EXHIBIT 11

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05E2NJ00-2012-CPA-0082a

FEB 9 2012

Ms. Judith Enck
Regional Administrator
U.S. Environmental Protection Agency
290 Broadway
New York, New York 10007-1866

Dear Regional Administrator Enck:

The U.S. Fish and Wildlife Service (Service) has completed its review of an application to the New Jersey Department of Environmental Protection (NJDEP File no. 16009-09-0006.1) for a New Jersey Freshwater Wetlands Protection Act Permit (N.J.A.C. 7:7A) and Flood Hazard Area Control Act Permit (N.J.A.C. 7:13). The applicant, E.I. DuPont de Nemours and Company, proposes to remediate the Pompton Lake Acid Brook Delta Area, pursuant to the Resource Conservation and Recovery Act of 1976 (P.L. 94-580)(90 Stat. 2795; 42 U.S.C. 6901-6992), in the Borough of Pompton Lakes, Passaic County, New Jersey (Project). The New Jersey Field Office received a letter dated December 21, 2011 from Mr. Mario Del Vicario, Chief, Watershed Management Branch, US Environmental Protection Agency (EPA) requesting that we indicate our intent to comment on the above State permits. On January 5, 2012, the Service notified Mr. Montella, Chief, Wetlands Protection Section, EPA, of the Service's intent to comment on the Project and to provide our input directly to you within 50 days or by February 9, 2012.

The application is being submitted for approval to implement a New Jersey Department of Environmental Protection (NJDEP)-approved remedial action in the Pompton Lake Acid Brook Delta (ABD) Area to address chemical releases from the DuPont Pompton Lake Works (PLW) Site. The Project involves removal of sediment and soil from the ABD and adjacent wetlands and uplands. Remedial activities will occur within 29.02 acres and temporarily disturb regulated areas including 1.02 acres of freshwater wetlands, 1.21 acres of wetlands transition areas, 246 linear feet (0.1 acre) of State open waters (Acid Brook), 26 acres of State open waters (the ABD area of Pompton Lake), and 2.13 acres of riparian zone. The application indicates that the remediated area will undergo restoration to pre-existing or enhanced conditions following the removal action. The Project will also relocate the acid brook stream channel approximately 100 feet to the west where it meets Pompton Lake.

AUTHORITY

Service comments on the proposed activity have been prepared in accordance with the Section 404 State Program regulations (40 CFR Part 233.50) of the Clean Water Act (CWA) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended (42 U.S.C. 9601 *et. seq.*), and are consistent with the Service's Mitigation Policy (Federal Register, Vol. 46, No. 15, Jan. 23, 1981). These comments are intended for the protection of fish and wildlife, and for your use in determining compliance with the Section 404(b) (1) Guidelines of the CWA. The Service's Mitigation Policy and the Section 404(b) (1) Guidelines emphasize that avoidance and minimization precede compensation, which is to be considered solely for unavoidable adverse impacts on fish and wildlife resources and their supporting ecosystems. Further, these comments on the proposed activity have been prepared under the authority of the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) (ESA). These comments do not preclude separate Service review and comment pursuant to the Fish and Wildlife Coordination Act (48 Stat. 401; 16 U.S.C. 661 *et seq.*) and National Environmental Policy Act (83 Stat. 852, as amended; 42 U.S.C. 4321 *et seq.*) (NEPA), should this proposed action constitute a major Federal action requiring preparation of an Environmental Impact Statement or should the proposed action require additional Federal authorization.

FEDERALLY LISTED SPECIES

On February 7, 2012, the Service concluded that the Project would not likely adversely affect a listed species but asked the applicant to restrict clearing activities for trees > 5" diameter base height (dbh) from April 1to September 30 to avoid incidental take of any Indiana bats that may roost in the Project area. No further consultation pursuant to Section 7 of the ESA is required by the Service. If project plans change or new information on federally listed threatened or endangered species becomes available, this determination may be reconsidered.

AQUATIC IMPACTS

As a Natural Resource Trustee under CERCLA, the Service has a compelling interest in ensuring that natural resources are protected from exposure to hazardous substances. Our Trusteeship includes fish, wildlife, and other biota, as well as the habitats that support them. The Service therefore appreciates the opportunity to comment on this beneficial Project. We recommend that the US Environmental Protection Agency (EPA) and NJDEP seek early involvement from the Service on all remediation projects that may impact fish and wildlife resources in New Jersey, so that we can better assist in the coordination process. To do otherwise may impact our ability to provide timely coordination of projects of mutual interest and may require changes in project design and clean up.

In regards to the proposed Project, the Service recognizes the importance of remediating contaminated soil and sediment in Pompton Lake, particularly within the ABD, where concentrations of several chemicals, including mercury, lead, copper, selenium, and zinc, are significantly elevated above thresholds considered protective for human and/or ecological health. Therefore, the Service believes the remedial activities to be performed for this Project are an

important first step in addressing legacy contamination from the PLW that may cause harm to natural resources. However, the Service does not believe that the proposed remedial action, as currently planned, will completely address historical releases nor be sufficient to protect against future injury to Federal trust resources from residual contamination originating from the PLW. Our reasons for this are outlined in the section below entitled "Contaminant Issues." The Service may consider performing a Natural Resource Damage Assessment (NRDA) to evaluate potential injury to Trust resources from historical exposure and residual contamination following the proposed remedial action, and we have initiated contact with the Applicant in that regard.

While we are supportive of the removal and restoration activities, we offer the following specific comments on the permit application to provide additional protection to Trust resources from contaminant impacts and enhance habitat quality following restoration.

1. The Permit Application includes limited information regarding remedial protocols. However, it appears from the ABD Revised CMI Work Plan (Arcadis *et al.* 2011) that the Work Plan address many issues of potential concern to the Service, including methods of containment, treatment, and disposal of contaminated media; staging methods; potential groundwater infiltration; erosion control methods; and water column monitoring of suspended solids. The Service strongly recommends strict adherence to the Work Plan, along with the use of Best Management Practices, to ensure that contaminant releases do not occur.

2. The proposed remediation involves removing contaminated sediment and soils and subsequently placing a sand cap ("eco-layer") to a depth of six inches. However, the potential exists for contaminant loss from under and through a sand cap's interstitial water, particularly via gas phase loss/transport, which can affect toxicity and bioaccumulation in benthic organisms. In addition, perturbation, whether induced by current, wind, or biota, can result in disturbance to sand caps over time. Therefore, the Service recommends the thickness of the cap be increased to a minimum of 12 inches to prevent disturbance and mixing of the cap and contaminated sediment below.

3. Include appropriate decontamination procedures for staging and remediation activities to prevent tracking contamination outside the zone of remediation.

4. A post-remediation contaminants monitoring plan is necessary to ensure that there is no re-contamination of the water, sediment, and soils (either from within or outside the project area) following remediation and restoration. Contamination should be monitored for a minimum of five years post-remediation. Corrective action measures should be developed to deal with potential contaminant issues arising post-remediation.

5. Provide additional information in the Application regarding how wildlife (i.e., fish and turtles) will be safely captured and relocated prior to remediation.

6. Typical of reforestation and restoration efforts in New Jersey, the Service requests the applicant agree to the following habitat restoration conditions as part of any permit authorizing the subject work:

a) Submit an as-built drawing within 60 days following completion of all construction and planting activities. The drawings must show adherence with all post construction grades as specified in their (undated) Grading and Landscape Plan (RP-41). Please include photographs of the completed site, planting zones established, densities achieved, and as-built elevations of all post-construction grading. Special attention must be paid to meeting a post construction grade for all hydric-dependent vegetation.
b) Submit an annual monitoring report by the end of each growing season (no later than December 31 of any given reporting year) detailing a progress report of the Project's success (See item a above for the minimum reporting requirements).
c) Ensure success of all planting efforts for a minimum of five years. Demonstrate 65% areal coverage of all vegetation by the end of the first year; 75% by the end of the third growing season; and 85% by the end of the fifth growing season.
d) Install sufficient animal browse deterrents until the planting areas are sufficiently established and not in danger of being browsed upon.
e) Develop a plan for the eradication of any invasive species that may be transported into the Project area. This plan shall include the annual monitoring for invasive species and a corrective action plan should any invasive species be identified. Demonstrate that no more than 10% cover in the re-vegetated areas is made up of invasive species at the end of the fifth growing season.
f) Any deviation from the approved planting plan shall be re-coordinated with the action agency prior to any modifications being implemented.
g) Establish a long-term management plan for the continued success of the Project. This will include a perpetual conservation easement for the Project site, the identification of a long-term steward for the Project site, and a maintenance fund for maintenance and supervision of all restoration areas. The steward can be a public resource agency or not-for-profit conservancy, subject to approval by the lead action agency.

CONTAMINANT ISSUES

Although the Service supports the proposed sediment/soil removal and restoration and provides the recommendations above to reduce impacts of the proposed Project to fish and wildlife resources, we also believe significant levels of contamination will remain. Our primary reasons are outlined below. The discussion focuses on mercury, which in certain forms is highly toxic and biomagnifies via the food web and is therefore of particular concern in terms of potential impacts to fish and wildlife resources in the vicinity of the ABD.

