

		Land Use						Hydrology							TERRESTRIAL AND WETLAND ECOLOGY										AQUATIC ECO								
		On-site and off-site land disturbance activities	On-site and off-site land use classification conversions resulting from land disturbance activities	On-site and off-site impacts to provisions of any affected local or regional land use or economic development plans	On-site and off-site disruption to land or water resources access	On-site and off-site disruption to existing land uses or private land access	Transmission line corridor maintenance activities during operations affecting land use	Anticipated hydrologic alterations resulting from station building or operation	Effects of anticipated hydrologic alterations to the quantity and availability of water within the region of interest	Effects of plant effluent discharge on water quality of receiving water bodies	Proposed actions to minimize hydrologic alteration effects	Impacts on other water uses and other water users related to changes in water supply reliability due to station building or operation	Impacts on other water uses and other water users related to changes in water quality due to station building or operation	Compliance with applicable water quality and water use standards and regulations	Effect of facility and landscape maintenance on terrestrial habitats	Effect of drift from cooling towers, evaporation ponds, or other operating facilities on terrestrial species and habitats	Effect of station water features (including cooling ponds and evaporation ponds) on adjoining wetlands and other terrestrial habitats	Effect of using groundwater and/or surface water on terrestrial habitats	Effect of operational noise on terrestrial wildlife and their habitats	Effect of traffic induced by station operations on wildlife	Potential injury to birds and bats colliding with tall structures	Possible effects on terrestrial wildlife from electromagnetic radiation, electric transmission lines, and other electrical facilities	Coordination with other agencies regarding potential impacts to terrestrial biota	Susceptibility of terrestrial species to stressors from habitat and environmental changes	Presence of disease vectors, nuisance, invasive and introduced animal or plant species onsite or in the vicinity of proposed facility	Effects of plant consumptive water use on aquatic biota	Susceptibility of aquatic species at specific life-stages to plant cooling system entrainment, entrapment, and impingement	Susceptibility of aquatic species to aquatic stressors from habitat and water quality changes, including physical stresses related to cooling system and fish-return systems	Swimming speed of important aquatic species	Estimated susceptibility and natural survival rates for aquatic species with commercial subsistence or recreational value	Regional standing stocks of important aquatic species potentially affected by station building or operation	NPDES permit requirements	
USGCRP (2014) <sup>1</sup> Climate Change Considerations:		L-1	L-2	L-2	L-3	L-3	L-1	H-1	H-3	H-2	H-1	H-3	H-3	H-4	TW-1	TW-2	TW-3	TW-3	TW-1	TW-1	TW-4	TW-4	TW-5	TW-6	TW-7	AQ-1	AQ-1	AQ-2	AQ-2	AQ-2	AQ-2	AQ-5	
Climate	Global climate is changing with global warming of past 50 years due primarily to human activities																																
Climate	Global climate changes are projected over this century and beyond with the magnitude of changes after the next few decades dependent primarily on global emissions of heat-trapping gases and the sensitivity of the Earth's climate to these emissions																																
Climate	Increased temperatures <sup>2</sup>																																
Climate	Lengthened growing season <sup>2</sup>																																
Climate	Seasonal/annual changes in precipitation amount <sup>2</sup>																																
Climate	Changes in frequency & intensity of extreme precipitation events <sup>2</sup>																																
Climate	Changes in frequency & intensity of extreme weather events <sup>2,3</sup>																																
Climate	Increased hurricane-associated storm intensity & rainfall rates <sup>2</sup>																																
Climate	Currently experiencing Increased winter storm frequency and intensity with northward shifted storm tracks; other trends in severe storms (tornados, hail, damaging thunderstorms) are uncertain																																
Climate	Sea level rise of 1-4 ft by 2100 <sup>2</sup>																																
Climate	Declining ice volume/surface extent on land, lakes, and sea <sup>2,4</sup>																																
Climate	Increasing ocean acidity & intensifying marine ecosystem impacts																																
Water Resources	Increase in very heavy precipitation events & changes in length of dry spells <sup>5</sup>																																
Water Resources	Changes in drought intensity <sup>2</sup>																																
Water Resources	Changes in flood intensity <sup>2</sup>																																
Water Resources	Changes in water demand, groundwater withdrawals & availability, aquifer recharge <sup>2</sup>																																
Water Resources	Compromised sustainability of coastal freshwater aquifers & wetlands <sup>5</sup>																																
Water Resources	Decreased surface water quality <sup>6</sup>																																
Water Resources	Changes in water supply & demand <sup>2</sup>																																
Water Resources	Reduced surface & groundwater supplies; increased likelihood of water shortages																																
Water Resources	Increased flooding risk <sup>7</sup>																																
Water Resources	New risks, vulnerabilities, & opportunities may not be properly managed within existing practices																																
Water Resources	Institutional, scientific, economic & political barriers to implementing adaptive strategies																																
Energy Supply and Use	Effect of extreme weather events on energy facilities & infrastructure																																
Energy Supply and Use	Increased summer electricity use & peak loads; decreased winter heating demand; net increase in electricity demand																																
Energy Supply and Use	Constraints on energy production due to changes in water availability																																
Energy Supply and Use	Effect of sea-level rise, extreme storm surge events, and high tides on energy production, energy delivery systems, and infrastructure																																
Energy Supply and Use	Changes in future energy mix																																
Transportation	Effects on the reliability & capacity of transportation systems <sup>8</sup>																																
Transportation	Increased risk of major coastal impacts to transportation infrastructure due to sea-level rise & storm surge <sup>9</sup>																																
Transportation	Increased disruption of transportation networks and operations due to extreme weather events <sup>10</sup>																																
Transportation	Increased total costs to transportation systems & users																																
Agriculture	Increasing climate disruptions to agricultural production <sup>11</sup>																																
Agriculture	Changes in crop & livestock production due to climate-induced stresses (weeds, diseases, insect pests, etc.) <sup>1</sup>																																
Agriculture	Loss and degradation of agricultural soil & water assets																																
Agriculture	Negative impacts on crop & livestock productivity due to increased incidence of weather extremes																																
Agriculture	Need for increased innovation in agricultural production																																
Agriculture	Effects on U.S. & global food security																																
Forests	Increased vulnerability to ecosystem changes & tree mortality <sup>12</sup>																																
Forests	Reduced rate of forest CO <sub>2</sub> uptake																																
Forests	Influence of bioenergy on forest product markets																																
Forests	Changing forest management policies & practices																																
Ecosystems, Biodiversity, and	Reduced ecosystem ability to improve water quality & regulate water flows																																





