REGION 2
NEW YORK, N.Y. 10007

July 30, 2025

David E. Epps, Principal Project Manager
The Chemours Company
Corporate Remediation Group
2000 Cannonball Road
Pompton Lakes, NJ 07442

Re: Pompton Lakes Works Site, Pompton Lakes, New Jersey
USEPA/NJDEP Updated Comments on the April 2019 Revised Draft Onsite Soils Corrective Measures Study

Dear Mr. Epps:

This correspondence provides updated comments from the United States Environmental Protection Agency (USEPA) and the New Jersey Department of Environmental Protection (NJDEP) on the April 2019 Revised Draft Onsite Soils Corrective Measure Study (CMS) for the Pompton Lakes Works Site (PLWS). These comments reflect discussions from conference calls, meetings, and correspondence that have taken place subsequent to USEPA and NJDEP's November 23, 2022; correspondence that included comments on the CMS.

It was noted in the USEPA/NJDEP November 23 2022 correspondence that "*The collective goal is to end up with one permit modification addressing both the On-site soils and Wanaque River corrective measures or at least have corrective measures established so that both the On-site soils and the Wanaque River can be addressed in one Corrective Measures Implementation Work Plan (CMI WP).*" However, due to a number of outstanding technical issues that apply predominately to the remediation of the Wanaque River floodplain, the USEPA and NJDEP have subsequently determined that it would be a more effective approach to move forward with finalizing the Onsite Soils CMS and proceed with a permit modification focused on just this element of the site cleanup. To further advance the process of the remediation of onsite soils, we believe that utilizing the boundary of the Wanaque River floodplain as noted in the January 29, 2025 "T*echnical Memorandum, Wanaque River Valley Background Soil Arsenic Investigation – Additional Figures Pompton Lakes Works Site, Pompton Lakes, New Jersey*," to delineate the Onsite Soils CMS project area would be most appropriate. We believe that all portions of the project area outside of the Wanaque River floodplain as delineated in the technical memorandum be addressed as part of the Onsite Soils CMS. This would allow currently unresolved technical issues such as the determination of a site-specific background value for arsenic on portions of the PLWS, as well as the development of a cleanup value for mercury in Wanaque River sediments, to proceed in conjunction with implementation of the cleanup of the vast majority of the PLWS. Reflective of that decision, the following comments do note that previous technical discussions concerning the determination of a site-specific background value for arsenic in soils and a clean-up value for mercury in sediments will be addressed during review of the Wanaque River CMS.

As noted previously, this NJDEP/USEPA correspondence updates previous comments issued by USEPA/NJDEP on November 23, 2022. For ease of review, these updates are bolded below and note the resolution of each of these comments.

Revised Onsite CMS USEPA/NJDEP Comments

1. Page 7, Section 2.0 (Site Background and Physical Setting): During the USEPA/NJDEP/Chemours meeting in November 2018; the need for providing enough Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) information on the nature and extent of contamination was expressed by USEPA/NJDEP. Part of the reason for this request is that RFI information has been submitted in numerous technical reports over an extended period of time. Although USEPA's Corrective Action Plan guidance may allow reference to the RFI, USEPA/NJDEP's requirement here is to provide a summary of the RFIs. N.J.A.C. 7:26E-1.6(b) and EPA's RCRA Corrective Action Plan guidance provide information on the type of information being sought that can be conveyed as a summary. Without sufficient RFI information for each Area of Concern (AOC) such as the contaminants present, concentrations, extent of contamination, etc., the evaluation on the acceptability of the proposals in the CMS is significantly constrained. This information should be summarized and provided in a revised version of Section 2.0.
   Chemours Proposed Response: Need resolution as to amount of information needed and/or critical to selecting corrective measure alternative for implementation (specifically as it relates to the fact that a presumptive remedy is being proposed). There are 202 AOCs for the site. Based on the amount of data collected and the size of the site, 5 previous RIRs were submitted [1-Western Manufacturing Area (WMA), 1-Northern Manufacturing Area (NMA), and 3-Eastern Manufacturing Area (EMA)]. Based on previous discussions with USEPA/NJDEP, it was agreed to focus the CMS more holistically on each manufacturing area instead of individual AOCs. Thus, the summary tables provided in Section 2.5.2 were included in the revised CMS for each manufacturing area. The request to show all data would result in hundreds of individual maps and hundreds of data tables.
   In order to move forward with the CMS, Chemours would propose that the following information could be added for each former manufacturing area as part of the investigation background summary:

   - Number of AOCs investigated for the area,
   - Number of samples collected in the area,
   - Contaminants of Concern (COCs) for the area and assumed former source of those constituents (as already summarized in the
     conclusions for each area RIR,
   - Number of AOCs where no further action is required and has been approved by the Agencies; and
   - Number of AOCs brought forward to address as part of the CMS.

   USEPA Response: Subsequent to the submittal of Chemours proposed response for discussion purposes, above; there were additional discussions between Chemours/USEPA/NJDEP on an approach to address this comment. Based on those discussions, Chemours should utilize the format and update the content of the Case Inventory Documents provided in the approved Remedial Investigation Reports previously submitted for the NMA, EMA and WMA.

   The background summary should also provide the information that is presented in the bullets in Chemours' proposed response for discussion purposes, above. The major conclusions in the RIRs for the NMA, WMA and EMA should be provided in the CMS. Focus on the areas mentioned in the last bullet (areas carried forward into the CMS) and provide information that summarizes the nature and extent of contamination in a figure format.

   If there are existing figures that show areas of concern and their COCs at surface and subsurface depths and

the concentrations greater than NJDEP SRS and/or ecological screening levels whichever are appropriate, this information should be provided in the revision of the CMS. If not, this information will be required for inclusion in the CMI WP.

Comment Resolution: The Onsite Soils CMS will be revised as noted above to provide additional background information.

2. Page 7, Section 2.2 (Site Operational History): The draft Onsite Soils CMS considered use of the cladding tunnels as part of the proposed corrective action by Chemours. If Chemours intends to utilize the former cladding tunnels as part of its proposed corrective action, information would need to be provided in the alternatives descriptions as to how Chemours intends to use them. In addition, information would need to be provided to support the description of the cladding tunnels as "engineered tunnels." USEPA/NJDEP would evaluate this information to assess whether use of the cladding tunnels is acceptable.

   Chemours Proposed Response: Use of the man-made cladding tunnels as part of the proposed corrective action is no longer considered; thus, the reason why they were not mentioned in the Revised Draft CMS. Since the cladding tunnels will not be used as part of the corrective action, there is no plan to include additional information in the upcoming revisions.

   USEPA Response: Chemours proposed response is acceptable. Note should Chemours' position change and the use of the cladding tunnels is reconsidered; the information requested by USEPA/NJDEP in its original comment would be required.

   Comment Resolution: No revision to the Onsite Soils CMS is needed unless use of the cladding tunnels is re-proposed. If Chemours subsequently determines that use of the cladding tunnels should be part of the design of the corrective measure(s) selected for onsite soils, that information can be provided as part of the CMI WP.

3. Page 7/top of Page 8, Section 2.3 (Site Land Use): The existing "deed notice" between DuPont and Chemours for the Site dated April 9, 2015 and, filed with the Passaic County Clerk that is referenced by Chemours in this section should be included in the revised Onsite Soils CMS.

   Chemours Proposed Response: The deed notice between DuPont and Chemours dated April 9, 2015, will be included as an Appendix to the revised document.

   USEPA Updated Response: Chemours response is acceptable.

   Comment Resolution: The April 9, 2015 deed notice between DuPont and Chemours will be included as an Appendix to the revised Onsite Soils CMS.

4. Page 8/9, Section 2.3.1 (Current Land Use): As Chemours knows, 299 acres of the Site located in Wanaque is zoned industrial and is within "Preservation Area" as designated under NJ Highlands Water Protection and Planning Act (NJ HWPPA). 289 acres of the Site located in Pompton Lakes is within a designated Hybrid Industrial District and is within the "Planning Area" as designated under the NJHWPPA. Please include this information in this section.

   Please note that according to the NJ HWPPA planning personnel, regarding environmental clean-up considerations, the NJ HWPPA provides an exemption for the remediation of any contaminated site

   (Exemption #16). That would mean no Highlands rules or regulations would be applicable. Please provide

this information here and in the discussion regarding compliance with ARARs (see comment #34).

Chemours Proposed Response: The land use designation under the NJ HWPPA is currently included in Section 2.3.1. The current local zoning for the parcels in Wanaque and Pompton Lakes will be incorporated into the revised text. Additional information will also be provided explaining the applicability of the NJHWPPA to the corrective action (as described in the comment).

USEPA Response: Chemours' proposed response is acceptable.

Comment Resolution: Chemours will incorporate the NJ HWPPA applicability and zoning information into Section 2.3.1.

5. Page 9, Section 2.3.2 (Anticipated Future Land Use): 70 acres of land within Wanaque north and west of I-287 has been designated for transfer to New Jersey under a previously negotiated "Natural Resource Damage Settlement for Groundwater Injuries in New Jersey" between the State and DuPont. The Administrative Record and/or the Revised CMS needs to include a copy of the Settlement. USEPA needs to receive a current status of the transfer of the 70-acre parcel including what the State considers to be the appropriate environmental clean-up standards to be met prior to transfer.

   In an email from USEPA dated January 11, 2022, the current status of Chemours' prospective transfer of the NMA to the State of New Jersey was sought.

   Chemours Proposed Response dated June 3, 2020: A copy would already exist at NJDEP. A copy can be transmitted to EPA for their files. The settlement establishes the use of residential cleanup standards for the 70-acre parcel being transferred. As discussed with NJDEP, transfer of the property to NJDEP would occur after remediation is complete under the RCRA CA program.

   Chemours response to USEPA request for information in email dated January 11, 2022: To clarify, the transfer of the property located in the Northern Manufacturing Area from Chemours to NJDEP will be done in accordance with the Compensatory Restoration Administrative Consent Order entered into with NJDEP in June 2005 and is not part of a sale. NJDEP has stated that it would not take transfer of that property until after completion of the required remediation.

   As discussed during our technical meetings and as presented in the Pompton Lakes Works Facility RCRA CMS, NJDEP residential direct contact standards would apply to remediation of site-related constituents listed in the Northern Manufacturing Area Remedial Investigation Report dated June 2010, with the exception of arsenic. The natural background standard approved by NJDEP (currently under review by USEPA) would only be applicable to arsenic remediation completed in the Wanaque River Valley drainage area

   USEPA Response: Chemours should transmit the "Natural Resource Damage Settlement for Groundwater Injuries in New Jersey" between the State and DuPont to USEPA as an appendix to the revision of CMS.

   Comment Resolution: Subsequently, USEPA was provided with the June 30, 2005 Compensatory Restoration Administrative Consent Order between DuPont & the State of New Jersey. The revised Onsite Soils CMS will include this agreement as an Appendix.

   USEPA Response to Chemours January 11, 2022, email request for information: If the "Compensatory Restoration Administrative Consent Order" entered into with the NJDEP in June 2005 is different than the previously referenced "Natural Resource Damage Settlement for Groundwater Injuries in New Jersey";

both documents should be provided as an appendix to the revision of the CMS.

Please note USEPA's position on the use of the Chemours' previously calculated site-specific background value for arsenic in soil. Chemours should revise the CMS as required in Comments 9, 11, 12 as well as any other comments relevant to USEPA's position on the site-specific background value for arsenic in soil presented in our responses to Chemours in this correspondence unless subsequent technical discussions result in a modification of USEPA's position based on our technical evaluation of additional information provided by Chemours.

Comment Resolution: The final disposition of a clean-up value for soils that portion of the NMA to be transferred from Chemours to NJDEP (approximately 70 acres) will be determined by discussions between NJDEP and Chemours. The clean-up value for onsite soils subject to the RCRA Corrective Action in the NMA that is not part of the land transfer between Chemours/NJDEP will be the NJ NRDCSRS.

6. Page 9/top of Page 10 Section 2.3.2 (Anticipated Future Land Use): The change in zoning for the 289 acres of the Site in Pompton Lakes from Planned Recreational Community District (PRC) to a Hybrid Industrial District (HID) was finalized (Ordinance No.: 19-13) and signed off by the Mayor and Borough Clerk. It has been utilized by USEPA in its assessment of current and anticipated future land use as well determining appropriate soil remediation standards for that portion of the site in Pompton Lakes.

   Per Ordinance No.: 19-13, this change in zoning would prohibit "residential" land uses including residential, day care and schools and allow for the following "Permitted principal uses:"

   Light industry;
   Research and development;
   Flex space;
   Storage establishments, including mini-storage warehouses;
   General, business, and professional offices;
   Personal and business services;
   Planned commercial development; Artist and
   maker studios; Microbreweries and distilleries;
   Commercial recreation and entertainment facilities, including galleries;
   Fitness, health clubs, martial arts, gymnastic and yoga facilities;
   Passive recreation;
   Energy generation facilities; and
   Government uses.