1) Concerns with the Ecological Assessment methodologies, which are used as the basis for the Remedial Action Objectives (RAOs):

While the Ecological Assessment (EA) used measured tissue concentrations to evaluate risk to fish, risk estimates for birds were obtained using oral dose models (Exponent 2003). The approach used literature-based inputs for factors including migration status, home range size, habitat use, diet, prey size, body mass, and food, water, and sediment ingestion rates to estimate the dose of contaminants consumed by the species evaluated (great blue heron, mallard, belted kingfisher, double-crested cormorant, and bald eagle). The estimated contaminant ingestion rates were then compared to no observable adverse effects levels

(NOAELs) and lowest observable adverse effects levels (LOAELs) to evaluate whether contaminants may have negative impacts on wildlife receptors. While the oral dose models in the EA included numerous life-history factors that affect contaminant intake, there was no site-specific field validation of the models (i.e., actual sampling of birds) that would quantify dietary uptake into avian fauna. There is a great deal of individual- and population-level variation in life-history traits; foraging area and prey selection in particular may be greatly affected by food availability, such that a given individual will forage primarily upon a particular food item and within a circumscribed portion of its overall foraging range (see, for example, Smith and Dawkins 1971; Krebs *et al.* 1974). If organisms are feeding more frequently on a contaminated food source, it may significantly affect the rate of contaminant uptake via prey ingestion. Given the complexity of the models used in the EA, it is likely that contaminant intake by birds at the site is quite different from that predicted. Further, oral dose NOAELs and LOAELs carry greater uncertainty than doses measured in tissues that are targets for toxic effects, given that absorption and bioavailability may vary between species or individuals, depending upon reproductive and nutritional status, sex, and a variety of other factors. Oral dose evaluations are also generally based on relatively short-term studies in which steady-state conditions are not achieved (EPA 1993). Thus, tissue residue data provide a more accurate assessment of both exposure and effects than oral dose models, since many of the variables determining actual oral dose, as well as oral dose responses, are "built in" to the tissue residue assessments. Recently published information on tree swallows and Carolina wrens provide excellent comparative examples of a tissue-based approach (Jackson *et al.* 2011a; Brasso and Cristol 2008). An important additional advantage to using tissue residue concentrations to assess potential toxicity from contaminants at the PLW Site is that such an approach can be used to determine the sediment values that would need to be attained to prevent tissue concentrations from reaching effect levels in species of concern. Briefly, site-specific biota-sediment accumulation factors (BSAFs) would be used in combination with tissue - and organism- specific threshold effect concentrations to back-calculate protective contaminant concentrations in sediment. A similar approach using oral dose models for birds was outlined in an internal NJDEP memo from Gary A. Buchanan, Bureau of Natural Resources Science Chief, to Frank Faranca, Site Manager, SRP, Bureau of Case Management (Buchanan 2008). Instead of the preceding approach, the Service advocates deriving clean-up goals from tissue residue concentrations, as they are more accurate in determining protective values than oral dose models.

In addition to concerns with the use of oral dose models, the Service believes that the effects thresholds used in the EA to evaluate risk to both fish and avian fauna are antiquated and not adequately protective. For fish, the risk evaluation used an adverse effects level for mercury of 4,000 micrograms per kilogram (4 milligrams per kilogram, or mg/kg) (Exponent 2003). According to a review by Beckvar *et al.* (2005), recent high-quality publications reveal lethal and sublethal effects in adult fish at concentrations well below 1 to 5 mg/kg. For example, Matta *et al.* (2001) found that adult male mummichog (*Fundulus heteroclitus)* with tissue concentrations of 0.2 to 0.47 mg/kg methylmercury suffered higher mortality rates than controls. Mercury's effects on early life stages, which have been found to be particularly sensitive to mercury, also do not appear to have been considered in the EA. For example, Birge *et al.* (1979) found that a waterborne concentration causing 50% mortality (the LC_{50}) in 4-day-old goldfish larvae equated to a tissue concentration of 0.06 mg/kg total mercury.

Based on these and other studies, Beckvar *et al.* (2005) identified a whole-body tissue concentration threshold of 0.2 mg/kg mercury as protective of both adult and early life stages for most fish species. Many of the fish species evaluated in Pompton Lake (black crappie, yellow perch, white perch, golden shiner, and largemouth bass) had tissue concentrations exceeding this threshold (Exponent 2003). The Service recommends using a more conservative effects threshold to ensure Trust resources are protected.

NOAEL and LOAEL values used in the EA to evaluate avian fauna are similarly non-conservative. The selected avian LOAEL is from reported toxicity to the common loon (*Gavia immer*); the EA notes that this value is very near a LOAEL identified for the mallard, and states that the apparent low interspecies variation in response at near-threshold concentrations justifies its application (Exponent 2003). However, the loon and the mallard are both considered less sensitive to mercury than many other species (Heinz 2009; Evers *et al.* 2011). Using data from Heinz *et al.* (2009; 2011) regarding species sensitivity to methylmercury injected into eggs, the mallard is one of the more insensitive of the 23 species evaluated (Figure 1). Sensitive bird species may not be protected using a risk threshold based on effects to the loon or mallard. In addition, the bird species evaluated, although frequently used in ecological risk assessments, are all relatively large bodied, which means they have lower mass-specific metabolic rates, and therefore lower mass-specific food ingestion rates, than smaller species (Bennett and Harvey 1987). Different groups of birds also vary in their feeding rates, with passerines generally having higher food requirements per unit mass than most other groups (Nagy 2001). Thus, the risk evaluations performed for the EA may not be as protective as assessments based on smaller passerine species. Recent studies have shown that passerine birds may bioaccumulate contaminants, including mercury, via ingestion of invertebrate prey, such as emergent aquatic insects and spiders, living in riparian habitats (Walters 2008; Cristol *et al.* 2008). Passerines likely to be present at Pompton Lake that have been shown to accumulate relatively high levels of mercury at other contaminated sites include rusty blackbirds (*Euphagus carolinus)*, tree swallows (*Tachycineta bicolor)*, Carolina wrens (*Thryothorus ludovicianus*), and marsh wrens (*Cistothorus palustris*) (Tsipoura *et al.* 2008; Brasso and Cristol 2008; Edmonds *et al.* 2010; Hallinger and Cristol 2011; Jackson *et al.* 2011a). Tree swallows and Carolina wrens in particular appear to be more sensitive to mercury impacts than the model species selected for the EA (Jackson *et al.* 2011a; Heinz 2009, 2011). Studies of mercury impacts to avian fauna performed under a cooperative Natural Resource Damage Assessment (NRDA) between the Service and DuPont at another DuPont Site (the South River, Virginia, where mercury was released from a DuPont facility operating in the 1930s and 1940s) have shown Carolina wrens to suffer dose-dependent reductions in reproductive fitness, with blood mercury concentrations as low as 0.7 micrograms per gram wet weight reducing reproductive success by 10% (Table 1). Finally, sublethal effects have been found to occur in birds at significantly lower concentrations than those affecting growth, reproduction, or survival, which were the criteria used to select the LOAELs used for the EA. For example, mercury may compromise the avian immune response (Fallacara *et al.* 2011), impair the ability of birds to withstand variable environmental conditions (Hallinger and Cristol 2011), disrupt endocrine function (Wada *et al.* 2009; Jayasena *et al.* 2011), and have subchronic effects on organ and blood biochemistry and pathology (Spaulding *et al.* 2000; Hoffman *et al.* 2005, 2009). Given the potential for effects to sensitive species and subchronic endpoints at low concentrations of mercury, the

Service does not concur with the conclusion that observed levels of methylmercury in biotic and abiotic media in the ABD and Pompton Lake do not pose risk to avian receptors.

In addition, risk to mammals was not investigated in the EA. Of particular concern are potential impacts to piscivorous mammals including mink (*Neovison vison*) and river otter (*Lutra canadensis*). Mercury has been reported to occur at elevated levels in mink living near other hazardous waste sites (Moore *et al.* 1999; Sleeman *et al.* 2010), and mink and river otter have been found to be sensitive to mercury toxicity (Aulerich *et al.* 1974; Wobeser and Swift 1976; Halbrook *et al.* 1994; Osowski *et al.* 1995; Halbrook *et al.* 1997; Dansereau *et al.* 1999). While not common in Passaic County, river otter and mink are at least occasionally present, according to NJDEP trapping records (NJDEP 2011). Without evaluating the potential risk to these and other mammalian receptors that may be present, it cannot be conclusively stated that the proposed remedial action will be protective of mammalian fauna.

In general, given the uncertainty regarding mercury tissue concentrations in sensitive populations (e.g., early life stages and related endpoints) of all ecological receptors with the potential to be exposed to contaminants released at the PLW, it is not clear that the remedial options would reduce risks to an "acceptable" level.