		LOGY						SOCIOECONOMICS													JUSTICE			TORIC AND CULTURAL RESOUR		METEOROLOGY	AIR QUALITY			
		Effects on species and habitats affected by heated plume dynamics and scouring	Ability of important aquatic species to exhibit avoidance behavior to thermal discharge and cold shock at all affected life stages	Presence of disease-causing vectors and nuisance, invasive and introduced aquatic species onsite or in the vicinity of the proposed station	Biological effects to important aquatic species resulting from chemical and/or physical alterations to receiving water body	Adverse effects of transmission and pipeline corridor maintenance practices on aquatic biota	Coordination with other agencies regarding potential impacts to aquatic biota	Workforce impacts, including local vs. in-migrating geographic origin of workers and out-ages impacts	Expected residency patterns during operations	Combined impacts of site employment for sites with an operating station	Impacts of plant activities on local transportation infrastructure	Impacts of plant activities on local buildings and facilities	Impacts of plant activities to visual resources	Impact of plant activities on local housing resources	Impact of plant activities on public schools	Traffic-related impacts of the site operations workforce and deliveries	Impacts of plant activities to local recreation resources	Impacts of plant activities on first-responder agencies	Expected mitigation actions (traffic, schools, community services)	Employment, income and output impacts attributable to plant activities	Tax revenue impacts attributable to plant activities	Existence of communities exceptionally dependent on subsistence resources	Disproportionate human health impacts of the plant to EJ populations of interest	Effect of plant activities on established resource precedents, cultural practices, or subsistence behaviors	Operations and maintenance activities affecting onsite historic properties	Operations and maintenance activities affecting offsite historic properties	Cooling system impacts, including plume lengths, additional hours of fogging and icing, salt deposition, increases in humidity and precipitation (including snowfall), potential local weather modification from cloud formation/shadowing, and interactions of plume with other pollutant sources	Sources and types of air emissions	Estimates of annual air emissions for criteria air pollutants, both from the operating plant and from transmission lines	
USGCRP (2014) <sup>1</sup> Climate Change Considerations:		AO-2	AO-2	AO-3	AO-4	AO-1	AO-5	S-1	S-1	S-1	S-2	S-1	S-3	S-1	S-1	S-2	S-1	S-1	S-4	S-5	S-5	EJ-1	EJ-2	EJ-3	H&CR-1	H&CR-1	M-1	AirQ-1	AirQ-1	
Climate	Global climate is changing with global warming of past 50 years due primarily to human activities																													
Climate	Global climate changes are projected over this century and beyond with the magnitude of changes after the next few decades dependent primarily on global emissions of heat-trapping gases and the sensitivity of the Earth's climate to these emissions																													
Climate	Increased temperatures <sup>2</sup>																													
Climate	Lengthened growing season <sup>2</sup>																													
Climate	Seasonal/annual changes in precipitation amount <sup>2</sup>																													
Climate	Changes in frequency & intensity of extreme precipitation events <sup>2</sup>																													
Climate	Changes in frequency & intensity of extreme weather events <sup>2,3</sup>																													
Climate	Increased hurricane-associated storm intensity & rainfall rates <sup>2</sup>																													
Climate	Currently experiencing Increased winter storm frequency and intensity with northward shifted storm tracks; other trends in severe storms (tornados, hail, damaging thunderstorms) are uncertain																													
Climate	Sea level rise of 1-4 ft by 2100 <sup>2</sup>																													
Climate	Declining ice volume/surface extent on land, lakes, and sea <sup>2,4</sup>																													
Climate	Increasing ocean acidity & intensifying marine ecosystem impacts																													
Water Resources	Increase in very heavy precipitation events & changes in length of dry spells <sup>5</sup>	X																												
Water Resources	Changes in drought intensity <sup>2</sup>																													
Water Resources	Changes in flood intensity <sup>2</sup>																													
Water Resources	Changes in water demand, groundwater withdrawals & availability, aquifer recharge <sup>2</sup>																													
Water Resources	Compromised sustainability of coastal freshwater aquifers & wetlands <sup>5</sup>																													
Water Resources	Decreased surface water quality <sup>6</sup>			X																										
Water Resources	Changes in water supply & demand <sup>4</sup>							X										X												
Water Resources	Reduced surface & groundwater supplies; increased likelihood of water shortages																		X											
Water Resources	Increased flooding risk <sup>7</sup>								X																					
Water Resources	New risks, vulnerabilities, & opportunities may not be properly managed within existing practices		X						X									X												
Water Resources	Institutional, scientific, economic & political barriers to implementing adaptive strategies																	X												
Energy Supply and Use	Effect of extreme weather events on energy facilities & infrastructure																													
Energy Supply and Use	Increased summer electricity use & peak loads; decreased winter heating demand; net increase in electricity demand								X										X	X										
Energy Supply and Use	Constraints on energy production due to changes in water availability																													
Energy Supply and Use	Effect of sea-level rise, extreme storm surge events, and high tides on energy production, energy delivery systems, and infrastructure																													
Energy Supply and Use	Changes in future energy mix								X										X	X										
Transportation	Effects on the reliability & capacity of transportation systems <sup>8</sup>									X																				
Transportation	Increased risk of major coastal impacts to transportation infrastructure due to sea-level rise & storm surge <sup>9</sup>									X														X						
Transportation	Increased disruption of transportation networks and operations due to extreme weather events <sup>10</sup>										X								X											
Transportation	Increased total costs to transportation systems & users																													
Agriculture	Increasing climate disruptions to agricultural production <sup>11</sup>																													
Agriculture	Changes in crop & livestock production due to climate-induced stresses (weeds, diseases, insect pests, etc.) <sup>1</sup>																													
Agriculture	Loss and degradation of agricultural soil & water assets																													
Agriculture	Negative impacts on crop & livestock productivity due to increased incidences of weather extremes																													
Agriculture	Need for increased innovation in agricultural production																													
Agriculture	Effects on U.S. & global food security																													
Forests	Increased vulnerability to ecosystem changes & tree mortality <sup>12</sup>																													
Forests	Reduced rate of forest CO <sub>2</sub> uptake																													
Forests	Influence of bioenergy on forest product markets																													
Forests	Changing forest management policies & practices																													
Ecosystems, Biodiversity, and	Reduced ecosystem ability to improve water quality & regulate water flows																					X		X						





