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Subject: draft environmental info for 2/1/07 submitted to NRC in advance

Andy - after speaking with Tom Kevern and Barry Zalcman over the last couple of days, and in anticipation of a breakout time during the 2/1/07 DCWG meeting in Rockville, it was suggested to me to forward the attached DRAFT work for a COLA ER for North Anna and Grand Gulf to you. We are also sharing this information with other interested utility staffs.

Please contact me with any questions you may have prior to 2/1. We can coordinate discussion between Dominion and Entergy/NuStart if necessary, or with other appropriate utility representatives as well.

Thanks -

Tony Banks
Dominion
ESP/COL Project Lead
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(See attached file: DRAFT GrandGulf COLA ER 5_1_1-18-07.pdf)(See attached file: DRAFT 011607 NA COLA ER-Table-3-0-1.pdf)(See attached file: Draft GrandGulf COLA ER T3.0-201_01-17-07.pdf)(See attached file: DRAFT 011607-NA COLA ER-4-1-Table 1-Land Use Impacts - Construction.pdf)

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Draft GrandGulf COLA ER T3.0-201_01-17-07.pdf	38078		
DRAFT 011607-NA COLA ER-4-1-Table 1-Land Use Impacts - Construction.pdf			25454
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5.1 Land-Use Impacts

The information for this section is provided in the ESP Application Part 3 – Environmental Report, and associated impacts are fully resolved in NUREG-1817. The following supplemental information is provided in accordance with 10 CFR 51.50(c)(1)(iii).

5.1.1 The Site and Vicinity

SUPP NUREG-1817 Section 5.1.1 resolved that land-use impacts in the vicinity of the ESP facility due to operations would be SMALL. No additional information provided.

5.1.2 Transmission Corridors and Offsite Areas

SUPP NUREG-1817 Section 5.1.2 resolved that the land-use impacts in the transmission line rights-of-way and offsite areas from ESP facility operations would be SMALL. This finding considered the fact that the current transmission system serving the GGNS site is likely to be inadequate under the bounding assumptions of the PPE, and that upgrades to the existing transmission line right-of-way or new rights-of-way may be required.

[PROJECT WRITER'S NOTE: Any new and significant information on new/upgraded transmission system right-of-way will be included as appropriate upon completion of the Entergy Transmission and Distribution (T&D) study.]

5.1.3 Historic Properties

SUPP NUREG-1817 Section 5.6 resolved that the potential impacts of facility operations on historic and cultural resources would be SMALL. No additional information provided.

References

1. NUREG-1817, "Environmental Impact Statement for an Early Site Permit (ESP) at the Grand Gulf Site"
-

Table 3.0-201 Comparison of ESP Plant Parameters Envelope (PPE) Design Parameters to COL Design Characteristics				
<u>PPE Section</u> ¹ / <u>Parameter</u> ²	<u>ESP Parameter</u> ³	<u>COL Design Characteristic</u> ⁴	<u>ESP Parameter Bounding?</u> ⁵ (Yes / No)	<u>Comments</u> ⁴
1. Structures				
1.1 Building Characteristics				
1.1.2 Foundation Embedment	140 ft. (42.7 m)	69.23 ft. (21,100 mm)	Yes	An embedment depth less (deep) than the ESP design parameter is bounded. ESBWR Std. Plant (DCD Tier 2, Table 3.8-13)
2. Normal Plant Heat Sink				
2.3 Condenser				
2.3.2 Condenser / Heat Exchanger Duty	10.7E+9 Btu/hr	1E+10 Btu/hr	Yes	ESBWR Std. Plant (DCD Tier 2, Table 10.1-1)
2.4 NHS Cooling Towers - Mechanical Draft (2.4), (or Natural Draft (2.5)) ⁶				
2.4.3 (2.5.3) Blowdown Constituents and Concentrations	See Table 3.0-202	Site specific value - TBD		
2.4.4 (2.5.4) Blowdown Flow Rate	12,800 gpm expected (39,000 gpm max)	Site specific value - TBD		
2.4.5 (2.5.5) Blowdown Temperature	100°F	Site specific value - TBD		