Finally, the Service has concerns with selection of reference locations used to evaluate the results of the benthic community and toxicity studies in the EA. The selected reference areas were located within Pompton Lake, albeit "upstream" from the ABD, near the top of the Lake's confluence with the Ramapo River. According to the Phase 1 Data Report for the ABD (PTI 1997), these locations were considered representative of background contaminant concentrations on the basis of water and sediment quality characteristics and water flow studies. Low contaminant concentrations in surface water at the proposed reference locations, along with similarities between concentrations at proposed reference locations and sampling sites upstream in the Ramapo River, were cited as justification for using the selected locations within Pompton Lake to represent background. However, while surface water contaminant levels were compared among the proposed reference locations and the Ramapo River upstream of Pompton Lake, sediment contaminant levels were not; surface water contaminant concentrations do not necessarily provide information regarding legacy contamination in sediment originating from the DuPont facility. According to the Phase 1 Data Report, water flow in Pompton Lake, despite being "generally southerly," was occasionally driven by wind in a direction counter to the typical flow (PTI 1997). Over time, given the fine-grained (50 to 95% fines) nature of the sediment in ABD (Exponent 2003), contaminated sediment could potentially have been transported and deposited within upstream areas of Pompton Lake, including those selected as the reference locations. Thus, there may have been no discernible difference between the toxicity of the proposed reference area and ABD sediments to benthic invertebrates because sediments from the proposed reference areas were sufficiently contaminated to induce toxicity. A comparison of Ramapo River sediment contaminant concentrations upstream of Pompton Lake to those of the proposed reference locations would have been worthwhile for evaluating whether Lake sediments outside of the ABD are affected by contamination from the PLW. Further, performing a benthic toxicity test using clean laboratory sediment as a control would have helped to discern whether the comparison between toxicity from the "reference" and ABD

sediments was valid. Given that benthic toxicity studies did not include a clean laboratory control, and that it has not been clearly demonstrated that sediments at the "reference" locations are not impacted by contaminants from the Site, the Service does not believe that the results of the benthic community and toxicity studies are conclusive.

2). Concerns with Selection of Qualitative and Quantitative RAOs:

Qualitative RAOs for Sediment

Based on the results of the EA, the Remedial Action Selection Report concludes that the potential for unacceptable risk from contamination at the ABD is minimal (DuPont and URS Diamond 2009). This conclusion, along with the fact that there are no promulgated remediation standards for sediment, is used to support the development of qualitative RAOs for the ABD. Given the reasons outlined above, the Service does not concur that there is minimal potential for ecological risk. Therefore, we cannot support the conclusion that quantitative RAOs for sediment are not necessary to ensure the remedial action is adequately protective of fish and wildlife resources. As previously stated, the Service recommends using measured tissue concentrations in wildlife at the Site, along with conservative effects thresholds for sensitive species and site-specific BAFs, to develop quantitative RAOs for sediment.

Quantitative RAOs for Soils

According to the Revised Corrective Measures Implementation Work Plan (CMI WP) (Arcadis *et al.* 2011), the RAO for mercury in surface (0-0.5 ft deep) soils in the upland area will be 20 mg/kg, which represents the lower of the New Jersey Residential Direct Cleanup Remediation Standard (value = 23 mg/kg) and the ecological soil delineation criterion. The Revised CMI WP states that justification for the ecological soil delineation criterion is presented in the ABD Uplands Remedial Investigation Work Plan, which was not provided to the Service in time to be evaluated within the comment period allotted for this review. Therefore, the Service cannot adequately assess whether the proposed remediation standard will be protective of ecological resources. In its discussion of the RAOs, the Revised CMI WP states that the upland area is of limited value as an ecological habitat due to its size, fragmentation, and frequent disturbance; presumably, these factors are listed because they were considered in deriving the proposed soil criterion. However, given the potential for transport of contaminants to Pompton Lake via surface water run-off from upland areas, the fact that a substantial portion of what is considered the upland area is actually wetland, and the possibility of biological uptake via emergent and riparian invertebrates, as outlined above, the Service is concerned that the proposed RAO for mercury in upland soils will not be protective of natural resources.

3). Inadequate delineation of the extent of contamination:

A variety of documents were referenced during review of the proposed Project, including the Acid Brook Delta Ecological Investigation Reference Area Evaluation and Phase 1 Data Report (PTI 1997), the Acid Brook Delta Ecological Investigation Phase 2 Report (Exponent 2003), the Draft Remedial Action Proposal For Acid Brook Delta Sediments (DuPont and URS Diamond 2006), the Acid Brook Delta Remedial Investigation Report (DuPont and URS

Diamond 2008), the Acid Brook Delta Area Remedial Action Selection Report / Corrective Measures Study (DuPont and URS Diamond 2009), and the Acid Brook Delta Area Revised Corrective Measures Implementation Work Plan (Arcadis *et al.* 2011). None appeared to present any assessment of the extent of contamination beyond the boundaries of the Acid Brook and Pompton Lake. Areas with surface sediment contamination between 2 and 20 mg/kg were identified up to and including the sampling area most proximal to the dam (DuPont and URS Diamond 2009). Mercury tends to adsorb to fine-grained sediments and long-range transport of fine-grained sediments may occur during high flow periods (Eisler 1987; Jackson *et al.* 2011b). Given the fine-grained nature of sediment in the ABD, contamination downstream of the dam should be assessed to determine if mercury has been transported beyond the dam at Pompton Lake to downstream areas of the Ramapo River. Studies of other mercury-contaminated riverine systems have shown that contamination may extend far downstream of the original source, due both to transport of abiotic media and to bioaccumulation in mobile organisms. For example, studies of the South River Site found elevated mercury levels (> 25 mg/kg dry weight) as far as 25 miles downstream from the original source (Virginia Department of Environmental Quality, 2007 unpublished data). Mercury released into the aquatic environment has also been shown to enter terrestrial food webs through biological uptake by emergent aquatic and riparian organisms (Cristol *et al.* 2008). Studies of the biological transfer of mercury along the South River revealed elevated levels of mercury in the blood of terrestrial forest songbirds sampled up to 137 kilometers downstream of the original source, and there was little evidence that blood mercury concentrations declined with distance (Jackson *et al.* 2011b). At other mercury-contaminated sites, bioaccumulation factors (BAFs) were found to rise as the level of contamination in abiotic media decreased (Brent and Kain 2011), with the result that target media concentrations for areas with low contamination derived using BAFs measured for areas with higher contaminant concentrations were not protective. In other words, even if mercury concentrations downstream of the dam are lower than those in Pompton Lake, bioaccumulation may be higher and extend a considerable distance from the original source. Contaminant concentrations in abiotic media and biota downstream of Pompton Lake need to be assessed to determine whether additional remedial measures are necessary. Further, Pompton Lake was only delineated to a sediment concentration of 2 mg/kg, which is approximately four times the concentration considered to represent background (Buchanan 2008). Thus, part of the footprint of the extent of contamination includes areas outside the ABD with mercury concentrations between 0.5 mg/kg and 2 mg/kg, but remedial activities do not appear to be planned for these areas.

SERVICE RECOMMENDATIONS AND CONCLUSIONS

The Service is concerned that the EA does not accurately or adequately predict risk to ecological resources from exposure to contaminants released from the DuPont PLW. Therefore, we believe the proposed remedial action, which is based in large part upon the conclusions of the EA, will leave residual contamination that may result in injury to fish and wildlife. Despite these concerns, the Service supports the proposed Project, which we believe to be an important first step in improving habitat quality in Pompton Lake and downstream by removing a significant proportion of the contaminant load in the ABD and upland habitats. We recommend the Applicant commit to incorporating the Service recommendations regarding remedial and habitat restoration activities listed beginning on page 4 of this letter. We also recommend further

evaluation of the extent of contamination be performed for the area outside the Acid Brook and ABD areas. The Service may consider pursuing NRDA activities to determine whether Trust resources have been or will continue to be impacted by contamination from the PLW.

The Service appreciates the opportunity to comment on the referenced project. Should you have any question on the above, please contact Melissa Foster for all contaminant related issues and Steven Mars for all restoration comments at 609-383-3938 x 21 or 23, respectively.

J. Eric Davis Jr.
Field Supervisor

Attachments (2)

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Table 1. Carolina Wren blood, feather, and egg mercury effects concentrations (ww = wet weight) associated with the MCESTIMATE-modeled reduction in nest success. Results based on data collected in 2010 from nests along the South River in Virginia. From Jackson et al. (2011a).

Reduction in nest success [a]	Blood mercury ($\mu g\ g^{-1}$, ww)	Body feather mercury ($\mu g\ g^{-1}$, ww) [b]	Tail feather mercury ($\mu g\ g^{-1}$, ww) [c]	Egg mercury ($\mu g\ g^{-1}$, ww) [d]
10%	0.7	2.4	3.0	0.11
20%	1.2	3.4	4.7	0.20
30%	1.7	4.5	6.4	0.29
40%	2.1	5.3	7.7	0.36
50%	2.5	6.2	9.1	0.43
60%	2.9	7.1	10.4	0.50
70%	3.3	7.9	11.8	0.57
80%	3.8 [e]	9.0	13.5	0.66
90%	4.4 [e]	10.3	15.5	0.76
99%	5.6 [e]	12.8	19.5	0.97

[a]Calculated using MCESTIMATE, comparing probability of fledging at least 1 young at 0 $\mu g\ g^{-1}$ to the probability of fledging at least 1 young at each contaminated blood concentration.

[b]Calculated using the regression equation (body feather Hg) = 2.1407974(blood Hg) + 0.8531665.

[c]Calculated using the regression equation (tail feather Hg) = 3.3762108(blood Hg) + 0.6427166.

[d]Calculated using the regression equation (egg Hg) = 0.1748381(blood Hg) – 0.007394.

[e]Extrapolation past known blood mercury levels using the MCESTIMATE model.

