

APPENDIX AA – APPROVAL LETTER AND DOCUMENTATION FROM USEPA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

May 25, 2018

Via E-Mail Only

Roy Blickwedel
Remedial Project Manager
General Electric
640 Freedom Business Center
King of Prussia, PA 19406

SUBJECT: Acceptance of United Nuclear Corporation (UNC) Mill Site and Northeast Church Rock (NECR) Design with Comments

Dear Mr. Blickwedel:

Thank you for the Revised 95% Design Deliverables and Response to Comments submitted on April 9, 2018. This letter provides EPA acceptance of the design documents with the attached consolidated agency comments. Once these comments have been incorporated into a clean version of the final design, please post the design to the Stantec Design Team Site and submit the appropriate portions of the revised design to the Nuclear Regulatory Commission (NRC), along with any other required license amendment request documents. Please note that responsibility for the effectiveness of the design rests with UNC/GE and that EPA acceptance constitutes only an authorization to proceed. Per paragraph 49 of the 2015 Design SOW, please provide a revised clean copy of the final design to EPA within 60 days or by July 24, 2018. Also, per paragraph 49, please submit the license amendment request to NRC with notification to the design team and an electronic copy posted to the Stantec Design Team Site within 120 days or by September 24, 2018.

Please note that if NRC requires additional documents or design revisions associated with their license review, EPA requests that electronic copies of those documents be uploaded to the Stantec Design Team Site concurrently with submission to NRC along with notification of availability to members of the UNC/NECR Design Review Team. Please also note that some of the responses to comments or design sections indicate that additional information would be forthcoming from the contractors at the time of construction. Therefore, EPA would expect to review these additional details based on contractor submittals as part of the construction process. Examples of design elements that EPA expects to review at the time of construction include the Project Schedule, Health and Safety Plan, Traffic Safety Plan, Construction Quality Assurance Plan, and the Operation and Maintenance Plan. This list is subject to change and EPA would

provide a final list of documents for submission in a consent decree for remedy implementation, following an NRC approval of GE/UNC's application for a license amendment.

Please feel free to contact me at 415-972-3564 with any questions or concerns.

Sincerely,

A handwritten signature in blue ink, appearing to read "Sara Jacobs".

Sara Jacobs
Remedial Project Manager

Attachment

Consolidated Agency Comments on UNC/NECR Revised 95% Design Deliverables

Document	Section	Page	Comment	Agency	Comment Number
Appendix C	General		Please note that if asbestos is encountered during excavations, both OSHA and NESHAP asbestos regulations would apply.	EPA	Revised95%C-1
Appendix D	General		Please include a walk-over gamma scan of the mine waste haul routes between the NECR Mine Site and the UNC Mill Site properties prior to construction of these roads to verify no contamination is present anywhere along the haul routes.	EPA	Revised95%D-1
Appendix H	H.4.1.7	4-5	Consider using the clean excavated jetty soil to backfill multiple borrow areas to avoid any excessive erosion or aesthetic concerns that could be attributed to a large soil pile with steep slopes in the West Borrow area.	EPA	Revised95%H-1
Appendix I	Attachment C	Tables C1 through C5	The Initial Storage is shown as being 0% for every watershed ID except one. Please discuss the reasoning behind this assumption in the text.	EPA	Revised95%I-1
Appendix J	General		Please verify that all "Contractor may" instructions are in fact optional, instead of required "Contractor shall."	DOE	Revised95%J-1
Appendix J	General		Cover terminology is inconsistent within the spec and drawings. Drawing 7-09 refers to "Soil Cover with Gravel", specs under 2.2 now refer to "Cover soil with Rock (Admixture)". The steeper slope refers to "Rock Cover with Soil" on -Drawing 7-09, the specs call-out "Gravel Cover with Soil (Admixture)". Spec paragraph 3.14 C. 2 uses the term "Admixture Layers ... Please review all terminology for consistency	DOE	Revised95%J-2
Appendix J	J.3.2	3-2	"(this administrative specification is not included with 95% design)." Please include in final design submission.	EPA	Revised95%J-3
Appendix J	Quality Control	01400	COMPANY is not defined. Include the definition of company for purposes of sampling, inspection, and testing. Assumption, and preference, is that an independent inspection and testing service company performs quality control testing and inspections.	DOE	Revised95%J-4
Appendix J	Earthwork	02200-4	Paragraph 5.b - Please replace the following specification: b. The rock must be thoroughly incorporated into the soil by mixture, the adequacy of the mixing method to provide a uniform mixture will be approved by the ENGINEER prior to large-scale implementation. With: b. The rock must be thoroughly and uniformly incorporated into the soil by mixture, the adequacy of the mixing method to provide a uniform mixture will be approved by the ENGINEER prior to large-scale implementation.	DOE	Revised95%J-5

