management of residual PCBs during any future Rest of River project.

IV.I Requirement to Ensure That Dams Minimize Release of PCB Contamination Is Not Clearly Erroneous

GE challenges the Permit requirements dictating that GE ensure maintenance of Rest of River dams behind which PCB-laden sediment has been disposed, to prevent reoccurrence the Rising Pond dam breach allowing PCBs to migrate downstream. Pet. at 51. First, GE seeks to create a CD-Permit requirement that *every* detail in the Permit must be evaluated to the same degree. Second, GE claims that the Permit obligations should properly be borne by someone else who did not dispose of the PCBs.

The Decree and Permit contradict GE's claim that every conceivable sub-component of a remedy alternative must be analyzed under the Decree's remedy-selection criteria and, tellingly, GE fails to cite any specific Decree provisions. See III.F, G above; Att. 3, SOP 56-59, 74; Att. 4, RTC 70-71. Also, EPA guidance and regulation make clear that EPA properly and fairly performed the remedy selection process. Att. 3, SOP 56-59, 74. As EPA declared with respect to the CERCLA remedy selection process:

The purpose of the detailed analysis is to objectively assess the alternatives with respect to nine evaluation criteria that implement the statutory provisions of CERCLA section 121. This analysis consists of an individual evaluation of each alternative with respect to each criterion, and a comparison of options designed to determine the relative performance of the alternatives and identify major trade-offs among them (i.e., relative advantages and disadvantages) with respect to the same factors.

EPA, "The Role of Cost in the Superfund Remedy Selection Process," 9200.3-23 FS, Sept. 1996.

GE should expect that if EPA evaluated the key tradeoffs and selected a remedy alternative allowing significant PCB contamination to remain, the implementation details of that remedy would include mechanisms for ensuring that the remedy remains protective of human health and the environment, as required by RCRA and the Decree. Att. 2, CD ¶8.c; Att. 6, CD-Permit threshold criterion, II.J.

GE also claims that the Permit dam maintenance requirements would interfere with existing Federal Energy Regulatory Commission ("FERC") or state regulation of a dam. Pet. at 52. That argument must fail because for two reasons.

First, there is no such interference. Instead, there is a clear distinction between the purpose of dam safety provisions, and the Permit requirements. For example, the statement of purpose for Massachusetts' Dam Safety regulations is "... to provide regulatory guidelines for the safety of dams by establishing reasonable standards and to create a public record for reviewing the performance of a dam." 302 CMR 10.00. SOP 71-74.

By contrast, GE's responsibilities under the Permit are to reduce the unacceptable risks posed by the potential releases of the PCBs located behind the dams.²⁹ EPA specifically framed the Permit requirements to respond to GE's comments regarding potential interference. Att. 4, RTC 170. The Permit is clear -- if GE believes that the dam owner is currently performing inspections of the dam in a frequency and a manner that will ensure minimization of releases of PCBs, and GE receives approval from EPA, GE does not have to perform duplicative inspection, monitoring and maintenance ("I, M&M") activities. Att. 1, Permit, II.B.2.j.(2)(b). Moreover, if GE uses best efforts to fulfill these obligations but cannot fulfill them without a conflict occurring, the Permit describes how GE can notify EPA of the potential conflict. *Id.* This

²⁹ Clearly, GE does not disagree with the substantive intent of the I, M&M requirements for dam owners, since GE has not challenged the requirements for its own dams. Pet. at 51.

process does not require any potential interference with FERC or State dam safety requirements.³⁰

Further, the Permit does provide GE with the option of avoiding these responsibilities. GE can elect to remove the PCBs impounded behind the dams, (Permit, II.B.2.f.(1)(d)) (Att. 1), thus eliminating the I, M&M requirements. Att. 3, SOP 72; Att. 4, RTC 169-171. If GE does not propose that approach, then the I, M&M requirements in the Permit are a rational approach to ensuring protectiveness.

Second, GE's attempt to reframe this as a preemption issue should be rejected. GE claims that the "interference" with other dam safety responsibilities would render the Permit requirements preempted. Pet. at 52. However, GE's preemption argument is irrelevant, because as explained above, the Permit duties can be accomplished without affecting or conflicting with dam safety responsibilities. Where there is no conflict, preemption is not triggered.

IV.J MESA Requirements Are Not Clearly Erroneous

The Permit requires compliance with the Massachusetts Endangered Species Act ("MESA") which requires that a project may not result in a "take" of a species unless it has been authorized for conservation and management purposes that provide a long-term net benefit to the conservation of the affected. GE makes two challenges to EPA's commitment to follow the MESA requirements during remedy design and implementation: 1. That EPA would not follow regulatory requirements; and 2. That EPA would violate the Decree in its implementation. Pet. at 53. GE's arguments are mistaken procedurally and substantively.