Table 3.0-201				
Comparison of ESP Plant Parameters Envelope (PPE) Design Parameters to COL Design Characteristics				
<u>PPE Section</u> ¹ / <u>Parameter</u> ²	<u>ESP Parameter</u> ³	<u>COL Design Characteristic</u> ⁴	<u>ESP Parameter Bounding?</u> ⁵ (Yes / No)	<u>Comments</u> ⁴
2.4.6 (2.5.6) Cycles of Concentration	4	Site specific value - TBD		
2.4.7 (2.5.7) Evaporation Rate	35,100 gpm expected (39,000 gpm max)	Site specific value - TBD		
2.4.8 (2.5.8) Height ⁷	60 ft (475 ft / 550 ft)	Site specific value - TBD		The selected design includes a single natural draft cooling tower (xxx ft.) and a ##-cell mechanical draft (helper) tower (yy ft.).
2.4.9 (2.5.9) Makeup Flow Rate	47,900 gpm expected (78,000 gpm max)	Site specific value - TBD		
2.4.10 (2.5.10) Noise	55 dba @ 1000 ft	Site specific value - TBD		
2.4.12 (2.5.12) Cooling Water Flow Rate	865,000 gpm	669,000 gpm (152,000 m ³ /hr)	Yes	Main Condenser design value. DCD Tier 2, Table 10.4-1
3. Ultimate Heat Sink			NA	The atmosphere provides UHS function via IC/PCCS pools. See DCD Tier 2, Sections 9.2.5, 9.1.3.2, 9.1.3.3 for ESBWR. Therefore this item is not applicable.
3.3 Mech Draft Cooling Towers			NA	Not applicable for ESBWR.
3.3.4 Blowdown Flow Rate	288 gpm expected (1700 gpm max)	NA	NA	Not applicable for ESBWR.

Table 3.0-201					
Comparison of ESP Plant Parameters Envelope (PPE) Design Parameters to COL Design Characteristics					
<u>PPE Section</u> ¹ / <u>Parameter</u> ²	<u>ESP Parameter</u> ³	<u>COL Design Characteristic</u> ⁴	<u>ESP Parameter Bounding?</u> ⁵ (Yes/No)	<u>Comments</u> ⁴	
3.3.5	Blowdown Temperature	95°F	NA	NA	Not applicable for ESBWR.
3.3.7	Evaporation Rate	822 gpm expected (1700 gpm max)	NA	NA	Not applicable for ESBWR.
3.3.9	Makeup Flow Rate	1110 gpm expected (3,400 gpm max)	NA	NA	Not applicable for ESBWR.
3.3.12	Cooling Water Flow Rate	26,125 gpm (normal) 52,250 gpm (shutdown / accident)	NA	NA	Not applicable for ESBWR.
5. Potable Water/Sanitary Waste System					
5.1 Discharge to Site Water Bodies					
5.1.1	Flow Rate	120 gpm expected (210 gpm max)	Site specific value - TBD		
5.2 Raw Water Requirements (Potable Water/Sanitary Waste Systems)					
5.2.1	Maximum Use	240 gpm	200 gpm (12.6 l/s) – peak demand	Yes	DCD Tier 2, Section 9.2.4.
5.2.2	Monthly Average Use	180 gpm	Site specific value - TBD		

Table 3.0-201				
Comparison of ESP Plant Parameters Envelope (PPE) Design Parameters to COL Design Characteristics				
<u>PPE Section</u> ¹ / <u>Parameter</u> ²	<u>ESP Parameter</u> ³	<u>COL Design Characteristic</u> ⁴	<u>ESP Parameter Bounding?</u> (Yes / No) ⁵	<u>Comments</u> ⁴
6. Demineralized Water System (ESBWR Makeup Water System)				
6.1 Discharge to Site Water Bodies				
6.1.1 Flow Rate	220 gpm expected (290 gpm max)	TBD		
6.2 Raw Water Requirements				
6.2.1 Maximum Use	1440 gpm	TBD		
6.2.2 Monthly Average Use	1100 gpm	TBD		
7. Fire Protection System				
7.1 Raw Water Requirements				
7.1.1 Maximum Use	1890 gpm	1065 gpm	Yes	DCD Tier 2, Table 9.5-2 (See GE RAI Response: MFN 06-304, Enclosure 2, RAI 9.5-15).
7.1.2 Monthly Average Use	30 gpm	0 gpm	Yes	