		NONRADIOLOGICAL HEALTH					RADIOLOGICAL IMPACTS						NONRADIOACTIVE WASTE IMPACT	ACCIDENTS			TRANSPORTATION OF RAD MATERIALS (6.1.8)	BENEFIT-COST (10.1)	
		Presence of etiologic agents from operations systems and activities that may impact human health	Noise impacts associated with operations	Acute effects of electromagnetic fields (electric shock) associated with transmission lines	Occupational health risks	Potential health impacts related to nonradiological traffic-related accidents for operations and outage workers	Environmental pathways by which humans can be exposed to radiation (including that from gaseous effluents, liquid effluents, and direct exposure) from an operating facility.	Environmental pathways by which non-human biota can be exposed to radiation (including that from gaseous effluents, liquid effluents, and direct exposure) from an operating facility.	Estimates of the maximum individual radiation dose and total collective radiation doses to the population living in the area of interest.	Estimates of the annual occupational radiation dose to workers	Radio logical impacts to biota other than humans	Radio logical environmental monitoring program for the site	Environmental impacts resulting from the generation and disposal of nonradioactive waste and mixed waste	Estimates of dose consequences at the proposed exclusion area boundary (EAB) and the low-population zone (LPZ) from postulated design basis accidents (DBAs)	Mean estimates of site-specific severe accident risks, considering relevant environmental pathways including the air, ground, food, surface water, and ground water. Risk considerations include individual, population, economic, and contaminated land area risks.	Estimated cost, risk reduction, and value-impact ratios for the selected severe accident mitigation alternatives (SAMAs).	Radio logical dose to the population in the region of interest due to transportation of radioactive materials	Estimated benefits of the proposed facility during operation, including net electrical generation, production of other commercial products, expected tax payments, regional productivity increases, and technical and nonmonetary benefits.	Operations costs
USGCRP (2014) <sup>1</sup> Climate Change Considerations:		NR-1	NR-2	NR-3	NR-4	NR-5	R-1	R-2	R-3	R-3	R-4	R-5	NRW-1	ACC-1	ACC-2	ACC-3	T-1	BC-1	BC-2
Linked Question																			
Climate	Global climate is changing with global warming of past 50 years due primarily to human activities																		
Climate	Global climate changes are projected over this century and beyond with the magnitude of changes after the next few decades dependent primarily on global emissions of heat-trapping gases and the sensitivity of the Earth's climate to these emissions																		
Climate	Increased temperatures <sup>2</sup>													X	X		X		
Climate	Lengthened growing season <sup>2</sup>													X	X		X		
Climate	Seasonal/annual changes in precipitation amount <sup>2</sup>													X	X		X		
Climate	Changes in frequency & intensity of extreme precipitation events <sup>2</sup>													X	X		X		
Climate	Changes in frequency & intensity of extreme weather events <sup>2,3</sup>													X	X		X		
Climate	Increased hurricane-associated storm intensity & rainfall rates <sup>2</sup>													X	X		X		
Climate	Currently experiencing Increased winter storm frequency and intensity with northward shifted storm tracks; other trends in severe storms (tornados, hail, damaging thunderstorms) are uncertain																		
Climate	Sea level rise of 1-4 ft by 2100 <sup>7</sup>																		
Climate	Declining ice volume/surface extent on land, lakes, and sea <sup>2,4</sup>																		
Climate	Increasing ocean acidity & intensifying marine ecosystem impacts																		
Water Resources	Increase in very heavy precipitation events & changes in length of dry spells <sup>5</sup>													X	X		X		
Water Resources	Changes in drought intensity <sup>2</sup>														X		X		
Water Resources	Changes in flood intensity <sup>2</sup>																		
Water Resources	Changes in water demand, groundwater withdrawals & availability, aquifer recharge <sup>2</sup>																		
Water Resources	Compromised sustainability of coastal freshwater aquifers & wetlands <sup>5</sup>																		
Water Resources	Decreased surface water quality <sup>6</sup>						X			X	X								
Water Resources	Changes in water supply & demand <sup>6</sup>						X			X	X				X				
Water Resources	Reduced surface & groundwater supplies; increased likelihood of water shortages						X			X	X								
Water Resources	Increased flooding risk <sup>7</sup>				X										X		X		
Water Resources	New risks, vulnerabilities, & opportunities may not be properly managed within existing practices																		
Water Resources	Institutional, scientific, economic & political barriers to implementing adaptive strategies																		
Energy Supply and Use	Effect of extreme weather events on energy facilities & infrastructure		X																
Energy Supply and Use	Increased summer electricity use & peak loads; decreased winter heating demand; net increase in electricity demand																		
Energy Supply and Use	Constraints on energy production due to changes in water availability																		
Energy Supply and Use	Effect of sea-level rise, extreme storm surge events, and high tides on energy production, energy delivery systems, and infrastructure																		
Energy Supply and Use	Changes in future energy mix																		
Transportation	Effects on the reliability & capacity of transportation systems <sup>8</sup>					X									X		X		
Transportation	Increased risk of major coastal impacts to transportation infrastructure due to sea-level rise & storm surge <sup>9</sup>					X											X		
Transportation	Increased disruption of transportation networks and operations due to extreme weather events <sup>10</sup>					X											X		
Transportation	Increased total costs to transportation systems & users					X													
Agriculture	Increasing climate disruptions to agricultural production <sup>11</sup>													X		X			
Agriculture	Changes in crop & livestock production due to climate-induced stresses (weeds, diseases, insect pests, etc.) <sup>1</sup>																		
Agriculture	Loss and degradation of agricultural soil & water assets																		
Agriculture	Negative impacts on crop & livestock productivity due to increased incidence of weather extremes													X		X			
Agriculture	Need for increased innovation in agricultural production																		
Agriculture	Effects on U.S. & global food security																		
Forests	Increased vulnerability to ecosystem changes & tree mortality <sup>12</sup>																		
Forests	Reduced rate of forest CO <sub>2</sub> uptake																		
Forests	Influence of bioenergy on forest product markets																		
Forests	Changing forest management policies & practices																		
Ecosystems, Biodiversity, and	Reduced ecosystem ability to improve water quality & regulate water flows																		

