



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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April 11, 2019

Honorable Basil Seggos
Commissioner
New York State Department of Environmental Conservation
625 Broadway, 14th Floor
Albany, NY 12233-1010

Re: Review of Revised Remedial Action Completion Report

Dear Commissioner Seggos:

Thank you for your letter of April 5, responding to my earlier letter of March 29. We very much appreciate your continued engagement with us as we have finalized our review of the revised Remedial Action Completion Report from General Electric (GE). We are grateful that you were able to complete your review of that document by April 5, as we had asked.

We appreciate, as well, your comments about two matters that EPA was legally required to address: (1) finalizing the second Five-Year Review (FYR) Report assessing the protectiveness of the Upper Hudson River remedy called for in the 2002 Record of Decision (ROD); and (2) responding to GE's request under the 2006 judicial Consent Decree (CD), for issuance of a "Certification of Completion of the Remedial Action." We agree on the importance of all interested parties having an accurate and complete understanding of EPA's actions, unclouded by incorrect, incomplete or inaccurate descriptions of those actions.

EPA has now made its determinations with respect to both the second FYR Report and the Certification of Completion of the Remedial Action. As explained in the FYR report, we are deferring a protectiveness determination until we have enough data to clearly inform a scientifically reliable conclusion. (We note that the 2002 ROD does not contemplate achieving the remediation goal for fish tissue PCB concentration for decades.)

Under the CD, issuance of the Certification of Completion of the Remedial Action is not discretionary where all the activities comprising the "Remedial Action" (as defined in the CD) have been performed in accordance with the CD. Consistent with the CD, which binds EPA as well as GE, EPA has now issued the Certification of Completion of the Remedial Action.

I have summarized below some of EPA's reasons for making these decisions after thorough consideration of input from the New York State Department of Environmental Conservation (NYSDEC) and other stakeholders; but before providing these more detailed explanations, I believe it is crucial to clear up one extremely important and apparently widely held

misconception – one that I have seen stated in correspondence, press releases and press accounts many times. Our decision to issue the Certification of Completion of the Remedial Action does not let GE off the legal hook for future cleanup work in the Upper Hudson, including if necessary, additional dredging (that is, work in addition to the Operation, Maintenance and Monitoring (OM&M) GE is already required to perform), should the remedy prove to be not protective.

As you and I have discussed, and as EPA attorneys have explained on numerous occasions, EPA committed in the CD to respond to GE's request for Certification of Completion of the Remedial Action. EPA has determined that the activities constituting the "Remedial Action" (as that term is defined in the 2006 judicial Consent Decree) were carried out as required. EPA is not asserting that the entire remedy is complete or that GE has carried out *all* the work required of it under the CD. The Certification of Completion of the Remedial Action is a more narrow finding, as explained below. Consistent with the ROD, we do not expect full completion of the activities required by the CD for many decades to come, and only at that time would EPA begin any process of considering whether it is appropriate to issue the "Certification of Completion of the Work" which is the third and final certification provided for in the CD.

In addition, I describe in detail below, the reopeners provisions in the Consent Decree that clearly give EPA legal recourse should we decide that the remedy is not protective and additional remedial action, beyond that which was required by the 2002 ROD, is needed to achieve the remedial action objectives of the ROD.

Following are further explanations for the decisions we have reached, and responses to a number of the comments in your April 5th letter.

Second Five-Year Review Report

In your April 5th letter you suggest that EPA cannot, at present, say with confidence that the remedy is protective of human health and the environment. In the final Second Five-Year Review Report, EPA is deferring a determination about the protectiveness of the remedy in the Upper Hudson River until more years of Hudson River fish tissue data are gathered. As noted above, in the ROD, the remedy is not expected to achieve long-term protectiveness so soon after the completion of dredging.

