

State of New Mexico  
Energy, Minerals and Natural Resources Department

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**Michelle Lujan Grisham**  
Governor

**Dylan Fuge**  
EMNRD – Deputy Cabinet Secretary

**Albert Chang, Director**  
Mining and Minerals Division



February 7, 2024

Lance Hauer, P.E.  
Legacy Site Team Leader – Environmental Remediation  
General Electric Company  
1 River Road  
Schenectady, NY 12345-6000

**RE: Transmittal of Comments (2<sup>nd</sup> Round) on *St. Anthony Mine Site Closure-Closeout Plan (CCOP), 30% Design Report, United Nuclear Corporation/GE, St. Anthony Mine, Cibola County, New Mexico, Permit Tracking No. MK006RE***

Dear Mr. Hauer,

The Mining and Minerals Division (“MMD”) has received and reviewed the *St. Anthony Mine Site Closure-Closeout Plan (CCOP), 30% Design Report*, (“Closeout Plan”) dated October 7, 2022. The initial comments were submitted to UNC by MMD and the agencies on May 8, 2023 with subsequent response from UNC on August 30, 2023.

MMD and the consulting state agencies have the following comments below regarding UNC’s first response to comment on the document, and also to the following supplemental submittals made by UNC:

- UAV-Based Radiological Surveys of the St. Anthony Mine Pit-1 Sidewalls
- St. Anthony Mine, United Nuclear Corporation 2023 Revegetation Plan
- Pit 1 Backfill and Design Concept
- Ecological Risk Assessment

Please find additional responses from MMD and the agencies in the attached spreadsheet and specific agency responses.

**General Comments:**

1. Please submit a Financial Assurance Estimate in the next submittal.
2. Please respond to all agency comments in the attached excel spreadsheet.
3. Please respond to NMED’s General Comments in the attached response letter, dated November 20, 2023.
4. Please respond to NMED’s General Comments in the attached response letter to the supplemental submittals, dated February 6, 2024.
5. MMD would like to set up a meeting shortly after submittal of our 2<sup>nd</sup> round of comments to discuss with UNC.

February 7, 2024

**Comments on supplemental submittals:**

UAV-Based Radiological Surveys of the St. Anthony Mine Pit-1 Sidewalls

1. Please convert the cpm rate into  $\mu\text{R/hr}$  or  $\text{pCi/g}$  to better understand how the results compare to background and readings on the rest of the site.
2. What is the plan for addressing the one area of higher radiation (3,348 cpm) shown in Figure A3?

St. Anthony Mine, United Nuclear Corporation 2023 Revegetation Plan

1. Section 2.1: MMD will require a minimum cover thickness of 36 in. of clean material on the site.
2. Section 2.2: MMD is in support of the application of biosolids.
3. Section 2.3: MMD is in support of a rock mulch to help mitigate erosion.
4. How will livestock be excluded from reclaimed areas on the site?
5. Reference areas associated with evaluating vegetative success will need to be approved by MMD.

Pit 1 Backfill and Design Concept

1. How will wildlife be excluded from the Pit 1 area where water will be potentially present?
2. What is the proposed PMLU for the Pit 1 area?
3. MMD is in support of the proposed Pit 1 design with the condition that the design concept will be evaluated over the 12-year monitoring period, prior to release from the NM Mining Act and that the design is accepted by NMED in regard to the site Discharge Permit and Site Abatement.

Ecological Risk Assessment

1. Section 2.1: Why is Uranium identified as non-radiological?
2. Section 2.2: Explain the lack of evaluation of TDS?
3. Section 2.2: As discussed in this section, wildlife will avoid more saline sources for freshwater, therefore MMD recommends the installment of clean drinking water for wildlife through wildlife water catchment systems to encourage them to avoid water in the pit. The same is recommended for a livestock drinking source if the PMLU is to include grazing.
4. Based on the conclusion of the ERA - Will a Pit Waiver be proposed for Pit 1 or a portion of Pit 1?
5. Please respond to the New Mexico Dept. of Game & Fish comments on the ERA, dated February 5, 2024.

**RE: Transmittal of Comments (2<sup>nd</sup> Round) on *St. Anthony Mine Site Closure-Closeout Plan (CCOP), 30% Design Report*, United Nuclear Corporation/GE, St. Anthony Mine, Cibola County, New Mexico, Permit Tracking No. MK006RE**

**February 7, 2024**

MMD requests the UNC add agency comments and responses to the attached excel spreadsheet to simplify and consolidate this process.

Please contact MMD with any questions or concerns and to set up a follow-up meeting regarding UNC's response to these comments at (505) 467-9589 or by email at [clinton.chisler@emnrd.nm.gov](mailto:clinton.chisler@emnrd.nm.gov).

Sincerely,



Clint Chisler  
Permit Lead

Enclosures: Agency Response Spreadsheet  
NMED Response Letter, dated November 20, 2023  
NMED Response Letter, dated February 6, 2024  
NMDG&F Response Letter, dated February 5, 2024

cc: DJ Ennis, MMD  
Anne Maurer, NMED  
  
Mine File (MK006RE)



## Inter-Agency Memorandum

DATE: October 20, 2023

TO: Anne Maurer, Mining Environmental Compliance Section, Ground Water Quality Bureau, New Mexico Environment Department

FROM: Alan Klatt, Watershed Protection Section, Surface Water Quality Bureau, New Mexico Environment Department

SUBJECT: **Request for Comments, St. Anthony Mine, 30% Closure/Closeout Plan Response to Comments, United Nuclear Corporation, St. Anthony Mine, Cibola County, New Mexico Mining Act Permit No. MK006RE**

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On September 25, 2023, the Surface Water Quality Bureau (SWQB) received a request for comments from the Ground Water Quality Bureau (GWQB) regarding the Response to Agency Comments for the St. Anthony Mine's 30% Closure/Closeout Plan (CCOP). SWQB has prepared the following comments pursuant to 19.10.5.506 New Mexico Administrative Code (NMAC):

United Nuclear Corporation (UNC) has not fully responded to comment F3. Model uncertainty should be accounted for in the computed runoff values. SWQB recommends that a margin of safety be added to the computed runoff values to account for model uncertainty. Furthermore, regarding responses to comments F3 and 11c, SWQB recommends that UNC continues to follow Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA) guidance. UNC is relying on other SSCAFCA methods (see UNC response to comments 8 and 14). Therefore, UNC should also follow SSCAFCA's guidance regarding climate change. Southern Sandoval County Arroyo Flood Control Authority's 2015 report to congress<sup>1</sup> describes that the 100-yr storm event in 2099 may see a 25% to 75% increase in peak-flow; The report concludes:

Higher peak discharge may overwhelm existing drainage infrastructure, as well as planned facilities designed based on current standards; furthermore, the extent of floodplains in low lying areas will increase. More frequent storm flows and higher peaks will increase bank erosion and accelerate the lateral migration of natural arroyos. Preservation of buffer areas adjacent to natural arroyos that account both for floodplains and lateral migration will therefore become increasingly important in the future.

Accounting for model uncertainty and climate change is necessary to ensure the future stability of the CCOP and to ensure that surface water quality standards will be protected. Relying on current standards, such as the historic 100-year precipitation and runoff values, may overwhelm the proposed drainage infrastructure that is described in the 30% CCOP resulting in increased erosion that may compromise the waste rock piles which would negatively impact water quality.

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<sup>1</sup> <https://www.sscafca.org/wp-content/uploads/2018/05/2015-Annual-Report-to-Congress.pdf>



## MEMORANDUM

Date: November 20, 2023

To: David Ennis, Program Manager, Mining Act Reclamation Program

Through: Anne Maurer, Team Leader, Mining Environmental Compliance Section

From: Amber Rheubottom, Mining Environmental Compliance Section  
Alan Klatt, Surface Water Quality Bureau  
Sufi Mustafa, Air Quality Bureau

Subject: **NMED Comments, Response to Comments, 30% Closure/Closeout Plan (CCOP), St. Anthony Mine, United Nuclear Corporation, McKinley County, New Mexico Mining Act Permit No. MK006RE**

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The New Mexico Environment Department (NMED) received correspondence from the Mining and Minerals Division (MMD) on September 25, 2023, requesting NMED to review and provide comments on the above-referenced MMD permitting action. Pursuant to the Mining Act, this is a regular existing mine with Mining Act Permit No. MK006RE. MMD requested comments on the *Response to Comments (RTC)* within 45 days. NMED requested an extension to submit comments by November 16, 2023. NMED has the following comments.

### **Background**

MMD received the *St. Anthony Mine 30% CCOP* on October 11, 2022, from United Nuclear-General Electric (Permittee). NMED submitted comments to MMD on the CCOP on February 23, 2023. The Permittee responded to agency comments on September 25, 2023. Included in the RTC is a comment matrix prepared by UNC-GE, which MMD requested NMED to review and comment on. In addition, the Permittee submitted a *Pit 1 Highwall Stability - Phase 2 Report* (Stability Report) that NMED also was asked to review.

### **Air Quality Bureau**

The Air Quality Bureau has no comments.

David Ennis  
St. Anthony Mine, MK006RE  
November 20, 2023

## **Surface Water Quality Bureau**

The Surface Water Quality Bureau comments are attached as are responses to the Permittee's comments in RED in the comment matrix (also attached).

## **Mining Environmental Compliance Section (MECS)**

MECS has the following comments on the CCOP and has included responses in RED in the comment matrix (attached).

### **General Comments**

1. General Comment on the Stability Report– Please indicate what the estimated volume of mass wasting of the high walls is expected to be on an annual basis. Please discuss if mass wasting has the potential to impact the reclamation plan in Pit 1 over the long-term. NMED expects mass wasting of the high walls to occur forever, but it is unclear in the Stability Report how this will affect the long-term Pit 1 remedy as proposed in the Modified Stage 2 Abatement Plan (S2AM). In addition, long-term O&M likely will be required to ensure that the access roads, engineered drainages, etc. be maintained to ensure the remedy is operating as designed. Finally, please indicate the surface area and volume of naturally occurring radioactive material (i.e. portions of exposed highwalls) that will be left un-reclaimed.
2. *Page 10 Table 1: Borehole details* – Please discuss why boreholes were not installed on the East Highwall.
3. *Page 18 GSI values determined using the 2013 correlation were nearly two times higher than GSI values determined using existing pit wall observations and core photographs.* – Considering the newly collected data, please address if the 2013 data will be excluded from the decision-making process.