   The change in zoning would also allow for the following "Permitted accessory uses:"

   Restaurants;
   Uses and structures that are customarily subordinate and incidental to a principal permitted use;
   Signs (See § 190-16Q); and
   Off-street parking and surface parking, provided that they serve uses expressly permitted in the district. A parking facility accessory to one use may be used for parking accessory to other uses expressly permitted in the HID.

   As defined by local ordinance, the purpose of the HID is *"to provide a unique zone where a mix of compatible industrial and commercial uses could be comprehensively planned for in a common setting. The intent of this*

zone is to provide flexibility, promote cohesive site and building design, coordinate amenities and shared civic spaces, and protect and preserve environmentally sensitive areas within the district." The HID's allowable land uses are consistent with current and anticipated future land uses that would be subject to clean-up to New Jersey's Non-Residential Direct Contact Soil Remediation Standards (NRDCSRS) for impacted land within the HI. This is one factor in USEPA's determination that New Jersey Soil Direct Contact Remediation Standards versus use of Alternative Remediation Standards (ARS) for soil are the most appropriate clean-up values to utilize. This information needs to be incorporated into this Section of the CMS.

Chemours Request for Clarification: Chemours would request further clarification as to what other factors USEPA utilized to determine that New Jersey Soil Direct Contact Remediation Standards versus use of ARS clean-up values for this Site

USEPA Response: In the USEPA/NJDEP comment letter dated March 2, 2020 (Comment #15), the other considerations used by USEPA to conclude that the use of the NJ NRDCSRS were the appropriate clean-up standards versus Chemours' proposed ARS were provided.

The following excerpt from that USEPA comment is as follows (in italics):

In making this determination, USEPA considered the following:

- *Application of the NJ NRDCSRS is consistent with RCRA Corrective Action guidance, which calls for the evaluation of applicable or relevant and appropriate requirements in selecting corrective measures for a site. Promulgated standards (in this case the New Jersey Soil Remediation Standards) are used for site contaminants of concern where such standards have been established.*

- *USEPA has the discretion to approve/reject the use of ARS proposed to NJDEP pursuant to N.J.A.C 7.26D-7 for purposes of selection of a corrective measure at a RCRA Corrective Action site.*

- *N.J.A.C. 7-26D-7.3(b) indicates that one of the bases for the request for an alternative remediation standard may include the following: alternative land use planned for the site. For the purpose of developing a Site-specific ARS for human health, passive recreational land use (such as walking or hiking) was considered for both the WMA and EMA (outside Redevelopment Area). However, the zoning designations in both Wanaque and Pompton Lakes indicate that allowable land use is almost exclusively commercial/industrial. Although passive recreation is listed as a permitted use in the HI zone for that portion of the site in Pompton Lakes, the predominant permitted land uses in the HI zone is, by definition, commercial/industrial.*

Chemours Proposed Response: The following details from final Zoning Ordinance No. 19-13 will be included in Section 2.3.2 of the revised document.

Approved Zoning Ordinance No. 19-13 zones the DuPont (Chemours) Tract in Pompton Lakes as part of the Hybrid Industrial District. The Hybrid Industrial District permitted principal uses include light industry; research and development; flex space; storage establishments including mini-storage warehouses; general, business, and professional offices; personal and business services; planned commercial development; artist and maker studios; microbreweries and distilleries; commercial recreation and entertainment facilities, including galleries; fitness, health clubs, martial arts, gymnastic and yoga facilities; passive recreation; energy generation facilities; and government uses. Permitted accessory uses include restaurants; uses and structures that are customarily subordinate and incidental to a principal

permitted use; signs; and off-street parking and surface parking, provided that they serve uses expressly permitted in the district. Prohibited uses include residential uses; day cares; and schools.

USEPA Response: Chemours proposed response is acceptable.

Comment Resolution: Section 2.3.2 of the revised Onsite Soils CMS will be revised to include the aforementioned details from final Zoning Ordinance No. 19-13.

7. Page 15, Table 2-2: USEPA/NJDEP is requiring a more comprehensive summary of the onsite soil data in a revision to the CMS per Comment #1. If Chemours is going to include Table 2-2 in a subsequent revision of the CMS, the mean versus the median should be provided for the individual constituents of concern.

   Chemours Proposed Response: The mean will be added to Table 2-2 of the revised Onsite Soils CMS. The median is already included.

   USEPA Response: See USEPA response to Comment #1 regarding the requirement for a more comprehensive summary of the on-site soil data. Regarding the inclusion of the mean versus the median in Table 2-2, Chemours' proposed response is acceptable.

   Comment Resolution: The mean will be added to Table 2.2 in the revised Onsite Soils CMS. Additional information as noted in the response to comment 1 will also be included.

8. Page 21, first full paragraph, first sentence: This sentence is incorrect since Table 2-2 only "summarizes the onsite soils data for each former manufacturing area including the minimum, maximum, and median detected concentrations." There is no information on Soil Remediation Standards (SRS) for any COC. Please include the appropriate SRS values.

   Chemours Proposed Response: Consistent with the discussion for the other COC types (metals, PAHs, PCBs) in Section 2.5.3, the discussion for VOCs will remain focused on the presence of this constituent group and the fate and transport characteristics. As such, this sentence will be deleted.

   USEPA Response: Chemours' proposed response is acceptable.

   Comment Resolution: The first sentence in the first full paragraph on Page 21 of the revised Onsite Soils CMS will be deleted.

9. Page 24, Section 3.1 (Arsenic), paragraph 2: Note that NJDEP's approval of the "natural" background value for arsenic indicated that "The use of a background-based site-specific soil remediation standard of 75 milligrams per kilogram (mg/kg) for arsenic is suitable for the Wanaque River Valley portion of the site." It was not intended to be an approval of a site-wide background value for arsenic. Please include this language in this paragraph and elsewhere in the CMS, where appropriate.

   Chemours Proposed Response: As stated in Section 3.1, the background arsenic levels are associated with the NMA and WMA, which is located in the Wanaque River Valley. Additionally, as shown on Table 3-1 in Section 3.2, the arsenic background value will be applied to the WMA and NMA. The NRDCSRS value of 19 is shown for the EMA (outside Redevelopment Area) and EMA (Redevelopment Area).

Even though this information is already included in the document, the first sentence of Section 3.1 will be revised as follows to provide additional clarification:

A Site-specific SRS was developed for arsenic in the Wanaque River Valley (WMA and NMA) based on an estimate of representative background concentrations.

USEPA Response: EPA's comment was intended to clarify what constituted NJDEP's approval of the "natural" background level was for arsenic; that it was not intended to be an approval of a site-wide background value for arsenic.

USEPA's position on Chemours' proposal to use a site-specific background is addressed in our response to Comments 11 and 12 within this correspondence. Absent Chemours addressing those comments satisfactorily and EPA concurring that it supports selection of a site-specific background concentration; USEPA's position is that the background concentration for arsenic to be used throughout the site is 19 mg/kg.

Comment Resolution: Given that Chemours has provided additional information regarding the boundary between the Wanaque River and the onsite soils and that determination of a site-specific background value for arsenic pertains to the Wanaque River Valley, EPA's position is that the onsite soils CMS can proceed to be finalized. The corrective measure(s) for the Wanaque River will be addressed through the original CMS prepared/submitted and once the final Wanaque River CMS is approved by USEPA/NJDEP. Accordingly, Section 3.1 of the Onsite Soils CMS can be deleted.

10. Page 24, Section 3.0 (Applicable Soil Remediation Standards): Text should be added to this section similar to that on page 10 of 14 of Appendix A stating that the most conservative soil value either the SRS (not the ARS) or ecological risked-based remediation goal (ERG) will be used as the appropriate clean up value.

    Chemours Proposed Response: Page 10 of 14 of Appendix A states "The most conservative (or lowest) of the alternative SRS values and ERGs should be used to evaluate compliance during the remedial action." Note that this is still depth dependent as ERGs are not a concern unless they are in the top one foot of soil. To address the comment, the language from Appendix A will be brought forward and referenced as appropriate (i.e., depth dependent) in the text.

    USEPA Response: Regarding ERGs and that their use is depth dependent; the depth of the biologically active zone (BAZ) for both soil and sediment should be presented where appropriate. The BAZ for soil is generally at a depth of 0 to 12 inches and the BAZ for sediment is generally at a depth of 0 to 6 inches. Several ecological conditions may exist to change these depths including the presence of burrowing receptors and the types of vegetation present since certain COPECs are phytotoxic (e.g., copper). Plants with a deeper root system or taproot system may be susceptible to such contamination uptake at deeper depths. Certain site conditions may affect the BAZ including the potential for erosion as a migration pathway, whether the sediment/soil contaminant mass outside of the biotic zone is a continuing source, whether deeper sediment/soil could become exposed in the future, and the potential for biomagnification.

    Comment Resolution: As requested by EPA, language from Appendix A will be brought forward as appropriate. Please note that there are circumstances where ERGs might be most appropriate even at depths below 1 foot and the presence of these circumstances should be presented as part of the response to this comment.

11. Page 24, Section 3.1 (Arsenic), paragraph 3: Chemours indicates that "USEPA recommended revised estimates

of the Site-specific background-based SRS for arsenic based on the removal of outliers identified by the more robust outlier tests." This is inaccurate. As USEPA's comment letter of January 2, 2019 (See Section 1 – Alternative Remediation Standards, USEPA RTC to Chemours Comment 3, Upper Case I) stated: ''An SRS can be determined based upon a site-specific background data set. **To *demonstrate (italics added)* the influence of outliers on upper limits used to estimate BTV/SRS, 95% UPLs have been computed using data sets with outliers and without outliers (bold** added**).** Statistics have been computed separately for SS and SB soil data sets and for the combined SS and SB data set". Revise the text in this paragraph to delete language that indicates USEPA recommended revised estimates of the Site-specific background SRS for arsenic.

Chemours Proposed Response: Chemours statement "USEPA recommended revised estimates of the Site-specific background-based SRS for arsenic based on the removal of outliers identified by the more robust outlier tests." was based on USEPA Response to Chemours RTC (Comment 3-H) which stated "The objective is to compute the most representative statistics to estimate a site-specific remediation standard (SRS). There are outliers present in both the SS and SB soils data set. It is evident that USEPA and NJDEP guidance documents need to be updated to include effective current state-of-the-art methods (robust methods that are now taught at undergraduate and graduate levels in US universities) to identify outliers and other statistical methods which are used to address statistical issues arising in environmental site projects. Effective outlier tests are not available in ProUCL 5.1 (2015), but they are available in commercial (e.g., SPSS, SAS) packages and in R-script. USEPA believes it is both prudent and appropriate to use the more effective robust methods (since they are not available in ProUCL 5.1 and not described in NJDEP guidance)." This was then followed by USEPA comment 3-I (being reference in this comment).

Based on the above, the statement is accurate.

USEPA Response: Irrespective of whether Chemours believes that USEPA recommended a Site-specific background-based SRS for arsenic, USEPA's position is that absent Chemours satisfactorily addressing our comments about additional information (further outlined in Comments 9 and 12) and in our previous comment letter as well as subsequent discussions between USEPA and Chemours, then Chemours should utilize the NJDEP arsenic background concentration of 19 mg/kg in soil.

Comment Resolution: Given that Chemours has provided additional information regarding the boundary between the Wanaque River and the onsite soils and that determination of a site-specific background value for arsenic pertains to the Wanaque River Valley, EPA's position is that the on-site soils CMS can proceed to be finalized. The corrective measure(s) for the Wanaque River will be addressed through the original CMS prepared/submitted and once the final Wanaque River CMS is approved by USEPA/NJDEP. Consequently, Section 3.1 can be deleted from the revised Onsite Soils CMS.

12. Page 25, Section 3.1 (Arsenic), paragraphs 2,3,4/top of Page 26: In these paragraphs, Chemours presents the following information:

- the Conceptual Site Model (CSM) for the Western Manufacturing Area (WMA) indicates that the source of the arsenic to the background sampling area in the Wanaque River floodplain was not related to Site operations but originated offsite in upgradient source areas (page 25, paragraph 2);

- there is a lack of documented onsite use, storage, or disposal of arsenic and consistent with that; arsenic concentration gradients in soil that would be indicative of a historical release or discharge were not identified in the WMA as part of the RI (page 25, paragraph 2); and

- potential off-site sources of arsenic were identified upgradient of the background sampling area including a natural gas line easement that is regularly treated with herbicides that may contain arsenic as well as historic farmland that had the potential to use arsenical pesticides (page 25, paragraph 2). Based on this information, Chemours suggests that "arsenic may have migrated from surface soil in off- site upgradient source areas through erosion and transport during high flow events in Wanaque River, resulting in downstream deposition within the Wanaque River floodplain". The aforementioned information was utilized to support Chemours' position that 75 mg/kg is an appropriate value for an arsenic SRS. However, in the revised CMS, Chemours indicates that "….given the uncertainty identified by USEPA regarding the influence of potential outliers on the estimation of a representative background threshold value (BTV), the 95% upper prediction limit (UPL95) arsenic concentration of 57.12 mg/kg calculated by USEPA will be used as the Site-specific background SRS…."