Table 3.0-201				
Comparison of ESP Plant Parameters Envelope (PPE) Design Parameters to COL Design Characteristics				
<u>PPE Section</u> ¹ / <u>Parameter</u> ²	<u>ESP Parameter</u> ³	<u>COL Design Characteristic</u> ⁴	<u>ESP Parameter Bounding?</u> ⁵ (Yes / No)	<u>Comments</u> ⁴
8.	Miscellaneous Drain			
8.1	Discharge to Site Water Bodies			
8.1.1	Flow Rate	200 gpm expected (300 gpm max)	Site specific value - TBD	
9.	Unit Vent/Airborne Effluent Release Point			
9.4	Release Point			
9.4.2	Elevation (Normal)	Ground level	165 ft (50,000 mm)	Yes GENS-SR3-2006-0004, dated Sept. 14, 2006 (RFI GE-0006 Response)
9.4.3	Elevation (Post Accident)	Ground level	Ground level and higher	Yes
9.4.4	Minimum Distance to Site Boundary	0.52 mi (841 m) exclusion area	0.50 miles (800 meters)	Yes DCD Tier 2, Section 12.2.2.1, Table 12.2-15
9.5	Source Term			
9.5.1	Airborne Effluents (Normal)	32,699 Ci/yr	4.23E+03 Ci/yr (1.56E+08 MBq/yr) See Table 3.0-207	Yes
9.5.2	Airborne Effluents (Post-Accident) ⁸	Based on limiting DBAs.	Based on limiting DBAs.	TBD

Table 3.0-201 Comparison of ESP Plant Parameters Envelope (PPE) Design Parameters to COL Design Characteristics				
<u>PPE Section</u> ¹ / <u>Parameter</u> ²	<u>ESP Parameter</u> ³	<u>COL Design Characteristic</u> ⁴	<u>ESP Parameter Bounding?</u> ⁵ (Yes / No)	<u>Comments</u> ⁴
9.5.3 Tritium Airborne Effluent (Normal)	7060 Ci/yr	7.57E+01 Ci/yr (2.80E+06 MBq/yr) See Table 3.0-207	Yes	
10. Liquid Radwaste System				
10.2 Release Point				
10.2.1 Flow Rate	35 gpm (with 12,800 gpm dilution)	Dilution Factor = 10	Yes	DCD Tier 2, Table 12.2-20a Dilution factor of 10 bounds a DF of 366 (12,800/35 = 366) for dose calculations.
10.3 Source Term				
10.3.1 Liquid	0.694 Ci/yr	9.28E-02 Ci/yr (3.43E+03 MBq/yr) See Table 3.0-208	TBD	
10.3.2 Tritium	6,200 Ci/yr	7 Ci/yr (2.59 E+05 MBq/yr) See Table 3.0-208	Yes	
11. Solid Radwaste System				
11.2.1 Activity	5400 Ci/yr	TBD		
11.2.2 Principal Radionuclides	See Table 3.0-203	See Table 3.0-203		

Table 3.0-201				
Comparison of ESP Plant Parameters Envelope (PPE) Design Parameters to COL Design Characteristics				
<u>PPE Section</u> ¹ / <u>Parameter</u> ²	<u>ESP Parameter</u> ³	<u>COL Design Characteristic</u> ⁴	<u>ESP Parameter Bounding?</u> ⁵ (Yes / No)	<u>Comments</u> ⁴
11.2.3 Volume	18,646 ft ³ /yr	16,764 ft ³ /yr (474.42 m ³ /yr)	Yes	ESP parameter is for the total plant (i.e., two "units"); value for ESBWR is for one unit. The ESP value is bounding for the GGNS COL for one unit.
13. Auxiliary Boiler System				
13.2 Flue Gas Effluents	See Table 3.0-204	NA	NA	ESBWR uses electric auxiliary boilers. DCD Tier 2, Section 9.3.12
16. Standby Power System				
16.1 Diesels				
16.1.3 Diesel Flue Gas Effluents	See Table 3.0-205	See Table 3.0-205		
16.2 Gas Turbines				
16.2.3 Gas-Turbine Flue Gas Effluents	See Table 3.0-206		NA	ESBWR does not use gas turbines in its standard plant design.
17. Plant Characteristics				
17.3 Megawatts Thermal	4300 MWt	4500 MWt	No	DCD Tier 2, Section 1.1.2.7, Table 1.3-1, Figure 1.1-3a. DCD Tier 1, Table 1.1-1
17.4 Plant Design Life	60 years	60 years	Yes	DCD Tier 2, Section 3.9.3.1

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January 17, 2007

Grand Gulf Nuclear Station Unit 3
 Combined License Application
 Part 3, Environmental Report