## **NMED Summary Comment**

NMED will withhold issuance of the environmental determination until such time there is agreement between the Permittee, NMED and MMD on how to proceed with approval of the CCOP and the S2AM.

If you have any questions, please contact Anne Maurer at (505) 660-8878.

cc: David Ennis, Program Manager, EMNRD-MMD  
Joe Fox, Program Manager, MECS  
Shelly Lemon, Bureau Chief, NMED-SWQB

David Ennis

St. Anthony Mine, MK006RE

November 20, 2023

Elizabeth Bisbey-Kuehn, Bureau Chief, NMED-AQB

Clint Chisler, Lead Staff, EMNRD-MMD



MICHELLE LUJAN GRISHAM  
GOVERNOR

JAMES C. KENNEY  
CABINET SECRETARY

## Environmental Department Internal Memorandum

DATE: January 26, 2024

TO: Anne Maurer, Mining Environmental Compliance Section, Ground Water Quality Bureau, New Mexico Environment Department

FROM: Alan Klatt and Eliza Martinez, Watershed Protection Section, Surface Water Quality Bureau, New Mexico Environment Department

SUBJECT: **Request for Comments, St. Anthony Mine, Supplemental Submittals, Closure/Closeout Plan, United Nuclear Corporation, St. Anthony Mine, Cibola County, New Mexico Mining Act Permit No. MK006RE**

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On December 20, 2023, the Surface Water Quality Bureau (SWQB) received a request for comments from the Ground Water Quality Bureau (GWQB) regarding supplemental information for the St. Anthony Mine's 30% Closure/Closeout Plan (CCOP) including the *Pit 1 Backfill and Design Concept*, *Ecological Risk Assessment*, *2023 Revegetation Plan*, and *UAV – Based Radiological Surveys*. SWQB has prepared the following comments pursuant to 19.10.5.506 New Mexico Administrative Code (NMAC):

**SWQB Comment #1:** The *Ecological Risk Assessment* and the *Stage 2 Abatement Plan Modification* both assert that the expressed water in Pit 1 is a private water and is therefore not subject to New Mexico surface water quality standards. SWQB provided comments to GWQB on the *Stage 2 Abatement Plan Modification* dated February 13, 2023. A determination on private waters will be provided as part of the *Stage 2 Abatement Plan Modification* approval process.




**SWQB Comment #2:** The *Ecological Risk Assessment* assumes, "future maximum surface water concentrations are expected to be similar to concentrations measured in Pit 1 prior to the STPP pilot test." However, Section 6.3.6 of the 30% CCOP dated October 7, 2022 says that several constituent concentrations, including uranium, increased in the untreated region of Pit 1 as a likely result of evapo-concentration over the spring and summer of the 2019 sodium tripolyphosphate (STPP) pilot test. The *Ecological Risk Assessment* should consider the effects of evapo-concentration on future maximum surface water concentrations.

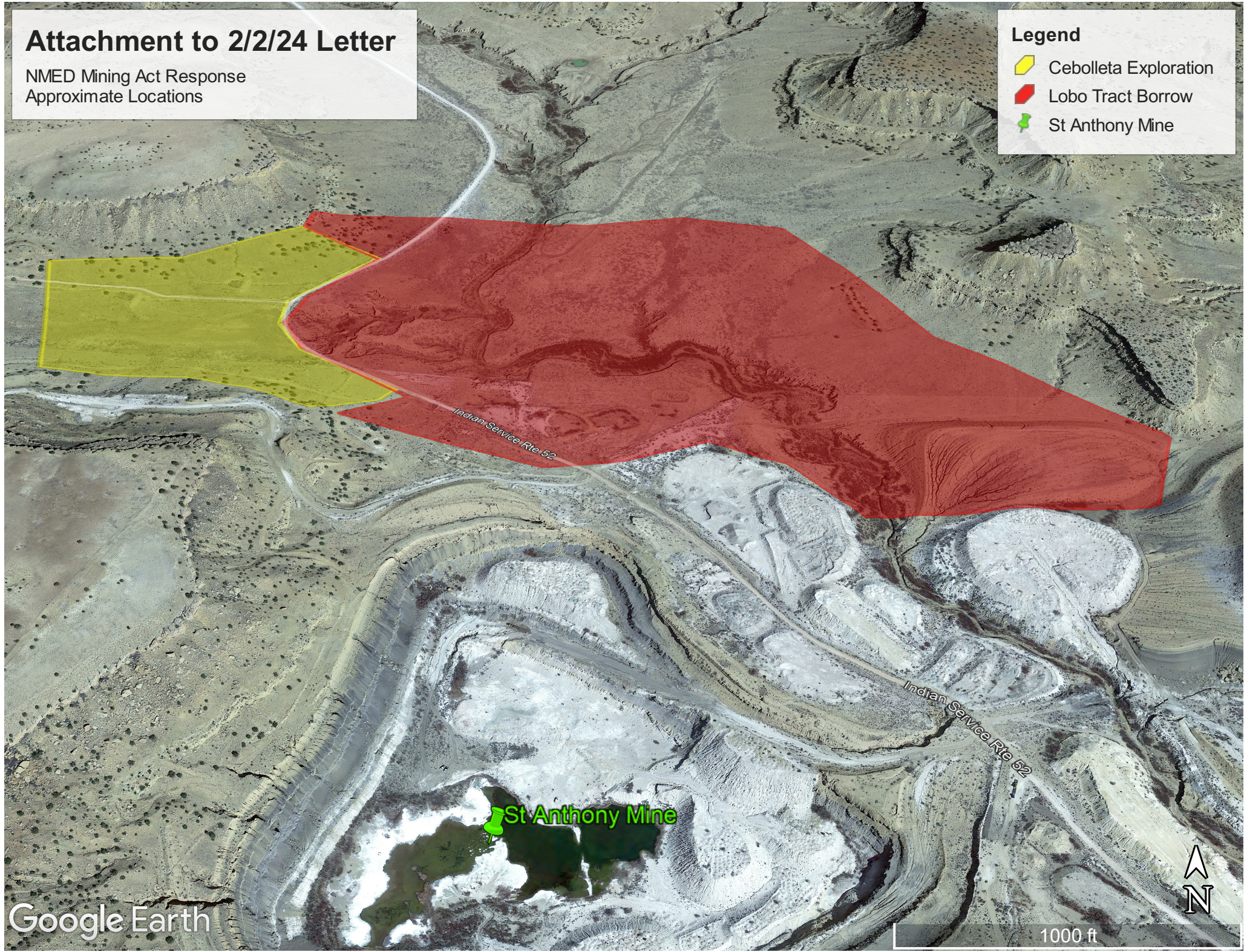


# Attachment to 2/2/24 Letter

NMED Mining Act Response  
Approximate Locations

## Legend

-  Cebolleta Exploration
-  Lobo Tract Borrow
-  St Anthony Mine



Google Earth

1000 ft





## MEMORANDUM

Date: February 6, 2024

To: David Ennis, Program Manager, Mining Act Reclamation Program

Through: Anne Maurer, Team Leader, Mining Environmental Compliance Section

From: Amber Rheubottom, Mining Environmental Compliance Section  
Alan Klatt, Surface Water Quality Bureau  
Sufi Mustafa, Air Quality Bureau

Subject: **NMED Comments, Supplemental Submittals, 30% Closure/Closeout Plan (CCOP), St. Anthony Mine, United Nuclear Corporation, McKinley County, New Mexico Mining Act Permit No. MK006RE**

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The New Mexico Environment Department (NMED) received correspondence from the Mining and Minerals Division (MMD) on December 15, 2023, requesting NMED to review and provide comments on the above-referenced MMD permitting action. Pursuant to the Mining Act, this is a regular existing mine with Mining Act Permit No. MK006RE. MMD requested comments within 45 days. NMED requested an extension to submit comments by February 2, 2024. NMED has the following comments.

### Background

MMD received multiple supplemental submittals to the *St. Anthony Mine 30% CCOP* in November of 2023, from United Nuclear-General Electric (Permittee). The supplemental submittals include:

- *St. Anthony Mine – Pit 1 Backfill and Design Concept*, dated November 30, 2023
- *Ecological Risk Assessment for the St. Anthony Mine Pit 1 Site*, dated November 2023
- *St. Anthony Mine, United Nuclear Corporation 2023 Revegetation Plan*, dated November 2023
- *UAV – Based Radiological Surveys of the St. Anthony Mine Pit-1 Sidewalls*, dated October 21, 2021

David Ennis  
St. Anthony Mine, MK006RE  
February 6, 2024

**Air Quality Bureau**

The Air Quality Bureau has no comments.

**Surface Water Quality Bureau**

The Surface Water Quality Bureau comments are attached.