In USEPA's comments (correspondence dated January 2, 2019) on the Chemours RTC for the establishment of a site-specific background value for arsenic in soil, USEPA conveyed that historical information (e.g., aerial photographs, maps, interviews) should be reviewed and documented in the revised CMS that further assesses the prior use of this area of the property and whether it was subject to historically applied pesticides. The 2016 NJDEP guidance should be utilized to assist Chemours in addressing the prospective presence of historically applied pesticides. Although Chemours is now proposing to utilize a value calculated by USEPA (discussed further below), USEPA notes that Chemours did not provide any further historical information supported with documentation in the revised CMS sufficient to establish a site-specific background value for arsenic in soil.

Additionally, USEPA's comments dated January 2, 2019, noted that the revised CMS needed to clearly identify in a figure(s) those on-site areas within the Wanaque River Valley for which Chemours has employed a calculated background level for arsenic in soil versus where NJDEP's established background concentration of 19 mg/kg will be utilized. This information was not provided in the Revised CMS.

Finally, in the revised CMS Chemours indicates that "…given the uncertainty identified by USEPA regarding the influence of potential outliers on the estimation of a representative background threshold value (BTV), the 95% upper prediction limit (UPL95) arsenic concentration of 57.12 mg/kg calculated by USEPA will be used as the Site-specific background SRS…." Refer to #9 and #11 above for the context of the establishment of the 57.12 mg/kg concentration of arsenic. This was not a USEPA recommendation for a site-specific background value for arsenic. Based on the aforementioned comments, USEPA has concluded that Chemours has not addressed the use of a site-specific background value for arsenic in a manner that is satisfactory or sufficiently responsive to the USEPA/NJDEP comments provided in the USEPA correspondence dated January 2, 2019. Chemours must: 1) use of the New Jersey Non-Residential Direct Contact Soil Remediation standard for arsenic of 19 mg/kg required as part of the
evaluation of the extent of soil remediation necessary at the Site per N.J.A.C 7:26D; or 2) provide the information previously requested regarding calculation of a background level of arsenic in the Wanaque River Valley for USEPA/NJDEP review.

Chemours Proposed Response: As stated in the response to Agency Comment #9, Table 3-1 identifies where the arsenic background value of 57.12 would be applied (WMA and NMA) and where the default NRDCSRS of 19 would be applied (EMA – both areas). Based on the clarification in this table and discussion of only the NMA and WMA in Section 3.1, Chemours assumed an additional map showing this information was not required since the NMA, WMA and EMA are shown on the existing Revised CMS figures.

Chemours can include historical aerial maps from 1931, 1940, 1951, and 1954 showing what appears to be farmland north of the NMA along the Wanaque River. Chemours reviewed details regarding the historical site

activities in the area from the Operational History of Pompton Lakes Works (CH2M Hill, 1988), 1995 Former Operating Area Preliminary Assessment (PA) Report (DERS, April 27, 1995), and the Lake Inez Preliminary Assessment Report (DERS, April 29, 1996). As detailed in the site history, in 1926 DuPont ceased all operations and production in the Lake Inez Valley.

This additional information regarding historical documentation and activities in the area will be added to Section 3.1 – Arsenic. Do the Agencies believe that this will be sufficient and Chemours can move forward with an arsenic standard of 57.12 for the NMA and WMA?

USEPA Response: Subsequent to the submittal of Chemours proposed response, above; there were additional technical discussions and email correspondence (the most relevant of which were in May 2021) between Chemours/USEPA as well as a submittal by Chemours in August 2021 in an effort to reconcile this comment. These

Chemours' August 26, 2021 "Pompton Lakes Works Wanaque River Valley Background Soil Assessment" was a technical memorandum intended to document the assessment of background arsenic concentrations in soil within the Wanaque River Valley of the PLW site and respond to the following outstanding items raised by USEPA in its previous comments on the development of a site-specific background value for arsenic in soil:

- documentation as to where and when arsenical pesticides were used in a pipeline right-of-way near the background sampling area

  This item has been satisfactorily addressed in Chemours' August 26, 2021 technical memorandum.

- Chemours outlined a theory that elevated arsenic is associated with contamination of Lake Inez due to the impact of the quarry and pyrite mine that are located upstream of the Wanaque River. All elements of the theory need to be documented and presented in an easily accessible and understandable manner including:

- Details of the mining operations including periods of operation and materials mined.

  This item has been satisfactorily addressed in Chemours' August 26, 2021 technical memorandum.

- History of Lake Inez

  This item has been satisfactorily addressed in Chemours' August 26, 2021 technical memorandum

- History of manufacturing activities within the NMA

  This item has not been satisfactorily addressed in Chemours' August 26, 2021, technical memorandum. While Chemours has provided a chronologic summary in the aforementioned technical memorandum that included additional details about the historical activities in the Lake Inez area; there remains a lack of specification regarding the manufacturing or manufacturing - related activities that took place in the NMA (e.g., the production of blasting caps, wire recycling, burning grounds….). This is particularly true for AOCs 117 (Ballistite Operation) and 119 (North West Lake Inez).

- Justification of the statement that the differentiation between arsenic concentrations in the background samples was due to an energetic mixing environment for sediments in Lake Inez.

This item has not been satisfactorily addressed in Chemours' August 26, 2021, technical memorandum. Chemours should produce spatial plots of arsenic concentrations in the surface and subsurface (posting plot concentration with either concentration contours or colored map produced by spatial kriging) in the footprint of Lake Inez, the WMA and NMA.

- Detailed maps showing arsenic and lead results in the area of Lake Inez and immediately surrounding high ground (above the 220' contour)

  This item has been satisfactorily addressed in Chemours' August 26, 2021, technical memorandum.

- Data analysis report for the intensely sampled area and two sampled transects in the NMA and comparison of arsenic values in these locations to background values.

  This item has been satisfactorily addressed in Chemours' August 26, 2021, technical memorandum.

- Graphics showing the relationship between sample elevation (adjusted for depth below ground surface {BGS} and arsenic concentration using different symbols for surface and subsurface sampling locations in the footprint of and areas immediately surrounding Lake Inez.

  This item has been satisfactorily addressed in Chemours' August 26, 2021, technical memorandum.

- Graphics showing the relationship between sample elevation (adjusted for depth BGS and arsenic/lead ratio using different symbols for the surface and subsurface sampling locations in the footprint of and areas immediately surrounding Lake Inez.

  This item <u>has not</u> been satisfactorily addressed in Chemours' August 26, 2021, technical memorandum. Correlations between As and Pb in soil samples haven't been sufficiently assessed. Chemours concludes in their technical memorandum that " *…typical atmospheric depositional patterns of metals in surficial soils due to atmospheric transport from smelting operations will indicate a clear concentration gradient from the atmospheric source…*" Although this statement is true, there is a difference in the deposition gradient from the source between lead and arsenic. Arsenic has a lower atomic mass than lead and is considered a more volatile metal (Gerstle and Albrick 2012). Its gradient is slower than for lead and noticeable over a larger distance, up to 1.4 km from the source (Laresen, Moseholm and Nielsen 1991). Consequently, the ratio of As/Pb is expected to increase with the distance from the source. Therefore, to exclude the possibility of second source emission, it is critical to investigate the correlation between As and Pb in NMA and WMA. Chemours should produce graphics (scatter plots and spatial plots) showing the relationship between sample elevation (adjusted for depth BGS) and As/Pb ratio (in original and log scale – ln(As)/ln(Pb)) for surface and subsurface sampling locations in the footprint of Lake Inez, the WMA and NMA.

- If data is available, present graphics showing the soil texture, iron, and organic content of soils in the NMA above and below the 220-foot contour.

  USEPA acknowledges Chemours' response in its August 26, 2021, technical memorandum that the requested data is not available for soils in the NMA.

- With regard to lead recycling areas, Chemours should explain why and how the site history report,

prepared by their contractor, is incorrect when it refers to smelting and casting ingots in connection with the lead recycling areas.

USEPA Response: EPA acknowledges Chemours' response in its August 26, 2021, technical memorandum that it believes the reference to "lead tubing from the delay preparation building (Site 48) was smelted into ingots" in the February 1989 Operational History Report should have been "melted into ingots."

- Chemours should present graphics comparing the distribution of arsenic/lead ratios for surface and subsurface samples in the areas near each lead recycling operation with those in the background area and in the footprint of Lake Inez.

  This item has not been satisfactorily addressed in Chemours' August 26, 2021, technical memorandum. Correlations between As and Pb in soil samples haven't been sufficiently assessed. Chemours concludes in their technical memorandum that " *… typical atmospheric depositional patterns of metals in surficial soils due to atmospheric transport from smelting operations will indicate a clear concentration gradient from the atmospheric source…*" Although this statement is true, there is a difference in the deposition gradient from the source between lead and arsenic. Arsenic has a lower atomic mass than lead and is considered a more volatile metal (Gerstle and Albrick 2012). Its gradient is slower than for lead and noticeable over a larger distance, up to 1.4 km from the source (Laresen, Moseholm and Nielsen 1991). Consequently, the ratio of As/Pb is expected to increase with the distance from the source. Therefore, to exclude the possibility of second source emission, it is critical to investigate the correlation between As and Pb in NMA and WMA. Chemours should produce spatial graphics (scatter plots and spatial plots) showing the relationship between sample elevation (adjusted for depth BGS) and As/Pb ratio (in original and log scale as ln(As/Pb)) for surface and subsurface sampling locations in the footprint of Lake Inez, the WMA and NMA.

Note that USEPA's position is that Chemours has not satisfactorily demonstrated that there is a sufficient

basis for a site-specific background value for arsenic in soil greater than the 19 mg/kg value utilized by NJDEP. Chemours can choose to address the outstanding technical comments and provide additional data/information to USEPA/NJDEP for consideration. In addition, USEPA acknowledges receipt of Chemours' August 31 2022 correspondence wherein Chemours conveyed that it has undertaken additional assessment activities based on email receipt of an excerpt of USEPA comments regarding this comment.

Comment Resolution: Given that Chemours has provided additional information regarding the boundary between the Wanaque River and the onsite soils and that determination of a site-specific background value for arsenic pertains to the Wanaque River Valley, EPA's position is that the onsite soils CMS can proceed to be finalized. The corrective measure(s) for the Wanaque River will be addressed through the original Wanaque River CMS submitted by Chemours on April 30, 2019, once it is finalized and approved by USEPA/NJDEP. Consequently, Section 3.1 can be deleted from the revised Onsite Soils CMS.

13. Page 26, Section 3.2 (Human Health Soil Remediation Standards), paragraph 1: USEPA agrees with Chemours' proposal to utilize New Jersey's Residential Direct Contact Soil Remediation Standards for human health in the Northern Manufacturing Area (NMA) based on the representation that this parcel is considered a "State of New Jersey Land Transfer."

    Chemours Proposed Response: Chemours acknowledges the comment and notes that no additional revisions are required.

USEPA Response: While the EPA/NJDEP comment letter of March 2, 2020, noted the aforementioned comment #13; it should be clarified that it is USEPA's position that the site-specific background value for arsenic in soil is neither the 57.12 mg/kg proposed in Table 3-1 nor the original value proposed by Chemours of 75 mg/kg (see USEPA/NJDEP comments 9, 11 and 12). The State of New Jersey's human health residential soil remediation standards for the ingestion-dermal exposure pathway and inhalation pathway as amended May 17, 2021, are those in effect.

Comment Resolution: Chemours should confirm that the most recent NJ NRDCSRS are noted in the revised Onsite Soils CMS, including for arsenic.

14. Page 26, Section 3.2 (Human Health Soil Remediation Standards), paragraph 1: USEPA agrees with Chemours that the applicable remediation standards for the EMA (Redevelopment Area) are the NRDCSRS.

    Chemours Proposed Response: Chemours acknowledges the comment and notes that no additional revisions are required.

    USEPA Response: While the EPA/NJDEP comment letter of March 2, 2020, noted the aforementioned comment #14, it should be clarified that it is the USEPA/NJDEP position that the State of New Jersey's human health non-residential soil remediation standards for the ingestion-dermal exposure pathway and inhalation pathway as amended May 17, 2021, should be utilized for the Eastern Manufacturing Area (EMA) (Redevelopment Area), including arsenic per USEPA/NJDEP comments 9, 11 and 12.

    Comment Resolution: Chemours should confirm that the most recent NJ NRDCSRS are noted in the revised Onsite Soils CMS, including for arsenic.

