Eden Request for Confirmatory Information

General

RCI-GEN-2: Please confirm the following construction activity schedule

Activity	Anticipated Start Date	Anticipated End Date
Design of Infrastructure	October 2026	June 2027
Design of Commercial Facilities (AOC, ACC, PWH, POC)	June 2026	June 2027
Design of Nuclear Facility	November 2026	November 2028
Construction of Infrastructure (pre-construction)	March 2027	September 2028
Construction of Commercial Facilities	September 2027	September 2029
Construction of Nuclear Facility	June 2027	December 2029
Final Commissioning of Nuclear Facility	January 2030	June 2030

Air Quality & Meteorology

RCI-AQ-1: Please confirm the following tables based on information provided in the ER and during the audit, are accurate. Also, please confirm that these estimates are for the approximate three-year time period covering construction period.

Approximate number of trips and the distance travelled by various offsite truck deliveries over the three-year construction time period.

# of trips	Construction Activity	round trip (miles)	Total miles travelled	Construction diesel consumption (gallons)[a]
192	Equipment/material Deliveries (Assume Hobbs)	50	9,600	1,950
20249	Concrete Trucks	5	101,245	2,050
128	Steel Delivery	50	6,400	1,260
1488	Basecourse Delivery	50	74,400	12,500
1981	Asphalt Delivery	50	99,050	16,000
5252	Clean Fill hauling	20	105,040	55,120
13780	Unsuitable caliche soil hauling to landfill site	5	68,900	5,252
144	Waste trucks to Lea County landfill	5	720	144
		TOTAL	465,355	94,276

[a] 5 mpg fuel efficiency + 20% added for conservatism

Anticipate on-site construction workers per year [b]

Year	CY2027	CY2028	CY2029
Number of workers	339	465	791

[b] 50 miles round trip per day per worker; 20 mpg/vehicle (no EV's); 21 days per month

RCI-AQ-2: Please confirm the following activities, authorized as part of the Construction Permit as required by 10 CFR 50.10, will begin after the Construction Permit is issued:

- Completing site grading.
- Completing access road(s) and the parking lot.
- Pouring of the EMIF building structure and shield wall footings.
- Pouring of the shield wall, transfer canal, and the reactor pool support concrete.
- Installing the reactor pool liner and transfer canal.
- Completing the building structures, including utilities.
- Obtaining the required local, state, and federal permits.
- Installing process equipment and other interior infrastructure.

Please confirm that the preparatory construction activities (i.e. pre-construction activities) including excavation activities would not be covered under the Construction permit Application.

RCI-AQ-3: Please confirm that an overlap between the construction and operations phases is not anticipated.

RCI-AQ-5: Please confirm the following tables based on information provided in the ER and during the audit, are accurate.

Buildings Included in AERMOD Air Dispersion Modeling [c]

Building ID	Description	Building Dimensions		
		Length or Diameter (m)	Width (ft)	Height (ft)
SCT	Secondary Cooling Towers	42.9	23.9	13.0
HVACCT	HVAC Cooling Tower	19.9	24.2	11.0
PWH	Production Warehouse	70.0	160.0	35.0
AOC	Administrative Office Complex	150.0	75.0	20.0
POC	Production Office Complex	104.0	78.0	20.0
ACC	Access Control Center	90.0	30.0	20.0
EMIF	Eden Medical Isotope Facility	136.0	329.5	50.0
FWP	Diesel Driven Fire Water Pump	21.8	20.9	4.5
FWT	Fire Water tank	35.3	n/a	5.0
SDG	Standby Diesel Generators	18.0	50.0	8.0

[c] Final building dimensions vary slightly from dimensioned modeled; however, impacts to the modeling results are deemed negligible

RCI-AQ-6: Please confirm that the receptor locations listed in ER Tables 19.4.2-8 and 19.4.2-9 reflect the location of the maximum ground-level concentrations for each corresponding pollutant within the modeled receptor grid from the AERMOD air dispersion modeling results.

RCI-AQ-7: Please confirm that the cooling tower performance provided in ER Table 19.2-6 is based on a drift rate of 0.005%

RCI-AQ-8: Please confirm the coordinates of the MDCT (two cooling towers) using the NAD 1983 State Plane New Mexico East FIPS 3001

- Easting: 281362.5435, Northing: 158521.7666
- Easting: 28358.89155, Northing: 158521.7666

Please confirm that the TDS input to SACTI is 2100 mg/L, based on a makeup water TDS of 700 mg/L with 3 cycles of concentration.