**Mining Environmental Compliance Section (MECS)**

MECS has the following comments:

1. **Ecological Risk Assessment**

*Section 2.0 - Accordingly, this CSM assumes that the duration of surface water expression in Pit 1 will be long enough for rooted aquatic plants and sediment-dwelling invertebrates to inhabit the pit. It is NMED's understanding through submitted documents and presentations that Pit 1 will intermittently hold water and intermittently be dry. How long are the expected rooted aquatic plants able to survive when water is not continuously expressed on the post reclamation surface?*

2. *Section 2.1 - Future maximum surface water concentrations are expected to be similar to concentrations measured in Pit 1 prior to the Sodium tripolyphosphate (STPP) pilot test. While use of the pre- STPP treatment water concentrations is reasonable for model inputs for the post reclamation water quality modeling, NMED would like to acknowledge the results presented in the January 17, 2020, Intera Technical Memo on the STPP Results. Intera indicates that following the STPP application, some concentrations in specific constituents (phosphate, sulfate, manganese and chloride) increased and that increased phosphate concentrations may result in a notable increase in algal growth. NMED understands that STPP is planned to be used again in the final closure of Pit 1. NMED recommends adjusting the model inputs based on the results presented in the Technical Memo to properly model the post reclamation conditions and that the growth of the algae be evaluated with respect to ecological communities.*

3. **Revegetation Plan**

*Section 2.2 - If composted cow manure or biosolids are utilized, the moisture content, salinity, organic content, and radioactivity will need to be tested by a certified laboratory. NMED recommends analyzing for metals in any biosolids proposed to be utilized at St Anthony. Also, if any products are industrially generated, please submit the appropriate hazard and profile documentation prior to its use on site.*

David Ennis  
St. Anthony Mine, MK006RE  
February 6, 2024

4. *Table 2 Growth Media Borrow Source Summary* – At a site visit on January 17, 2024, it came to NMED’s attention that the Lobo Tract Borrow area overlaps with the area for the Cebolleta Exploration Project (see Attachment 1 for approximate locations based on NMED’s current understanding). Please provide documentation of the agreements between UNC and the Cebolleta Land Grant which enables the use of the Lobo Tract Area for borrow material, while the same area is currently being explored by another company holding the mineral rights.

5. Pit 1 Backfill and Design Concept

*Page 2 - Since the Pit 1 infill piles will be the first materials placed in the pit bottom, these materials will be placed partially below the level of the existing groundwater surface in the pit bottom...The removed material will be placed in a compacted layer above the layer of compacted Pit 1 infill waste pile material, thus acting as the initial cover layer over the waste.* Please discuss how the material will be compacted if it is below the level of the existing water surface. Will special equipment be required, or will the water be removed prior to construction?

**NMED Summary Comment**

NMED will withhold issuance of the environmental determination until such time there is agreement between the Permittee, NMED and MMD on how to proceed with approval of the CCOP and the S2AM.

If you have any questions, please contact Anne Maurer at (505) 660-8878.

cc: David Ennis, Program Manager, EMNRD-MMD  
Joe Fox, Program Manager, MECS  
Shelly Lemon, Bureau Chief, NMED-SWQB  
Elizabeth Bisbey-Kuehn, Bureau Chief, NMED-AQB  
Clint Chisler, Lead Staff, EMNRD-MMD



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5 February 2024

Clint Chisler, Uranium Reclamation Coordinator  
Mining and Minerals Division (MMD)  
Mining Act Reclamation Program  
1220 South St. Francis Drive  
Santa Fe, NM 87505

**RE: Ecological Risk Assessment for the St. Anthony Mine Pit 1 Site, Cibola County, New Mexico, Permit No. MK006RE; NMDGF No. 3127.**

Dear Mr. Chisler:

The New Mexico Department of Game and Fish (Department) has reviewed the Ecological Risk Assessment for the St. Anthony Mine Pit 1 Site (ERA), submitted by United Nuclear Corporation and General Electric (UNC/GE). Staff from the Department, MMD, New Mexico Environment Department, and INTERA conducted a site inspection on 17 January 2024. Department staff observed approximately 200-300 water birds on the Pit 1 lake; species included: American coot (*Fulica americana*), canvasback (*Aythya valisineria*), and mallard (*Anas platyrhynchos*).

UNC/GE proposes to partially backfill Pit 1 so that it will continue to function as a hydraulic sink for contaminated groundwater. This action will keep the backfill elevation below the Jackpile-Dakota contact zone, thus preventing flow into the local, uncontaminated aquifer. The final configuration of the proposed Pit 1 reclamation will allow sections of bedrock stratigraphy along the highwall that surrounds the pit lake to remain exposed and assumes a future expression of groundwater at the base of Pit 1.

Section 2.1 of the ERA states that "Future maximum surface water concentrations are expected to be similar to concentrations measured in Pit 1 prior to the sodium tripolyphosphate (STPP) pilot test. These measured Pit 1 concentrations would therefore be representative of undisturbed expressed water conditions over the 30-year period after mine closure." This statement suggests that 30 years after STPP treatment, pit lake uranium and radon concentrations are expected to return to pre-treatment levels. The Department requests further information regarding the rationale of the STPP treatments and their effectiveness in reducing uranium and radon levels in the short term and whether UNC/GE anticipates repeating the STPP treatments every 30 years or as levels of uranium and radon dictate.

The Department believes that the hydrogeological complexities at the site and associated, inherent uncertainties will make prediction of future, long-term pit lake water quality extremely difficult. In addition, the potential long-term effects of climate change and prolonged drought could lead to the evapoconcentration of trace elements in the pit lake water, resulting in hazardous water quality conditions for wildlife. Therefore, the Department does not agree with

the definitive statement regarding long-term pit lake water quality in Section 5.3 that “The results of this ERA indicate that wildlife and livestock are not at risk from exposure to the Pit 1 environment”. The Department continues to recommend that UNC/GE install pit lake perimeter fencing to exclude wildlife, as previously recommended in the St. Anthony Mine 30% Closure/Closeout Plan comments letter submitted to MMD on 23 February 2023 (NMERT-2239).

At minimum, the Department recommends providing nearby sources of clean drinking water to attract wildlife away from the pit lake. Drinker tanks should be designed with textured escape ramps to prevent entrapment and drowning of smaller animals. The Department is available for consultation regarding the different types of appropriate wildlife drinker tanks.

The Department does concur with the evaluation that birds are unlikely to build nests on the exposed band of Jackpile sandstone. The formation lacks suitable crevices, cavities, and ledges that are necessary for nesting birds and roosting bats. The surrounding habitat provides an abundance of cliff lines and bluffs that are suitable for birds and bats. Staff from the Department, MMD, and INTERA observed an active red-tailed hawk (*Buteo jamaicensis*) nest with an adult and two downy young present on 6 June 2023. The nest was located on a cliff face approximately 0.6 miles from Pit 1.

Thank you for the opportunity to provide comments on the ERA. If you have any questions, please contact Ron Kellermueller, Mining and Energy Habitat Specialist, at (505) 270-6612 or [ronald.kellermueller@dgf.nm.gov](mailto:ronald.kellermueller@dgf.nm.gov).

Sincerely,

Matt Wunder, Ph.D.  
Chief, Ecological and Environmental Planning Division

cc: USFWS NMES Field Office

Comment Number	Agency	Document	Section/Page	Comment	Response	2nd Round of Comments
1	MMD	CCOP	Exec. Summary	Provide the results from the 2022 Supplemental Radiological Survey.	UNC is providing the 2022 Supplemental Radiological Characterization South of Pit 1 Report with this response to comments.	MMD has no specific comments on the 2022 Supplemental Radiological Survey other than we look forward to reclamation designs for areas
2	MMD	CCOP	Plan Summary	Explain why the topsoil/overburden pile is planned to be reclaimed in place rather than used for cover.	Cedar Creek authored a Materials Characterization in 2018 (included in Appendix H of the CCOP) which evaluated and described the benefits and drawbacks of using different stockpiled or borrow materials for reclamation. The basis of the evaluation were the chemical and physical parameters of the available materials. The most suitable materials were selected for	This will need to be discussed with the agencies. MMD is of the opinion that utilizing existing topsoil and suitable overburden that has been stockpiled is preferred over disturbing new location of native ground on the site.
3	MMD	CCOP	1.2	Plan Objectives: include a proposed PMLU Map with associated acreages.	A PMLU map will be included depicting PMLU and associated acreages and incorporated into the 90% CCOP.	No further comment
4	MMD	CCOP	3.7.1	Wildlife: 2 large stick nests were discovered on the cliffs near Pit 1 during the January 10, 2023 inspection. Coordinate with NMG&F to assess if these nests are currently being used and by what species.	Members of the closure team were accompanied by NMG&F and NMMMD personnel to evaluate identified stick nests. The June 6, 2023 inspection revealed three stick nests on the property. Only one active red tailed hawk nest was found. These nests along with a comprehensive nest survey will be implemented in February/March ahead of planned construction activities, so that appropriate spatial and temporal buffer during construction activities can be applied. A report summarizing the findings of the raptor nest survey and coordination with NMG&F will be provided following the field survey.	No further comment
5	MMD	CCOP	4.2.4	2021-22 Highwall Investigation: When will this data be available to the agencies?	UNC is providing the Pit 1 Highwall Stability - Phase 2 Report with this response to comments.	MMD has no specific comments regarding the Pit 1 Highwall Stability - Phase 2 Report.
6	MMD	CCOP	5.0	Post-Mining Land Use: Please utilize MMD's current SSE, Vegetation, and Soils Guidelines (2022) for PMLU decisions and Soils/Vegetation work on the site.	The Materials Characterization and Revegetation Plan were prepared prior to the guidelines but principally adhere to the guidelines without substantive differences. Ecosystems within the surrounding life zone of the reclamation activities were evaluated to inform the revegetation plan. The Materials Characterization efforts closely follows the soils guideline and the revegetation plan also closely follows the revegetation guideline.	No further comment