15. Page 26, Section 3.2 (Human Health Soil Remediation Standards), paragraph 2: Chemours has proposed the use of ARS in the WMA and EMA (outside the proposed Redevelopment Area) consistent with Section 7 and Appendix 4 of the N.J.A.C 7:26D. USEPA has determined that the most appropriate standards to use in the WMA and EMA (outside the proposed Redevelopment Area) are the NJ NRDCSRS.

    In making this determination, USEPA considered the following:

    - Application of the New Jersey Non-Residential Direct Contact Soil Remediation Standards is consistent with RCRA Corrective Action guidance, which calls for the evaluation of applicable or relevant and appropriate requirements in selecting corrective measures for a site. Promulgated standards (in this case the NJ NRDCSRS are used for site contaminants of concern where such standards have been established.

    - USEPA has the discretion to approve/reject the use of ARS proposed to NJDEP pursuant to N.J.A.C 7.26D-7 for purposes of selection of a corrective measure at a RCRA Corrective Action site.

    - N.J.A.C. 7-26D-7.3(b) indicates that one of the bases for the request for an alternative remediation standard may include the following: alternative land use planned for the site. For the purpose of developing a Site-specific ARS for human health, passive recreational land use (such as walking or hiking) was considered for both the WMA and EMA (outside Redevelopment Area). However, the zoning designations in both Wanaque and Pompton Lakes indicate that allowable land use is almost exclusively commercial/industrial. Although passive recreation is listed as a permitted use in the HID for that portion of the site in Pompton Lakes, the predominant permitted land uses in the HID is, by definition, commercial/industrial.

Chemours Proposed Response: As outlined extensively in Section 1.1 of the CMS as well as previous response to comments correspondence, the concept of deriving alternative remediation standards at the onset of the CMS process was deemed acceptable by the Agencies. This information (Appendix A of the CMS) was reviewed by the Agencies' technical team and based on that review, additional revisions were made and found acceptable by the team. That same team also stated that they were satisfied with the ARS calculations and the protectiveness those standards would provide as part of the remediation of onsite soils. In fact, out of the 19 COCs where the ARS is proposed, 10 of the COCs have either the same or lower ARS values than the current NJ NRDCSRS. The ARS are clearly protective of human health, so it is still concerning to Chemours that the Agencies feel otherwise.

Need agreement on CAOs and remediation goals – e.g., use of NJDEP's soil remediation standards versus NJDEP's developed alternative remediation standards process, and NJDEP's recently issued announcement of proposed changes to the soil remediation standards.

Chemours proposes the use of the proposed NRDC SRS in place of the ARS SRS for areas outside of the redevelopment area located in the EMA and WMA, except for arsenic in the WMA and as stated in the comment letter the impact to groundwater standards approved by the agencies will be carried forward in execution of the corrective action process for the site.

USEPA Response: It is the USEPA/NJDEP position that the State of New Jersey's human health non- residential soil remediation standards for the ingestion-dermal exposure pathway and inhalation pathway as amended May 17, 2021, should be utilized for the EMA (areas outside the redevelopment area) and the WMA (including arsenic per USEPA/NJDEP comments 9, 11 and 12).

Comment Resolution: Chemours should confirm that the most recent NJ NRDCSRS are noted in the revised Onsite Soils CMS, including for arsenic.

16. Page 26, Section 3.2 (Human Health Soil Remediation Standards), paragraph 3: USEPA is requiring the use of the 800 ppm value for lead in soil premised on: a) current and anticipated future land use in Wanaque and Pompton Lakes is commercial/industrial, b) 800 ppm is the promulgated value as NJ NRDCSRS and c) 800 ppm would be consistent with remedial actions for lead in soils at Region 2 CERCLA and RCRA Corrective Action sites.

Chemours Proposed Response: As outlined extensively in Section 1.1 of the CMS as well as previous response to comments correspondence, the concept of deriving alternative remediation standards at the onset of the CMS process was deemed acceptable by the Agencies. This information (Appendix A of the CMS) was reviewed by the Agencies' technical team and based on that review additional revisions were made and found acceptable by the team. That same team also stated that they were satisfied with the ARS calculations and the protectiveness those standards would provide as part of the remediation of onsite soils. In fact, out of the 19 COCs where the ARS is proposed, 10 of the COCs have either the same or lower ARS values than the current NJ NRDCSRS. The ARS are clearly protective of human health, so it is still concerning to Chemours that the Agencies feel otherwise.

Need agreement on CAOs and remediation goals – e.g., use of NJDEP's soil remediation standards versus NJDEP's developed alternative remediation standards process, and NJDEP's recently issued announcement of proposed changes to the soil remediation standards.

Chemours proposes the use of the proposed NRDC SRS in place of the ARS SRS for areas outside of the

redevelopment area located in the EMA and WMA, except for Arsenic in the WMA and as stated in the comment letter the impact to groundwater standards approved by the agencies will be carried forward in execution of the corrective action process for the site.

USEPA Response: It is the USEPA/NJDEP position that the State of New Jersey's human health non-residential soil remediation standard for lead for the ingestion-dermal exposure pathway and inhalation pathway as amended May 17, 2021, should be utilized for the EMA (areas outside the redevelopment area) and the WMA.

Comment Resolution: Chemours should confirm that the most recent NJ NRDCSRS are noted in the revised Onsite Soils CMS, including for arsenic, in the EMA outside of the redevelopment area and the WMA.

17. Page 27, Section 3.2 (Human Health Soil Remediation Standards), Table 3-1: The table needs to be revised in accordance with the comments in this correspondence and entitled: "Proposed Human Health Remediation Standards".

    Chemours Proposed Response: The word "proposed" will be added to the tile of Table 3-1.

    USEPA Response: Chemours proposed response is acceptable. Note that the USEPA/NJDEP comment to add "proposed" is based on the CMS document being considered a draft until it is approved by USEPA/NJDEP.

    Comment Resolution: In the revised Onsite Soils CMS, Table 3-1 will be entitled "Proposed Human Health Remediation Standards."

18. Page 27, Table 3-1: For the EMA (Redevelopment Area), arsenic, cadmium, and carbon tetrachloride are listed on Table 2-2 but are not listed here as COCs. For the EMA (Outside the Redevelopment Area), chloroform is present on Table 2-2 with zero detections; this should indicate that it is not a COC. If there is another reason to include this chemical as a COC, please include this information in the report. Check that the information in Tables 2-2, 3-1, and the table on page 3 of 14 of Appendix A agree with each other.

    Chemours Proposed Response: The previously submitted and approved RIRs established COCs for each of the manufacturing areas (NMA, WMA and EMA). For the purpose of the CMS, the EMA was redefined into two areas based on the proposed future land use (i.e., Redevelopment Area and Outside Redevelopment Area). During the process of redefining the EMA, some COCs became not applicable for a given area. However, the COCs identified in the RIRs for the EMA (as a whole) were carried through for both areas and shown on the tables. In the revised document, the COCs will be updated for Tables 2-2 and 3-1 to only show the applicable COCs for each area of the EMA.

    USEPA Response: Chemours proposed response is acceptable.

    Comment Resolution: Table 2-2 and 3-1 of the revised Onsite Soils CMS will be revised to include only the applicable COCs for each portion of the EMA (Outside Redevelopment Area and Redevelopment Area).

19. Page 27, Section 3.3 (Ecological Soil Remediation Standards), Table 3-2: The title of the table needs to be revised to "Proposed Ecological Soil Remediation Standards".

    Chemours Proposed Response: The word "proposed" will be added to the tile of Table 3-2.

USEPA Response: Chemours proposed response is acceptable. Note that the USEPA/NJDEP comment to add "proposed" is based on the CMS document being considered a draft until it is approved by EPA/NJDEP.

Comment Resolution: In the revised Onsite Soils CMS, Table 3-2 will be entitled "Proposed Ecological Soil Remediation Standards."

20. Page 27 – 29, Section 3.3 (Ecological Soil Remediation Standards) and Appendix A: Pertinent information presented in Tables C-1 through C-5 of Appendix A are unchanged from the June 28, 2013, CMS submittal. The Food Ingestion Rates (FIR) in Table C-2 appear low, potentially biasing EDDs low, and ultimately, resulting in ERGs higher than they should be. Specifically, FIRs provided in EPA's Wildlife Exposure Factors (WEF) Handbook for the meadow vole (0.30 – 0.35), red fox (0.069), American robin (0.89), and red-tailed hawk (approximately 0.1) are significantly higher. The justification for using lower than recommended FIRs in calculating ERGs was not provided as requested in the original NJDEP/USEPA comment letter. The FIRs in the CMS should be adjusted to reflect FIRs in EPA's WEF Handbook. Adjusting the FIRs may ultimately affect the extent of soil excavation required to achieve the desired remedial outcome.

    Discussions regarding specific limitations associated with compliance averaging in ecological settings and the applicability of compliance averaging methods to ecological remedial actions are ongoing between USEPA and NJDEP. Therefore, approval of using the UCL_{95} evaluation of soil contaminant concentrations and the proposed iterative truncation method cannot be granted until the Agencies reach a technical consensus on the application of compliance averaging to ecological remedial actions. Depending on the outcome of USEPA/NJDEP discussions about the application of compliance averaging to ecological remedial actions, Chemours can provide their detailed proposal for the use of compliance averaging in the Corrective Measures Implementation Work Plan.

    Chemours Proposed Response: The wildlife food ingestion rates (FIR) listed in NJDEP/USEPA Comment #20 that are cited from the USEPA Wildlife Exposure Factors Handbook (WEHF) are based on grams (g) *wet weight (ww)*/g body weight (bw)-day (refer to page 1-22 of the WEHF for the basis of the FIR). The FIRs and associated dietary exposure models presented in the Alternative Soil Remediation Standard –

    DuPont Pompton Lakes Works technical memorandum [Appendix A of the June 28, 2013, Onsite Soils Corrective Measures Study (CMS)] are based on kg *dry weight* (d**w)**/kg bw-day (equivalent to g dw/g bw-day).

    Table 1 compares FIR values used in Appendix A of the CMS to FIR values presented in USEPA guidance documents including the WEHF and Guidance for Developing Ecological Soil Screening Levels (Eco-SSLs; USEPA, 2007) on a consistent kg dw/kg bw-day basis. To enable an equitable comparison to dry weight FIR values, wet weight FIR values cited from the WEHF in NJDEP/USEPA Comment #20 were expressed on a dry weight basis, based on the general assumption of 80 percent moisture content of dietary items.

Table 1. Comparison of Dry Weight Food Ingestion Rates (FIRs)

Pompton Lakes Works Draft On-Site Soils CMS Appendix A			USEPA Guidance Values	USEPA Guidance Document
Group	**Body Weight**	**Food Ingestion Rate (FIR)**	**Food Ingestion Rate (FIR)**	
(Surrogate Species)	**(kg)**	**(kg dw/kg bw- day)**	**(kg dw/kg bw-day)**	
Mammalian Herbivore (Meadow vole)	0.039	**0.0875**	0.0875	Guidance for Developing Eco-SSLs; Attachment 4-1
Mammalian Ground Invertivore	0.018	**0.209**	0.209	Guidance for Developing Eco-SSLs; Attachment 4-1
Mammalian Carnivore (Red Fox)	4.5	**0.032**[a]	0.0138	Wildlife Exposure Factors Handbook; page 2-224[b]
Avian Granivore (Mourning dove)	0.115	**0.19**	0.19	Guidance for Developing Eco-SSLs; Attachment 4-1
Avian Ground Invertivore (American robin)	0.077	0.156[c]	**0.178**	Wildlife Exposure Factors Handbook; page 2-197[d]
Avian Carnivore (Red-tailed hawk)	1.076	**0.0353**	0.0353	Guidance for Developing Eco-SSLs; Attachment 4-1

Notes:

FIR, Food ingestion rate [kg dry weight (dw)/kg body weight (bw)-day]

Bold values indicate an FIR value equal to or more conservative than USEPA guidance values.

a. Estimated FIR (kg/day dw) for carnivorous mammals = (0.153[Body Weight in kg] $^{0.834}$) (Nagy 2001), divided by body weight

b. 0.069 g wet weight (ww)/g bw-day expressed in dry weight assuming 80 percent moisture content.

c. Estimated FIR (kg/day dw) for insectivorous birds = (0.540[Body Weight in kg] $^{0.705}$) (Nagy 2001), divided by body weight

d. 0.89 g wet weight (ww)/g bw-day expressed in dry weight assuming 80 percent moisture content.