We made this decision after careful consideration of comments provided by NYSDEC, federal natural resource trustees, and key stakeholders. EPA is deferring conclusions about whether the remedy in the Upper Hudson is, or will be, protective of human health and the environment since there is not enough post-dredging fish data at this time to draw a statistically reliable conclusion about the expected rate of improvement in PCB fish tissue concentrations. Lowering PCB levels in fish tissue over an extended period of time (decades) is an objective of the remedy selected by EPA.

Most experts agree that it will take as many as eight years or more of post-dredging fish data to reliably establish a trend in the levels of PCBs in fish. Under EPA's direction, and pursuant to its obligations under the CD, GE will continue collecting the water, sediment, and fish data that will

be necessary for our agencies to track the recovery of the Upper Hudson River.¹ Regarding habitat, the reconstruction required as part of the Remedial Action was completed (typically the following season after dredging and backfilling). We are monitoring habitat recovery of those areas and will ensure GE conducts response action as necessary to achieve project objectives under the OM&M program.

Collaborative Review of Post-Dredging Data:

Together with the FYR Report we have published a detailed Technical Memorandum summarizing the extensive analyses of data we carried out through our year-long collaboration with NYSDEC. During the past year we reviewed, together, all available post-dredging surface sediment sampling data, including several hundred samples taken by GE under our direction, and over 1,200 samples taken by NYSDEC. Having additional data – thanks in significant measure to NYSDEC’s sampling effort during 2017 – gave us a more detailed understanding of post-dredging surface sediment conditions throughout the Upper Hudson River.

In your April 5th letter you express continuing concern about the post-dredging rate of recovery of PCB concentrations in the fish. You acknowledge that the long-term remedial goal of 0.05 parts per million (ppm) total PCBs in fish tissue was always predicted to require decades after the specified dredging work was completed. That time frame was explicit in the 2002 ROD selecting the remedy, with which NYSDEC concurred in December 2001.²

In your April 5th letter you also refer to the two interim target fish tissue concentrations included in the 2002 ROD. These interim targets are inaccurately described in your letter as “Remedial Action Objectives” (RAOs) – they are not. As EPA made very clear in the ROD, the interim targets are milestones along the way toward the long-term remediation goal of 0.05 ppm; they are not themselves levels that are protective of human health and the environment. EPA estimated in the ROD that these interim targets would be met in the Upper Hudson, as a whole, in about 5 and 16 years, respectively, after the completion of dredging. In your letter you express doubt that these targets will be met in those time frames. As noted above, these interim targets are not RAOs; further, at present there simply are not sufficient years of post-dredging data to draw a statistically reliable conclusion about the rate of fish tissue improvement. As we gather

¹ As you know, we are also continuing our environmental investigations of the Upper Hudson floodplain, and we are commencing supplemental studies of the Lower Hudson River below the Troy Dam. We expect soon to be reaching out to your staff to consult with them about the scope and design of those supplemental studies.

² In that letter, former NYSDEC Commissioner Erin Crotty wrote: “The State of New York finds the selected remedy to be protective of human health and the environment, and the selected remedy will reduce public health and the environmental risk. Implementation of the selected remedy will also provide positive changes to ecology of the Hudson River and will provide long-term benefits to the communities along its banks.”

additional years of post-dredging fish tissue data, we – like you – will assess how quickly those targets are likely to be achieved.³

In your April 5th letter you estimate that more than 15 tons of PCBs remain in the sediment of the Upper Hudson River, more than EPA estimated at the time of the 2002 ROD. We have all known since as early as 2003-2004 that more mass of PCBs than originally estimated was in the Upper Hudson sediments. As a consequence, the dredging removed about twice as much mass as the ROD estimated, but – as you note – more mass than expected also remained in the non-dredged areas.