		NONRADIOLOGICAL HEALTH				RADIOLOGICAL IMPACTS					NONRADIOACTIVE WASTE IMPACT	ACCIDENTS			TRANSPORTATION OF RAD MATERIALS (6.1.8)	BENEFIT-COST (10.1)		
Ecosystems, Biodiversity, and Land Resources	Reduced ecosystem ability to buffer impacts from extreme events (fires, floods, storms, etc.)																	
Ecosystems, Biodiversity, and Land Resources	Changing mix of plant and animal life <sup>13</sup>										X			X	X			
Ecosystems, Biodiversity, and Land Resources	Shifts in timing of critical biological events <sup>14</sup>																	
Ecosystems, Biodiversity, and Land Resources	Changes in management goals and practices <sup>15</sup>																	
Human Health	Threats to human health and well-being <sup>16</sup>	X			X													
Human Health	Amplification of existing health threats & impacts on vulnerable groups <sup>17</sup>				X													
Human Health	Public health actions, and action timing, to protect people from some climate change impacts	X																
Human Health	Influence of climate change adaptation strategies on human health	X			X													
Energy, Water & Land Use	Effects on climate change vulnerability & regional adaptation & mitigation options from interaction of energy, water & land systems <sup>2</sup>																	
Energy, Water & Land Use	Dependence of energy systems on land & water supplies influencing development of these systems & options for reducing greenhouse gas emissions																	
Energy, Water & Land Use	Use of joint resource management considerations in energy, water, & land use to identify & evaluate options for reducing climate change																	
Urban Systems, Infrastructure	Climate change impacts on urban water, energy supply, transportation, & other essential infrastructure																	
Urban Systems, Infrastructure	Linked disruptions in urban infrastructure systems																	
Urban Systems, Infrastructure	Influence of social inequalities on urban resident & community climate vulnerability & adaptive capacity																	
Urban Systems, Infrastructure	Cooperative government & private sector activity in urban adaptation efforts																	
Indigenous Peoples, Land, and Resources	Native People's access to traditional foods					X		X	X	X	X							
Indigenous Peoples, Land, and Resources	Ability of Native communities to adapt to decreases in water quality & quantity	X																
Indigenous Peoples, Land, and Resources	Impact of declining Alaskan sea ice																	
Indigenous Peoples, Land, and Resources	Impact of thawing permafrost on infrastructure & traditional Alaska Native lifestyles																	
Indigenous Peoples, Land, and Resources	Relocation of tribal & indigenous communities due to climate impacts, especially in coastal locations																	
Land Use and Land Cover Change	Effects of choices about land-use and land-cover patterns on ecosystems and human communities									X			X	X				
Land Use and Land Cover Change	Effects of changes in land-use and land-cover patterns on climate processes										X							
Land Use and Land Cover Change	Influence of land-use decisions made to adapt to the effects of climate change		X								X							
Land Use and Land Cover Change	Effect of land use & land management choices on atmospheric greenhouse gas levels																	
Rural Communities	Increased impacts of climate change on rural communities and rural economic activities <sup>18</sup>																	
Rural Communities	Unique vulnerabilities of rural communities to climate change impacts <sup>19</sup>																	
Rural Communities	Limited capacity of rural governments to respond to climate change impacts <sup>20</sup>																	
Biogeochemical Cycles	Alterations in biogeochemical cycles <sup>21</sup>																	
Biogeochemical Cycles	Effect of natural land sinks on carbon, nitrogen, phosphorus, and other biogeochemical cycles																	
Biogeochemical Cycles	Increased vulnerability of biodiversity, food security, human health, and water quality due to altered biogeochemical cycles and climate change	X																
<sup>1</sup> Entries are grouped by USGCRP sector and are derived from Key Messages in USGCRP (2014) <i>Climate Change Impacts and Adaptation</i> .																		
<sup>2</sup> SMEs should consult the regional section of GCRP (2014) and other appropriate sources for information.																		
<sup>3</sup> Includes heat waves, cold waves, and regional droughts																		
<sup>4</sup> Includes projection of summertime Arctic Ocean sea ice essentially disappearing before mid-century																		
<sup>5</sup> Includes saltwater intrusion and other impacts related to sea level rise, storms and storm surges, and																		
<sup>6</sup> Includes changes due to increasing air and water temperatures, more intense precipitation and runoff																		
<sup>7</sup> Includes effects on human safety and health, property, infrastructure, economies, and ecology																		
<sup>8</sup> Includes impacts from sea level rise, storm surge, extreme weather events, higher temperatures, heat																		
<sup>9</sup> Includes temporary and permanent flooding of airports, ports and harbors, roads, rail lines, tunnels, and																		
<sup>10</sup> Includes both transportation interruptions and infrastructure damage (e.g., pavement and track damage)																		
<sup>11</sup> Includes increasingly negative impacts on crops and livestock due to responses to elevated CO2, increased																		
<sup>12</sup> Includes effects of fire, insect infestations, drought, disease outbreaks, etc.																		
<sup>13</sup> Includes shifts in ranges of species; increased incidence of insect pests, disease pathogens, and invasive																		



	NONRADIOLOGICAL HEALTH				RADIOLOGICAL IMPACTS				NONRADIOACTIVE WASTE IMPACT				ACCIDENTS				TRANSPORTATION OF RAD MATERIALS (6.1.8)		BENEFIT-COST (10.1)	
<sup>14</sup> Includes spring bud burst, migration, hibernation, emergence from overwintering, plankton blooms, e																				
<sup>15</sup> Includes whole system management and ecosystem-based adaptation strategies																				
<sup>16</sup> Includes impacts from increased extreme weather events, wildfire, decreased air quality, threats to n																				
<sup>17</sup> Includes children, the elderly, the poor, and some communities of color																				
<sup>18</sup> Rural economic activities include agriculture, forestry, recreation, etc. Impacts include shifts in locat																				
<sup>19</sup> Vulnerabilities include geographic and demographic obstacles, such as physical isolation, limited eco																				
<sup>20</sup> Includes ability to adapt rural transportation, infrastructure, health, and emergency response systems																				
<sup>21</sup> Includes alterations due to increased atmospheric carbon dioxide and changes in nitrogen, phosphor																				