Consolidated Agency Comments on UNC/NECR Revised 95% Design Deliverables

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Appendix J	Earthwork	02200-4	Paragraph 3.5E - Please replace the following specification: 4) Material that is confirmed to be tailing must be returned to beneath the existing radon barrier. This will be accomplished by excavating an area of the existing cover approved by the ENGINEER (likely in one of the existing swales), placing the material, and recompacting the radon barrier in 6-inch conditioned lifts. With: 4) Material that is confirmed to be tailing must be returned to beneath the existing radon barrier. This will be accomplished by excavating an area of the existing cover approved by the ENGINEER (likely in one of the existing swales), placing the material, and recompacting the radon barrier in 6-inch conditioned lifts. The radon barrier in the area of exposed tailings shall also be reconstructed in compacted lifts to match the original design.	EPA	Revised95%J-6
Appendix J	Earthwork	02200-9	Paragraph 3.5.E - Please replace the following specification: 1) Although unlikely, during the process of removing rock from the cover layer and swales, there is a potential that earthwork on the cover could expose existing tailings. With: 1) Contractor shall take care to not expose tailings by observing all excavations into the radon barrier, during the process of removing rock from the cover layer and swales.	DOE	Revised95%J-7
Appendix J	Earthwork	02200-10	Paragraph 3.5.F - Drawing 7-09 refers to the Subgrade (improved radon barrier). Please use consistent terminology.	DOE	Revised95%J-8
Appendix J	Earthwork	02200-13	Paragraph 3.9 - Include general description of borrow material soil, i.e. grey silty-clay, in borrow material specification.	DOE	Revised95%J-9
Appendix J	Earthwork	02200-21	Paragraph 3.17C.4.2.2 - Please replace the following specification: 2) Soil Cover and Admixture: One test per 30,000 square feet, or fraction thereof, of each lift of fill. With: 2) Soil Cover and Admixture: One test per 30,000 square feet, or fraction thereof, of each lift of fill. Additional testing may be required at the discretion of the ENGINEER.	EPA	Revised95%J-10
Appendix J	Earthwork/ Mine Waste Excavation and Disposal	02200-19/ 02205-5	Paragraphs 3.16/3.4.I - Add that test fills can be used for soil/debris mixtures.	DOE	Revised95%J-11
Appendix J	Mine Waste Excavation and Disposal	02205-1	Paragraph 1.2.A.1 - Similar to the response to comment 95%J-14, delete reference to the "Remedial Action Work Plan" if this document does not apply.	EPA	Revised95%J-12

Consolidated Agency Comments on UNC/NECR Revised 95% Design Deliverables

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Appendix J	Mine Waste Excavation and Disposal	02205-3	Paragraph 3.2G - Please replace the following specification: G. If impacted material, confirmed to be above the RAL, will be left in-place it must be scanned, marked with a geotextile barrier, geo-located and covered, with a minimum of 10 feet of non-impacted soil. With: G. No impacted material shall be left in place without approval of the Engineer. If impacted material, confirmed to be above the RAL, remains after proposed removal depths are reached, the Contractor shall continue to excavate until impacted material is removed, but no more than ten feet below the final Mine Site grading plan. If impacted material, confirmed to be above the RAL, is approved to be left in-place, the excavation must be scanned, marked with a geotextile barrier, geo-located, and covered, with a minimum of 10 feet of non-impacted soil.	EPA	Revised95%J-13
Appendix J	Quality Control	02205-5	Paragraph 3.1.4.1.a. - Please revise the specification to clarify how to dispose of debris more than 12-inches, considering the 12-inch maximum lift requirement.	DOE	Revised95%J-14
Appendix J	Chain Link Fencing and Gates	02831-1	Paragraph 1.1.C. - This section states, "The CONTRACTOR shall design, furnish, and install barbed wire fence as indicated on the Drawings." but paragraph 2.1.B states, "Barbed wire top is not required for any new fencing." Please clarify.	EPA	Revised95%J-15
Appendix O	General		Please incorporate the results of the upcoming supplemental cultural survey into the final version of this document.	EPA	Revised95%O-1
Appendix P	General		Please incorporate the results of the recent supplemental cultural survey into the final version of this document.	EPA	Revised95%P-1
Appendix P	General		Similar to the incorporation of recommendations from the Cultural Resources Reports into the text in Appendix O, please incorporate the recommendations for the Natural Resources Reports into Appendix O. Specifically, please incorporate the response to comment language to 95%P-3 into Appendix P. "In order to properly address the temporal aspects of the Migratory Bird Act and Golden Eagle Protection Act as well as Navajo Nation Golden and Bald Eagle Nest Protection Regulations, surveys must be conducted immediately prior to ground disturbing activities during nesting season to ensure there are not nests in close proximity to the construction activities. If any surface disturbance is to occur during nesting season, a qualified biologist will survey for nests immediately prior to ground disturbing activities. If nests are found, proper mitigation practices and buffers will be employed."	EPA	Revised95%P-2
Appendix T	General		Any 11e2 material or associated mill waste identified in the jetty area or any other portion of the mill site should be addressed with NRC under their jurisdiction with appropriate modifications to the design or license amendment application, if needed.	EPA	Revised95%T-1