7	MMD	CCOP	5.4	Pit Waiver: The applicant indicates that before submitting a final CCOP, a pit waiver will be submitted, consistent with NMAC 19.10.5.507.B. MMD suggests that the applicant indicate that a pit waiver may be submitted in the future. At this point it is unknown that a pit waiver will be necessary, or that MMD would approve a pit waiver without additional information required by	The current design plan includes partial backfill of Pit 1 and the potential for eventual expressed water that may not be suitable for wildlife use and may require engineering controls consistent with Comment #2 below from the NM F&G. UNC will conduct an ecological risk assessment (ERA) to evaluate whether ecological risks exist to wildlife. The results of the ERA will determine if a pit waiver is required.	Please find comments on the ERA in a separate document.
8	MMD	CCOP	6.1	Plan Summary: Please be aware of MMD's concern with the reclamation of Piles 3, 4, and 5 as related to set-back and stability to prevent further erosion into Meyer Draw. The current designs with a setback of 50 ft. from the center of Meyer Draw and the longer slope lengths may not be sufficient to ensure long term stability.	Stantec evaluations estimate that an 80-foot channel cross section bottom width and 0.75% channel slope will provide a geomorphologically stable arroyo through the project reach. These dimensions are supported by the following: A.1 Observation of historical/pre-mine arroyo channel as shown in the 1935 aerial image. The average channel slope is 0.76%, based on interpolation between points up- and downstream of the mine disturbed area from the 2011 topographic survey. B.1 Study of a relatively undisturbed reference reach located upstream of the project reach. The reference reach is located upstream of the mine impacted project reach. The reference reach slope is 0.73% and channel bottom width through the upstream reach varies roughly between 75-feet and 100-feet. C.1 Analytical evaluations for stable arroyo dimensions. The computation of a stable arroyo using the methods from the Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA, 2008) yield a channel bottom width equal to 80-feet and a channel slope equal to 0.75% for sediment continuity through the reach. With that said, UNC will conduct a setback analysis to evaluate a design scenario with a wider arroyo corridor <del>through the site near the waste piles and will update the</del>	Please provide an anticipated schedule for completion of the setback analysis and submittal to the agencies.
9	MMD	CCOP	6.2	Excavation and Placement: As a general guideline MMD encourages UNC to place as much material as feasible from the site into Pit 2 while prioritizing the more radioactive materials.	As described in Section 6.2 of the CCOP, the more impacted materials on site are being prioritized for placement beneath an earthen cover and below the top of Pit 2. In the 90% CCOP, UNC will evaluate placing additional materials above the current design surface in Pit 2 and the approach to provide long-term erosion <del>protection</del>	No further comment
10	MMD	CCOP	6.3.2	Design: Provide a detailed design regarding the full-scale application of Sodium Tripolyphosphate (STPP) to the pit water area.	Detailed procedures for the full-scale application of the STPP prior to partial backfill of Pit 1 will be included in the 90% CCOP.	No further comment



11	MMD	CCOP	6.4	Regrading Waste Piles: MMD has the following comments and concerns regarding the preliminary designs for regrading waste piles on the site. These comments also apply to the preliminary construction designs.	-	
11a	MMD	CCOP	6.4	MMD utilizes a maximum of 200' interbench slope lengths at a maximum of 3H:1V. Because of the environmental impacts of uranium waste rock MMD recommends the NM Copper Rule minimum slope length guidance be used for a more protective design.	The piles are being designed per NMAC 19.10.5 to "minimize mass movement". Generally, 5:1 slopes at 400 feet, 4:1 slopes at 300 feet, 3:1 at 300 or 200 feet each result in industry standard acceptable factors of safety for erosional stability for the Pile 4 cover. The calculations are included as Appendix G.2 and are based on Temple (1987) and the Revised Universal Soil Loss Equation (RUSLE). UNC will evaluate the incorporation of shorter and steeper slopes at St. Anthony as part of the	MMD is in support of the 5:1 Slopes at 400 ft and 4:1 Slopes at 300 ft. The only issue we have is the 3:1 Slopes that are longer than 200 ft. Let's discuss this issue of the 3:1 Slopes longer than 200 ft. MMD's comment was not meant to imply that we would like to see shorter and steeper slopes on site reclamation.
11b	MMD	CCOP	6.4	Because of the saline and sodic nature of the soils surrounding the St. Anthony mine, borrow and/or cover systems will need to be built with this in mind. Important factors to keep in mind regarding minimizing erosion include, but not limited to, rock armoring, thickness of cover in the store and release system to allow for erosion, plant species selection, slope length/angle, bench frequency, and down drains designs.	The Materials Characterization at St. Anthony was implemented to identify the best growth media materials (considering soil chemical and physical parameters) for reclamation of the facilities. Sodium Adsorption Ratios (SAR), an agronomic indicator of dispersion, were evaluated in the Materials Characterization (Cedar Creek 2018). The SAR results on the proposed growth media materials were found to exhibit 'Good' suitability in accordance with the new soils guideline for sandy loams (<12) and sandy soils (<4). In addition, salinity was evaluated using Electrical Conductivity (EC). While the new soils guidelines do not provide thresholds for EC, the measured results on the proposed growth media materials were generally below the typical salinity threshold for rangeland soils (<6 mmhos/cm). UNC agrees that the soils exhibit some erosion risk, primarily because they are sandy in texture. The soils proposed for revegetation were not found to be sodic and only mildly saline. An erosion evaluation based on the proposed slopes and growth media materials is included with the CCOP (Appendix G). In general, the underlying materials are not expected to preclude vegetation rooting. Based on their experience on more than 40 mine closure revegetation plans, Cedar Creek recommended placement depths, which were based on	MMD was not able to find rock content in the parameters evaluated in the Materials Characterization for the Borrow Areas. Please provide rock content on borrow materials for the depths planned to be excavated.

11c	MMD	CCOP	6.4	With climatic weather patterns trending toward less frequent, but more intense storm events, UNC might want to consider designing over the 100 year/24 hour storm event. At a minimum MMD will require that UNC conduct a precipitation analysis to determine the frequency of specific storm events over the last 20 years. Because of the increased need for erosion controls on reclaimed uranium mine sites, design for storm	UNC is unaware of a legal or regulatory obligation to perform a precipitation analysis or design for uncertain future climatic changes. Nonetheless, UNC will conduct a precipitation analysis to determine the frequency of specific storm events over the last 20 years and consider revising the design for storms with less frequent return periods up to the 500-year return period in the 90% CCOP.	Thank you for considering a more robust storm event design. Please provide an anticipated schedule for completion of the precipitation analysis.
11d	MMD	CCOP	6.4	Because of the environmental impacts of contaminated waste materials from the site eroding into Meyer Draw, the reclamation of this area will need special consideration regarding erosion and long-term stability. Please address NMED's Surface Water Bureau comments on this topic, especially the questions regarding the 50 ft setback from the edge of the natural channel. How is the natural channel defined, and what is it about 50 ft that makes this particular number functional, given the environmental parameters of the site. Additionally, MMD advises addressing the particular issue of waste rock stability, erosion and sediment loading of Meyer Draw by applying a geomorphological solution to the reclamation of	Please see response to comment 8 regarding pile setbacks and comment 16 regarding erosion into Meyer Draw. Piles 1-4 have been designed using a geomorphological approach to present natural-looking features that fit within the surrounding landscape, rather than linear or rectangular piles with uniform slopes. To further enhance the geomorphological design of the piles, spreading the footprints of the piles over larger areas and flattening the slopes would be necessary; however space constraints on site and the goal of long-term protectiveness limit UNC's ability to spread the material over larger areas.	No further comment
12a.	MMD	CCOP	6.5	Surface Hydrology: With climatic weather patterns trending towards less frequent, but more intense storm events, MMD recommends designing over the 100 year/24 hour storm requirement currently found for existing mines in the NM Mining Act Rules. MMD is specifically requesting this in response to the NM Executive Order 2019-003 Executive Order on Addressing Climate Change and Energy Waste Prevention,	Please see response to Comment 11C.	No further comment
12b.	MMD	CCOP	6.5	Will berms be constructed at the toe of the piles adjacent to Meyer Draw to catch eroded sediments?	Sediment berms and/or other temporary sediment capture devices, including stormwater BMPs, will be incorporated in key areas along Meyer Draw to manage sediments prior to vegetation establishment as part of the 90% CCOP.	No further comment

12c.	MMD	CCOP	6.5	Because of the current failure of the berm system surrounding Pit 1 on the west and southwest boundaries, the operator will need to design a more robust diversion system to keep surface water run-on out of Pit 1. Keeping surface water run-on out of Pit 1 will be essential for the success of the Pit 1	The proposed stormwater controls for the west side of Pit 1 are designed to redirect surface water around the pit for the prescribed storm event. Additional berms along the proposed diversion channel upstream of Pit 1 will be evaluated and incorporated into the 90% CCOP, if appropriate.	No further comment
13a.	MMD	CCOP	6.6	Soil Covers: All borrow areas will be required to be reclaimed to the same vegetative and erosional standards as the reclaimed areas.	Comment noted, the revegetation plan applies to the future reclamation of the borrow areas. Proposed final grading is included in the plan set for the Lobo Tract East Borrow area and the West Borrow area. Expanded details will be included in the 90% CCOP. UNC will further address erosional stability details for the borrow areas in the 90% CCOP.	MMD would also recommend that UNC look at the sodic/saline nature of the borrow areas at depth of excavation. It is likely that material at depth is more sodic/saline than at the surface due to leaching over time.
13b.	MMD	CCOP	6.6	Will a clay layer be included in the cover designs to help achieve the radon flux standard?	UNC is not aware of a State design standard for radon flux. RADON modeling have demonstrated that radon flux recommendations provided in the State's 2016 Reclamation guidance can be achieved with the available cover materials from the borrow areas, in the proposed cover configurations for the activity levels of the disposed materials. A clay layer will not be included in the cover designs. Radon modeling calculations are included in Appendix G.	A clay layer would not be required as long as the radon flux can be demonstrated to comply with the standard of no more than 20pCi/m <sup>2</sup> /s.
13c.	MMD	CCOP	6.6.3.3	Regraded In-Place Piles: MMD views uranium waste as similar to copper mining waste which requires a minimum 3 ft. cover system to be considered a functional evapotranspirative system. This is particularly important when trying to stabilize uranium waste rock piles and establish long term erosional stability.	UNC disagrees that uranium waste is similar to copper mining waste to require a minimum 3 foot cover. Based on the proposed grades for the piles, and up to 2.5:1 slopes as recommended by NMED (NMED Comment 3) under NMAC 20.6.7.33.C.4, a 2-foot thick cover is considered adequate to address the potential for infiltration since most surface water will runoff the covered pile slopes. Currently, the design includes 24-inches of cover over Piles 1-5. The cover thickness for the Pit 1 and Pit 2 covers is proposed to be 48 inches and 96 inches respectively. The cover thicknesses have been shown by calculations to be adequate for erosion protection and radon emanation control based on the activity levels of the materials to be disposed at each location. The calculations are included in Appendix G. UNC will evaluate cover infiltration for the cover configurations in the 90% CCOP.	24" of cover for Piles 1-5 is an insufficient amount of cover considering the erodability of the proposed cover and nature of the waste rock being covered. Additionally the sensitivity of material eroding into Meyer Draw should be taken into consideration. MMD has noticed significant erosion when using local soils in the area as cover. A 36" clean material minimum cover system will be required on all reclaimed areas on the site.