Please confirm the droplet size distribution in the table below:

Droplet Distribution Table

Diameter (μm)	Mass fraction
0-10	0
10-20	0.0053
20-30	0.043
30-40	0.0741
40-50	0.0651
50-60	0.0548
60-70	0.0351
70-90	0.0326
90-110	0.0178
110-130	0.0095
130-150	0.0076
150-180	0.011
180-210	0.0117
210-240	0.0132
240-270	0.0141
270-300	0.0182
300-350	0.0267
350-400	0.0233
400-450	0.0229
450-500	0.0151
500-600	0.0433
600-700	0.0351
700-800	0.0382
800-900	0.0273
900-1000	0.0171
1000-1200	0.0319
1200-1400	0.0332
1400-1600	0.0643
1600-1800	0.0221
1800-2000	0.0307
2000-2200	0.154

Also, please confirm the tables on the following page for the SACTI outputs of plume salt deposition during winter and annual seasons.

Plume Salt Deposition (kg/km^2-mo) – Winter

Distance from tower (m)	Plume Headed S	Plume Headed SSW	Plume Headed SW	Plume Headed WSW	Plume Headed W	Plume Headed WNW	Plume Headed NW	Plume Headed NNW	Plume Headed N	Plume Headed NNE	Plume Headed NE	Plume Headed ENE	Plume Headed E	Plume Headed ESE	Plume Headed SE	Plume Headed SSE
	Wind From N	Wind From NNE	Wind From NE	Wind From ENE	Wind From E	Wind From ESE	Wind From SE	Wind From SSE	Wind From S	Wind From SSW	Wind From SW	Wind From WSW	Wind From W	Wind From WNW	Wind From NW	Wind From NNW
100	1186	455	530	336	743	291	501	442	1614	1133	1631	1144	1438	526	774	451
200	18.04	9.73	8.76	13.02	18.98	10.96	10.1	10.32	35.81	24.07	27.49	29.59	44.89	14.86	11.86	9.22
300	3.2	2.05	2.15	1.86	2.75	1.48	1.9	2	4.22	3.91	6.27	3.17	3.05	1.83	2.02	2.28
400	1.27	1.26	1.11	0.96	1.13	0.55	0.66	0.48	1.75	1.75	2.24	1.29	1.69	1	0.73	0.79
500	0.72	0.48	0.42	0.35	0.38	0.25	0.46	0.36	0.36	0.76	1.19	0.61	0.93	0.5	0.5	0.48
600	0.44	0.3	0.29	0.29	0.33	0.17	0.2	0.27	0.22	0.46	0.6	0.43	0.44	0.27	0.29	0.25
700	0.36	0.14	0.13	0.19	0.21	0.11	0.09	0.2	0.18	0.3	0.28	0.28	0.37	0.21	0.2	0.18
800	0.28	0.09	0.06	0.09	0.1	0.07	0.03	0.11	0.18	0.21	0.09	0.13	0.2	0.13	0.1	0.12
900	0.26	0.09	0.06	0.09	0.08	0.07	0.03	0.11	0.18	0.21	0.08	0.13	0.17	0.13	0.1	0.12
1000	0.26	0.08	0.06	0.09	0.06	0.06	0.03	0.09	0.18	0.17	0.08	0.13	0.13	0.13	0.1	0.12
1200	0.2	0.08	0.06	0.07	0.04	0.04	0.03	0.09	0.17	0.16	0.08	0.11	0.09	0.11	0.1	0.12
1500	0.09	0.08	0.06	0.07	0.04	0.03	0.03	0.08	0.22	0.19	0.08	0.09	0.08	0.1	0.1	0.12

Plume Salt Deposition (kg/km^2-mo) – Annual

Distance from tower (m)	Plume Headed S	Plume Headed SSW	Plume Headed SW	Plume Headed WSW	Plume Headed W	Plume Headed WNW	Plume Headed NW	Plume Headed NNW	Plume Headed N	Plume Headed NNE	Plume Headed NE	Plume Headed ENE	Plume Headed E	Plume Headed ESE	Plume Headed SE	Plume Headed SSE
	Wind From N	Wind From NNE	Wind From NE	Wind From ENE	Wind From E	Wind From ESE	Wind From SE	Wind From SSE	Wind From S	Wind From SSW	Wind From SW	Wind From WSW	Wind From W	Wind From WNW	Wind From NW	Wind From NNW
100	966	512	613	437	855	603	1015	1310	2828	1162	1021	752	805	334	436	262
200	15.73	12.14	9.63	11.45	21.73	15.69	21.54	33.43	73.23	25.46	17.09	16.61	25.6	7.58	7.04	6.1
300	2.59	2.13	2.2	1.55	2.05	1.85	4.27	2.22	4.76	2.4	3.7	1.97	1.39	0.95	1.37	1.27
400	0.86	1.1	1.01	0.83	1.02	0.69	1.34	1.05	1.75	1.39	1.25	0.81	0.83	0.48	0.56	0.44
500	0.43	0.45	0.45	0.27	0.51	0.28	0.92	0.73	0.32	0.47	0.75	0.32	0.44	0.23	0.3	0.26
600	0.24	0.25	0.25	0.19	0.35	0.21	0.49	0.49	0.19	0.31	0.35	0.24	0.26	0.12	0.18	0.13
700	0.2	0.11	0.09	0.14	0.2	0.16	0.26	0.38	0.16	0.24	0.16	0.17	0.21	0.1	0.11	0.08
800	0.13	0.09	0.04	0.1	0.14	0.12	0.11	0.3	0.16	0.2	0.06	0.1	0.14	0.06	0.05	0.06
900	0.11	0.09	0.04	0.1	0.1	0.12	0.06	0.3	0.16	0.2	0.04	0.1	0.13	0.06	0.05	0.06
1000	0.11	0.07	0.04	0.09	0.08	0.11	0.06	0.22	0.15	0.13	0.04	0.1	0.09	0.06	0.05	0.05
1200	0.09	0.06	0.03	0.05	0.07	0.09	0.06	0.21	0.14	0.12	0.03	0.06	0.05	0.05	0.05	0.05
1500	0.04	0.06	0.03	0.04	0.06	0.08	0.06	0.16	0.11	0.12	0.03	0.05	0.05	0.04	0.05	0.05