Table 3.0-201 Comparison of ESP Plant Parameters Envelope (PPE) Design Parameters to COL Design Characteristics				
<u>PPE Section</u> ¹ / <u>Parameter</u> ²	<u>ESP Parameter</u> ³	<u>COL Design Characteristic</u> ⁴	<u>ESP Parameter Bounding?</u> (Yes / No) ⁵	<u>Comments</u> ⁴
17.5	Plant Population			
17.5.1	Operation	1160 people	TBD	
18.	Construction			
18.3.1	Noise	76-101 db @ 50 ft	TBD	
18.4	Plant Population			
18.4.1	Construction	3150 people max	TBD	

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January 17, 2007

Grand Gulf Nuclear Station Unit 3
Combined License Application
Part 3, Environmental Report

NOTES:

1. The "PPE Section" numbers assigned to each parameter relate to the PPE Worksheet from which the PPE tables were developed. See ESP Application Part 2, Site Safety Analysis Report, Section 1.3 (Reference ##) for a discussion of the basis for the parameters included in this table.
2. A definition for each ESP parameter in this table is provided in Table 3.0-209, including specification as to whether the parameter is a maximum or minimum value for comparison purposes.
3. ESP Parameter is "Composite Value" as given in NUREG-1817 Appendix I Table 3.0-1. The "Composite Value" provides an envelope (bounding value) for design parameters for the various plant designs considered for the site.
4. COL Design Characteristics are standard plant design characteristics as defined by the reactor vendor, or are design characteristics determined for the site-specific system's design, as applicable.
5. An indication that the ESP parameter is "bounding" (Yes), demonstrates that the COL Design Characteristic for the selected facility falls within the ESP design parameters specified in the Early Site Permit.
6. Both mechanical draft and natural draft cooling tower alternatives were considered in the ESP Application. The most restrictive parameter for each cooling system, as they relate to environmental impacts, was used in table ESP Environmental Report (ER) (Reference ##) Table 3.0-1 (NUREG-1817 Appendix I Table 3.0-1).
7. For the purposes of environmental (aesthetic) impact, a natural draft cooling tower height of 550 ft was assumed as the ESP parameter. The cooling tower plume model discussed in Section 5.3.3.1 of the ESP ER was developed assuming a conservative natural draft cooling tower height of 475 ft., and a mechanical draft cooling tower height of 60 ft.
8. In general, source terms for any given accident are those used by the reactor vendor in its safety analyses. The methodologies used by the vendor for establishing source terms include those established in TID-14844, and in Regulatory Guide 1.183.

Land Use Impacts – Construction (ER Section 4.1)
Table 1. Identification of Key Inputs and Assumptions and New Information

Part 1 – FEIS Key Inputs or Assumptions					
(Column 1)	(Column 2)	(Column 3)	(Column 4)	(Column 5)	(Column 6)
Key Input or Assumption	Category (see Note)	Assessment	Is Further Action Necessary?	New Information Found? Y/N	New Information Signif? Y/N
<u>FEIS Section 4.1</u>					
1					
2					
Etc					

Note: T: Potentially Time-Sensitive, C: Commitment, P: Project-Defined

Land Use Impacts – Construction (ER Section 4.1)
Table 1. Identification of Key Inputs and Assumptions and New Information

Part 2 – New Information					
Identification of New Information		Response			
Beyond the Items identified in Part 1: 1) Does any new information (not considered in preparing the ESP ER or the EIS, and not generally known or publicly available during preparation of the EIS) exist that could have an impact on EIS conclusions? 2) Did the review of the ESP ER identify an input or assumption which needs to be considered for obtaining new information?		1) 2)			
(Column 1)	(Column 2)	(Column 3)	(Column 4)	(Column 5)	(Column 6)
New Information Item	Category (see Note)	Assessment	Is Further Action Necessary?	New Information Found? Y/N	New Information Signif? Y/N
1					
etc					

Note: T: Potentially Time-Sensitive, C: Commitment, P: Project-Defined

Land Use Impacts – Construction (ER Section 4.1)
Table 1. Identification of Key Inputs and Assumptions and New Information

Part 3 – Meeting Information	
Date	<u>Meeting Attendees (Position)</u> <ul style="list-style-type: none">▪ Dominion:▪ Bechtel:▪ TtNUS:

Note: T: Potentially Time-Sensitive, C: Commitment, P: Project-Defined

DRAFT Table 3.0-1 Evaluation of ESP Site Characteristics					
ESP Site Characteristics (From NUREG-1811, Volume 1, Table I-1)			COL [Value]	Is ESP Site Characteristic Bounding? (Yes/No)	Notes
Item	Single Unit Value	Description & References			
Atmospheric Dispersion (X/Q) (Accident)		Time-dependent values as listed in Table 5-14 of this EIS			
▪ Exclusion Area Boundary (EAB)	$3.34 \times 10^{-5} \text{ sec/m}^3$	0 to 2 hr interval	$3.34 \times 10^{-5} \text{ sec/m}^3$	Yes	TBD
▪ Low Population Zone (LPZ)	$2.17 \times 10^{-6} \text{ sec/m}^3$	0 to 8 hr interval	$2.17 \times 10^{-6} \text{ sec/m}^3$	Yes	TBD
	$1.5 \times 10^{-6} \text{ sec/m}^3$	8 to 24 hr interval	TBD	TBD	TBD
	$1.2 \times 10^{-6} \text{ sec/m}^3$	1 to 4 day interval	TBD	TBD	TBD
	$9.0 \times 10^{-7} \text{ sec/m}^3$	4 to 30 day interval	TBD	TBD	TBD
Gaseous Effluents Dispersion, Deposition (Annual Average)					
▪ Atmospheric Dispersion (X/Q)	X/Q values presented in ER Table 2.7-14	The atmospheric dispersion coefficients used to estimate dose consequences of normal airborne releases.	X/Q values presented in ER Table 2.7-14	Yes	TBD
Residence	$2.4 \times 10^{-6} \text{ sec/m}^3$	No decay	$2.4 \times 10^{-6} \text{ sec/m}^3$	Yes	TBD
	$2.4 \times 10^{-6} \text{ sec/m}^3$	2.26-day decay	$2.4 \times 10^{-6} \text{ sec/m}^3$	Yes	TBD
	$2.1 \times 10^{-6} \text{ sec/m}^3$	8-day decay	$2.1 \times 10^{-6} \text{ sec/m}^3$	Yes	TBD

DRAFT Table 3.0-1 Evaluation of ESP Site Characteristics					
ESP Site Characteristics (From NUREG-1811, Volume 1, Table I-1)			COL [Value]	Is ESP Site Characteristic Bounding? (Yes/No)	Notes
Item	Single Unit Value	Description & References			
EAB	$3.7 \times 10^{-6} \text{ sec/m}^3$	No decay	$3.7 \times 10^{-6} \text{ sec/m}^3$	Yes	TBD
	$3.7 \times 10^{-6} \text{ sec/m}^3$	2.26-day decay	$3.7 \times 10^{-6} \text{ sec/m}^3$	Yes	TBD
	$3.3 \times 10^{-6} \text{ sec/m}^3$	8-day decay	$3.3 \times 10^{-6} \text{ sec/m}^3$	Yes	TBD
Meat animal	$1.4 \times 10^{-6} \text{ sec/m}^3$	No decay	$1.4 \times 10^{-6} \text{ sec/m}^3$	Yes	TBD
	$1.4 \times 10^{-6} \text{ sec/m}^3$	2.26-day decay	$1.4 \times 10^{-6} \text{ sec/m}^3$	Yes	TBD
	$1.2 \times 10^{-6} \text{ sec/m}^3$	8-day decay	$1.2 \times 10^{-6} \text{ sec/m}^3$	Yes	TBD
Vegetable garden	$2.0 \times 10^{-6} \text{ sec/m}^3$	No decay	$2.0 \times 10^{-6} \text{ sec/m}^3$	Yes	TBD
	$2.0 \times 10^{-6} \text{ sec/m}^3$	2.26-day decay	$2.0 \times 10^{-6} \text{ sec/m}^3$	Yes	TBD
	$1.8 \times 10^{-6} \text{ sec/m}^3$	8-day decay	$1.8 \times 10^{-6} \text{ sec/m}^3$	Yes	TBD
▪ Ground Deposition (D/Q)	D/Q values presented in ER Table 2.7-14	The ground deposition coefficients used to estimate dose consequences of normal airborne releases	D/Q values presented in ER Table 2.7-14	Yes	TBD
Residence	$7.2 \times 10^{-9} \text{ sec/m}^3$		$7.2 \times 10^{-9} \text{ sec/m}^3$	Yes	TBD
EAB	$1.2 \times 10^{-8} \text{ sec/m}^3$		$1.2 \times 10^{-8} \text{ sec/m}^3$	Yes	TBD
Meat animal	$3.1 \times 10^{-9} \text{ sec/m}^3$		$3.1 \times 10^{-9} \text{ sec/m}^3$	Yes	TBD
Vegetable garden	$6.0 \times 10^{-9} \text{ sec/m}^3$		$6.0 \times 10^{-9} \text{ sec/m}^3$	Yes	TBD