CATEGORY	RESOURCE AREA & LINKED QUESTION NUMBER	QUESTION	Climate	Water Resources	Energy Supply and Use	Transportation	Agriculture	Forests	Ecosystems, Biodiversity, and Ecosystem Services
LAND USE	L-1	Are expected climatological changes likely to affect impacts related to on-site, off-site, and/or transmission line corridor land disturbance activities?	0	0	0	0	0	0	0
LAND USE	L-2	Are expected climatological changes likely to influence, or lead to, any plant impacts on local/regional land use classifications or economic development plans?	0	0	0	0	1	2	1
LAND USE	L-3	Are expected climatological changes likely to influence, or lead to, any plant impacts found to disrupt access to land or water resources or to affect existing land uses or private land access?	0	0	0	0	0	0	0
LAND USE	Overall Influence of Climate Change on Land Use Impacts	Will expected climatological changes affect the land use building or operational impact levels assigned in Chapters 4 and 5? Potential changes to the building impact level could occur if there are long-term, persistent impacts from building activities. Considering responses to previous questions, justify your answer in 4 sentences or less.							
HYDROLOGY	H-1	Will expected climatological changes affect the anticipated hydrologic alterations resulting from station building or operation?	0	5	0	0	0	0	0
HYDROLOGY	H-2	Will expected climatological changes influence, or lead to, plant effluent discharges impacting the water quality of receiving water bodies?	0	1	0	0	0	0	0
HYDROLOGY	H-3	Will expected climatological changes influence, or lead to, plant impacts to other water uses and other water users?	0	3	0	0	0	0	0
HYDROLOGY	H-4	As climate changes, will plant hydrological impacts affect the ability of the region to meet applicable water quality and water use standards and regulations?	0	0	0	0	0	0	0
HYDROLOGY	Overall Influence of Climate Change on Hydrology Impacts	Will expected climatological changes affect the hydrology building or operational impact levels assigned in Chapters 4 and 5? Potential changes to the building impact level could occur if there are long-term, persistent impacts from building activities. Considering responses to previous questions, justify your answer in 4 sentences or less.							
TERRESTRIAL ECOLOGY & WETLANDS	TW-1	Will expected climatological changes affect plant impacts from facility and landscape maintenance, noise, and traffic on terrestrial habitats and wildlife?	2	0	0	0	0	0	4
TERRESTRIAL ECOLOGY & WETLANDS	TW-2	Will expected climatological changes affect the impact of drift from plant facilities on terrestrial habitats, wetlands, and species?	0	0	0	0	0	1	1
TERRESTRIAL ECOLOGY & WETLANDS	TW-3	Will expected climatological changes affect the impact of the plant (including the operation of cooling and evaporation ponds, and the use of groundwater and/or surface water) on adjoining wetlands and other terrestrial habitats?	2	2	0	0	0	0	0
TERRESTRIAL ECOLOGY & WETLANDS	TW-4	Will expected climatological changes affect the impact of the plant and transmission lines on birds, bats, and other wildlife due to collisions, electrocution, or electromagnetic radiation effects?	0	0	0	0	0	0	4
TERRESTRIAL ECOLOGY & WETLANDS	TW-5	Will expected climatological changes affect coordination with other agencies regarding potential impacts to terrestrial biota?	0	0	0	0	0	0	1
TERRESTRIAL ECOLOGY & WETLANDS	TW-6	Will expected climatological changes affect the overall impact of the plant on regional standing stocks of important terrestrial species, including plant impacts on species' susceptibility to tolerate environmental changes and natural survival rates?	0	1	0	0	0	1	1
TERRESTRIAL ECOLOGY & WETLANDS	TW-7	Will expected climatological changes influence the impacts of the plant relative to leading to the presence of disease-causing vectors or nuisance, invasive, or introduced plant or animal species in the vicinity of the facility?	0	0	0	0	0	1	2
TERRESTRIAL ECOLOGY & WETLANDS	Overall Influence of Climate Change on Terrestrial and Wetland Ecology Impacts	Will expected climatological changes affect the terrestrial and wetlands ecology building or operational impact levels assigned in Chapters 4 and 5? Potential changes to the building impact level could occur if there are long-term, persistent impacts from building activities. Considering responses to previous questions, justify your answer in 4 sentences or less.							
AQUATIC ECOLOGY	AQ-1	Will expected climatological changes affect the impact of the plant on aquatic biota and habitats? Consider in your answer overall impacts related to plant consumptive water use, entrainment, entrapment, impingement, stresses related to the cooling system, fish return systems, thermal backwashing and scouring, heated effluent plume, transmission and pipeline corridor maintenance.	0	1	0	0	0	0	4
AQUATIC ECOLOGY	AQ-2	Will expected climatological changes affect the overall impact of the plant on regional standing stocks of important aquatic species, including plant impacts on species' susceptibility to tolerate environmental changes and natural survival rates?	0	3	0	0	0	0	9
AQUATIC ECOLOGY	AQ-3	Will expected climatological changes influence the impacts of the plant relative to leading to the presence of disease-causing vectors or nuisance, invasive, or introduced aquatic species in the vicinity of the plant?	0	1	0	0	0	0	2
AQUATIC ECOLOGY	AQ-4	Will expected climatological changes affect the impact of the plant on altering the chemical and/or physical characteristics of the receiving water body, and any subsequent biological effects to important aquatic species?	0	1	0	0	0	0	2
AQUATIC ECOLOGY	AQ-5	Will expected climatological changes affect coordination with other agencies regarding potential impacts to aquatic biota?	0	0	0	0	0	0	1
AQUATIC ECOLOGY	Overall Influence of Climate Change on Aquatic Ecology Impacts	Will expected climatological changes affect the aquatic ecology building or operational impact levels assigned in Chapters 4 and 5? Potential changes to the building impact level could occur if there are long-term, persistent impacts from building activities. Considering responses to previous questions, justify your answer in 4 sentences or less.							
SOCIOECONOMIC	S-1	Are expected climatological changes likely to alter the impacts of plant activities on local facilities and residency patterns, including housing, public schools, recreational resources, and first-responder agencies?	0	4	2	0	0	0	0
SOCIOECONOMIC	S-2	Considering traffic related to the operational workforce, deliveries, and similar activities, are expected climatological changes likely to alter the impacts of plant activities on local transportation infrastructure?	0	0	0	6	0	0	0