Much of this mass is deeper below the surface, and not in the surface sediment where it has the greatest effect on biota. As you know, it is primarily from the near-surface sediment that PCBs enter the food chain, so regardless of the presence of a greater PCB mass estimated to be in the deeper sediment outside dredge areas, it is not expected to significantly slow the fish recovery. As the average surface sediment concentrations of PCBs decline – due both to the dredging and through natural recovery, as specifically contemplated in the ROD -- the proportional rate of decline is expected in the fish tissue. The mass of PCBs deeper in the sediment is not nearly as relevant to fish tissue concentrations as surface sediment PCB concentrations are. Thus, it is the *rate of decline in the average surface sediment PCB concentrations* that will yield a proportional rate of decline in fish tissue concentrations. As described in the ROD, the removal of the deeper sediment did provide an overall environmental benefit in the Upper Hudson River.

As the average level of surface sediment contamination decreases, the average level of fish contamination is expected to decrease at a generally similar rate (though probably with a delay or “lag time” of a few years while the system equilibrates).

As expected, PCBs in the surface sediments of dredged areas are generally very low. PCBs in surface sediments of non-dredged areas are expected to continue to decline by post-dredging natural recovery or natural attenuation processes, which are explicitly a key component of the 2002 ROD remedy. PCB concentrations in the water column are also expected to continue to decline and are currently well below the federal drinking water standard for PCBs.

Certification of Completion of the Remedial Action:

In your April 5th letter you reiterate your recommendation that EPA not issue the Certification of Completion of the Remedial Action. You assert that this certification should not be issued until EPA can state with confidence that the remedy is protective; and that such issuance of the certification “prematurely” will trigger a release of liability for GE, which would represent a “significant legal impediment to EPA” should we conclude, in the future, that additional

³ It is important to note that the targets are applicable to the Upper Hudson River *as a whole*. That is, the targets refer to species-weighted average fish tissue concentrations.

remedial work is needed to achieve such protectiveness. As we have explained on multiple occasions, this is not accurate.

As you may be aware, the Certification of Completion of the Remedial Action is one of three Certifications provided for in the CD. The first, the “Certification of Completion of Phase 1 Field Activities,” was provided to GE in 2012 after it completed the first year of dredging. The second, the “Certification of Completion of the Remedial Action,” is the certification to which you refer in your letter; EPA is issuing that certification today, as discussed further below. The third is the “Certification of Completion of the Work,” which would certify that all work (which is defined in the CD to include the OM&M, which is not included in the CD definition of “Remedial Action”) required under the CD has been completed. The “Work,” as defined in the CD, appears to be what is inappropriately referred to as the “remedy” in your April 5th letter. This final certification (of Completion of the Work) is the certification which would speak to the protectiveness of the remedy, and is not expected to be available to GE for, at the least, five decades.

To repeat, the term “Remedial Action” is explicitly defined in the 2006 Consent Decree as *not* including the OM&M phase that follows the dredging, when much of the natural attenuation is expected to occur. This OM&M is, of course, an integral part of the remedy. Rather, the CD term “Remedial Action” only refers to the dredging, capping, habitat restoration, and deconstruction/decontamination of the sediment processing facility that GE conducted with EPA oversight between 2009 and 2016. As NYSDEC is aware and your staff observed first hand (side-by-side with EPA on the river during the remedial action) the activities constituting the “Remedial Action,” as defined in the CD, were successfully implemented as specified in the 2002 ROD and the CD itself.

In your letter you write that GE has failed to complete certain habitat restoration work required under the CD. As GE completed each discrete area where reconstruction was required, EPA certified its proper completion, after consultation with, and no objection by, NYSDEC, and thus GE fulfilled its obligations to carry out the required reconstruction work that is included in the CD definition of “Remedial Action.” However, it is important to reiterate that GE *has and will continue to have* significant obligations for monitoring and maintenance of the habitat restoration work pursuant to the long-term OM&M program included in the CD. As explained above, the OM&M program is explicitly *not* part of the “Remedial Action” as that term is defined in the CD; and GE’s obligations under that program are not in any way abridged or otherwise diminished by EPA’s issuance of the Certification of Completion of the Remedial Action.