³⁰If a dispute occurs during remedy design/implementation of the remedy, GE may invoke administrative and judicial dispute resolution under CD XXIV. Att. 2.

First, to reiterate EPA Response to Comments, it is premature to determine if the specific actions undertaken in remediation of Rest of River will result in a "take" of a state-listed species, and if so, whether the take would result in a significant impact on the local population of a state-listed species, and whether any potential mitigation projects constitute a violation of the covenant for Natural Resource Damages ("NRD"). Att. 4, RTC 141. EPA has not made any determinations as to which, if any, species are so affected. Pursuant to the Permit, that determination is to occur with up-to-date information gathered during the remedial design process. Att. 1, Permit, II.B.1.c.³¹ If at that time, GE objects to an EPA determination, GE may invoke administrative and judicial dispute resolution under the Decree. Att. 2, CD §XXIV. Clearly, GE's claim is not currently reviewable because no dispute has occurred to date. *Tex. v. United States, supra* at 300.

Substantively, GE's argument fails. The Permit is very clear:

to the extent that unavoidable impacts result in a take of state-listed species, EPA would follow the regulatory requirements with respect to implementing a conservation and management plan providing for a long-term net benefit to the affected state-listed species.

Att. 1, Permit, Attachment C, C-16. The RTC, at 141-143 provides additional detail. Att. 4.

GE argues that future MESA-required activities would be precluded by the Decree's Natural Resource Damage covenants. Pet. at 54. GE is incorrect for multiple reasons. First, GE's Petition provides no new information from its 2014 comments, and does not confront EPA's explanation in the RTC, at 137-39. As such, it should not be reviewed. Second, no activities have been required in the Permit, and necessarily must follow the assessment of pre-remediation conditions to take place under the Permit. Att. 1, Permit, II.B.1.c.; Att. 15.

³¹ GE concedes that the remedial design assessment of pre-remediation conditions includes the presence, location, abundance and condition of state -listed rare and invasive species. ... Att. 15, Response to EPA's Notice of Uncontested and Severable Permit Conditions.

Therefore, as with GE's initial MESA argument (referenced immediately above), there is no ripe dispute for the Board to review. Third, the Decree requires compliance with any ARAR set forth in the documents selecting the Rest of River Remedial Action, including any ARAR requiring that natural resources disturbed by the remedy be restored or mitigated.³² This is because the NRD covenant is contingent upon GE's compliance with the Decree and its obligations, including the obligation to implement the Rest of River response action, and ARARs set forth in the Permit. Att. 2, CD ¶¶112.a; 161.d; Att. 3, SOP 77-80; Att. 4, RTC 137-139. There is no basis to treat MESA differently than any other ARAR.

V. CONCLUSION

For all the foregoing reasons, GE's Petition for Review should be denied.

³² Tellingly, GE is not challenging the NRD covenant for any other ARAR, such as Clean Water Act §404, 33 U.S.C. 1344, that can require natural resource restoration. Att. 1, Permit Att. C at C-5.

STATEMENT OF COMPLIANCE WITH WORD LIMITATION

I hereby certify that EPA's Response to the Petition for Review in the Matter of General Electric Co., RCRA Appeal No. 16-01, contains less than 17,000 words in accordance with the Board's order in this regard.

Respectfully submitted,

Dated: February 14, 2017

(s) Timothy M. Conway Timothy M. Conway

REQUEST FOR ORAL ARGUMENT

In accordance with 40 C.F.R. § 124.19(h), EPA Region 1 requests oral argument in this matter.

Dated: February 14, 2017

(s) Timothy M. Conway Timothy M. Conway

CERTIFICATE OF SERVICE

I, Timothy M. Conway, hereby certify that true and correct copies of EPA Region 1's Response were served via EAB E-filing system on February 14, 2017, and via Federal Express on February 15, 2017:

Via the EPA's E-Filing System and Federal Express to:

Eurika Durr Clerk of the Board U.S. Environmental Protection Agency Environmental Appeals Board 1201 Constitution Avenue, NW U.S. EPA East Building, Room 3334 Washington, D.C. 20004

Via Federal Express to:

<u>For General Electric Company:</u> Jeffrey R. Porter Mintz, Levin, Cohn, Ferris, Glovsky & Popeo, P.C. One Financial Center Boston, MA 02111

James R. Bieke Sidley Austin LLP 1501 K Street, N.W. Washington, D.C. 20005

Roderic J. McLaren Executive Counsel –Environmental – Remediation General Electric Company 159 Plastics Avenue Pittsfield, MA 01201

<u>For Commonwealth of Massachusetts</u> Jeffrey Mickelson Deputy General Counsel Massachusetts Department of Environmental Protection One Winter Street Boston, MA 02108 For Connecticut Lori DiBella Assistant Attorney General 55 Elm Street Hartford, CT 06141-0210

> (s) Timothy M. Conway Timothy M. Conway