SOCIOECONOMIC	S-3	Are expected climatological changes likely to alter the impacts of plant activities on visual resources?	0	0	0	0	0	0	0
SOCIOECONOMIC	S-4	Are expected climatological changes likely to influence any anticipated mitigation actions?	0	3	0	1	0	0	0
SOCIOECONOMIC	S-5	Are expected climatological changes likely to alter the impacts of plant activities on employment, income, output, and tax revenues?	0	0	4	0	0	0	0
SOCIOECONOMIC	Overall Influence of Climate Change on Socioeconomic Impacts	Will expected climatological changes affect the socioeconomic building or operational impact levels assigned in Chapters 4 and 5? Potential changes to the building impact level could occur if there are long-term, persistent impacts from building activities. Considering responses to previous questions, justify your answer in 4 sentences or less.							
ENV JUSTICE	EJ-1	Will expected climatological changes affect whether or not communities exist that are exceptionally dependent on subsistence resources in the region of interest?	0	0	0	0	1	1	0
ENV JUSTICE	EJ-2	Will expected climatological changes affect any identified human health impacts of the plant to EJ populations of interest?	0	0	0	0	0	0	0
ENV JUSTICE	EJ-3	Will expected climatological changes influence any effect of plant activities on established resource dependencies, cultural practices, or subsistence behaviors?	0	3	0	2	1	1	0
ENV JUSTICE	Overall Influence of Climate Change on Environmental Justice Impacts	Will expected climatological changes affect the environmental justice building or operational impact levels assigned in Chapters 4 or 5? Potential changes to the building impact level could occur if there are long-term, persistent impacts from building activities. Considering responses to previous questions, justify your answer in 4 sentences or less.							
HISTORIC & CULTURAL	HCR-1	Will expected climatological changes affect the impact of operations and maintenance activities on identified onsite and offsite historic properties and/or cultural resources?	4	4	0	0	0	0	0
HISTORIC & CULTURAL	Overall Influence of Climate Change on Historic and Cultural Resource Impacts	Will expected climatological changes affect the historic and cultural resource operational impact level assigned in Chapter 5? Considering responses to previous question, justify your answer in 4 sentences or less:							
METEOROLOGY	M-1	Will expected climatological changes affect cooling system impacts from the operating plant on local weather, including plume length, additional hours of fogging and icing, and salt deposition?	0	0	0	0	0	0	0
METEOROLOGY	Overall Influence of Climate Change on Meteorology Resource Impacts	Will expected climatological changes affect the meteorology resource operational impact level assigned in Chapter 5? Considering responses to previous question, justify your answer in 4 sentences or less:							
AIR QUALITY	AirQ-1	Will expected climatological changes affect the sources, types, and estimates of annual air emissions from the	4	2	2	4	0	0	0
AIR QUALITY	Overall Influence of Climate Change on Air Quality Resource Impacts	Will expected climatological changes affect the air quality resource operational impact level assigned in Chapter 5? Considering responses to previous question, justify your answer in 4 sentences or less:							
NON-RAD HEALTH	NRH-1	Will expected climatological changes affect any health impacts from the presence of etiological agents?	0	0	0	0	0	0	0
NON-RAD HEALTH	NRH-2	Will expected climatological changes affect any health impacts from noise associated with plant operations?	0	0	0	0	0	0	0
NON-RAD HEALTH	NRH-3	Will expected climatological changes affect any health impacts from electromagnetic fields associated with plant operations?	0	0	1	0	0	0	0
NON-RAD HEALTH	NRH-4	Will expected climatological changes affect any occupational health risks associated with plant operations?	0	1	0	0	0	0	0
NON-RAD HEALTH	NRH-5	Will expected climatological changes affect potential health impacts related to nonradiological traffic-related accidents for operations and outage workers?	0	0	0	4	0	0	0
NON-RAD HEALTH	Overall Influence of Climate Change on Nonradiological Health Resource Impacts	Will expected climatological changes affect the nonradiological health resource operational impact level assigned in Chapter 5? Considering responses to previous questions, justify your answer in 4 sentences or less:							
RADIOLOGICAL IMPACTS	R-1	Will expected climatological changes affect the possibility of exposure of humans to radiation from the operating facility?	0	0	0	0	0	0	0
RADIOLOGICAL IMPACTS	R-2	Will expected climatological changes affect the possibility of exposure of non-human biota to radiation from the operating facility?	0	3	0	0	0	0	0
RADIOLOGICAL IMPACTS	R-3	Will expected climatological changes affect estimated radiation doses to humans, including plant workers, in the area of interest during the operation of the facility?	0	0	0	0	0	0	0
RADIOLOGICAL IMPACTS	R-4	Will expected climatological changes affect estimated radiation doses to non-human biota in the area of interest during the operation of the facility?	0	3	0	0	0	0	0
RADIOLOGICAL IMPACTS	R-5	Will expected climatological changes affect the level of radiological environmental monitoring for the site?	0	3	0	0	0	0	1
RADIOLOGICAL IMPACTS	Overall Influence of Climate Change on Radiological Impacts	Will expected climatological changes affect the radiological operational impact level assigned in Chapter 5? Considering responses to previous questions, justify your answer in 4 sentences or less:							
NON-RAD WASTE	NRW-1	Will expected climatological changes affect environmental impacts resulting from the generation and disposal of nonradioactive and mixed wastes from the operating facility?	0	0	0	0	0	0	0

NON-RAD WASTE	Overall Influence of Climate Change on Nonradioactive Waste Impacts	Will expected climatological changes affect the nonradiological health resource operational impact level assigned in Chapter 5? Considering responses to previous questions, justify your answer in 4 sentences or less:							
ACCIDENTS	ACC-1	Will expected climatological changes affect the site-specific, 50 <sup>th</sup> percentile atmospheric dilution factor (i.e., y/Q) used to evaluate dose consequences from postulated design basis accidents (DBAs)?	5	1	0	0	0	0	0
ACCIDENTS	ACC-2	Will expected climatological changes affect average environmental risks of severe accidents due to either changes in severe accident probabilities or associated consequences?	5	4	0	1	2	0	
ACCIDENTS	ACC-3	Will expected climatological changes affect the severe accident mitigation alternative (SAMA) cost-benefit of the proposed facility?	5	4	0	1	2	0	1
ACCIDENTS	Overall Influence of Climate Change on Accident Impacts	Will expected climatological changes affect the accident impact level assigned in Chapter 5? Considering responses to previous questions, justify your answer in 4 sentences or less:							
TRANSPORTATION OF RAD MATERIALS (Sect. 6.1.8)	T-1	Will expected climatological changes affect the radiological dose to the population in the region of interest due to transportation of radioactive materials?	0	0	0	2	0	0	0
TRANSPORTATION OF RAD MATERIALS (Sect. 6.1.8)	Overall Influence of Climate Change on the Transportation of Radioactive Materials	Will expected climatological changes affect the impact level assigned to the transportation of radioactive materials in Chapter 6? Considering responses to previous questions, justify your answer in 4 sentences or less:							
BENEFIT-COST (Sect. 10.1)	Overall Influence of Climate Change on the Benefit-Cost Analysis	Will expected climatological changes affect the impact level assigned to the benefit-cost analysis in Chapter 10? Considering responses to previous questions, justify your answer in 4 sentences or less:							