RCI-AQ-11: Please confirm there are no plans for installing an on-site meteorological station.

Ecology- Terrestrial

RCI-TER-1: Please confirm that the 100-ton and 300-ton cranes used during construction may be over 100-ft in height and the transmission tower connecting to site to the grid will be less than 100 ft in height.

RCI-TER-3: Please confirm the following: Eden will perform preliminary burrowing owl surveys in accordance with the Guidelines and Recommendations for Burrowing Owl Surveys and Mitigation prior to land disturbing activities. Burrowing owl (*Athene cunicularia jypugnaea*) is designated by the State of New Mexico as a Species of Greatest Conservation Need). Due to the potential for great horned owls to be onsite, please confirm that Eden will conduct nest surveys for great horned owl in impacted areas from January through September if ground disturbance is proposed.

RCI-TER-4: Please confirm that Eden will utilize down-shielding to address the requirements of the Night Sky Protection Act (NM Administrative Code 14.10.4.19), to the extent practicable, consistent with the need to ensure security of the site.

RCI-TER-7: Please confirm the following statement: while the final site plan is still being finalized, temporarily disturbed areas will be restored, and construction laydown yards will be stabilized, following state and local requirements.

Historic and Cultural Resources

RCI-HCR-1: Please confirm that the southern corridor will be used for domestic water. If utilities cannot be limited to the previously surveyed section of the offsite corridor, a cultural resource survey will be performed before any ground disturbances are conducted. Eden plans to conduct a survey within the next 12 months.

RCI-HCR-3: Confirm that the proposed LEX pipeline is going through Eden's access road. Eden will coordinate with NGL Energy Partners on the location and timing of the casing placement when Eden's access road is designed and built. Coordination of parallel utility installation will also be coordinated with the City of Eunice and the NM Dept. of Transportation for constructing within the utility right of way.

RCI-HCR-7: Confirm that Eden has not developed any policies or procedures for protecting historic and cultural resources. In the event of an inadvertent discovery of cultural resource materials or human remains, Eden would implement standard protective measures, including stopping working, securing the area to prevent further disturbance, and notifying the New Mexico SHPO and/or the Lea County medical investigator, as appropriate. Eden would also notify the NRC. Eden also plans to establish formal stop-work and notification procedures prior to the commencement of ground-disturbing activities.

Geology and Ground Water

RCI-GW-2: ER Section 19.3.4.1.2.3 states that perched groundwater is present near the EIPC site. NUREG-1790 (NRC 2005) identifies the areas with perched groundwater as surface depressions. Confirm the following information about the EIPC site.

- Based on site visits, the site is generally very flat with a downward slope from NE to SW with no significant depressions indicated. No evidence of standing water (i.e., playas) has been observed during walkthroughs.
- During the geotechnical investigation at the EIPC site, five borings were completed, four to a depth of 100 ft bgs and one to a depth of 200 ft bgs.
- No groundwater was observed in any of the EIPC site borings.

Surface Water

RCI-SW-1: Please confirm that the following statements are true or provide clarification.

- All flow values indicated on ER Figure 19.2.3-1 are in gallons per minute.
- The total design margin of 36.5% indicated on ER Figure 19.2.3-1 resulted from an initial margin of 5%, followed by an additional 30% margin. The design margin is intended to conservatively estimate bounding water use/liquid flow values.

RCI-SW-3: Please confirm that the following statements are true or provide clarification.