As presented in Table 1 (bold values), FIRs used in Appendix A of the CMS were comparable to or more conservative (greater) than values used in USEPA guidance when expressed on a consistent dry weight basis. Dry weight FIRs (and other exposure parameters) for meadow vole, short-tailed shrew, mourning dove, and red-tailed hawk were identical to the high-end FIR estimates calculated by USEPA for the derivation of Eco-SSLs (USEPA, 2007). FIRs for the red fox and American robin, which were not included as wildlife receptors in Eco-SSL guidance, were derived in Appendix A of CMS as a function of body weight, as cited in Sample (1994), using allometric relationships developed by Nagy (2001) for various trophic groups of free-living mammals and birds. This allometric approach is based on physiological relationships between the size of the receptor and the daily food requirements to needed to maintain energy balance. The allometric approach to estimating FIRs is commonly cited and applied in ecological risk assessment guidance, including the USEPA WEHF and other guidance documents (e.g., USCHPPM, 2004; Sample et al., 1996; Sample, 1994; LANL, 2017). The dry weight FIR for red fox used in Appendix A of the CMS was greater, and thus, more conservative than the WEFH FIR expressed on a dry weight basis. The dry weight FIR for American robin used in Appendix A was slightly lower than the WEFH FIR expressed on a dry weight basis; however, the American robin FIR was based on a commonly applied allometric approach and was comparable to the range of estimates cited from the WEFH.

Given that the dry weight FIR values presented in Appendix A of the CMS were comparable to or more conservative (greater) than dry weight FIR values used in USEPA guidance, the FIRs do not materially bias the estimated daily doses (EDDs) low. Therefore, revisions or adjustments of the dry weight FIRs used to calculate EDDs and select ecological risk-based remediation goals (ERGs) are not warranted.

References:

Los Alamos National Laboratory (LANL). (2017). Development of Ecological Preliminary Remediation Goals for Los Alamos National Laboratory, Revision 1. Los Alamos National Laboratories. September 2017.

Nagy K.A. (2001). Food requirements of wild animals: predictive equations for free-living mammals, reptiles, and birds. Nutrition Abstracts and Reviews Series B: Livestock Feeds and Feeding 71(10):21R-31R.

Sample, B.E., D.M. Opresko, and G.W. Suter II. (1996). Toxicological Benchmarks for Wildlife: 1996 Revision. ES/ER/TM-86/R3. Oak Ridge National Laboratory, Oak Ridge, TN.

Sample, B. E. and G. W. Suter, II. (1994). Estimating Exposure of Terrestrial Wildlife to Contaminants, Oak Ridge National Laboratory, Oak Ridge, Tennessee, ES/ER/TM-125.

USACHPPM. (2004). Development of Terrestrial Exposure and Bioaccumulation Information for the Army Risk Assessment Modeling System (ARAMS). U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) Contract Number DAAD050-00-P-8365, Aberdeen Proving Ground, Maryland. April 2004.

USEPA. (2007). Guidance for Developing Ecological Soil Screening Levels, Attachment 4-1, Exposure Factors and Bioaccumulation Models for Derivation of Wildlife Eco-SSLs, Office of Solid Waste and Emergency Response, Directive 92857.7-55, Washington, D.C., Revised April 20

USEPA Response: As discussed, the units are not consistent across the board for Table 1 of the CMS response. Table 1 below demonstrates FIR in kg dw/kg bw – day. However, Eco-SSLs Attachment 4-1 displays in g dw/g bw-day (screen shots from each below). The Nagy 2001 reference was also presented in grams.

Table 1. Comparison of Dry Weight Food Ingestion Rates (FIRs).

Receptor Group	Pompton Lakes Works Draft On-Site Soils CMS Appendix A		USEPA Guidance Values	USEPA Guidance Document
	Body Weight	Food Ingestion Rate (FIR)	Food Ingestion Rate (FIR)	
(Surrogate Species)	(kg)	(kg dw/kg bw-day)	(kg dw/kg bw-day)	
Mammalian Herbivore (Meadow vole)	0.039	0.0875	0.0875	Guidance for Developing Eco-SSLs: Attachment 4-1

Table 1. Food Intake Data for Surrogate Species

Surrogate Species	Source	Raw Data Food Ingestion Rate (FIR) (g/g bw/day)						% Moisture		Food Intake Rate (g dw/g bw/d)		Comments	High End Point Est (c)
		Typical	N	SEM	Stdev	High end	Weight Basis	Value	Source	Mean	High end		(g dw/g bw/d)
Meadow Vole	Ognev (1950)	0.30 - 0.35	--	--	--	0.35	wet wt	85	reported in study	0.049	0.053 b	low and high ends of a range (cited in Johnson & Johnson 1982)	0.0875
	Dark et al. (1983)	0.095	9	0.002	0.006 a	--	dry wt	--		0.095	0.103 c	14 hr/day	
	Dark et al. (1983)	0.085	12	0.005	0.017 a	--	dry wt	--		0.085	0.107 c	10 hr/day	

As the Eco-SSLs guidance and WEFH display their units in grams across the board, it is recommended that Chemours proposes the same. This will alleviate the potential for rounding errors later when the dose calculations are presented. Chemours should update Table 1 to reflect grams as the unit, as well as provide an additional table with the conversion to kilograms.

The body weights for the red fox (4.5 kg) and American robin (.077 kg) are the lower end of the ranges from all of the literature cited. It is recommended that the average/ mean/ 95% UCL of body weights be presented in this risk assessment to better inform decision making.

As with the body weight, the selection of the lower FIRs presented in the literature were used for the red fox and American robin. As the FIRs from the WEFH and Eco SSLs guidance consider a range of weights to calculate FIRs, Chemours should take the same approach. If the assumed body weights are those used from the Sample et al, 1994 literature as the defaults to derive the new FIRs, the food consumption rates recommended by the same literature be used to calculate the FIRs. If there are differences in the recommended values, the agency-recommended values need to be used in the main body of the risk assessment report to calculate the HQs, and the Chemours values and HQs should be presented in the Uncertainty Section of the report. It is recommended that the average/ mean/ 95% UCL of all exposure factors and resulting HQs be presented in this risk assessment.

Chemours Proposed Response (regarding use of compliance averaging in ecological settings): Potential regulatory differences between USEPA and NJDEP programs/procedures – e.g., difference in opinion between Agencies concerning compliance averaging in ecological settings needs to be resolved between the Agencies prior to revising the CMS. Open-ended decisions limits Chemours' ability to develop a document that can be approved by the Agencies.

USEPA Response (regarding use of compliance averaging in ecological settings):
The use of compliance averaging does not have to be resolved in the CMS as it is a tool to determine whether compliance with the targeted clean-up value can be met. Therefore, the use of compliance averaging and the specific methodology to be employed if compliance averaging is accepted for use, can be proposed/established in the CMI WP.

Comment Resolution: The Onsite Soils CMS will be revised to make the units consistent; issues concerning compliance averaging can be addressed in the CMI WP.

21. Page 29, Table 3-3: Text should be added to state why lead, mercury, and PCBs are the only COCs with Impact to Groundwater Soil Remediation Standards.

Chemours Proposed Response: Lead, mercury, and PCBs were the focus of the IGW evaluation as these are the primary constituents of concern based on soil concentration ranges, frequency of occurrence, and concentration/frequency of detection in groundwater.

USEPA Response: Chemours proposed response is acceptable. This response should be added to the text in Section 3.4 or as an additional footnote to Table 3-3.

Comment Resolution: Chemours will add language either as a footnote to Table 3-3 or elsewhere in Section 3.4 noting that lead, mercury, and PCBs were the focus of the IGW evaluation as these are the primary constituents of concern based on soil concentration ranges, frequency of occurrence, and concentration/frequency of detection in groundwater in the revised Onsite Soils CMS.

22. Page 29, Section 3.4 (Impact to Groundwater Soil Remediation Standards), Table 3-3: The title of the table needs to be changed to "Proposed Impact to Groundwater Soil Remediation Standards."

    Chemours Proposed Response: The word "proposed" will be added to the tile of Table 3-3.

    USEPA Response: Chemours proposed response acceptable. Note that the USEPA/NJDEP comment to add "proposed" is based on the CMS document being considered a draft until it is approved by USEPA/NJDEP.

    Comment Resolution: In the revised Onsite Soils CMS, Table 3-3 will be entitled "Proposed Impact to Groundwater Soil Remediation Standards."

23. Page 29, Section 3.4 (Impact to Groundwater Soil Remediation Standards): Synthetic Precipitation Leaching Procedure (SPLP) testing was previously used to determine area-specific alternative impact to ground water and soil remediation standards for mercury, lead, and PCBs. The site was broken up into 18 areas for this purpose, and the designation of these areas was previously approved. The SPLP alternative impact to ground water standards were presented in a March 22, 2018, report, "Draft Impact to Ground Water Standards Technical Report." These standards have been previously reviewed and approved and are presented in the Revised CMS. For areas in which there are no exceedances of the area-specific impact to ground water standards for mercury, lead and PCBs, no further action is required for the impact to ground water pathway for these contaminants. Revise Section 3.4 to reflect this information.

    Chemours Proposed Response: The following text will be added as the first paragraph to Section 3.4 (Impact to Groundwater Soil Remediation Standards):

    Impact to Groundwater Soil Remediation Standards were previously developed based on Synthetic Precipitation Leaching Procedure (SPLP) testing and NJDEP's SPLP Spreadsheet, V3.1, November 2012. Reports previously submitted for the IGW pathway are outlined in Section 1.1 (Appendix B Timeline). The SPLP alternative impact to groundwater standards were presented in a March 22, 2018, report entitled Draft Impact to Ground Water Standards Technical Report. Lead, mercury, and PCBs were the focus of the IGW evaluation as these are the primary COCs based on soil concentration ranges, frequency of occurrence, and concentration/frequency of detection in groundwater. As part of the IGW evaluation, the Site was broken up into 15 geographic regions. The investigation collected a sufficient volume of data to calculate Site-specific IGWSRS for each geographic region as depicted on Figure 7. The Agencies' January 2, 2019, correspondence stated that the SPLP investigation had been correctly executed and NJDEP's SPLP spreadsheets properly used to determine Site-specific IGWSRS which can be utilized as part of the Revised CMS. Table 3-3 shows the previously approved geographic region-specific IGWSRS.

    The following sentence will be added to the final paragraph of Section 3.4:

    For areas where there are no exceedances of the area specific IGWSRS for mercury, lead and PCBs, no

further action is required for the IGW pathway for these constituents.

USEPA Response: Chemours proposed response is acceptable.

Comment Resolution: Chemours will revise the Section 3.4 of the Onsite Soils CMS to add text as outlined in EPA's comments, including the following sentence: *"For areas where there are no exceedances of the area specific IGWSRS for mercury, lead and PCBs, no further action is required for the IGW pathway for these constituents."*

24. Page 30, Section 3.4.1 (Immobile Constituents): It is proposed to use the NJDEP impact to ground water immobile chemical option, when applicable, for areas in which contamination of lead and PCBs exceeds the area-specific impact to ground water standard. This option requires a clean zone of at least 2 feet between impacted soil and ground water. This proposal is acceptable. There would be no further action required regarding the impact to ground water pathway for lead and PCBs in areas that meet the requirements of the immobile chemical option.

    After reviewing the SPLP results for mercury, it has been determined that all mercury SPLP results yield soil adsorption coefficients (Kd values) of greater than 100 L/kg, which qualifies mercury to also be considered as an immobile chemical for this site. Therefore, for areas in which at least two feet of uncontaminated soil exist between impacted soil (as defined by the area-specific standard) and ground water, no further action would be required for mercury for the impact to ground water pathway.

    Chemours Proposed Response: Chemours will revise Section 3.4.1 to include mercury as an immobile constituent.

    USEPA Response: Chemours proposed response is acceptable.

    Comment Resolution: Section 3.4.1 of the Onsite Soils CMS will be revised to include mercury as an immobile constituent.

25. Page 30, Section 3.4.1 (Immobile Constituents): Area-specific exceedances of lead, PCBs and mercury that exist within two feet of water table will require further evaluation. Since lead, PCBs and mercury have been determined to be immobile chemicals at this site, contamination greater than two feet above the water table will not be of concern with respect to the impact to groundwater pathway. For mercury, lead, and PCB contamination within two feet of the water table, ground water monitoring may be used and should be proposed to evaluate any impacts of these contaminants to ground water. If ground water is shown to not be impacted, no further action would be required for these contaminants for the impact to ground water pathway. For further information on this option consult the "Site Soil and Ground Water Analytical Data Evaluation – Metals & Semi-Volatile Organic Compounds Contamination" option in the Impact to Ground Water section of the Remediation Standards webpage: https://www.nj.gov/dep/srp/guidance/rs/. If ground water is impacted, and the area has or will have a low permeability cap in place above the contamination, a ground water Classification Exception Area has been approved, and a Remedial Action Permit for soil and ground water is granted, ground water monitoring may be used to demonstrate that additional ground water contamination does not occur.

    For further information on this option consult the "Capping of Inorganic and Semi-volatile Contaminants for the Impact to Ground Water Pathway" in the Impact to Ground Water Section of the Remediations Standards webpage. If ground water is impacted and the capping option is not to be used, the path forward will need to be further evaluated/discussed.