Human Health	Energy, Water & Land Use	Urban Systems, Infrastructure, and Vulnerability	Indigenous Peoples, Land, and Resources	Land Use and Land Cover Change	Rural Communities	Biogeochemical Cycles
0	0	0	0	0	0	0
1	1	1	1	2	1	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	1
0	0	0	0	0	0	0
0	0	0	0	0	0	1
0	0	0	0	0	0	1
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
1	0	1	3	1	5	0
0	0	0	0	0	2	0

0	0	0	0	0	0	0	0
0	1	2	1	2	3	0	0
0	0	0	0	0	2	0	0
0	0	0	2	0	0	0	0
1	0	0	0	0	0	0	0
0	0	3	4	1	1	0	0
0	0	0	10	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
3	0	0	1	0	0	1	0
0	0	0	0	1	0	0	0
0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	1	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	2	0	0	0	0
0	0	0	1	0	0	0	0
0	0	0	1	2	0	0	0
0	0	0	0	1	0	0	0

0	0	0	0	0	0	0
0	0	0	0	1	0	0
0	0	0	0	1	0	0
0	0	0	0	0	0	0





Land Use		Choose One Per Question				
	Question	Likely Increase	Likely Decrease	Stay the Same	Don't Know	Comment
FALSE	FALSE					
L-2	Are expected climatological changes likely to influence, or lead to, any plant impacts on local/regional land use classifications or economic development plans?			X		
FALSE	FALSE					
<b>Rural Communities</b>						
FALSE	FALSE					
L-2	Are expected climatological changes likely to influence, or lead to, any plant impacts on local/regional land use classifications or economic development plans?			X		
FALSE	FALSE					
	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
<b>Land Use Summary</b>						
FALSE	<b>Overall – Are expected climatological changes likely to affect impacts related to on-site, off-site, and/or transmission line corridor land disturbance activities? Justify your answer in 4 sentences or less.</b>					<b>Summary Text</b>
L-2	<b>Overall – Are expected climatological changes likely to influence, or lead to, any plant impacts on local/regional land use classifications or economic development plans? Justify your answer in 4 sentences or less.</b>			X		Based on the small size of the proposed plant and the location in an already disturbed, urban interface, climatological changes are not likely to influence, or lead to, any changes in plant-related impacts on local/regional land-use classifications or economic development plans.
FALSE	<b>Overall – Are expected climatological changes likely to influence, or lead to, any plant impacts found to disrupt access to land or water resources or to affect existing land uses or private land access? Justify your answer in 4 sentences or less.</b>					
Conclusion	<b>Overall – Will expected climatological changes affect the land use building or operational impact levels assigned in Chapters 4 and 5? Potential changes to the building impact level could occur if there are long-term, persistent impacts from building activities. Considering responses to previous questions, justify your answer in 4 sentences or less.</b>			X		Climatological changes are not likely to affect the land use building or operational impact levels assigned in Chapters 4 and 5. While climate change could lead to changes in land cover, vegetation, farmland, and local communities, the siting of the proposed plant in an existing urban college campus prevents the plant from influencing these changes or being affected by them.







<b>Terrestrial Ecology</b>		Choose One Per Question				
Question						
	Climate	Likely Increase	Likely Decrease	Stay the Same	Don't Know	Comment
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
TW-6	Will expected climatological changes affect the overall impact of the plant on regional standing stocks of important terrestrial species, including plant impacts on species' susceptibility to tolerate environmental changes and natural survival rates?			X		
TW-7	Will expected climatological changes influence the impacts of the plant relative to leading to the presence of disease-causing vectors or nuisance, invasive, or introduced plant or animal species in the vicinity of the facility?			X		
<b>Ecosystems, Biodiversity, and Ecosystem Services</b>						
TW-1	Will expected climatological changes affect plant impacts from facility and landscape maintenance, noise, and traffic on terrestrial habitats and wildlife?			X		
TW-2	Will expected climatological changes affect the impact of drift from plant facilities on terrestrial habitats, wetlands, and species?			X		
FALSE	FALSE					
TW-4	Will expected climatological changes affect the impact of the plant and transmission lines on birds, bats, and other wildlife due to collisions, electrocution, or electromagnetic radiation effects?			X		
TW-5	Will expected climatological changes affect coordination with other agencies regarding potential impacts to terrestrial biota?			X		
TW-6	Will expected climatological changes affect the overall impact of the plant on regional standing stocks of important terrestrial species, including plant impacts on species' susceptibility to tolerate environmental changes and natural survival rates?			X		
TW-7	Will expected climatological changes influence the impacts of the plant relative to leading to the presence of disease-causing vectors or nuisance, invasive, or introduced plant or animal species in the vicinity of the facility?			X		