DRAFT Table 3.0-1 Evaluation of ESP Site Characteristics					
ESP Site Characteristics (From NUREG-1811, Volume 1, Table I-1)			COL [Value]	Is ESP Site Characteristic Bounding? (Yes/No)	Notes
Item	Single Unit Value	Description & References			
Dose Consequences					
<ul style="list-style-type: none"> ▪ Normal 	10 CFR Part 20; 10 CFR Par 50, Appendix I, Dose Objectives; and 40 CFR Part 190 dose limits	Radiological dose consequences due to gaseous and liquid releases from normal operation of the plant	10 CFR Part 20; 10 CFR Par 50, Appendix I, Dose Objectives; and 40 CFR Part 190 dose limits	Yes	TBD
Liquid effluent	1.6 mrem/yr	Total body (Value for two units, see ER Table 5.4-11)	TBD	TBD	TBD See Note 1 at the end of this table.
	1.4 mrem/yr	Thyroid (Value for two units, see ER Table 5.4-11)	TBD	TBD	TBD See Note 1 at the end of this table.
	5.0 mrem/yr	Other organ/bone (Value for two units, see ER Table 5.4-11)	TBD	TBD	TBD See Note 1 at the end of this table.
Gaseous effluent	4.8 mrem/yr	Total body (Value for two units, see ER Table 5.4-11)	TBD	TBD	TBD See Note 1 at the end of this table.
	25 mrem/yr	Thyroid (Value for two units, see ER Table 5.4-11)	TBD	TBD	TBD See Note 1 at the end of this table.

DRAFT Table 3.0-1 Evaluation of ESP Site Characteristics					
ESP Site Characteristics (From NUREG-1811, Volume 1, Table I-1)			COL [Value]	Is ESP Site Characteristic Bounding? (Yes/No)	Notes
Item	Single Unit Value	Description & References			
	6.5 mrem/yr	Other organ/bone (Value for two units, see ER Table 5.4-11)	TBD	TBD	TBD See Note 1 at the end of this table.
	6.2 mrem/yr	Skin (Value for one unit, see ER Table 5.4-10)	TBD	TBD	TBD
Total	6.4 mrem/yr	Total body (Value for two units, see ER Table 5.4-11)	TBD	TBD	TBD See Note 1 at the end of this table.
	27 mrem/yr	Thyroid (Value for two units, see ER Table 5.4-11)	TBD	TBD	TBD See Note 1 at the end of this table.
	27 mrem/yr	Thyroid (Value for two units, see ER Table 5.4-11)	TBD	TBD	TBD See Note 1 at the end of this table.
	11 mrem/yr	Other organ/bone (Value for two units, see ER Table 5.4-11)	TBD	TBD	TBD See Note 1 at the end of this table.
	6.2 mrem/yr	Skin (Value for one unit, see ER Table 5.4-10)	TBD	TBD	TBD
<ul style="list-style-type: none"> ▪ Post-Accident 	10 CFR 50.34(a)(1) and 10 CFR 100 dose limits	<ul style="list-style-type: none"> ▪ Radiological dose consequences due to gaseous releases from 	10 CFR 50.34(a)(1) and 10 CFR 100 dose limits	Yes	TBD

DRAFT Table 3.0-1 Evaluation of ESP Site Characteristics					
ESP Site Characteristics (From NUREG-1811, Volume 1, Table I-1)			COL [Value]	Is ESP Site Characteristic Bounding? (Yes/No)	Notes
Item	Single Unit Value	Description & References			
		postulated plant accidents <ul style="list-style-type: none"> ▪ Design basis accidents (DBA) as listed in Tables 5-15, 5-16, and 5-17 of this EIS ▪ Severe accidents as listed in Tables 5-18, 5-19, and 5-20 of this EIS 			
<ul style="list-style-type: none"> ▪ Minimum Distance to Site Boundary 	2854.9 ft	Minimum lateral distance from the ESP PPE boundaries to the EAB	2854.9 ft	Yes	TBD
Liquid Radwaste System					
<ul style="list-style-type: none"> ▪ Normal Dose Consequences 	10 CFR Part 20; 10 CFR Par 50, Appendix I, Dose Objectives; and 40 CFR Part 190 dose limits		10 CFR Part 20; 10 CFR Par 50, Appendix I, Dose Objectives; and 40 CFR Part 190 dose limits	Yes	TBD