A1	MMD	CCOP - A.1	1.4	Precipitation: Provide more recent precipitation data from the last 20 years as opposed to data ending in 2005.	The data / report this is in reference to is from 2005. The 2022 Revegetation Plan Update is included as Appendix H and includes precipitation data through 2016.	Thank you for the clarification
A2	MMD	CCOP - A.1	2	Sampling Methods: Refer to MMD's 2022 SSE and Revegetation Guidelines for guidance on an acceptable revegetation plan. In addition to ground cover, vegetative productivity, and shrub density, MMD also requires plant diversity as a component to be evaluated for vegetative success.	This comment was addressed in the updated Revegetation Plan included as Appendix H.	No further comment
A3	MMD	CCOP - A.1	-	Please propose Vegetative Success Criteria for the site using the extended reference area data.	This comment was addressed in the updated Revegetation Plan included as Appendix H.	No further comment
A4	MMD	CCOP - A.1	3.6	Wildlife: Please exclude Burro and Wild Horse from Wildlife Data. Feral horses and burros are not considered native wildlife.	This data will be removed from the 90% CCOP.	No further comment
A5	MMD	CCOP - A.1	4.1	Growth Medium Characteristics and Reapplication Depths: a. Please describe the proposed cover system in detail including all components such as spoil/contaminated material/waste rock, clean overburden or cover, clay liner, topsoil or growth media. b. Because of the erodibility of local soils it is required that a minimum of 3 ft of clean cover with 2 ft of that being topsoil or growth media be used as a minimum in the cover system.	a. This comment pertains to a document drafted before the covers were designed. Please refer to section 6.6. of CCOP main text for these details. b. The Materials Characterization provides recommended placement depths which are based on the chemical and physical characteristics of the potential materials used for reclamation. c. In the present design, other than in drainage features, rock is not proposed as additional erosion protection. The covers are to be vegetated.	c. The agencies understand that the cover system will be vegetated but recommends that the operator implement a specification for the minimum rock content allowed in the cover system to help mitigate erosion while vegetation is being established. MMD was not able to find rock content information in the borrow area characterization plan. This information will need to be provided. If insufficient levels of rock content are found in borrow sources UNC will need to propose an acceptable amount of rock
A6	MMD	CCOP - A.1	4.2.2	Fertilization Recommendations: MMD generally does not recommend the use of synthetic fertilizers for reclamation, however organic amendments such as biosolids, or other organic amendments can be useful in giving plants help during the early stages of establishment. Please refer to MMD's Soils and Revegetation Guidelines for more information on this topic.	This comment was addressed in the updated Revegetation Plan included as Appendix H.	No further comment
A7	MMD	CCOP - A.1	-	Please align the proposed seeding rates with the 2022 Vegetation Guidelines.	This comment was addressed in the updated Revegetation Plan included as Appendix H.	No further comment

A8	MMD	CCOP - A.1	5.2	Sample Site Selection: Please better explain how a specific reference area is proposed to be associated with a specific reclaimed area for purposes of proving vegetative success. MMD recommends a simpler approach than is described in this plan. Again, please refer to MMD's 2022	This comment was addressed in the updated Revegetation Plan included as Appendix H.	No further comment
A9	MMD	CCOP - A.1	-	Regarding the Vegetative Recommendations found in this document, please present to the agencies a precise proposal for revegetation and monitoring on the site for approval.	This comment was addressed in the updated Revegetation Plan included as Appendix H.	No further comment
B1	MMD	CCOP - B	-	Please provide MMD the 2022 Supplemental Radiological Survey in addition to the Appendix B.1, B.2, and B.3 data so that the agencies can fully evaluate the material characterization on-site.	UNC is providing the 2022 Supplemental Radiological Characterization South of Pit 1 Report with this response to comments.	No further comment
C1	MMD	CCOP - C1	-	Does the Excavation Control Plan address the 2022 Supplemental Radiological Survey Data? If not, this information may need to be addressed to include the additional clean-up work.	The Excavation Control Plan does not address the 2022 Supplemental Radiological Survey Data. The Excavation Control Plan will be updated in the 90% CCOP to address this area.	No further comment
C2	MMD	CCOP - C2	-	Does the Verification Survey Plan address the 2022 Supplemental Radiological Survey Data? If not, this information may need to be addressed to include the additional clean-up work.	The Verification Survey Plan does not address the 2022 Supplemental Radiological Survey Data. The Verification Survey Plan will be updated in the 90% CCOP to address this area.	No further comment

C3	MMD	CCOP - C2	4.4.1	<p>Verification Survey Units: Section 2.0 (1) of the Joint Guidance for the Clean-up and Reclamation of Existing Uranium Mining Operations in NM (2016) specifies that the concentration of Ra-226 is averaged over an area of 100 square meters. Survey Units within this Closeout Plan will need to meet this criterion.</p>	<p>The verification approach for confirming impacted soils have been removed from areas planned for excavation includes multiple data collection and assessment steps, consisting of:</p> <p>1.1Excavation Control Survey – following excavation of a lift a gamma survey of 100% coverage of the area will be conducted and repeated until impacted soil exceeding the Soil Action Level (SAL) has been removed (Appendix C.1, Section 5.1) .</p> <p>2.1Verification Gamma Scan – when excavation in an area is complete as determined based on the excavation control survey, systematic gamma scan surveys of the excavated areas will be conducted, prior to the one-minute gamma static survey described in 3 below. The gamma scan surveys will be performed over excavated soil surfaces by walking along transects. A 30- foot transect spacing will be used for this gamma scan survey at a rate of three feet per second which results in five data points every 100 square meters (Appendix C.2, Section 5.1).</p> <p>3.1Verification Static Scan Survey - after the gamma scan described above in 2 is completed, a final static survey will be conducted for each 2.5-acre survey over a 125-foot triangular grid area determined consistent with MARSSIM (Appendix C.2, Section 5.2).</p> <p>The overall cleanup verification approach described</p>	No further comment
C4	MMD	CCOP - C2	4.4.2, 4.4.3	<p>Sections 4.4.2 and 4.4.3 will also need to be adjusted in reference to comment # 2 in this section.</p>	<p>Sections 4.4.2 and 4.4.4 will be updated in the 90% CCOP to address the 2022 Supplemental Radiological Survey per Comment</p>	No further comment
C5	MMD	CCOP - C2	-	<p>What is the verification survey process for the areas labeled as “Backfilled, Stabilized, and Covered Areas” and “Regraded, Stabilized and Covered Areas”?</p>	<p>The verification process for the waste disposed, regraded, radon covered and stabilized areas will consist of radon flux emission measurement to demonstrate the areas meet the 20 pCi/m2/sec guidance limit over the disposal area specified in the MMD 2016 Joint Guidance. The verification procedures will be included in the 90% CCOP. (see also response to comment G4).</p>	No further comment

D1a	MMD	CCOP-D	-	Borrow sources: Will the soils from the borrow sources be evaluated regarding the known sodic soil conditions in the area? From previous experience at a nearby mine, MMD has experienced these saline and sodic soils to be highly erodible.	Sodium Adsorption Ratios (SAR), an agronomic indicator of dispersion, were evaluated in the 2018 Materials Characterization. The SAR results on the proposed growth media materials were found to exhibit 'Good' suitability in accordance with the new soils guideline for sandy loams (<12) and sandy soils (<4). While the new soils guidelines do not provide thresholds for EC, the measured results on the proposed growth media materials were generally below the typical salinity threshold for rangeland soils (<6 mmhos/cm). By comparison, the measured SAR and EC at the L-Bar Mine were 17.7 and 8.3 mmhos/cm, respectively. The values encountered within the potential growth media materials at St. Anthony are much more favorable. See also response to Comment 11h	No further comment
D1b	MMD	CCOP-D	-	Have borrow sources with ample clay content been found for use in a radon attenuation barrier?	No, limited clayey material was encountered in the Lobo Tract borrow area but was not widespread. A clay layer will not be included in the cover design. See Appendix D for geotechnical properties of the available borrow and responses to Comments 13b and G-4 regarding the cover designs.	No further comment
D1c	MMD	CCOP-D	-	Does the operator have a known borrow area for rip-rap or rock to increase the rock content in cover materials?	Riprap sources will be identified and included in the 90% CCOP when the specific sizes and quantities of rock needed are more clearly defined. We anticipate that rock from an offsite quarry will be required for the project	No further comment
D2	MMD	CCOP-D	-	Summary and Conclusions: What H2S precautions will be taken onsite to ensure the safety of personnel?	Precautions will be included in the Health and Safety Plans in the 90% CCOP for implementation during earthwork, and may include the use of gas meters, fans, or other ventilation methods for personnel performing work in enclosed cabins of mobile equipment.	No further comment