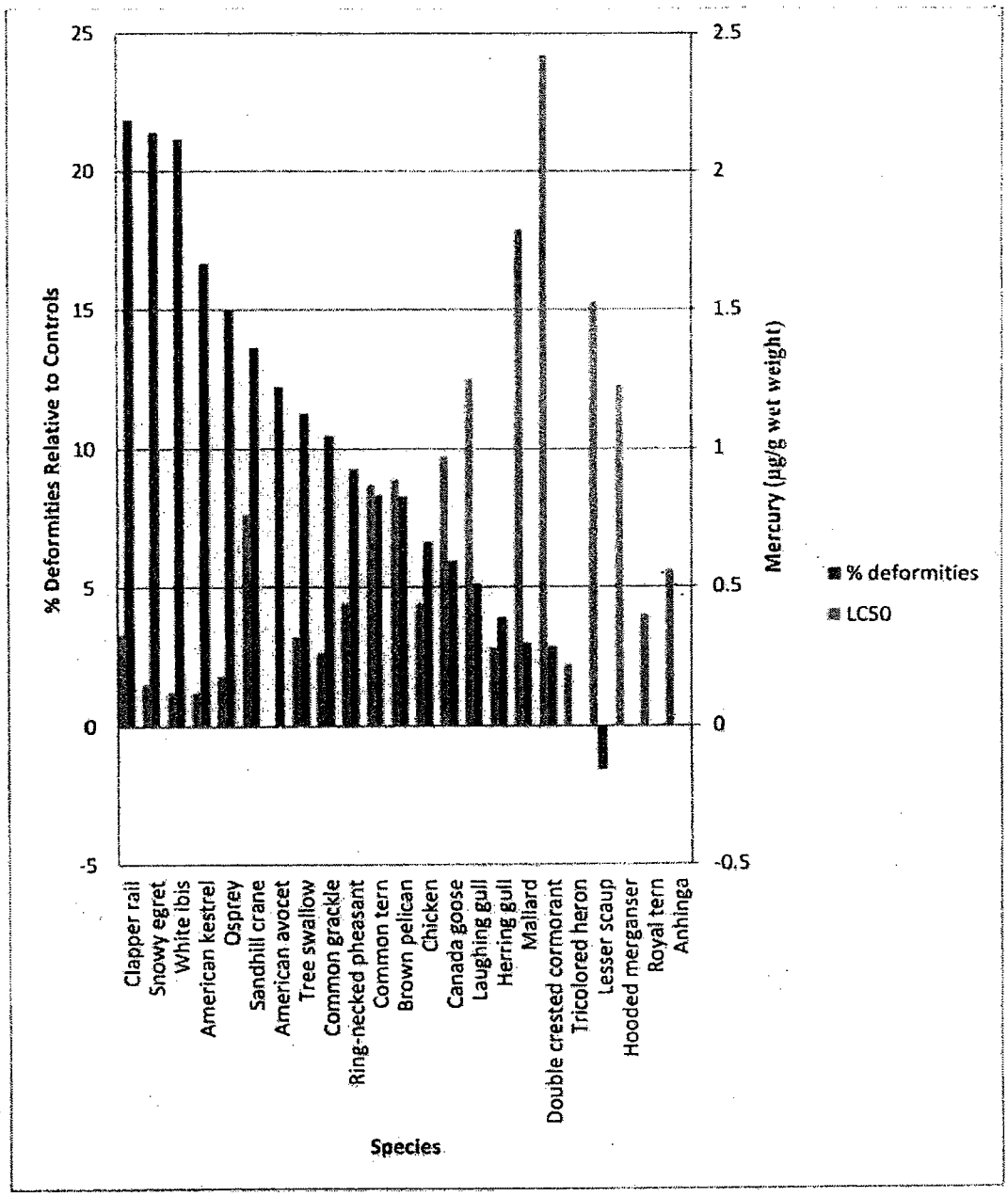


Figure 1. Sensitivity Distribution of Avian Species to Methylmercury Injection. Eggs were injected with untreated corn oil (control) or to groups dosed with 0.05, 0.1, 0.2, 0.4, 0.8, 1.6, 3.2, or 6.4 micrograms per gram methylmercury on a wet-weight basis in the egg. Blue bars represent the percent of hatchlings or embryos with one or more deformities within all mercury treatment groups combined, minus the percent of hatchlings or embryos with one or more deformities in control eggs. Only species with sample sizes >10 for both control and experimental treatments are presented. Peach bars represent the concentration at which 50% of the study population died (LC_{50}). The most sensitive species are those with high blue bars and low peach bars. Data from Heinz et al. (2009; 2011).

EXHIBIT 12

OSWER Directive 9902.3-2A
May 1994

RCRA CORRECTIVE ACTION PLAN

(Final)

Office of Waste Programs Enforcement
Office of Solid Waste

Chapter I: Corrective Action Process Update

Since the interim final CAP was published in June 1988, several changes have occurred in the RCRA corrective action program. New philosophies and strategies were expressed in the July 1990, RCRA Implementation Study (RIS), and new technical information has become available. The revised CAP reflects these changes, as well as the experience of the Regions and States in implementing the corrective action program. Some of the key changes are discussed below following an introduction to the corrective action program and an explanation of how to use the CAP.

I. Introduction

The objective of a Corrective Action Program at a hazardous waste management facility is to evaluate the nature and extent of the releases of hazardous waste or constituents; to evaluate facility characteristics; and to identify, develop, and implement an appropriate corrective measure or measures to protect human health and environment. The following components are necessary to ensure a complete corrective action program. It should be recognized that the detail required in each of these steps will vary depending on the facility and its complexity; only those tasks appropriate for a specific site should be imposed on the Permittee/Respondent.

1. Locate the source(s) of the release(s) of contaminants (e.g., regulated units, solid waste management units, and other source areas).

2. Characterize the nature and extent of contamination that is both within the facility boundary and migrating beyond the facility boundary. This would include defining the pathways and methods of migration of the hazardous waste or constituents, including the media affected, the extent, direction and speed of the contaminants, complicating factors influencing movement, concentration profiles, etc.

3. Identify areas and populations threatened by releases from the facility.

4. Determine actual and potential threats of releases from the facility to human health and/or the environment in both the short and long term.

5. Identify and implement an interim/stabilization measure or measures to abate the further spread of contaminants, control the source of contamination, or otherwise control the releases themselves.

6. Evaluate the overall integrity of containment structures and activities at the site intended for long-term containment.

7. Identify, develop, and implement a corrective measure or measures to prevent and remediate releases of hazardous waste or constituents from the facility.

8. Design a program to monitor the maintenance and performance of any interim or final corrective measure(s) to ensure that human health and the environment are being protected.

The four main components of a complete corrective action program and their objectives are as follows:

- *Interim/Stabilization Measures* (ISMs) - to control or abate threats to human health and/or the environment from releases and/or to prevent or minimize the further spread of contamination while long-term remedies are pursued.

- *RCRA Facility Investigation* (RFI) - to evaluate thoroughly the nature and extent of the releases of hazardous waste and hazardous constituents and to gather necessary data to support the Corrective Measures Study and/or interim/stabilization measures.

- *Corrective Measures Study* (CMS) - to develop and evaluate a corrective measure alternative or alternatives and to recommend the final corrective measure(s).

- *Corrective Measures Implementation* (CMI) - to design, construct, operate maintain and monitor the performance of the corrective measure(s) selected.

As discussed in section VI of this chapter, all of the components may be streamlined or phased, and alternatives to the "traditional" corrective action process (i.e., RFI → CMS → CMI) may be appropriate.

A RCRA Facility Assessment (RFA) or equivalent assessment will have been conducted at the facilities that are to receive permits and for some facilities that are issued §3008(h) Orders. The results of the RFA should be used as the basis for focusing the RCRA Facility Investigation (RFI) for individual sites and should provide the necessary data to complete the "background information" components of the CAP. In some cases, a Release Assessment (Phase I RFI) may be needed to further focus the RFI or to determine whether ISMs are necessary.

Exhaustive characterization and studies of a facility during the RFI/CMS, in the sense of completely eliminating uncertainty, are generally not required to achieve environmentally protective results. Therefore, it is important for the

implementing agencies to clearly define scopes of work to be performed that require the appropriate amount of information to characterize contamination and identify the cleanup alternative(s) without "going overboard." Reasonable time frames should be set for activities such as gathering data and conducting studies.

II. How to Use the CAP

Users of the CAP should understand that it is designed to identify actions that facility Permittees/Respondents may be required to undertake as part of a corrective action program. It does not identify the steps that are the responsibility of the implementing agency. However, some guidance language is provided in the CAP for such agencies and is indicated by brackets ([ ]) and italics. Additional guidance language is found at the beginning of Chapters II, III, IV, and V, and before the model scopes of work. Specifying conditions that will be placed in orders and permits is one key area of responsibility for implementing agencies. The CAP incorporates certain provisions that are already required by statute or regulations. If the required information is already present in permits or permit applications, the implementing agency may allow the Permittee to reference the appropriate sections of such documents. The remainder of the CAP is guidance, not a rule, and has not gone through public comment; therefore, use of provisions in the CAP should be justifiable and tailored to fit site-specific conditions.