Chemours Proposed Response: The following additional text will be added to Section 3.4 that identifies the process for evaluation of contamination within two feet of the water table (and consistent with the content of the comment above):

"Further evaluation will be conducted in areas where impacted soils (above the IGWSRS) for lead, PCBs, and mercury are within two feet of the groundwater table. Historical groundwater data will be evaluated in these impacted areas to identify if groundwater may be impacted. If groundwater is shown not to be impacted, no further action would be required. For areas where groundwater may be impacted and soils may remain in-place, a low permeability cap may be installed to eliminate infiltration and potential migration of contaminants. Institutional controls would also be required as part of the corrective action."

USEPA Response: Chemours proposed response is acceptable with the caveat that the determination about whether no further action would be required will be based on USEPA/NJDEP review of Chemours' recommendation for no further action based on the historical data. This caveat should be incorporated in the text of Chemours' revision to the CMS.

Comment Resolution: Section 3.4 of Onsite Soils CMS will be revised to incorporate the following text: "*Further evaluation will be conducted in areas where impacted soils (above the IGWSRS) for lead, PCBs, and mercury are within two feet of the groundwater table. Historical groundwater data will be evaluated in these impacted areas to identify if groundwater may be impacted. If groundwater is shown not to be impacted, no further action would be required. For areas where groundwater may be impacted and soils may remain in-place, a low permeability cap may be installed to eliminate infiltration and potential migration of contaminants. Institutional controls would also be required as part of the corrective action."*

In addition, Section 3.4 will be further revised to note that the determination about whether no further action would be required will be based on USEPA/NJDEP review of Chemours' recommendation for no further action based on the historical data.

26. Page 34, Section 3.5.1 (Functional Areas): It is stated in the Revised CMS that compliance averaging will be used as allowed to compare against the default or area-specific standards for the various exposure pathways. This may be acceptable for the impact to ground water pathway as long as NJDEP's compliance averaging guidance is properly followed. The proposal to utilize compliance averaging to evaluate if cleanup standards are met should be detailed in the Corrective Measures Implementation Work Plan and its use will be subject to review and approval by USEPA/NJDEP.

    Chemours Proposed Response: Chemours concurs that details regarding implementation of compliance averaging will be included in the CMIWP.

    USEPA Response: Chemours proposed response is acceptable and the text of the USEPA/NJDEP comment should be incorporated into the text of Section 3.5.1.

    Comment Resolution: Section 3.5.1 of the Onsite Soils CMS will be revised to incorporate the above EPA comment.

27. Page 37, Section 4 (Remedial Action Objectives): Table 4-1 remedial action objectives for human health and ecological receptors should be revised to reflect the comments in this correspondence regarding each of the established land use areas. In conjunction with this, Chemours must address Comment 1 of this letter so that USEPA/NJDEP can adequately assess if the contaminants listed for each of the areas in Table 4-1 are correct and complete. The following revisions should be made to Table 4-1:

- NMA:

  Human Health RAO - use of New Jersey Residential Direct Contact Soil Remediation Standards for lead, benzo(a)pyrene in soils as well as for arsenic (absent providing further historical information on background levels of arsenic and/or supplementing the previous sampling program to determine an appropriate arsenic in soil background concentration in this area of the site).

  Ecological Receptor RAO – Unchanged other than to reconcile use of compliance averaging to determine attainment of the clean-up value(s).

- WMA:

  Human Health RAO – use of New Jersey Non-Residential Direct Contact Soil Remediation Standards for COCs in soils including arsenic (unless Chemours provides additional information as noted for the NMA to establish a site-specific background for arsenic that would represent an ARS if appropriate in the WMA).

  Ecological Receptor RAO – Unchanged other than to reconcile use of compliance averaging to determine attainment of the clean-up standard.

- EMA (Redevelopment Area):

  Human Health and Ecological RAOs – Unchanged- Non-Residential Direct Contact Soil Remediation Standards

- EMA (outside Redevelopment Area):

  Human Health RAO – use of the New Jersey Non-Residential Direct Contact Soil Remediation Standards including arsenic.

  Ecological RAOs – Unchanged.

Chemours Proposed Response: As outlined extensively in Section 1.1 of the CMS as well as previous response to comments correspondence, the concept of deriving alternative remediation standards at the onset of the CMS process was deemed acceptable by the Agencies. This information (Appendix A of the CMS) was reviewed by the Agencies' technical team and based on that review, additional revisions were made and found acceptable by the team. That same team also stated that they were satisfied with the ARS calculations and the protectiveness those standards would provide as part of the remediation of onsite soils. In fact, out of the 19 COCs where the ARS is proposed, 10 of the COCs have either the same or lower ARS values than the current NRDCSRS. The ARS are clearly protective of human health, so it is still concerning to Chemours that the Agencies feel otherwise.

Need agreement on CAOs and remediation goals – e.g., use of NJDEP's soil remediation standards versus NJDEP's developed alternative remediation standards process, and NJDEP's recently issued announcement of proposed changes to the soil remediation standards.

Chemours proposes use of the proposed NRDC SRS in place of the ARS SRS for areas outside of the redevelopment area located in the EMA and WMA, except for Arsenic in the WMA and as stated in the

comment letter the impact to groundwater standards approved by the agencies will be carried forward in execution of the corrective action process for the site.

Also need agreement on extent of RFI information that needs to be included in document.

USEPA Response: See previous responses (Comments #15/#16) regarding use of New Jersey's SRS as amended May 17, 2021, including arsenic per USEPA/NJDEP comments 9, 11 and 12. Regarding the extent of RFI information requiring inclusion in the CMS, see previous response (Comment #1)

Comment Resolution: Table 4-1 of the Onsite Soils CMS will be revised in accordance with USEPA's comments above and comments 1, 9, 11, 12, 15 & 16.

28. Page 39, Section 5 (Identification and Screening of Technologies): Table 5-1 should evaluate the effectiveness and implementability of ex-situ stabilization as part of its assessment of immobilization technologies.

Chemours Proposed Response: The following bullets regarding the effectiveness and implementability of ex-situ stabilization will be added to the discussion of immobilization technologies on Table 5-1:

a. Ex-situ mixing has demonstrated effectiveness for inorganics.
b. Ex-situ mixing typically requires disposal of the resultant materials.
c. Ex-situ mixing may be used in conjunction with removal for purposes of offsite disposal but not as an independent treatment technology.

USEPA Response: Chemours proposed response is acceptable.

Comment Resolution: Table 5.1 of the Onsite Soils CMS will be revised so that the following comments will be added to the effectiveness and implementability discussion of ex-situ stabilization: it has demonstrated effectiveness for inorganics, it typically requires disposal of the resultant materials, and it may be used in conjunction with removal for purposes of offsite disposal but not as an independent treatment technology.

29. Page 40, Section 6.0 (Identification of Corrective Measure Alternatives): Although Chemours addressed previous USEPA comments about providing a layout of what areas are subject to excavation and off-site disposal and excavation and consolidation for each relevant alternative as well as an estimated volume of waste material; the bases for the calculations of the approximated volumes of waste material subject to excavation and consolidation and excavation and off-site disposal are not provided. Chemours should provide an appendix that shows the calculations for the approximated volumes of excavated and other waste materials for each area, as well as the total estimated volume for this and the other alternatives.

Chemours Proposed Response: A summary table will be provided for each alternative showing the estimated excavation/consolidation or estimated excavation/offsite disposal volume for each area (i.e., volume for WMA, NMA, EMA [outside Redevelopment Area] and EMA [Redevelopment Area]

USEPA Response: Chemours proposed response is acceptable.

Comment Resolution: The revised Onsite Soils CMS will be revised to include a summary table for each alternative showing estimated excavation and consolidation or excavation and offsite disposal volumes

for each area.

30. Page 40, Section 6.2 (Limited Action): The description of this alternative should include the use of signage to inform the public that access to the site is prohibited. Although the alternative as the sole corrective measure would not meet the RAOs established for the Site, it should be noted in the description that this alternative could be a component of other alternatives presented/evaluated.

    Chemours Proposed Response: It should be noted that signage is already in place along the boundary of the Site. The following text will be incorporated into the third paragraph of Section 6.2:

    "Existing signage will be maintained to provide notice that the Site is private property and trespassing is prohibited. Institutional controls may be used in conjunction with other corrective action options and may be included as part of other alternatives."

    USEPA Response: Chemours proposed response is acceptable.

    Comment Resolution: The Onsite Soils CMS will be revised to add an additional paragraph to Section 6.2 as follows: *"Existing signage will be maintained to provide notice that the Site is private property and trespassing is prohibited. Institutional controls may be used in conjunction with other corrective action options and may be included as part of other alternatives."*

31. Page 41/42, Section 6.3 (Alternative 3, Excavation, On-Site Consolidation/Capping in Redevelopment Area, and Monitoring for Impact to Groundwater {IGW}): The title of the alternative needs to include Institutional Controls as well as Cap Maintenance and Monitoring (cap and prospectively groundwater per Comment #25) as components of the proposed corrective action. The description of the alternative needs to be revised to reflect the clean-up values established in this correspondence.

    NMA: What is the estimated volume of soil proposed to be consolidated to the EMA (Redevelopment Area)? The discussion regarding excavation/removal of the remains of above-grade historical buildings needs to include the disposition of the remains from the buildings.

    WMA/EMA (outside Redevelopment Area): Exposure to subsurface soil as a future exposure pathway was not considered in the On-Site Soils CMS. Chemours' proposal that only surface soil samples (0-2 ft bgs) will be used to determine the need for remedial activity conflicts with the NJDEP's regulations, which require Soil Remediation Standards to be compared to soil data throughout the entire soil column to address the possibility that deeper soils may be brought to the surface, thereby resulting in potentially unacceptable exposure to site receptors. What is the estimated volume of soil proposed to be consolidated to the EMA (Redevelopment Area)?

    EMA (Redevelopment Area): Although a low-permeability cap is included as a remedial component for this area, a general description of the cap components is required.

    Institutional Controls and Monitoring – Signage should be included as part of the institutional controls proposed for this and the other alternatives evaluated. It should be stated that cap monitoring/ maintenance and prospectively groundwater monitoring (See Comment #25) programs would be prepared/implemented as part of long-term operation and maintenance at the Site. Details would be provided in an Operation and Maintenance Plan prepared as part of the Corrective Measures Implementation phase.

USEPA Response: EPA has highlighted in green below its responses in the body of the Chemours proposed response for ease of review. ***Note that USEPA's portion of its comment that states the description of the alternative needs to be revised to reflect the clean-up values established in USEPA's comment letter remains unaddressed. Additionally, USEPA's comment requesting that the estimated volume of soil proposed to be consolidated to the EMA (Redevelopment Area) be provided remains unaddressed.***

Chemours Proposed Responses: Institutional Controls will be added to the title of Alternative 3.

USEPA Response: Chemours proposed response is acceptable.

As stated in response to Agency Comment 29, a summary table will be provided for each alternative showing the estimated excavation and consolidation or estimated excavation and offsite disposal volume for each area (i.e., volume for WMA, NMA, EMA (outside Redevelopment Area) and EMA (Redevelopment Area).

USEPA Response: Chemours proposed response is acceptable noting the need to include the estimated volume of soils proposed to be consolidated to the EMA (Redevelopment Area) be provided.

Details regarding the disposition of historical building debris within the NMA will be included in the revised description of the alternative. In general, historical building debris will be disposed offsite.

USEPA Response: Chemours proposed response is acceptable.

Potential exposure to subsurface soil as a future exposure pathway was considered in the Revised CMS. As stated in the Alternative 3 description Section 6.3 of the Revised CMS, "A minimum of 2 feet of clean backfill would be required where subsurface soils remain in place above the human health ARS. These soil covers would be included in a deed notice."

USEPA Response: Chemours proposed response is acceptable subject to incorporation of the clean-up values established in this comment letter.

A general description of the cap (i.e., bullet listing of potential capping options) will be added as part of this alternative. A detailed description of how the cap will be constructed will be included in the CMIWP.

USEPA Response: Chemours proposed response is acceptable.

Existing signage will be maintained where necessary as part of the institutional controls for this alternative. It should be noted that signage is already in place along the boundary of the Site.

USEPA Response: Chemours proposed response is acceptable.

Text will be added to reflect that any cap monitoring/maintenance and groundwater monitoring programs (if utilized) would be implemented as part of long-term operation and maintenance at the Site.

USEPA Response: Chemours proposed response is acceptable.