Consolidated Agency Comments on UNC/NECR Revised 95% Design Deliverables

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Appendix T, Attachment T.2	Table 5	86 of pdf	Please revise Table 5 in Appendix T, Attachment T.2, consistent with the MARSSIM Table 5.8. Specifically, the Class 2 investigation levels proposed at 2.45 piC/g are above the Removal Action Level and must be revised to 2.24 piC/g accordingly. While not inconsistent with MARSSIM, EPA recommends flagging Class 1 direct measurements before they are at the DCGLemc. Finally, Class 1 and Class 2 areas on the UNC/GE owned Mill Site property have different investigation levels. Although called out in the text, these distinct investigation levels at the Mill Site (FSS Area 7 – Equipment Yard and FSS Area 4 – Decontamination Area) should be addressed in the table as well for clarity.	EPA	Revised95%T-2
Appendix T, Attachment T.2	4.6.2	17	EPA agrees with the 25% scanning coverage as appropriate for Class 3 areas. Please revise Class 2 areas (FSS Area 7 - Haul Roads and FSS Area 8 – Equipment Yard) to provide 50% scanning coverage.	EPA	Revised95%T-3
Appendix T, Attachment T.2	General		See comment 95%T-36. Reference to EPA Method 901.1 (a water method) for gamma spectroscopy analysis for soil samples should be referred to as 901.1 modified. Many references remain incorrect.	EPA	Revised95%T-4
Appendix W	W.3.1	3-1	<u>Revegetation Monitoring, Specific success criteria:</u> Add to bulleted list – Absence of noxious weeds. This will be an issue, and an active management approach as described in Appendix W is necessary.	DOE	Revised95%W-1
Appendix W	W.3.2.1	3-2	<u>Settlement Monitoring, Vehicle Damage:</u> Establish a policy on types of vehicles that can drive on cover after it is complete (i.e., ATVs, pickups).	DOE	Revised95%W-2
Appendix W	W.3.2.1	3-2	<u>Settlement Monitoring, Permanent Stormwater Controls:</u> Provide specific measures aimed at Pipeline Arroyo.	DOE	Revised95%W-3
Appendix W	W.3.2.2	3-2	<u>Settlement Monitoring:</u> Consider use of a LIDAR-type as-built survey to establish a baseline topography for the cover.	DOE	Revised95%W-4
Appendix W	W.3.2.2	3-2	<u>Settlement Monitoring, last sentence:</u> Change “until it is determined based on the judgment of the EOR that monitoring is no longer necessary” to “until the site is transferred”.	DOE	Revised95%W-5
Appendix W	W.3.2.3	3-3	<u>Non-Routine Inspection:</u> Add Pipeline Arroyo to the list of inspections	DOE	Revised95%W-6
Appendix W	W.3.3.2	3-3	<u>Settlement, first bullet:</u> Quantify what is ponding: i.e., any standing water?	DOE	Revised95%W-7
Appendix W	W.3.3.4	3-4	<u>Veneer Slope Instability, first bullet:</u> Quantify the type of crack in soil that would be a concern (e.g. size, number).	DOE	Revised95%W-8
Appendix W	W.3.3.6	3-4	<u>Access Controls-</u> modify last bullet to read: Missing, damaged (i.e., bullet holes), or unreadable signage.	DOE	Revised95%W-9

Consolidated Agency Comments on UNC/NECR Revised 95% Design Deliverables

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Errata					
General		02200-19,20 as an example	After accepting changes, verify that there are no hanging words, or section numbers. (3.17 C, for example)	EPA	Revised95%-1
General	Main Text, Attachment 1, as an example	32-50	Attachment 1 table formatting was corrupted in this version of the design. Please fix formatting to ensure complete table is displayed, column headers are included, footer including document and page number, etc. Please include footers with page numbers for all Tables and Figures.	EPA	Revised95%-2
General	Appendix C, Attachment A, as an example	pdf page 109-117, as an example	In all documents, please ensure tables and figures are correctly identified and fully legible. See pdf pages 300, 302 in same document.	EPA	Revised95%-3
General		02205-1, as an example	In all documents, please correct any remaining typographical errors, including: Appendix J – 02205-1, 1.1B “shall be disposed” Appendix J – 02205-1, 3.1I “from the leaving the area” Appendix K – K.3.2, pg. 3-2, "Conservative durations of 130 days (6 months) . . ." Appendix U, Attachment U.1 – 2.3 “sufficiently lowradium activity” Appendix W – W.1, “This OMM includes the initial minimum timeframe of time frame of 10 to 12 years...” Appendix W – W.3.2.1 “Engineering inspections are independent of vegetation inspections shall be performed...” Consolidation and Groundwater Report – 4.2.3 “primary consolation consolidation occurred” Consolidation and Groundwater Report – Appendix A, page 60 Rename table to Table A2, not Table 18.	EPA	Revised95%-4
Appendix C		4-14	Blank page.	EPA	Revised95%-5
Appendix U, Attachment U.1	6.1	27	Map 3 is included twice.	EPA	Revised95%-6