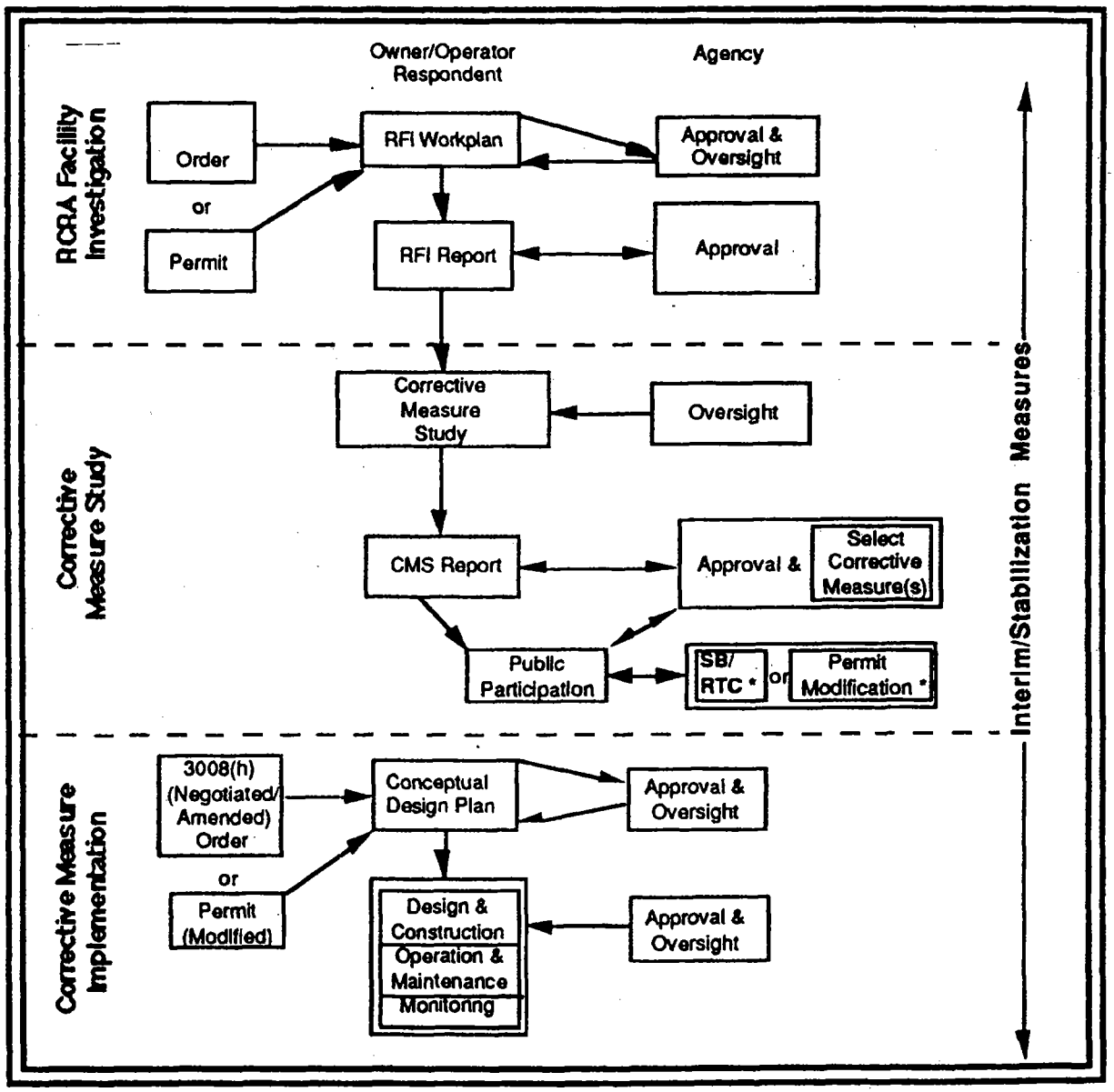
Regions and States should incorporate the appropriate provisions of the corrective action plan in a draft permit. If public comments are received on these provisions, the implementing agency's response to comments should include a site-specific justification for the provisions in question, with supporting data as appropriate. For guidance on public involvement for corrective action under permits and RCRA §3008 (h) orders, see the *RCRA Public Involvement Manual* (EPA530-R-93-006, September 1993).

Limitations exist on the release or discussion of information during the enforcement process (particularly during negotiations or if a case is referred to the Department of Justice). However, respondents that are issued RCRA §3008 (h) administrative orders have the right to request a hearing concerning any material fact in the order or the terms of the order which may include scopes of work derived from the CAP. Respondents to §3008 (h) orders may request informal settlement conferences. Agencies are encouraged to settle such enforcement actions through informal discussions.

Traditional risk assessment techniques may be a significant factor in designing RFI, CMS, and ISMs work plans. Risk management decisions should be used in selecting corrective measures and ISMs, along with current and future land use scenarios, background levels, health-based and technology-based standards.

To clarify the interaction between the agency and the facility Permittee/Respondent, a flow chart of Permittee/Respondent submittals that may be imposed and the agency actions for the stages of the CAP is represented in Figure 1 below. It is important to note that this is the "traditional" model and many variations of the process are possible (see "Alternate Corrective Action Models" section VI.F. on page nine).

Figure 1.RCRA Corrective Action Process



*** The Statement of Basis/Response to Comments (SB/RTC) or permit modification documents the selected corrective measure(s).**

EXHIBIT 13

OSWER Directive 9902.6
February 1991

GUIDANCE ON RCRA CORRECTIVE ACTION DECISION DOCUMENTS:

THE STATEMENT OF BASIS

FINAL DECISION AND RESPONSE TO COMMENTS

Office of Waste Programs Enforcement
U.S. Environmental Protection Agency
Washington, D.C. 20460

CHAPTER 1

INTRODUCTION

1.1 PURPOSE OF THIS GUIDANCE

This guidance on preparing Resource Conservation and Recovery Act (RCRA) Statement of Basis Documents and the Response to Comments (RTC) has been developed to present standard formats for documenting RCRA corrective action decisions and to clarify the roles and responsibilities of the regulatory agency in developing and issuing decision documents. The decision documents addressed by this guidance are the Statement of Basis (SB) and the RTC. SBs and RTCs should be prepared when corrective action is implemented through either a permit or enforcement order. The SB and RTC represent documents similar in purpose to the proposed remedial action plan and Record of Decision (ROD) employed by the Superfund program to fulfill the requirements set forth under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA).

This guidance has been prepared on the basis of the Hazardous and Solid Waste Amendments of 1984 (HSWA), the final National Oil and Hazardous Waste Contingency Plan (NCP), the proposed 40 Code of Federal Regulations (CFR) 264 Subpart S and 40 CFR Part 124.

The primary purpose of the SB/RTC guidance is to standardize the format of the SB and RTC. Remedies selected in the RCRA program may be reviewed by the public on a national as well as a local level. Standardizing these remedy decision documents will:

- Provide consistency among Regions with respect to the organization and content of decision documents
- Promote clear and logical presentations of rationales for remedy selection decisions based on facility-specific information and supporting analysis.

The chapters included in this guidance address the following aspects of the RCRA remedy selection process:

Chapter 2 presents the standard format for the SB and discusses key elements to be included in each section.

Chapter 3 presents the standard format for the public notification of the public comment period.

Chapter 4 discusses the standard format for the Response to Comments (RTC) and discusses key elements to be included in each section.

Chapter 5 discusses the documentation of no effective remedial action and contingency remedy decisions.

Chapter 6 presents an example SB after which individual site-specific SBs can be patterned.

Chapter 7 presents an example RTC after which individual site-specific RTCs can be patterned. The RTC presented in this guidance includes the regulatory agency's response to comments, in addition to a brief description of the selected remedy and rationale behind the selection.

This guidance does not address situations when the selected remedy is changed or modified after the permit modification has become final or an enforcement order implementing the remedy has been issued. Procedures undertaken to reflect the amended remedy should proceed in accordance with either 40 CFR Part 124 or the terms specified in the enforcement order.

1.2 OVERVIEW OF THE RCRA CORRECTIVE ACTION PROCESS

This section describes the relationship between the decision documents addressed in this guidance and the overall RCRA corrective action process (Figure 1-1). Each stage of the corrective action process is briefly summarized below.

1.2.1 THE RCRA FACILITY ASSESSMENT

The RCRA Facility Assessment (RFA) is often the first step in the corrective action process. An RFA (or equivalent investigation) is conducted prior to the issuance of a permit, and in many cases, prior to the issuance of a corrective action order.