Comment Resolution: The following revisions will be made to the discussion for Alternative 3: "Institutional Controls" will be added to the title of Alternative 3; a summary table will be provided for each alternative showing the estimated excavation and consolidation or estimated excavation and offsite disposal volume for each area (i.e., volume for WMA, NMA, EMA (outside Redevelopment Area) and EMA (Redevelopment Area); details regarding the disposition of historical building debris within the NMA will be included in the revised description of the alternative; a general description of the cap (i.e., bullet listing of potential capping options) will be added as part of this alternative; and text will be added to reflect that any cap monitoring/maintenance and groundwater monitoring programs (if utilized) would be implemented as part of long-term operation and maintenance at the Site. In addition, the description of the alternative needs to be revised to reflect the clean-up values established in USEPA's comment letter; and the estimated volume of soil proposed to be consolidated to the EMA (Redevelopment Area) be provided. Finally, a detailed description of how the cap will be constructed will be included in the CMIWP.

32. Page 42/43/44, Section 6.4 (Alternative 4 – Excavation, Off-site Disposal, Isolated Capping in EMA and Redevelopment Area, and Monitoring for IGW): The title of the alternative needs to include Institutional Controls as well as Cap Maintenance/Monitoring as components of the proposed corrective action. The description of the alternative needs to be revised to reflect the clean-up values established in this correspondence.

    NMA - What is the estimated volume of soil proposed to be excavated and transported to an off-site disposal facility? The discussion regarding excavation/removal of the remains of above-grade historical buildings needs to include the disposition of the remains from the buildings.

    WMA/EMA (outside Redevelopment Area)/EMA (Redevelopment Area) - Exposure to subsurface soil as a future exposure pathway was not considered in the On-Site Soils CMS. Chemours' proposal that only surface soil samples (0-2 ft bgs) will be used to determine the need for remedial activity conflicts with the NJDEP's regulations, which require Soil Remediation Standards to be compared to soil data throughout the entire soil column to address the possibility that deeper soils may be brought to the surface, thereby resulting in potentially unacceptable exposure to site receptors. What is the estimated volume of soil proposed to be excavated and transported off-site for disposal from each area?

    EMA (outside Redevelopment Area)/ EMA (Redevelopment Area) - Although a low-permeability cap is included as a remedial component for these areas, a general description of the cap components is required.

    Institutional Controls and Monitoring -- Signage should be included as part of the institutional controls proposed for this and the other alternatives evaluated. It should be stated that cap monitoring/ maintenance and prospectively groundwater monitoring (See Comment #25) programs would be prepared/implemented as part of long-term operation and maintenance at the Site. Details would be provided in an Operation and Maintenance Plan prepared as part of the Corrective Measures Implementation phase.

    Chemours Proposed Responses: Institutional Controls will be added to the title of Alternative 4. As stated in response to Agency Comment 29, a summary table will be provided for each alternative showing the estimated excavation and consolidation or estimated excavation and offsite disposal volume for each area (i.e., volume for WMA, NMA, EMA (outside Redevelopment Area) and EMA (Redevelopment Area).

Details regarding the disposition of historical building debris within the NMA will be included in the revised description of the alternative. In general, historical building debris will be disposed offsite.

Potential exposure to subsurface soil as a future exposure pathway was considered in the Revised CMS. As stated in the Alternative 3 description Section 6.3 of the Revised CMS, "A minimum of 2 feet of clean backfill would be required where subsurface soils remain in place above the human health ARS. These soil covers would be included in a deed notice."

A general description of the cap (i.e., bullet listing of potential capping options) will be added as part of this alternative. A detailed description of how the cap will be constructed will be included in the CMIWP.

Existing signage will be maintained where necessary as part of the institutional controls for this alternative. It should be noted that signage is already in place along the boundary of the Site.

Text will be added to reflect that any cap monitoring/maintenance and groundwater monitoring programs (if utilized) will be implemented as part of long-term O&M at the Site.

USEPA Response: Same responses as Comment #31.

Comment Resolution: The following revisions will be made to the discussion for Alternative 4: "Institutional Controls" will be added to the title of Alternative 4; a summary table will be provided for each alternative showing the estimated excavation and consolidation or estimated excavation and offsite disposal volume for each area (i.e., volume for WMA, NMA, EMA (outside Redevelopment Area) and EMA (Redevelopment Area); details regarding the disposition of historical building debris within the NMA will be included in the revised description of the alternative; a general description of the cap (i.e., bullet listing of potential capping options) will be added as part of this alternative; and text will be added to reflect that any cap monitoring/maintenance and groundwater monitoring programs (if utilized) would be implemented as part of long-term operation and maintenance at the Site. In addition, the description of the alternative needs to be revised to reflect the clean-up values established in USEPA's comment letter; and the estimated volume of soil proposed to be consolidated to the EMA (Redevelopment Area) be provided. Finally, a detailed description of how the cap will be constructed will be included in the CMIWP.

33. Page 44/45/46 (Alternative 5 – Excavation, Off-site Disposal, Isolated Capping in Redevelopment Area, and Monitoring for IGW): The title of the alternative needs to include Institutional Controls as well as Cap Maintenance/Monitoring as components of the proposed corrective action. The description of the alternative needs to be revised to reflect the clean-up values established in this correspondence.

    NMA - What is the estimated volume of soil proposed to be excavated and transported to an off-site disposal facility? The discussion regarding excavation/removal of the remains of above-grade historical buildings needs to include what the disposition of the remains from the buildings.

    WMA/EMA (outside Redevelopment Area)/EMA (Redevelopment Area) - Exposure to subsurface soil as a future exposure pathway was not considered in the On-Site Soils CMS. Chemours' proposal that only surface soil samples (0-2 ft bgs) will be used to determine the need for remedial activity conflicts with the NJDEP's regulations, which require Soil Remediation Standards to be compared to soil data throughout the entire soil column to address the possibility that deeper soils may be brought to the surface, thereby

resulting in potentially unacceptable exposure to site receptors. What is the estimated volume of soil proposed to be excavated and transported off-site for disposal from each area? Although a low-permeability cap is included as a remedial component for isolated portions of the EMA (Redevelopment Area, a general description of the cap components is required.

Institutional Controls and Monitoring -- Signage should be included as part of the institutional controls proposed for this and the other alternatives evaluated. It should be stated that a cap monitoring/ maintenance program would be prepared/implemented as part of long-term operation and maintenance at the Site. Details would be provided in an Operation and Maintenance Plan prepared as part of the Corrective Measures Implementation phase.

Chemours Proposed Responses: Institutional Controls will be added to the title of Alternative 5.
As stated in response to Agency Comment 29, a summary table will be provided for each alternative showing the estimated excavation and consolidation or estimated excavation and offsite disposal volume for each area (i.e., volume for WMA, NMA, EMA (outside Redevelopment Area) and EMA (Redevelopment Area).

Details regarding the disposition of historical building debris within the NMA will be included in the revised description of the alternative. In general, historical building debris will be disposed offsite.

Potential exposure to subsurface soil as a future exposure pathway was considered in the Revised CMS. As stated in the Alternative 3 description Section 6.3 of the Revised CMS, "A minimum of 2 feet of clean backfill would be required where subsurface soils remain in place above the human health ARS. These soil covers would be included in a deed notice."

A general description of the cap (i.e., bullet listing of potential capping options) will be added as part of this alternative. A detailed description of how the cap will be constructed will be included in the CMIWP.

Existing signage will be maintained where necessary as part of the institutional controls for this alternative. It should be noted that signage is already in place along the boundary of the Site.

Text will be added to reflect that any cap monitoring/maintenance and groundwater monitoring programs (if utilized) would be implemented as part of long-term operation and maintenance at the Site.

USEPA Response: Same responses as Comment #31.

Comment Resolution: The following revisions will be made to the discussion for Alternative 5: "Institutional Controls" will be added to the title of Alternative 5; a summary table will be provided for each alternative showing the estimated excavation and consolidation or estimated excavation and offsite disposal volume for each area (i.e., volume for WMA, NMA, EMA (outside Redevelopment Area) and EMA (Redevelopment Area); details regarding the disposition of historical building debris within the NMA will be included in the revised description of the alternative; a general description of the cap (i.e., bullet listing of potential capping options) will be added as part of this alternative; and text will be added to reflect that any cap monitoring/maintenance and groundwater monitoring programs (if utilized) would be implemented as part of long-term operation and maintenance at the Site. In addition, the description of the alternative needs to be revised to reflect the clean-up values established in USEPA's comment letter; and the estimated volume of soil proposed to be consolidated to the EMA (Redevelopment Area) be provided. Finally, a detailed description of how the cap will be constructed will be included in the CMIWP.

34. Page 47/48 (Evaluation of Corrective Measure Alternatives): While Table 7-1 provides a summary of the evaluation of corrective measures alternatives, there is not sufficient detail in the "comments" provided as part of Table 7-1 to differentiate how each alternative does/does not attain the specific criteria. Regarding each of the criteria subsequently listed and consistent with USEPA's *RCRA Corrective Action Plan* (Final), OSWER Directive 9902.3-2A dated May 1994; the following items need to be addressed.

    Protect Human Health and the Environment – Chemours needs to include a discussion on what types of short-term remedies are appropriate, if any, in order to meet this criterion. For example, the construction of barriers or other controls that would prevent harm arising from direct contact with waste management units until the final corrective measure is constructed.

    Attain Media Cleanup Standards Set by the USEPA/NJDEP – Chemours should revise any discussion provided here to reflect whether the alternative evaluated can meet the soil clean-up values established in this correspondence. In addition, an estimate of the time frame necessary for each alternative to meet these standards should be provided.

    Control Source of Releases – The alternative should include a discussion on how well the remedial components are anticipated to work given the site-specific conditions and the known track record of the specific technologies.

    Comply With Any Applicable Standards for Management of Wastes – Chemours needs to present a list of the applicable and relevant or appropriate requirements and discuss how the alternatives will comply with those requirements.

    Long-Term Reliability and Effectiveness – Chemours should provide a discussion regarding the useful life (defined as the length of time the level of effectiveness can be maintained) of each alternative and its component technologies.

    Reduction in Toxicity, Mobility or Volume of Waste - Estimates of how much the corrective measures alternatives would reduce the toxicity, mobility or volume of waste should be discussed through a comparison of initial site conditions to the expected post-corrective measure conditions.

    Implementability – A discussion on the administrative activities needed to implement each of the corrective measure alternatives (e.g., permits, rights of way, off-site approvals, etc.) and the length of time these activities will take should be provided. The constructibility and time for implementation should be provided.

    Cost – Chemours has not provided any cost information in the Revised CMS. Cost estimates for each alternative need to be provided that include costs for: engineering, site preparation, construction, materials, labor, sampling/analysis, waste management/disposal, permitting, health and safety measures, training, operation, and maintenance.

    In conjunction with the aforementioned comments, Chemours must provide a comparative analysis that sufficiently differentiates the alternatives using the evaluation criteria.

    USEPA Response: USEPA has highlighted in green, below its responses in the body of the Chemours proposed response for ease of review.

Chemours Proposed Response: The text describing each alternative in relationship to the above-mentioned items will be added to the revised document. Below is an example of the text that will be added for Alternative 4.

Alternative 4 – Excavation, Offsite Disposal, Isolated Capping in EMA, and Redevelopment Area, Monitoring for IGW, and Institutional Controls

Protect Human Health and the Environment – Risks to impacted soils would be eliminated through the removal of soils within the top two feet and installation of a soil cap in areas where subsurface soils remain in place above SRS or the installation of a low permeability cap. Appropriate operation and maintenance will be required for any caps as well as institutional controls put into place (e.g., signage).

USEPA Response: Chemours proposed response is acceptable.

Attain Media Cleanup Standards – CAOs will be attained by reducing potential human and ecological exposure to COCs above SRS and by minimizing potential migration of lead, mercury, and PCBs from unsaturated soil to groundwater.

USEPA Response: Chemours proposed response is acceptable with the caveat that an estimate of the time frame necessary for each alternative to meet the clean-up standards established by USEPA in this comment letter needs to be included.

Control Source of Releases - Excavation and offsite disposal and capping are proven technologies. The proposed excavations of impacted soils within the top two feet and installation of a soil cap in areas where subsurface soils remain in place above the human health CAOs would control the potential for direct contact with impacted soils. In the areas of the EMA where low-permeability capping is installed, the capping will prevent direct contact and prevent mobilization of contaminants dues to infiltration.

USEPA Response: Chemours proposed response is acceptable.

Comply with any Applicable Standards for Management of Wastes – Excavated soils transported offsite to a treatment and/or disposal facility will have to meet RCRA Land Disposal Regulations (LDR). Some of impacted soils may be required in order to meet RCRA LDRs.

USEPA Response: Chemours proposed response is acceptable with the caveat that in an appropriate section of the Revised CMS, there should be table that summarizes the applicable or relevant and appropriate requirements for each alternative.