E	MMD	CCOP-E	-	Material Balance Calculations: Why aren't the Topsoil/Overburden, Topsoil South, or Borrow Area South considered as material suitable for cover on the site?	The 2018 Materials Characterization rated the revegetation potential of available materials on site. The ratings are based on evaluation of physical and chemical parameters of potential growth media along with the required haul distances to determine the best materials for use as cover. More desirable materials generally exhibited more favorable conditions for plant growth, based on better plant water holding capacity or EC / SAR. Topsoil/Overburden - was rated less desirable than other sources by Cedar Creek and Stantec decided it was more economical to regrade in-place than handle twice and use poor soil somewhere else. Topsoil South - Also ranked poorly by Cedar Creek as a growth media. Stantec determined that this material could be used as unimpacted overburden to attenuate radon emanation in the reclaimed Pit 2, with another 2 feet of growth media overlying the Topsoil South material. Borrow Area South - has limited available borrow volume to use for cover and surface radiological impacts that	Thank you for the response. Please provide a schedule for evaluation of the Borrow Area South radioactive impacts if that area is chosen for borrow. After a site visit held on 1/17/2024 MMD has the following concerns regarding the two Lobo Tract Borrow areas: Lobo Tract East: Much of this area seems to have highly erodable soils that have created large gullies leading into Meyer Draw. Please provide a more detailed/focused map of the area intended for borrow in Lobo Tract East. Additional further characterization may need to be done on the focused area. Lobo Tract West: This area is located in an area of active uranium exploration by another company. Please coordinate with Land Grant to work out any issues that may arise from this situation.
F1	MMD	CCOP-F.1	-	Flow Characterization: As mentioned before in this document UNC may want to consider designing surface water conveyance facilities and cover designs at a more robust design level.	Please see response to Comment 11C.	No further comment
F2	MMD	CCOP-F.2	-	Design of Hydraulic Stabilization for Meyer Draw and East Tributary Arroyo: MMD requests that the operator provide a presentation with diagrams and construction drawings of the various hydraulic stabilization structures described in this section for discussion with MMD and the NMED.	The overview of the proposed site hydraulic structures is shown in the drawing set on Sheet 14. Additional information showing the structures related to the Arroyos is shown on Sheets 15-16, and 23-26 of the CCOP Drawings. Additional information will be prepared and presented to NMED and MMD in the 90% CCOP <u>pending changes to the surface water designs for the</u>	No further comment
G1	MMD	CCOP-G.1	-	Per the Joint Guidance for the Clean-up and Reclamation of Existing Uranium Mining Operations in NM (2016) Section 2.0 (1) a radon flux limit of 20pCi/m <sup>2</sup> /s is required for areas where contaminated materials exceeding the target radium activity level is emplaced in an on-site repository. Please explain why a compacted clay layer is not included in the cover design for	The RADON model results provided in Appendix G demonstrate that radon fluxes less than 20 pCi/m <sup>2</sup> /s can be achieved with the available unimpacted materials in the proposed cover configurations.	No further comment



G2	MMD	CCOP-G.1	-	Does the operator plan any density/porosity testing in the future for the Pit 1 Highwall Excavation, Pit 1 Infill, or Surface Excavation areas? If not, please provide additional justification regarding how this material is comparable to Pit 2 material.	No additional pre-testing is planned. The density/porosity of the waste layers in the cover design are dependent on the placed, compacted density of the waste material, as opposed to the density/porosity of the materials in their current condition. Therefore, placed densities will be driven by the placement requirements in the specifications. Compacted densities will be confirmed during construction as defined by the Construction Specifications to be prepared as part of the 90% CCOP. Further, RADON models for the Pit 2 cover system indicate that the calculated surface flux remains unchanged when applying either native soil geotechnical properties or Pile 3 geotechnical properties to the	No further comment
G3	MMD	CCOP-G.1	-	Why was data limited regarding the West Borrow and North Topsoil pile? Please explain in more detail to justify combining the density/porosity data for these two locations.	Lab data was "limited" due to the number of samples selected for testing. Soils in the North Topsoil pile and West Borrow area were found to be similar and relatively consistent spatially and with depth, as described in the boring logs and shown by lab results provided in Appendix D. Additional lab tests were not performed at the time due to the consistent nature of the soils and limited perceived value of numerous tests. As described in Appendix G of the 30% CCOP, similarities in the materials in the North Topsoil and West Borrow areas, as well as the proximity of the source locations of the materials, led Stantec to conclude that they could be combined into a single dataset for evaluation of material	No further comment
G4	MMD	CCOP-G.1	-	How will radon emanation be monitored on reclaimed areas to ensure the radon flux limit of 20pCi/m <sup>2</sup> /s has been achieved? Please provide the method and details on the monitoring plan.	Radon flux measurements over the radon covers on waste disposal areas will be performed in accordance with 40 CFR part 61, Appendix B, Method 115 to confirm that the mean flux guidance limit of 20 pCi/m <sup>2</sup> /s over the covered areas have been achieved. Measurement procedures will be included in the 90% CCOP.	No further comment
G5	MMD	CCOP-G.2	-	Cover Erosional Stability and Soil Loss Analysis: As previously stated, MMD recommends that the operator utilize guidance from the NM Copper Rules for determining and apply a maximum of 200' interbench slope lengths for Piles 1, 2, 3, and 4. The current slope lengths for these specific areas seem to be too long.	The piles are being designed per NMAC 19.10.5 to "minimize mass movement" UNC will give consideration to shorter and steeper slopes as part of the 90% CCOP. Please see response to Comment 11A.	Please see response to 11a

H1	MMD	CCOP-H	-	<p>St. Anthony Mine Materials Characterization: MMD has concerns regarding the K-factor of sodic (highly erodible) soils found in the region of the mine site. 24 inches of soil cover may not be sufficient without a certain amount of rock armoring on sloped reclamation areas.</p> <p>Additionally, 24 inches of soil cover may not be adequate for plant growth as an evapotranspirative cover as mentioned in Section 3.2.2 of this appendix. This comment stems from our experience with erosion issues found on two nearby mine sites.</p>	See response to comment 11B	No further comment
H2	MMD	CCOP-H	-	<p>In reference to statements made in Section 5.0 Summary of the appendix, please describe industry best management practices that will be utilized to maximize success for reclamation on this site.</p>	This section will be updated in the 90% CCOP.	No further comment
H3	MMD	CCOP-H	-	<p>Any soil or borrow material used for cover must be evaluated for soil suitability. Please refer to the MMD 2022 Guidance for Soil and Cover Material Handling and Suitability for <u>Part 5 Existing Mines</u></p>	<p>Cover soil suitability has been evaluated consistent with the 2022 Guidance and is addressed in the 2018 Materials Characterization which is included as Appendix H.</p>	No further comment
H4	MMD	CCOP-H	-	<p>MMD is in support of the biosolid application described in Section 2.2.</p>	Comment noted.	No further comment
H5	MMD	CCOP-H	-	<p>Where will rock mulch be sourced from as mentioned in Section 2.3?</p>	<p>Riprap sources will be identified during the 90% CCOP process when the specific sizes and quantities of rock needed are more clearly defined. We anticipate that rock from an offsite quarry will be required for the project.</p>	No further comment
H6	MMD	CCOP-H	-	<p>Will the same type of reference areas be used as described in Appendix A.1</p>	<p>Suitable reference areas, in accordance with the new guidelines, will be presented in the 90% CCOP for MMD for approval</p>	No further comment
H7	MMD	CCOP-H	-	<p>If any of the comments on Appendix A.1 are addressed in this new 2022 Revegetation Plan, please make note to MMD in your response and disregard.</p>	<p>Comments on A.1 were addressed were in the revised 2022 Revegetation Plan have been marked as such in the responses above.</p>	No further comment