The RFA is a process for:

- Identifying and gathering information on releases at RCRA facilities
- Evaluating and identifying solid waste management units (SWMUs), regulated units, and other areas of concern for releases to all media (additional SWMUs may be identified after the RFA as a result of further investigations)

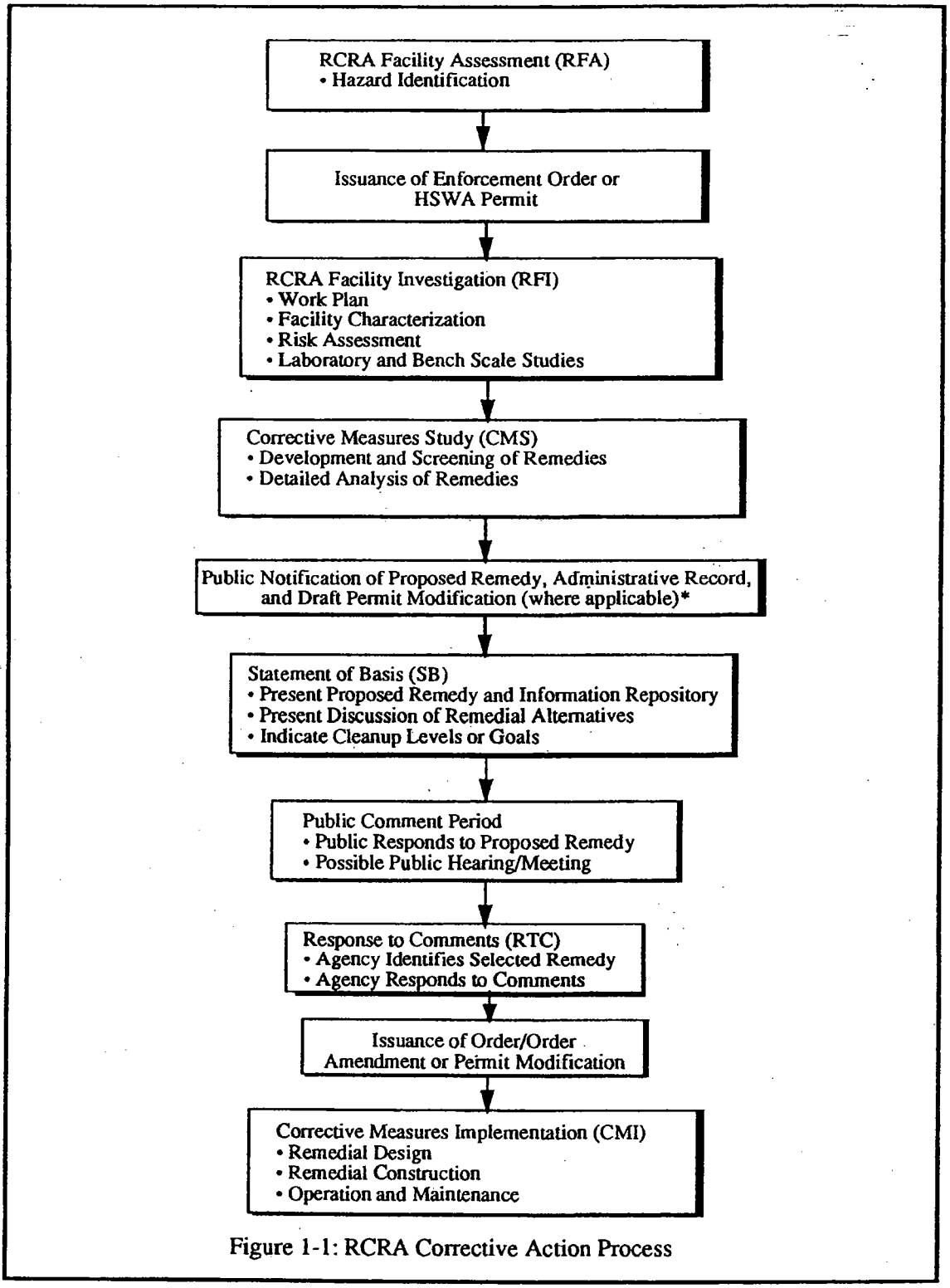


Figure 1-1: RCRA Corrective Action Process

* The administrative record should be accesible to the public during the entire corrective action process.

- Making preliminary determinations regarding releases of concern and the need for further actions and interim measures at the facility

- Screening from further investigations those SWMUs which do not pose a threat to human health and/or the environment

- Helping the regulatory agency to identify, evaluate, prioritize, and to initially clean up those facilities which present or may present the greatest threat to human health and the environment as prescribed in the Environmental Priorities Initiative (EPI).

During the RFA, Environmental Protection Agency (EPA) or State investigators will gather information on SWMUs and other areas of concern at RCRA facilities, evaluate this information to determine whether there are releases that warrant further investigation or other action at these facilities, and upon completion of the RFA, determine the need to proceed to the second phase (RCRA Facility Investigation (RFI)) of the process.

Each of the three steps of the RFA process requires the collection and analysis of data to support initial release determinations:

Step 1: The preliminary review focuses primarily on evaluating existing information.

Step 2: The visual site inspection entails the onsite collection of visual information to obtain additional evidence of release.

Step 3: The sampling visit fills any data gaps that remain upon completion of the preliminary review and visual site inspection by obtaining sampling and field data. Sampling is not always necessary if sufficient data was gathered during steps 1 and 2 of the RFA process to adequately identify the hazards at the facility.

1.2.2 INTERIM MEASURES

Interim measures (IM) for corrective action may be initiated, when appropriate, prior to the initiation or completion of the RFI, Corrective Measures Study (CMS), or Corrective Measures Implementation (CMI). Decisions concerning IMs are made based on the immediacy and magnitude of the potential threat to human health or the environment, and the implications of deferring the corrective action until the RFI/CMS is completed. Implementation of IMs must be consistent with regulatory agency priorities and must be related to protection of human health and the environment. It is not necessary to prepare a SB or a public notice for IMs implementation.

1.2.3 RCRA FACILITY INVESTIGATION

If the regulatory agency determines that a RFI is necessary, the owner or operator will be required to perform a RFI either under a permit schedule of compliance or under an enforcement order. This determination will generally be based on the results of the RFA and will identify specific units or releases needing further investigation. The RFI can range widely from a small specific activity to a complex multimedia study. The investigation generally includes the characterization/ identification of the hydrogeological setting, the type and concentration of hazardous waste or hazardous constituents released, the rate and direction at which the releases are migrating, and the extent over which releases have migrated.

The regulatory agency ensures that data and information submitted by the owner or operator during the RFI adequately describe the release(s), and can be used to make decisions regarding the need for and focus of a CMS. The RFI also includes a comparison of release characterization data against established health and environmental criteria. At the completion of the RFI, a report is prepared by the owner or operator summarizing the investigation findings. The regulatory agency then interprets these results to determine whether a CMS is necessary.

Information generated during the RFI is used not only to determine the potential need for CMI, but also to aid in the selection and implementation of these measures. While conducting the RFI, the owner or operator must collect data which may be needed to select and implement the appropriate remedy(ies). The findings of the RFI provide the rationale and basis for the CMS.

1.2.4 CORRECTIVE MEASURES STUDY

If the need for corrective measures is verified during the RFI process, the owner or operator is then responsible for performing a CMS. During this step in the corrective action process, the owner or operator will identify, evaluate, and recommend specific remedies that will remediate the release(s) based on a detailed engineering evaluation of the data and the corrective measure technologies. The remedies evaluated by the owner or operator, along with the owner or operator's recommendations, are documented in a final report.

As discussed in the June 26, 1987 "Criteria for Elimination of Headquarter's Concurrence on Selected RCRA §3008(h) Orders" memorandum (directive number 9904.3), U.S. EPA Headquarters maintains a 21-day consultation role for corrective measures decisions made in conjunction with §3008(h) orders. When the 21- day consultation is in effect, regions should submit the order or corrective measures decision to Headquarters for review. If Headquarters does not raise issues during the consultation period, then agreement can be assumed and the region may issue the order or decision. If a disagreement between Headquarters and regional staff cannot be resolved, then the outstanding issues should be raised with management.

1.2.4.1 Public Comment Period for Selection of Remedy(ies)

The regulatory agency's proposed remedy for a facility is presented to the public in a SB, and, where applicable, the draft permit modification. The SB provides a brief summary of all of the alternatives studied in the detailed analysis phase of the RFI/CMS, highlighting the key factors that led to the identification of the proposed remedy. SBs prepared in conjunction with draft permit modifications must be drafted in accordance with 40 CFR 124.7. SBs prepared in conjunction with enforcement orders are not required by regulation to adhere to 40 CFR 124.7. However, these regulations and this guidance supplement each other and may be used in concert to draft SBs.

The remedy proposed in the SB is one that best meets the applicable standards for remedies and decision factors presented in Figure 1-2. The remedy selection process as presented in this guidance is simply to be used as guidance until the Subpart S regulations are promulgated. These decision factors are further discussed in the proposed Subpart S rule. The SB is made available for public comment, in addition to the administrative record, the RFI and CMS Reports, and, where applicable, the draft permit modification. The public may comment on the RFI and CMS, as well as the proposed remedy, at this time. If warranted, the regulatory agency may require the owner or operator to perform additional CMSs in response to public comment. Additional studies may be conducted pursuant to a modified enforcement order, a new enforcement order, or permit conditions.

1.2.4.2 Response to Comments

Following receipt of public comments, the regulatory agency is required to prepare a RTC prior to the issuance of any final permit decision pursuant to 40 CFR 124.15. This RTC must be prepared in accordance with 40 CFR 124.17. A RTC should also be prepared after the public comment period but prior to those facilities undertaking corrective action pursuant to an enforcement order.