EPA’s Legal Obligations:

When EPA enters into a settlement agreement such as the judicial Consent Decree in this matter, there are many legally binding obligations imposed upon the defendant. But there are also legal obligations undertaken by EPA as a settling party, and it is appropriate and indeed essential that we live up to our obligations, just as we expect and ensure that defendants live up to theirs. I am sure you have the same view with respect to legally binding agreements negotiated by NYSDEC. EPA’s issuance of the Certification of Completion of the Remedial Action strictly adheres to the binding court-approved requirements of the 2006 judicial Consent Decree, which states: “If EPA

concludes ... that the Remedial Action [as defined in the CD] has been performed in accordance with this Consent Decree, EPA *will so certify in writing* to [GE].” *[Emphasis added.]*

In early 2017, GE requested that EPA issue the Certification of Completion of the Remedial Action. Under the CD EPA was to have responded to that request within one year (January of 2018). EPA delayed its decision on GE’s request for the certification until EPA completed the collaborative assessment of data with NYSDEC and finalized the second FYR Report. However, the issuance of the Certification of Completion of the Remedial Action is neither based on nor contingent upon the findings of the FYR, including the protectiveness of the remedy. Rather, it is an acknowledgement that the specific “Remedial Action” activities, as defined in the CD, were carried out by GE, as required; this certification functions, essentially, as a “receipt” for performance of certain enumerated actions pursuant to the CD.

Reopener Provisions in the Consent Decree:

Contrary to the assertion in your April 5th letter, and as we have explained repeatedly and at length, notwithstanding the issuance of the Certification of Completion of the Remedial Action, under the terms of the CD, GE can be compelled to conduct further actions, potentially including additional dredging, if -- based on information previously unknown to EPA (for example, any data that EPA generates or receives on or after the date of the Certification of Completion of the Remedial Action, such as the new fish tissue data collected twice each year) *and any other relevant information* (for example, any data EPA generated or received before the date of the certification) -- EPA concludes that the remedial action EPA selected for the Upper Hudson is not protective of public health or the environment, and that specific additional work will address or respond to that lack of protectiveness. It is critical to reiterate that issuance of the Certification of Completion of the Remedial Action does *not* certify completion of the “remedy”; that is the subject of the third certification -- the Certification of Completion of the Work – which will not be considered for many decades.

Please note that the standard for triggering a reopener is virtually identical *before and after* EPA’s issuance of the Certification of Completion of the Remedial Action. In either case, the reopener can be triggered if, based on new information and other relevant information, EPA makes such a determination. The only meaningful difference is when information will be considered “new.” Since we do not, as yet, have sufficient data to make such a determination, nothing is lost through issuance of the Certification of Completion of the Remedial Action. We would need new information which, together with any other relevant information, indicates that the Remedial Action is not protective of human health or the environment.

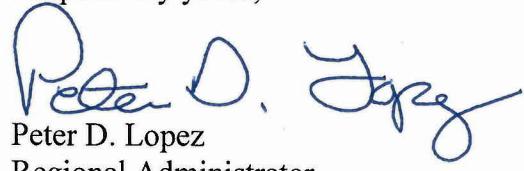
Looking Ahead:

In your April 5th letter you predict that “further data gathering over the next several years” will confirm that additional remedial actions will be needed to achieve protectiveness in the Upper Hudson. Such speculation is simply that – speculation -- given that we are only a few years past the end of dredging, and conditions in the river are reasonably consistent with what (at the time the ROD was developed) was anticipated to be the conditions during the first several post-dredging years. Further, we can state unequivocally that if further data gathered in the next several years (or at any time in the future), together with other relevant information, indeed show

that the remedy is not protective, and that further action will address the lack of protectiveness, then we have the legal authority and the institutional will to require such action.

Again, we thank you for your observations; and while we disagree on certain important matters as outlined above, we are confident that our objectives are the same – to ensure a healthy Hudson River that is protective of human health and the environment – and we look forward to continued collaboration to achieve those objectives.

Respectfully yours,


Peter D. Lopez
Regional Administrator

cc: Andrew Guglielmi, Esq., NYSDEC
Kevin Farrar, NYSDEC