F3	NMED-SWQB	CCOP-F1	-	<p>The computed runoff values in "APPENDIX F.1 Flow Characterization" rely on numerous assumptions and simplifications and do not report model uncertainty or account for climate change. The computed runoff values are compared to USGS regional estimates for validation; however, the USGS estimates have high prediction errors, so this method of validation should be interpreted with caution. The USGS regression equation estimates the 100-year peak-flow to be 4,460 cubic feet per second (cfs) and has an average standard error of prediction of 68%. The computed runoff value of 4,067 cfs is 9% less than the USGS estimate. If the USGS estimate is under predicting the actual 100-year discharge, then the computed runoff may significantly underestimate the actual 100-year discharge.</p> <p>Furthermore, the USGS regression equations are based off historical data and have not been adjusted for future climate scenarios. Southern Sandoval County Arroyo Flood Control Authority reports that the 100-yr storm event in 2099 will see a 25% increase in peak-flow<sup>2</sup> The New Mexico Bureau of Geology and Mineral Resources reports in "Climate Change in New Mexico Over the Next 50 Years: Impacts on Water Resources" that the</p>	See response to comment 11C	<p>United Nuclear Corporation (UNC) has not fully responded to comment F3. Model uncertainty should be accounted for in the computed runoff values. SWQB recommends that a margin of safety be added to the computed runoff values to account for model uncertainty. Furthermore, regarding responses to comments F3 and 11c, SWQB recommends that UNC continues to follow Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA) guidance. UNC is relying on other SSCAFCA methods (see UNC response to comments 8 and 14). Therefore, UNC should also follow SSCAFCA's guidance regarding climate change. Southern Sandoval County Arroyo Flood Control Authority's 2015 report to congress describes that the 100-yr storm event in 2099 may see a 25% to 75% increase in peak-flow; The report concludes: Higher peak discharge may overwhelm existing drainage infrastructure, as well as planned facilities designed based on current standards; furthermore, the extent of floodplains in low lying areas will increase. More frequent storm flows and higher peaks will increase bank erosion and accelerate the lateral migration of natural arroyos. Preservation of buffer areas adjacent to natural arroyos that account both for floodplains and lateral migration</p>
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14	NMED-SWQB	CCOP	-	<p>Additional information is needed to support a sufficient setback distance between the material piles and the natural channels. Previous closeout plans and reports include the following:</p> <ul style="list-style-type: none"> <li>-The January 2006 St. Anthony Mine Site Closeout Plan says, "material piles will be set back 50 feet from the edge of the natural channels."</li> <li>-The 2018 Supplemental Investigations Work Plan states that "A preliminary arroyo setback analysis will be conducted and Stantec will communicate up to 2 design alternatives for arroyo stabilization in addition to a setback consideration (if necessary)."</li> <li>-The 2019 Updated St. Anthony Mine Closeout Plan says the "proposed closure plan for Pile 4 is to push the pile material to the borders of the Meyer Draw and the East Tributary arroyos."</li> <li>-The 2022 30% CCOP Design Report says, "re-graded and covered waste piles that will remain more than 50 feet from the centerline of the arroyo."</li> </ul> <p>A setback distance of "more than 50 feet from the arroyo centerline" as proposed in the 2022 30% CCOP is less than the "50 feet from the edge of the natural channels" that was originally proposed in the 2006 Closeout Plan - the rationale for this</p>	<p>Initial "setback" was based on existing Arroyo configuration, and changes in proposed Arroyo configuration resulted in changes to the "setback." Stantec evaluations of the Arroyo completed between 2019 and 2022 estimate that an 80-foot channel cross section bottom width and 0.75% channel slope will provide a geomorphologically stable arroyo through the project reach which is proposed in the 30% CCOP. The summary of the Arroyo geomorphological evaluation is included as Appendix F.2. These dimensions are supported by the following:</p> <ul style="list-style-type: none"> <li>A. Observation of historical/pre-mine arroyo channel as shown in the 1935 aerial image (See Figure 2). The average channel slope is 0.76%, based on the 2011 topographic survey.</li> <li>B. Study of a relatively undisturbed reference reach located upstream of the project reach. The reference reach is illustrated in Figure 6 and is located upstream of the mine impacted project reach. The reference reach slope is 0.73% and channel bottom width through the upstream reach varies roughly between 75-feet and 100-feet.</li> <li>C. Analytical evaluations for stable arroyo dimensions. The computation of a stable arroyo using the methods from the Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA, 2008) yield a channel bottom width</li> </ul>	No further comment
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15	NMED-SWQB	CCOP	-	<p>Appendix F.2 Design of Hydraulic Stabilization for Meyer Draw and East Tributary Arroyo describes that Meyer Draw has been "heavily influenced by mining activity" and that the arroyo gradients "appear to be in a state of non-equilibrium as they continue to adjust to impacts of these mining activities." Meyer draw was straightened and realigned to accommodate the expansion of pile numbers 5, 6, 3, and the shale pile which reduced the channel length and increased the channel gradient. Increased channel gradients cause increased flow velocities and stream power. In addition to being vertically unstable as a result of the increased stream power, Meyer Draw is also horizontally unstable as evident by the large pile failures shown in Figures 6 and 7 in Appendix F.2. The proposed solution to install concrete grade control structures and riprap lining is only a temporary measure and does not restore the non-equilibrium conditions caused by the mining activity. The concrete will deteriorate over time, and the riprap will be at risk of failure during each large storm event. NMED-SWQB provided comments dated May 31, 2019 that sinuosity and meander pattern should be incorporated into the restoration design to protect water quality in the</p>	<p>A screening level review of alternatives was conducted to select an alignment for development in the 30% CCOP. From this review, the drop structure design alignment was selected over a separate alignment alternatively designed to maintain the equilibrium slope by increasing the channel sinuosity through the reach. Stantec selected the drop structure arroyo alignment for further design development for the following reasons:</p> <p>A. A narrower arroyo corridor allows for longer, gentler, and more stable slopes for the mine waste piles to be stabilized in- place long term, which minimizes the potential for environmental impacts from the waste.</p> <p>B. A narrower arroyo corridor would require less stockpiled material to be moved and avoid movement of waste materials to previously undisturbed ground potentially outside of the existing mine permit boundary. Minimizing movement of mine waste materials results in lesser potential environmental and health and safety impacts, as well as lower greenhouse gas emissions associated with the project.</p> <p>C. The engineered grade control structures are considered to provide more dependable performance for protecting the stockpiled material with consideration for uncertainties in the arroyo morphology.</p> <p>UNC will evaluate design alternatives for the arroyo corridor in the 90% CCOP.</p>	No further comment
16	NMED-SWQB	CCOP	7.4.1	<p>Section 7.4.1 Water Quality Monitoring and Reporting of the 30% CCOP only describes a groundwater quality monitoring plan. The 2006 St. Anthony Mine Site Closeout Plan includes five surface water quality sampling events from 2004 that indicate impacts to surface water quality (see NMED-SWQB comments dated April 3, 2018). The Final CCOP must include a plan to monitor and sample surface water in Meyer Draw.</p>	<p>As described in Section 2.3.2 of the St. Anthony Stage 1 Abatement Plan, the results from the five sampling events did not show statistically significant loading of constituents of concern (COC) from the St. Anthony mine when compared to variations in COC loading from upstream sources and background COC concentrations. Accordingly, pile stabilization and runoff control were identified to address potential surface water impacts to Meyer Draw. The 30% CCOP further proposed removal of mine material from Meyer Draw. The 90% CCOP will</p>	No further comment
17	NMED-SWQB	CCOP	7.4.3	<p>Section 7.4.3 Inspections of the 30% CCOP briefly mentions that inspections will be conducted on an annual basis until bond release, and that revegetation inspections will continue until bond release or up to 12 years. Meyer Draw will not "self-sustain" the proposed engineered channel configuration. The final closeout plan should include an inspection, maintenance and repair plan for the concrete</p>	<p>The 90% CCOP will include a monitoring and maintenance plan to define the necessary inspections and need for repairs in accordance with applicable laws and regulations.</p>	No further comment

18	NMED-AQB	CCOP	-	<p>The New Mexico Mining Act of 1993 states that "Nothing in the New Mexico Mining Act shall supersede current or future requirements and standards of any other applicable federal or state law." Thus, the applicant is expected to comply with all requirements of federal and state laws pertaining to air quality.</p> <p>20.2.15 NMAC, Pumice, Mica and Perlite Processing. Including 20.2.15.110 NMAC, Other Particulate Control: "The owner or operator of pumice, mica or perlite process equipment shall</p>	<p>If the proposed activities are determined to exceed the minimum requirements for air quality permits in the 90% CCOP, the appropriate permits will be obtained prior to earthmoving activities.</p>	No further comment
19	NMED-AQB	CCOP	-	<p>Paragraph (1) of Subsection A of 20.2. 72.200 NMAC, Application for Construction, Modification, NSPS, and NESHAP - Permits and Revisions, states that air quality permits must be obtained by: "Any person constructing a stationary source which has a potential emission rate greater than 10 pounds per hour or 25 tons per year of any regulated air contaminant for which there is a National or New Mexico Ambient Air Quality Standard. If the specified threshold in this subsection is exceeded for any one regulated air contaminant, a ll regulated air contaminants with National I or New Mexico Ambient Air Quality Standards emitted are subject to permit review." Further, Paragraph (3) of this subsection states that air quality permits must be obtained by: "Any person constructing or modifying any source or installing any equipment which is subject to 20. 2. 77 NMAC, New Source Performance Standards, 20. 2. 78 NMAC, Emission Standards for Hazardous Air Pollutants, or any other New Mexico Air Quality Control Regulation which contains emission limitations for any regulated air contaminant."</p> <p>Also, Paragraph (1) of Subsection A of 20. 2.</p>	<p>If the proposed activities are determined to exceed the minimum requirements for air quality permits in the 90% CCOP, the appropriate permits will be obtained prior to earthmoving activities.</p>	No further comment
20	NMED-AQB	CCOP	-	<p>Fugitive Dust: Air emissions from this project should be evaluated to determine if an air quality permit is required pursuant to 20.2.72.200.ANMAC (e.g. 10 lb./hour or 25 TPY). Fugitive dust is a common problem at mining sites and this project will temporarily impact air quality as a result of these emissions. However with the appropriate dust control measures in place, the increased levels</p>	<p>The 90% CCOP will include specifications for the future earthwork contractor will be required to implement a dust control plan during ground disturbance and hauling throughout the active period of construction.</p>	No further comment

				control measures in place, the increased levels should be minimal. Disturbed surface areas, within and adjacent to the project area, should be reclaimed to avoid long-term problems with		
21	NMED-MCS	CCOP		Due to the two regulatory processes of MMD and NMED needing to proceed independently and in support of each other, <del>NMED recommends adjusting the process as</del>		
			General	1) In order to delineate a clearly defined boundary between the CCOP and the S2AM, NMED-MECS will comment on Pit 1 (large pit) and groundwater under separate letterhead to be sent directly to the Permittee and copy MMD. The comments on Pit 1 and groundwater need to be addressed separately to ensure that the applicable requirements of 20.6.2 NMAC are being met.	UNC recognizes that the CCOP and the S2AM are subject to different governing laws and regulatory programs. At St. Anthony, however, a clearly defined boundary does not exist between the CCOP and the S2AM because the Stage 2 Abatement Plan is implemented through the CCOP. This intermingling is recognized in the WQCC 2017 Order where the Commission states: "... Petitioner and the Department shall take the necessary steps to implement the institutional controls proposed in the Petition, namely ... [through undertaking] the closure plan pursuant to the New Mexico Mining Act." Acceptance of the proposed hydraulic sink approach with respect to Pit 1 dictates, in large measure, how and when other aspects of the project may be addressed. Obtaining agency concurrence on the proposed Pit 1 approach is of paramount importance in expediting	NMED-MECS submitted specific comments to UNC on August 3, 2023, under the modification of the S2AM. NMED-MECS has since received a response from UNC to that letter. NMED-MECS will continue with its regulatory process and will review the response to comments on the modified S2AM in parallel with the MMD process.
			-	2) NMED-MECS proposes that the CCOP work be separated into two phases. Phase 1 would be site-wide CCOP work. Phase 2 would be work directly tied to the S2AM. The Agencies will work with the Permittee to determine which activities belong in each phase. The purpose of phasing is to ensure that site-wide closure/closeout work can commence without having an approved S2AM in place. NMED will need to issue an environmental determination for the Mining Act Permit. NMED does not want to delay surface reclamation, and	UNC considers work required by the S2AM as integral to the overall closure and therefore does not propose to separate the work into 2 phases at this time. Additional approvals are required from both agencies before any site work could proceed. The interconnected nature of critical aspects of the CCOP and S2AM processes are such that significant risks exist of potential for re-work if these processes run on parallel but separate tracks. As the NMED and MMD regulatory processes proceed and the necessary approvals are provided, particularly with respect to the proposal for Pit 1, UNC will re-evaluate	NMED-MECS will continue to work in collaboration with MMD to ensure the expeditious completion of the approval for all activities needed at the site. This discussion can continue when the project is further along in each respective regulatory process.
F4	NMED-MCS	CCOP-F	-	Attachment F, Page ii = The supplemental characterization and laboratory testing is estimated to be completed in December 2022. Considering characterization is not completed at this time, NMED recommends final calculations of Financial Assurance (FA) and design approval wait until the December 2022 data is incorporated into	UNC has posted Interim Financial Assurance in an amount that is within the high-end range of estimated costs to fulfill its obligations under MMD Director's Order dated April 22, 2011. Upon approval of a final CCOP that complies with all applicable requirements of the Mining Act and the Water Quality Act, UNC will propose final financial assurance for the CCOP.	NMED -MECS will evaluate the proposed values and ensure they include activities not included in MMD jurisdiction.