The regulatory agency's response to public comments and the remedy(ies) selected by the regulatory agency should also be documented in the RTC. A RTC which documents the selected remedy for a facility will serve three basic functions:

- Responds to comments received during, or prior to the public comment period
- Describes the technical parameters of the selected remedy, specifying the treatment, engineering, and institutional components, as well as remediation goals

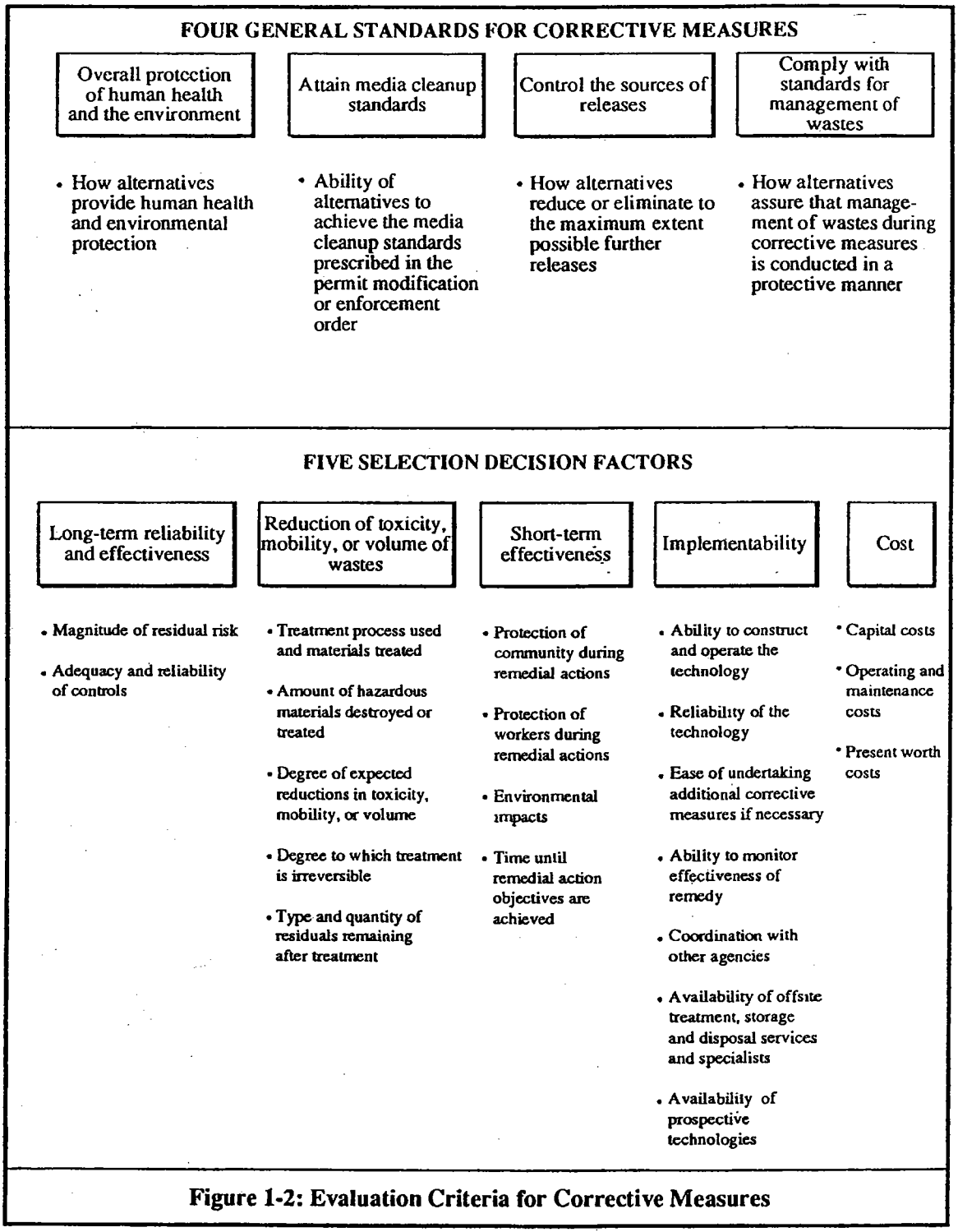


Figure 1-2: Evaluation Criteria for Corrective Measures

- Provides the public with a consolidated source of information about the facility and the chosen remedy, including the rationale behind the selection.

1.2.5 CORRECTIVE MEASURES IMPLEMENTATION

The permit modification or corrective action order provides the framework for the transition into the next phase of the remedial process, CMI. The CMI program includes designing, constructing, operating, maintaining, and monitoring the performance of the remedy(ies) selected to protect human health and the environment.

1.3 ADDITIONAL INFORMATION

This guidance addresses only the preparation of the SB and RTC. Other guidance documents that address other stages of the corrective action process are also available. Because preparation of the SB relies to a great extent on the information collected and analyzed during the RFI/CMS process, the RFI Guidance (OSWER Directive 9502.00-6D, May 1989) may be particularly useful. Many portions of the SB contain summaries of information that are generated during the RFI and CMS. Additional sources of information on the corrective action process and remedy selection are listed in Chapter 8 of this guidance.

CHAPTER 4

ELEMENTS OF THE FINAL DECISION AND RESPONSE TO COMMENTS

4.1 INTRODUCTION

A RTC is prepared by the regulatory agency at the conclusion of the public comment period. The RTC should include a brief summary of comments received during the public comment period as well as activities (e.g., public meetings) undertaken by the regulatory agency. The summary should respond to comments and discuss, where applicable:

- Identification of the selected remedy
- Any changes made to the proposed remedy due to comments
- Rationale for not selecting an alternate remedy or making revisions to the selected remedy as suggested by a commenter(s)
- How the selected remedy differs from the community or owner or operator's proposed remedy
- Any alternatives recommended that were not evaluated in the CMS and why they were not included.

4.2 PURPOSE OF THE RESPONSE TO COMMENTS

The RTC serves several purposes. First, the RTC identifies the selected remedy. Second, it provides the regulatory agency decision makers with information about community preferences regarding the remedial alternatives, and general concerns about the facility. Third, it demonstrates how public comments were integrated into the decision making process. Fourth, the RTC provides a contemporaneous written record of the regulatory agency's RTC. This will enable a court, or any interested party reviewing the selected remedy, to determine whether the regulatory agency provided a reasonable RTC in the record. An adequate RTC is essential in defending final permit modifications or orders during remedy implementation negotiations or in judicial proceedings.

To serve these purposes, the RTC should be a concise and complete summary of comments received from the public, including the owner or operator, during the public comment period. The comments should be accompanied by the

regulatory agency's responses. Responses should be clear, accurate, and carefully written. Exhibit 4-1 presents an outline that may be used to draft the RTC.

The RTC is prepared for the signature of the Regional Administrator (RA) or the signatory of the document that is implementing the corrective action (e.g., corrective action order or permit modification). The final permit modification should be accompanied by the RTC. If the selected remedy differs from the proposed remedy as discussed in the SB, the final permit modification or order will reflect such changes. These changes should be specified and explained in the RTC (refer to 40 CFR 124.17(a)(1) for permit modifications).

In the event that comments are not submitted during or prior to the public comment period, nor is a public hearing requested, a RTC should still be prepared. In such cases, the RTC will present the selected remedy, state that comments were not submitted, and include a declaration that the selected remedy is protective of human health and the environment.

4.3 WRITING THE RESPONSE TO COMMENTS

The RTC should:

- Identify the selected remedy(ies), taking into account the comments received during the public comment period
- Identify comments raised during the public comment period
- Respond to public comments
- Discuss any future actions that will accompany the implementation of the selected remedy.

Additional guidance on preparing the RTC is available in "Guidance on Public Involvement in the RCRA Permitting Program," (OSWER Directive 9500.00-1A, January 1986).

4.4 SECTION BY SECTION DESCRIPTION OF THE RESPONSE TO COMMENTS

4.4.1 INTRODUCTION

This introductory section should include the facility name and location. The public should be informed of the function of the RTC in the remedy selection process. Most importantly, this section should clearly explain how the regulatory agency considered and responded to the comments received.

EXHIBIT 4-1

FINAL DECISION AND RESPONSE TO COMMENTS

[FACILITY NAME]

INTRODUCTION

The RTC documents for the public record:

- Concerns and issues raised during corrective action planning
- Comments raised during the comment period on the proposed remedy, RFI, or CMS
- How the regulatory agency considered and responded to these concerns.

SELECTED REMEDY

Briefly discuss:

- The remedy(ies) selected for implementation at the facility
- Brief justification to support the selection of the corrective measure(s) using the evaluation criteria.

PUBLIC PARTICIPATION ACTIVITIES

Briefly discuss:

- Activities conducted by the regulatory agency to elicit public participation and to address specific concerns and issues (e.g., small group meeting, news conference, and progress reports)
- The extent of the public comment period, when it started and ended
- Note whether regulatory agency staff met with concerned citizens or conducted other communication activities during the comment period, such as a public meeting or availability of technical staff to respond to questions. Mention the location, time, and level of attendance of public meeting(s), if held.

PUBLIC COMMENTS AND THE AGENCY'S RESPONSE

Briefly describe comments on the proposed remedy, RFI, or CMS from other regulatory agencies, local officials, and private citizens. Comments should be immediately followed by the regulatory agency's

EXHIBIT 4-1 (Continued)

response. This section should address the following (where applicable):

- Categorize comments by major issue or topic addressed, where appropriate.
- Provide a verbatim list of the comments received, each followed by the regulatory agency's response. Where necessary, the comments and responses can be summarized under the categories as completely as possible.
- Discuss the level of concern over each of the major issues.
- Document any modifications or changes in the proposed remedy as a result of comments.
- Give the reasons for rejecting the public's, or owner's, or operator's proposed remedy if the regulatory agency's selected remedy is different.
- Document, in detail, any remedial alternatives provided by the public which were not evaluated in the CMS, and explain why they were not evaluated.