- In New Mexico, a Clean Water Act (CWA) S. 401 Water Quality Certification (WQC), if required, would be issued by New Mexico Environmental Department (NMED) Surface Water Quality Bureau (SWQB). A CWA S. 401 WQC is required whenever a project or activity is required to acquire a federal permit, license, or authorization that may result in a discharge into navigable water (i.e., water of the United States or WOTUS). Typically, a USACE Permit under CWA S. 404 or Rivers and Harbors Act S. 10 would trigger the need for a CWA S. 401 WQC from NMED SWQB but because jurisdictional WOTUS and navigable waters are absent from the site and vicinity, such USACE permitting is not anticipated for the EIPC. The State of New Mexico has not been granted administrative authority by the federal government to establish and administer its own National Pollutant Discharge Elimination System (NPDES) program. As such, any NPDES discharge permits under CWA S. 402 are issued by the federal government – USEPA Region 6 (not the state). Eden sanitary wastes, however, go directly to the Eunice municipal treatment plant and any process liquid wastes are sent to an onsite evaporation pond. Therefore, permits for point source discharges from the Eden project are not anticipated. The only CWA S. 402 permit needed for Eden is a land disturbance permit for stormwater discharges during construction but a complete lack of jurisdictional WOTUS and navigable waters onsite and in the vicinity eliminates any possibility of project-related discharges to jurisdictional WOTUS. Based on this rationale, a CWA S. 401 WQC is not anticipated for the EIPC project.

RCI-SW-6: Please confirm that the following statements regarding the off-site utilities (i.e., potable water supply and sanitary waste discharge pipelines) are true or provide clarification.

- The City of Eunice does not have a formal permit system, but EIPC will be required to file an application for new construction with the NMED Drinking Water Bureau.
- New Mexico Department of Transportation (NMDOT) may require permitting for construction within the off-site utility corridors, similar to roadway access permitting. Underground lines and dry utilities will need to be included in the NMDOT permitting and may require separate easements. The permitting process will be coordinated through NMDOT District 2, within which Lea County is located.
- The sanitary waste discharge pipeline plans will be reviewed and approved by the City of Eunice.
- No surface water is anticipated to be required for construction and operation of the off-site utilities.

Land Use

RCI-LU-2: Please confirm the following tables, developed by NRC staff based on information provided in the ER and during the audit, are accurate.

Updated Table 19.3.1-1: Land Cover/ Land Use within the Project Area and Region

	EIPC Site		Offsite Utility Corridor		Region*	
NLCD Class	**Acres**	**Percent**	**Acres**	**Percent**	**Acres**	**Percent**
Barren Land	0	0	0	0	480.8	1.0
Cultivated Crops	0	0	0	0	22.5	<0.1
Developed, High Intensity	0	0	0.2	0.7	147.0	0.3
Developed, Medium Intensity	0	0	1.4	4.2	743.7	1.5
Developed, Low Intensity	0.02	0.01	2.1	6.1	849.2	1.7
Developed, Open Spaces	0	0	0.7	2.0	1559.3	3.1
Herbaceous	0	0	0	0	145.6	0.3
Open Water	0	0	0	0	88.5	0.2
Scrub/Shrub	245.6	99.9	29.1	87.0	46,225.6	92.0
Woody Wetlands	0	0	0	0	2.7	<0.1
Total	245.6	-	33.4	-	50,264.9	-

*Region is a 5 mile radius

Updated Table 19.3.1-2: Prime Farmland Classification within Project Area and Region

	EIPC Site		Offsite Utility Corridor		Region*	
Prime Farmland Class	**Acres**	**Percent**	**Acres**	**Percent**	**Acres**	**Percent**
No Prime Farmland Status	1.8	1	15.1	45.3	38,586.3	77
Farmland of Statewide Importance	243.8	99	18.3	54.7	11,678.6	23
Total	245.6	-	33.4	-	50,264.9	-

*Region is a 5 mile radius

Waste Management – Nonradiological

RCI-WNR-1: The NRC requests more information regarding potential estimates of solid waste that will be generated by the project during construction phase.

Please confirm the following:

1. The majority of waste generated during building activities consists of Caliche soil that is encountered during excavation that cannot be reused as fill. The estimated quantity of Caliche soil that cannot be used is 80, 077 and this will need to be trucked offsite for disposal as solid waste.
2. The non-soil waste is estimated as a function of building square footage based on USEPA's 'Estimating 2003 Building-Related Construction and Demolition Materials Amounts', using an average generation rate of 4.34 pounds per square foot of buildings. Assuming an estimated building area of 71,262 square feet (including the Administration Office Complex (AOC), Access Control Center (ACC), Production Office Complex (POC), Production Warehouse (PWH), Eden Medical Isotope Facility (EMIF), and diesel generator), the non-soil waste generated during construction is estimated to be approximately 155 tons.