F5	NMED-MCS	CCOP-F	1.1	Attachment F, Page 1.1 = Industrial use for specific areas is also under consideration. It is not practicable to evaluate the CCOP at this time without all PMLUs defined. NMED will withhold final approval until all PMLUs for the site have been defined. NMED recommends providing a	UNC will finalize the PMLUs for the site and provide in the 90% CCOP.	No further comment
F6	NMED-MCS	CCOP-F	6.12	Attachment F, Page 6.12 = Table 6-6. By NMAC 20.6.7.33.C.4 "the uninterrupted slope length shall be no greater than 300 feet for 4.0:1, 200 feet for 3:1 slopes and 175 feet for 2.5:1 slopes. Alternative slope lengths may be allowed if the permittee provides information showing that the cover performance objectives specified in Subsection F of this section will be achieved and the exception is approved by the department." Revise the design or provided additional information. Please indicate if the slope lengths as designed meet the substantive requirements of 20.6. 7.33.C.4 NMAC. NMED recognizes that St.	Please see response to comment 11A. The calculations are included as Appendix G.2 and are based on Temple (1987) and the Revised Universal Soil Loss Equation (RUSLE) for the design slope angles and cover material characteristics from site-specific data. UNC will evaluate the incorporation of shorter and steeper slopes at St. Anthony as part of the 90% CCOP. The cover grades do meet the substantive requirements of 20.6.7.33.C4 for slope lengths, albeit with an alternative length and grade than what is explicitly listed in the regulation for copper mines. In general, state of practice for reclamation of uranium tailings facility covers is based on USNRC (Appendix A to 10 CFR Part 40) which says that in general	No further comment
F7	NMED-MCS	CCOP-F	6.13	Attachment F, 6.13 Please provide a precipitation analysis to determine the frequency of 24-hour, 100-year events within the last 20 years of record. Based on NMED's experience, larger storm events are occurring at greater frequencies across New Mexico. This has deleterious effects on	Please see response to Comment 11C.	No further comment
F8	NMED-MCS	CCOP-F	6.22	Attachment F, Page 6.22 = soil loss of 12.6 tons/acre/year .... 8.9 tons/acre/year. Based ...on the values of soil loss predicted please indicate how GE/UNC plan to account for this in annual repair and maintenance schedules and costs. NMED-MECS recommends increasing FA for the site to account for the future loss and associated	Soil loss values will be re-evaluated in the 90% CCOP after considering revisions to the cover slopes / slope lengths and possible consideration of lower frequency storm events. Depending on the final amount of soil loss calculated, UNC will incorporate necessary maintenance and repair plans into the detailed design and monitoring and maintenance plan. Adjustments to the FA will be	No further comment



22	NM Game and Fish	CCOP	-	<p>UNC proposes to partially backfill Pit 1 so that it will continue to function as a hydraulic sink for contaminated groundwater. The partial backfill design feature will keep the backfill elevation below the Jackpile-Dakota contact zone, thus preventing flow into the uncontaminated aquifer. UNC expects the extent and duration of expressed water in Pit 1 to be significantly smaller in future, after the pit is partially backfilled. Since partial backfilling will not fully eliminate the pit lake, the Department recommends installation of appropriate fencing around the lake to prevent deer, elk, and other wildlife species from accessing contaminated water. The above ground fence height should be a minimum of eight feet, and the fence should extend an additional two feet below</p>	<p>UNC plans to install fencing to restrict access to Pit 1, consistent with controls typical of grazing lands. An Ecological Risk Assessment will be conducted to evaluate whether eventual expressed water chemistry will cause risk to wildlife. UNC will complete an ERA of wildlife risks for future expressed water in Pit 1. The ERA will follow New Mexico State and United States Environmental Protection Agency (USEPA) guidance on conducting ERAs. Consistent with guidance, steps in the ERA process will include identification of constituents of potential concern (COPCs); problem formulation elements, including a conceptual site model (CSM) development; exposure assessment; selection of effects concentrations; and risk characterization. Wildlife receptors selected to quantify risks will include mammalian and avian herbivores, omnivores, and</p>	<p>The Department continues to recommend that the fencing around Pit 1 is designed to exclude wildlife as recommended. Water quality in the pit lake can vary significantly over time and long-term changes in pit lake water quality is difficult to predict, and could become more toxic to wildlife over time. The Department will review the completed ERA and provide further comments. If UNC ultimately decides to install fencing typical of grazing lands, the Department recommends wildlife friendly fencing that consists of four-strands with smooth top and bottom wires be installed. Wire spacing should be approximately 16, 22, 28, and 38 inches above ground (<a href="https://www.wildlife.state.nm.us/download/conservation/habitat-handbook/project-guidelines/Livestock-Wildlife-Fencing">https://www.wildlife.state.nm.us/download/conservation/habitat-handbook/project-guidelines/Livestock-Wildlife-Fencing</a>)</p>
23	NM Game and Fish	CCOP	-	<p>Department staff observed approximately 40 mallard ducks on the pit lake during the site inspection. If water quality in the pit lake is determined to be potentially hazardous to birds or bats, the installation of bird balls or netting may also be necessary to prevent flying animals from accessing the contaminated pit lake water. If netting is utilized, monofilament nylon netting should not be used due to its tendency to ensnare wildlife and cause injury or death. Extruded plastic, knit or woven netting material with a mesh size of 3/16 inch to exclude smaller animals is recommended. All materials should be resistant to corrosion and ultraviolet radiation. During the life of the remediation, snow loading is probable, therefore, a maximum mesh size of 1 1/2 inches is acceptable, however significant maintenance will still be required. Netting must be held taut and securely fastened to a rigid and adequately supportive frame or cross-hatched wire cables to prevent sagging. Regular inspection and maintenance are critical to repair holes and to</p>	<p>See response to comment 22 above.</p>	<p>No further comment</p>

A10	NM Game and Fish	CCOP-A1	-	<p>As part of the original CCOP, vegetation and wildlife surveys were conducted in 2006 by Cedar Creek Associates, Inc. The wildlife survey report documented a relatively small number of species, especially migratory birds. Wildlife survey dates were not stated in the report, and the relatively low avian species count could be the result of the surveys being conducted outside of the primary breeding and migration periods. The wildlife report also stated that "no evidence of nests along cliff faces was observed within the rimrock immediately adjacent to the permit area". Department staff observed two large stick nests that appeared to be in good condition located on a sandstone cliff approximately 0.3 miles from the pit lake. In order to obtain a more complete, current inventory of the wildlife that utilizes the</p>	<p>Please see response to comment 4. The primary data collection for wildlife in 2005 was conducted outside the primary breeding and migration seasons. At this stage in the design, it does not appear that a full wildlife inventory would benefit the remaining design. In general, we are aware of the species likely to use the reclamation area following closure activities. However, it is recognized that active raptor nests in close proximity to construction activities during nesting season should be protected using spatial and temporal buffers. Therefore, raptor nests will be identified and checked for status prior to, and during, construction activities to maintain compliance with MBTA.</p>	<p>The Department, MMD and Intera conducted a follow-up site inspection on 6 June 2023, to evaluate the condition and status of the stick nests near the St. Anthony Mine. An active red-tailed hawk nest was observed approximately 0.7 miles away from Pit 1, and two downy chicks were observed in the nest. The large stick nests in the upper cliff band, approximately 0.3 miles away from Pit 1, were in good condition and are typical in size and structure for golden eagle. There was no evidence of recent activity at both of the potential golden eagle nest sites. The Department recommends that the raptor nest survey area includes a 0.5 mile buffer zone from where reclamation construction activities will occur.</p>
A11	NM Game and Fish	CCOP-A1	-	<p>For the undisturbed, topsoil borrow areas that will be used for reclamation, the Department recommends that ground disturbance and vegetation removal activities be conducted outside of the primary breeding season for migratory songbirds and raptors (1 March - 1 September; 1 January-15 July for great horned owl). If ground disturbing and clearing activities must be conducted during the breeding season, the area should be surveyed for active nest sites (with birds or eggs present in the nesting territory), and avoid disturbing active nests until young have fledged. For active nests, establish adequate buffer zones to minimize disturbance to nesting birds. Buffer distances should be a</p>	<p>See response to comment 4.</p>	<p>No further comment</p>
A12	NM Historical Preservation	CCOP-A.2	-	<p>In the plan Stantec proposes establishing a 50-foot avoidance buffer around these archaeological locations prior to initiating earthwork. The plan also states that they will employ a qualified archaeologist to review sites located within soil cleanup areas once the buffers have been established.</p>	<p>Noted, no change. UNC will base the procedures for protection on the cultural resources survey included as Appendix A.2.</p>	<p>No further comment</p>

32	NMOSE	CCOP	-	<p>The NMOSE Hydrology Bureau received the MMD's November 2, 2022 request for comments on the subject St. Anthony Mine 30% Closeout Plan 2019 Update, and have reviewed said Plan and attachments. The applicant submitted a request for modification of the 2015 Stage 2 Abatement Plan ("Stage 2 Plan"). Modifications include reducing the backfill elevation in the large pit proposed in the Stage 2 Plan to a level below the Jackpile Sandstone-Dakota Sandstone contact. This modification is to prevent poor quality water from migrating into the Dakota Sandstone. An additional modification to the Stage 2 Plan is the establishment of vegetation on the pit cover to increase water losses from the pit through evapotranspiration.</p> <p>These modifications appear to exclude new use of surface or ground water, as did the original Stage 2 Plan. In addition, local surface water impoundment will be decreased by reclamation of the project pits and constructed channels will intercept and divert rainfall away from the pit.</p> <p>Should proposed reclamation activities require the</p>	<p>No change, note that UNC did obtain NMOSE permits for geotechnical drilling on the highwall and the drilling was conducted by a NM licensed well driller.</p>	<p>No further comment</p>
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