FUTURE ACTIONS

Briefly explain:

- Any future actions the regulatory agency will take as an integral part of remedy implementation (e.g., post-closure permitting, closure plan approval).

DECLARATIONS

This section should state that the regulatory agency has determined that the corrective action being taken is appropriate and will be protective of human health and the environment. The section should conclude with the signature of the RA, or other person deemed appropriate by the regulatory agency, and the date the document was signed.

4.4.2 SELECTED REMEDY

This section of the RTC should identify and summarize the major treatment components of the selected remedy, as well as any engineering controls or institutional controls that will be part of the remedy. This section should also describe how the selected remedy will provide adequate protection of human health and the environment. The evaluation criteria used to select and justify the remedy should be discussed in this section.

4.4.3 PUBLIC PARTICIPATION ACTIVITIES

The communication activities undertaken by the regulatory agency during the public comment period should be identified in this section. This section should also identify when the public comment period was in effect, and where/when public meetings or gatherings were held.

4.4.4 COMMENTS RAISED DURING THE COMMENT PERIOD AND THE AGENCY'S RESPONSE

Comments received, followed by the regulatory agency's response, should be listed in this section. Where necessary, comments and the regulatory agency's response can be categorized by major issue and topic addressed. The level of concern over each major issue and the extent that this issue was raised should also be included in this section.

Information furnished by the public or other regulatory agencies may provide the basis for making a significant change to the proposed remedy. Changes to the proposed remedy resulting from the comments received or the receipt of new information should be fully documented. It is important that the regulatory agency respond to all significant comments. This section should also reference any new supporting information placed into the administrative record in response to comments. In addition, any remedial alternatives provided by the public which were not evaluated in the CMS should be discussed to the extent that information is available. If the changes made are major, the regulatory agency should consider the need for additional notice and opportunity to comment. Additional comment opportunities are particularly appropriate if information obtained after the SB was prepared is relied upon to change or select another remedy.

4.4.5 FUTURE ACTIONS

This section of the RTC should briefly discuss any future action the regulatory agency will take as an integral part of remedy implementation (post-closure permitting, closure plan approval). The opportunity for public participation for future actions should be made available.

4.4.6 DECLARATIONS

This section should provide the final declaration that the selected remedy is protective of human health and the environment. This section also provides the space for the RA or other person deemed appropriate by the regulatory agency, to concur with the selected remedy. Generally, the person

that signs the document implementing the corrective action (e.g., permit modification or enforcement order) should sign the RTC.

EXHIBIT 14

Region 2 serving the people of New Jersey,
New York, Puerto Rico and the U.S. Virgin Islands

DuPont Pompton Lakes Works
Acid Brook Delta/Pompton Lake
Final RCRA/HSWA Permit Modification
Public Information Session

CARNEVALE CENTER
POMPTON LAKES, NEW JERSEY
JANUARY15, 2013

DuPONT POMPTON LAKES WORKS
ACID BROOK DELTA AREA

- Historical Discharges of Mercury/Lead/Copper to Acid Brook
- Contaminated Sediments/Soils in Acid Brook/Surrounding Flood Plain/Residential Property Leading to Pompton Lake Sediment
- Remediation of Acid Brook/Residential Properties in 1990s
- Acid Brook Delta is Subject of the HSWA Permit Modification & Includes:
  - Sediment: Centered at the mouth of Acid Brook into Pompton Lake
  - Upland Soil Areas: Impacted Soil in the Vicinity of the Mouth of Acid Brook into Pompton Lake

DuPONT POMPTON LAKES WORKS
ISSUANCE OF PERMIT MODIFICATION

- Nov. 20, 2011 - Public Notice of the Draft Permit Modification
- Numerous Public Comments Received
- January 9, 2012 - DuPont Submitted Comparison of Lake Depths Based on the 2011 & 2007 Bathymetric Surveys
- January 15, 2013 - Public Availability Sessions to Discuss Permit Modification
- Final Permit Modification issued on December 19, 2012 Effective February 4, 2013

DuPONT POMPTON LAKES WORKS
DRAFT PERMIT MODIFICATION - NOVEMBER 2011

- ACID BROOK DELTA (ABD) SEDIMENT
  - Qualitative Remedial Action Objectives (RAOs)
    - Reduce Potential Mercury Methylation (Near-Shore)
    - Reduce Exposure of Eco Receptors to Elevated Sediment Mercury
  - Original Proposed Remedy: Dredge ABD West of Proposed RAO Line (26 Acres)

- UPLAND SOILS AREAS
  - Quantitative RAO
    - NJDEP Soil Remediation Standard (SRS) and Ecological Soil Criterion: Surface/Subsurface Soils
  - Original Proposed Remedy: Excavate soil and Restore with backfill and plants

DuPONT POMPTON LAKES WORKS
REVISED PERMIT MODIFICATION RATIONALE

- ACID BROOK DELTA (ABD) SEDIMENT
  - Bathymetric Survey Performed in 2011 by DuPont
    - Sediments Scoured From Narrower Areas of Ramapo River Channel/Pompton Lake Since 2007
    - More Highly Contaminated Buried Sediment Among Areas Scoured
    - Storm Events 2007-2011 May Have Impacted Sediment Stability
  - US Fish & Wildlife Service Comments
    - Update Ecological Risk Assessment (ERA) by Consideration of Pathways & Ecological Receptors
    - Derive Updated Toxic Reference Value (Back-Calculate Corresponding Sediment RAOs)

DuPONT POMPTON LAKES WORKS
REVISED PERMIT MODIFICATION RATIONALE

- UPLAND SOILS AREAS

  - US Fish & Wildlife Service Comments

    - Significant Portions of Upland Soils Located in Wetlands Transition Zone & Wetlands Zone

    - Need to update Ecological Soil Criterion
      - Update pathways and ecological receptors to include wetland dependent species
      - Evaluate ecological receptors based on exposure to methylmercury as opposed to total mercury
      - Obtain Updated Data to Support Above

DuPONT POMPTON LAKES WORKS
FINAL PERMIT MODIFICATION - DECEMBER 2012

➢ SEDIMENT

- ❑ Extends Dredging Area Nearer to Ramapo River Channel (nearer to the 2 ppm Surficial Mercury Contour Line)
  - Dredged sediment area increases from 26 to 40 acres
- ❑ During Dredging: Conduct Additional Sediment Sampling in the rest of the lake and Ramapo River
  - Throughout Lower Pompton Lake to Identify Hot Spots to Address Prior to Completion of Dredging
  - Across Transects up to 3 Miles Downstream of Pompton Lakes Dam
- ❑ Dredge Hot Spots Identified by Additional Sampling

Region 2 serving the people of New Jersey, New York, Puerto Rico and the U.S. Virgin Islands

Figure 1

Acid Brook Delta in Pompton Lake

DuPONT POMPTON LAKES WORKS
FINAL PERMIT MODIFICATION - DECEMBER 2012

- UPLAND SOILS AREAS

  - ❑ Develop an updated evaluation of ecological receptors exposed to methylmercury to establish excavation limits for uplands in wetlands or wetland transition zones

  - ❑ Obtain Updated Data to Support Above

  - ❑ Provide Updated Remediation and Restoration Plan

DuPONT POMPTON LAKES WORKS
FINAL PERMIT MODIFICATION - DECEMBER 2012

- POST REMEDIATION LAKE SYSTEM MONITORING (AT LEAST 5 YEARS)
  - Establish Baseline Conditions Prior to Dredging
  - Monitor Mercury Concentrations in Suspended Sediment & Water
  - Biomonitoring Including Mercury Residues in Organisms

- CONDUCT ECOLOGICAL RISK ASSESSMENT (ERA)
  - Two Years After Dredging/Restoration
  - ERA Based on Updated Data Obtained During Monitoring Program

DuPONT POMPTON LAKES WORKS
CONSTRUCTION-RELATED ACTIVITIES/NEXT STEPS

- Several Technical Deliverables Due 30 Days After Effective Date
  - Revised Corrective Measures Implementation Work Plan
  - Sediment Sampling Plan (for the Rest of the Lake and Ramapo River to approx. 3 miles downstream of the dam)
  - Uplands Remediation & Restoration Plan
  - Post-Remediation Long-Term Monitoring Plan (and Establish Baseline for Lake System Prior to Dredging)

- EPA/NJDEP Review/Approval of Technical Deliverables

- Public Information Session Prior to Approval of Final Operating Plan (part of CMIWP).

- DuPont Must Prepare/Revise State & Local Permit Applications for Approximately 11 State & Local permits, including:

  - NJDEP Wetlands Protection Act (N.J.A.C. 7:7A)
  - NJDEP Flood Hazard Area Control Act (N.J.A.C. 7:13)
  - Soil Mining Ordinance of the Borough of Pompton Lakes
  - New Jersey Department of Agriculture Soil Erosion and Sediment Control Act (Chapter 251, P.L. 1975)
  - NJDEP Stormwater Management Rules (N.J.A.C. 7:8) Stormwater Management Plan

DuPONT POMPTON LAKES WORKS
COMMUNITY INVOLVEMENT ACTIVITIES

- Public Information Sessions - January 15, 2013
- Quarterly Public Information Sessions Thereafter
- Bi-Monthly Newsletters
- Other Meetings as Needed