Long-term Reliability and Effectiveness – Excavated soils will be permanently removed from the site and transported to an offsite treatment and/or disposal facility; thus, eliminating the long-term risks from these impacted soils. Surface capping will decrease constituent loading to groundwater by preventing rainfall infiltration. The long-term effectiveness of the caps will be assessed through routine groundwater monitoring in the low-permeability capped areas and the implementation of a cap monitoring/maintenance program.

USEPA Response: Chemours proposed response is acceptable.

Reduction in Toxicity, Mobility and/or Volume of Waste – Approximately 86,000 cubic yards of material will

be excavated and transported offsite for disposal; thus, eliminating the M/T/V of constituents in this material. Mobility of constituents in impacted soils remaining onsite above the SRS will be minimized through either construction of a low-permeability cap in areas of where soils exceed the IGWSRS or construction of a soil cap to eliminate the potential for direct contact with impacted soil. Removal of impacted soils as well as surface capping will also decrease constituent loading to groundwater.

USEPA Response: Chemours proposed response is acceptable.

Implementability – This alternative is readily implementable using conventional construction methods and equipment. This alternative uses well-established technologies. Authorizations and approvals will be required from state and local authorities for temporary disturbances within regulated areas. Anticipated permits and approvals are detailed in Section 8.2. The permitting process is assumed to take approximately one year to complete after approval of the CMIWP obtained. Excavation and containment will be implemented following completion of design and permitting.

USEPA Response: Chemours proposed response is acceptable.

Cost – The capital cost is estimated to be approximately $21,920,000 and is primarily based on the cost of excavation and offsite disposal. The estimated annual O&M cost is approximately $200,000 per year. For cost estimating purposes, it is assumed that O&M activities would be conducted for a period of 30 years.

USEPA Response: Chemours proposed response is acceptable.

Comment Resolution: Text will be added to the discussions of each alternative as follows using proposed language for Alternative 4 as an example:

- ***Protect Human Health and the Environment – Risks to impacted soils would be eliminated through the removal of soils within the top two feet and installation of a soil cap in areas where subsurface soils remain in place above SRS or the installation of a low permeability cap. Appropriate operation and maintenance will be required for any caps as well as institutional controls put into place (e.g., signage).***

- ***Attain Media Cleanup Standards – CAOs will be attained by reducing potential human and ecological exposure to COCs above SRS and by minimizing potential migration of lead, mercury, and PCBs from unsaturated soil to groundwater.***

- ***Control Source of Releases - Excavation and offsite disposal and capping are proven technologies. The proposed excavations of impacted soils within the top two feet and installation of a soil cap in areas where subsurface soils remain in place above the human health CAOs would control the potential for direct contact with impacted soils. In the areas of the EMA where low-permeability capping is installed, the capping will prevent direct contact and prevent mobilization of contaminants dues to infiltration.***

- ***Comply with any Applicable Standards for Management of Wastes – Excavated soils transported offsite to a treatment and/or disposal facility will have to meet RCRA Land Disposal Regulations (LDR). Some of impacted soils may be required in order to meet RCRA LDRs***

- ***Long-term Reliability and Effectiveness – Excavated soils will be permanently removed from the site***

and transported to an offsite treatment and/or disposal facility; thus, eliminating the long-term risks from these impacted soils. Surface capping will decrease constituent loading to groundwater by preventing rainfall infiltration. The long-term effectiveness of the caps will be assessed through routine groundwater monitoring in the low-permeability capped areas and the implementation of a cap monitoring/maintenance program.

- ***Reduction in Toxicity, Mobility and/or Volume of Waste – Approximately 86,000 cubic yards of material will be excavated and transported offsite for disposal; thus, eliminating the M/T/V of constituents in this material. Mobility of constituents in impacted soils remaining onsite above the SRS will be minimized through either construction of a low-permeability cap in areas of where soils exceed the IGWSRS or construction of a soil cap to eliminate the potential for direct contact with impacted soil. Removal of impacted soils as well as surface capping will also decrease constituent loading to groundwater.***

- ***Implementability – This alternative is readily implementable using conventional construction methods and equipment. This alternative uses well-established technologies. Authorizations and approvals will be required from state and local authorities for temporary disturbances within regulated areas. Anticipated permits and approvals are detailed in Section 8.2. The permitting process is assumed to take approximately one year to complete after approval of the CMIWP obtained. Excavation and containment will be implemented following completion of design and permitting.***

- ***Cost – The capital cost is estimated to be approximately $21,920,000 and is primarily based on the cost of excavation and offsite disposal. The estimated annual O&M cost is approximately $200,000 per year. For cost estimating purposes, it is assumed that O&M activities would be conducted for a period of 30 years.***

Further, in an appropriate section of the Revised CMS, there should be table that summarizes the applicable or relevant and appropriate requirements for each alternative, and an estimate of the time frame necessary for each alternative to meet the clean-up standards established by USEPA in this comment letter needs to be included.

35. Page 49, Section 8.0 (Proposed Corrective Measure Alternative): The proposed corrective measure alternative (Alternative 4) is not sufficiently differentiated from Alternative 5 in this section. Chemours needs to provide a level of comparative analysis using the evaluation criteria (see comments for Section 7.0 as well) that sufficiently differentiates the proposed alternative from the other alternatives, particularly Alternative 5, such that USEPA/NJDEP can make a decision regarding the recommended corrective measure. A rationale for the remedial approach in each of the areas requiring a corrective measure should be provided.

    Chemours Proposed Response: The additional text added to Section 7 (as noted in response to comment 34), should provide the additional information the Agencies have requested to address this comment.

    USEPA Response: Chemours proposed response is acceptable.

    Comment Resolution: This comment will be resolved by the additional text added to Section 7 as noted in the response to Comment 34.

36. Page 49, Section 8.1.1 (Supplemental Sampling): paragraph 1, note per previous comments in this correspondence, final excavation limits will be determined based on the clean-up values established in this comment letter. For paragraph 3, hasn't there been sufficient soil sampling to establish whether there is a need for pre-treatment prior to off-site disposal? If so, Chemours should add a section that provides a conceptual approach to any bench- or pilot-scale treatability testing that may be required to meet land disposal restrictions.

    Chemours Proposed Response: There has been a significant amount of sampling conducted at the Site to establish delineation of impacted areas. Additional sampling would be required for waste classification and disposal only – not for the purposes of a remedial technology being implemented. Based on available data, some pre-treatment may be required to meet LDRs in some areas of the Site. Treatability testing will be completed as part of the development of the CMIWP. Text will be added that states testing for waste disposal will be conducted as part of pre-CMIWP activities and results included in the CMIWP.

    USEPA Response: Chemours proposed response is acceptable.

    Comment Resolution; Text will be added to Section 8.1.1 noting that testing for waste disposal will be conducted as part of pre-CMIWP activities and the results included in the CMIWP.

37. Page 52, Section 9.0 (Path Forward): Note that the following information should be added to the Revised CMS. The preparation of the Corrective Measures Implementation Work Plan (CMIWP) is contingent on the

    approval of the CMS as well as the issuance of a permit modification by USEPA. Prior to initiation of any pre-design activities, Chemours will need to submit a Work Plan that presents the scope of work, details on procedures to be followed and an implementation schedule. In conjunction with approval of the Pre-design work plan including its implementation schedule, USEPA/NJDEP and Chemours will establish a schedule for completion/submittal of the CMIWP.

    Chemours Proposed Response: Chemours would request resolution on regulatory process for Site – e.g., identifying specific Agency programs to be followed in the completion of the RCRA corrective action process at the PLW Site. Chemours would request further clarification from USEPA and NJDEP as to why a Work Plan for pre-design activities is required prior to developing the CMIWP.

    Chemours will provide the streamlined sampling plan developed for pre-design work. This would consist of consist of figures show sample location and tables showing sample depth, ID, analytes, and reason for location.

    USEPA Response: The program regulating the environmental clean-up for the Pompton Lakes Works site is the RCRA Corrective Action program. Chemours is required to comply with the permit and any subsequent permit modifications issued.

    USEPA's Corrective Action Plan – Final dated May 1994 (OSWER Directive 9902.3-2A) specifically Chapter V: Corrective Measures Implementation, Section ID, discusses and gives EPA the discretion to require that a sampling and analysis plan or treatability study workplan be developed by Chemours to obtain additional data in conjunction with the design of the selected corrective measure.

Chemours proposed response is sufficiently equivalent to the Work Plan USEPA has requested with the exception of the need to cross reference its existing Quality Assurance/Quality Control Plan that would include sampling procedures and analytical methodologies. The implementation schedule to be prepared should include the proposed schedule for any pre-design sampling and analysis Chemours proposes to perform.

Comment Resolution: The revised Onsite Soils CMS will note that Chemours will provide a streamlined sampling plan developed for pre-design work. This would consist of consist of figures show sample location and tables showing sample depth, ID, analytes, and reason for location. This streamlined plan will need to cross reference its existing Quality Assurance/Quality Control Plan that would include sampling procedures and analytical methodologies. The implementation schedule to be prepared should include the proposed schedule for any pre-design sampling and analysis Chemours proposes to perform.

38. Figure 5 of the Revised CMS accounts for approximately 571.5 of the approximately 588 acres of the Site. Although caveated as approximations by Chemours, this approximately 18- acre discrepancy should be reconciled.

Chemours Proposed Response: Section 2 of the Revised CMS text references the site as an approximately 580-acre site (which is rounding up from the surveyed and deeded 571.8 acres area of the site). The Revised CMS text will be revised to state the approximately 570 acres site. Chemours requests further clarification as to where the Agencies came up with 588 acres as referenced in the comment so that any other text can be corrected as appropriate.

USEPA Response: Chemours proposed response is acceptable. The original June 2013 draft CMS references an approximate 588-acre site in paragraph 1 of Section 2.1.

Comment Resolution: The revised Onsite Soils CMS will note the site is 570 acres.

39. Figures 8, 9 and 10: As shown on the figures, in various areas of concern, Chemours proposes solely capping. Also, as shown on the figures, Chemours proposes limited excavation depths. The ability to evaluate these alternatives is constrained as USEPA/NJDEP need to know the contaminants, concentrations, depths, extent of contamination, etc. that would be left behind in order to evaluate the acceptability of such proposals. This information should be either displayed on the figures or add a section that describes the data findings.

Chemours Proposed Response: Chemours would like to engage in further discussions with the Agencies to more fully understand the additional information needed in order to evaluate the acceptability of the proposed alternative and identify the "constraints" on evaluation of the other alternatives as referenced in the comment. Alternatives where impacted soils are either being excavated and disposed offsite or capped by either a soil cover or low permeability cap would be considered protective for the pathways of concern (e.g., ecological, human health, and impact to groundwater).

USEPA Response: The additional information requested by USEPA is stated in its comment (i.e., contaminants, concentrations, depths, extent of contamination that would be left behind). This information would aid in the USEPA/NJDEP evaluation and comparison of Alternatives 3, 4 and 5 and be particularly useful in differentiating Alternatives 4 and 5.

Comment Resolution: Figures 8, 9 & 10 of the Onsite Soils CMS should be revised to include additional

data (contaminants, concentrations, depths, extent of contamination that would be left behind, etc.

40. Appendix A, page 1 of 14, 3rd paragraph, second to last sentence: This sentence states that "There was the assumption that no public access to the EMA (outside Redevelopment Area) will be allowed." It should be specified in the description of alternatives which areas of the site will include engineering and or institutional controls such as fences, signs, gates, etc. to ensure that potential public access, where appropriate (e.g., EMA outside of the Redevelopment Area is limited to the greatest extent possible).

    Chemours Proposed Response: Details regarding engineering and or institutional controls are included in the description for each Alternative in Section 6 of the Revised CMS.

    USEPA Response: Chemours proposed response is acceptable.

    Comment Resolution: No revisions to the Onsite Soils CMS are needed.

41. Appendix A, page 3 of 14LThis table of Human Health COCs is missing arsenic. Please add this to the table.

    Chemours Proposed Response: Arsenic will be added to the revised table.

    USEPA Response: Chemours proposed response is acceptable.

    Comment Resolution: Arsenic will be added to the table of Human Health COCs in Appendix A of the revised Onsite Soils CMS.

Closing

The Modified Compliance Schedule issued under the Resource Conservation and Recovery Act Hazardous and Solid Waste Amendments Permit of 1994 requires that Chemours submit a revised Onsite Soils CMS within 90 days of the date of this correspondence. Should you have any questions in the interim, or if you would like to discuss the comments further, please feel free to contact me at (212) 637-3759, or via email at ferreira.steve@epa.gov.

Sincerely,

STEVEN FERREIRA

Digitally signed by STEVEN FERREIRA
Date: 2025.07.30 08:34:14 -04'00'

Steven J. Ferreira, Remedial Project Manager
New Jersey Projects State Coordination Section

cc: Kristina Merola, NJDEP
Michael Serra, Mayor, Borough of Pompton Lakes
MaryAnn Orapello, Health Officer – Township of Wayne Health Department
Norma Eichlin, HDR