DRAFT Table 3.0-1 Evaluation of ESP Site Characteristics					
ESP Site Characteristics (From NUREG-1811, Volume 1, Table I-1)			COL [Value]	Is ESP Site Characteristic Bounding? (Yes/No)	Notes
Item	Single Unit Value	Description & References			
	1.6 mrem/yr	Total body (Value for two units, see ER Table 5.4-11)	TBD	TBD	TBD See Note 1 at the end of this table.
	1.4 mrem/yr	Thyroid (Value for two units, see ER Table 5.4-11)	TBD	TBD	TBD See Note 1 at the end of this table.
	5.0 mrem/yr	Other organ/bone (Value for two units, see ER Table 5.4-11)	TBD	TBD	TBD See Note 1 at the end of this table.
Population Density					
<ul style="list-style-type: none"> ▪ Population density at the time of initial site approval and within about 5 years thereafter 	Population density meets the guidance of RS-002, Section 2.1.3 for RG 4.7, Regulatory Position C.4	At the time of initial site approval and within about 5 years hereafter, the population densities, including weighted transient population, averaged over any radial distance out to 20 miles (cumulative population at a distance divided by the circular area at that distance), would not exceed 500	Population density meets the guidance of RS-002, Section 2.1.3 for RG 4.7, Regulatory Position C.4	Yes	TBD

DRAFT Table 3.0-1 Evaluation of ESP Site Characteristics					
ESP Site Characteristics (From NUREG-1811, Volume 1, Table I-1)			COL [Value]	Is ESP Site Characteristic Bounding? (Yes/No)	Notes
Item	Single Unit Value	Description & References			
		persons per square mile.			
<ul style="list-style-type: none"> ▪ Population density at the time of initial operation 	Population density meets the guidance of RS-002, Section 2.1.3	The population densities, including weighted transient population, averaged over any radial distance out to 30 miles (cumulative population at a distance divided by the circular area at that distance), would not exceed 500 persons per square mile at the time of initial operation.	Population density meets the guidance of RS-002, Section 2.1.3	Yes	TBD
<ul style="list-style-type: none"> ▪ Population density over the lifetime of the new units until 2065 	Population density meets the guidance of RS-002, Section 2.1.3	The population densities, including weighted transient population, averaged over any radial distance out to 30 miles (cumulative population at a distance divided by	Population density meets the guidance of RS-002, Section 2.1.3	Yes	TBD

DRAFT Table 3.0-1 Evaluation of ESP Site Characteristics					
ESP Site Characteristics (From NUREG-1811, Volume 1, Table I-1)			COL [Value]	Is ESP Site Characteristic Bounding? (Yes/No)	Notes
Item	Single Unit Value	Description & References			
		the circular area at that distance), would not exceed 1000 persons per square mile over the lifetime of new units.			
Population Center Distance	10 CFR 100.21(b) Meets requirement	The distance from the ESP PPE to the nearest boundary of a densely populated center containing more than about 25,000 residents is not less than one and one-third times the distance from the ESP PPE to the outer boundary of the LPZ.	10 CFR 100.21(b) Meets requirement	Yes	TBD
EAB	10 CFR 100.21(a) Meets requirement	The exclusion area boundary is the perimeter of a 5000-ft-circle from the center of the abandoned NAPS Unit 3 containment.	10 CFR 100.21(a) Meets requirement	Yes	TBD

DRAFT Table 3.0-1 Evaluation of ESP Site Characteristics					
ESP Site Characteristics (From NUREG-1811, Volume 1, Table I-1)			COL [Value]	Is ESP Site Characteristic Bounding? (Yes/No)	Notes
Item	Single Unit Value	Description & References			
LPZ	10 CFR 100.21(a) Meets requirement	The LPZ is a 6-mile- radius circle centered at the NAPS Unit 1 containment building.	10 CFR 100.21(a) Meets requirement	Yes	TBD

Notes to Table 3.0-1:

1. The ESP Single Unit Value is 50% of the ESP Two Unit Value identified in FEIS Table I-1.