<b>Terrestrial Ecology</b>		Choose One Per Question				
Question						
	Climate	Likely Increase	Likely Decrease	Stay the Same	Don't Know	Comment
FALSE	FALSE					
FALSE	FALSE					
TW-6	Will expected climatological changes affect the overall impact of the plant on regional standing stocks of important terrestrial species, including plant impacts on species' susceptibility to tolerate environmental changes and natural survival rates?			X		
FALSE	FALSE					
Terrestrial Summary						Summary Text
TW-1	Overall – Will expected climatological changes affect plant impacts from facility and landscape maintenance, noise, and traffic on terrestrial habitats and wildlife? Justify your answer in 4 sentences or less.			X		The setting of the plant in a low building on an existing college campus makes all of these issues irrelevant.
TW-2	Overall – Will expected climatological changes affect the impact of drift from plant facilities on terrestrial habitats, wetlands, and species? Justify your answer in 4 sentences or less.			X		The setting of the plant in a low building on an existing college campus makes all of these issues irrelevant.
TW-3	Overall – Will expected climatological changes affect the impact of the plant (including the operation of cooling and evaporation ponds, and the use of groundwater and/or surface water) on adjoining wetlands and other terrestrial habitats? Justify your answer in 4 sentences or less.			X		The setting of the plant in a low building on an existing college campus makes all of these issues irrelevant.
TW-4	Overall – Will expected climatological changes affect the impact of the plant and transmission lines on birds, bats, and other wildlife due to collisions, electrocution, or electromagnetic radiation effects? Justify your answer in 4 sentences or less.			X		The setting of the plant in a low building on an existing college campus makes all of these issues irrelevant.
TW-5	Overall – Will expected climatological changes affect coordination with other agencies regarding potential impacts to terrestrial biota? Justify your answer in 4 sentences or less.			X		The setting of the plant in a low building on an existing college campus makes all of these issues irrelevant.
TW-6	Overall – Will expected climatological changes affect the overall impact of the plant on regional standing stocks of important terrestrial species, including plant impacts on species' susceptibility to tolerate environmental changes and natural survival rates? Justify your answer in 4 sentences or less.			X		The setting of the plant in a low building on an existing college campus makes all of these issues irrelevant.
TW-7	Overall – Will expected climatological changes influence the impacts of the plant relative to leading to the presence of disease-causing vectors or nuisance, invasive, or introduced plant or animal species in the vicinity of the facility? Justify your answer in 4 sentences or less.			X		The setting of the plant in a low building on an existing college campus makes all of these issues irrelevant.
Conclusion	Overall – Will expected climatological changes affect the terrestrial and wetlands ecology building or operational impact levels assigned in Chapters 4 and 5? Potential changes to the building impact level could occur if there are long-term, persistent impacts from building activities. Considering responses to previous questions, justify your answer in 4 sentences or less.			X		The setting of the plant in a low building on an existing college campus makes all of these issues irrelevant.

<b>Aquatic Ecology</b>		Choose One Per Question				Comment
Question		Likely Increase	Likely Decrease	Stay the Same	Don't Know	
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
<b>Water Resources</b>						
AQ-1	Will expected climatological changes affect the impact of the plant on aquatic biota and habitats? Consider in your answer overall impacts related to plant consumptive water use, entrainment, entrapment, impingement, stresses related to the cooling system, fish return systems, thermal backwashing and scouring, heated effluent plume, transmission and pipeline corridor maintenance.			X		
AQ-2	Will expected climatological changes affect the overall impact of the plant on regional standing stocks of important aquatic species, including plant impacts on species' susceptibility to tolerate environmental changes and natural survival rates?			X		
AQ-3	Will expected climatological changes influence the impacts of the plant relative to leading to the presence of disease-causing vectors or nuisance, invasive, or introduced aquatic species in the vicinity of the plant?			X		
AQ-4	Will expected climatological changes affect the impact of the plant on altering the chemical and/or physical characteristics of the receiving water body, and any subsequent biological effects to important aquatic species?			X		
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					









Socioeconomics		Choose One Per Question			
Question					
<b>Human Health</b>					
S-1	Are expected climatological changes likely to alter the impacts of plant activities on local facilities and residency patterns, including housing, public schools, recreational resources, and first-responder agencies?				
FALSE	FALSE				
FALSE	FALSE				
FALSE	FALSE				
FALSE	FALSE				
<b>Energy, Water &amp; Land Use</b>					
FALSE	FALSE				
FALSE	FALSE				
FALSE	FALSE				
S-4	Are expected climatological changes likely to influence any anticipated mitigation actions?				
FALSE	FALSE				
<b>Urban Systems, Infrastructure, and Vulnerability</b>					
S-1	Are expected climatological changes likely to alter the impacts of plant activities on local facilities and residency patterns, including housing, public schools, recreational resources, and first-responder agencies?				
FALSE	FALSE				
FALSE	FALSE				
S-4	Are expected climatological changes likely to influence any anticipated mitigation actions?				
FALSE	FALSE				
<b>Indigenous Peoples, Land, and Resources</b>					
S-1	Are expected climatological changes likely to alter the impacts of plant activities on local facilities and residency patterns, including housing, public schools, recreational resources, and first-responder agencies?				
FALSE	FALSE				
FALSE	FALSE				
S-4	Are expected climatological changes likely to influence any anticipated mitigation actions?				
FALSE	FALSE				
<b>Land Use and Land Cover Change</b>					
S-1	Are expected climatological changes likely to alter the impacts of plant activities on local facilities and residency patterns, including housing, public schools, recreational resources, and first-responder agencies?				
FALSE	FALSE				
FALSE	FALSE				
S-4	Are expected climatological changes likely to influence any anticipated mitigation actions?				
FALSE	FALSE				
<b>Rural Communities</b>					
S-1	Are expected climatological changes likely to alter the impacts of plant activities on local facilities and residency patterns, including housing, public schools, recreational resources, and first-responder agencies?				
S-2	Considering traffic related to the operational workforce, deliveries, and similar activities, are expected climatological changes likely to alter the impacts of plant activities on local transportation infrastructure?				
FALSE	FALSE				
S-4	Are expected climatological changes likely to influence any anticipated mitigation actions?				
S-5	Are expected climatological changes likely to alter the impacts of plant activities on employment, income, output, and tax revenues?				
FALSE	FALSE				
FALSE	FALSE				
FALSE	FALSE				
FALSE	FALSE				
FALSE	FALSE				
FALSE	FALSE				
<b>Socioeconomics Summary</b>					<b>Summary Text</b>

Socioeconomics		Choose One Per Question					
Question							
S-1	Overall – Are expected climatological changes likely to alter the impacts of plant activities on local facilities and residency patterns, including housing, public schools, recreational resources, and first-responder agencies? Justify your answer in 4 sentences or less.			X		Based on the small size of the proposed plant and workforce needed (about dozens up to 100 during construction and 10-20 during operation), the proposed plant activities have negligible impacts on local facilities and residency patterns, including housing, public schools, recreational resources, and first-responder agencies. Expected climatological changes are not likely to alter these impacts.	7
S-2	Overall – Considering traffic related to the operational workforce, deliveries, and similar activities, are expected climatological changes likely to alter the impacts of plant activities on local transportation infrastructure? Justify your answer in 4 sentences or less.			X		Due to the small size of the proposed plant and the workforce needed, the proposed plant activities have negligible impacts on local transportation infrastructure. Expected climatological changes are not likely to alter these impacts.	2
FALSE	Overall – Are expected climatological changes likely to alter the impacts of plant activities on visual resources? Justify your answer in 4 sentences or less.						0
S-4	Overall – Are expected climatological changes likely to influence any anticipated mitigation actions? Justify your answer in 4 sentences or less.			X		Due to the small size of the proposed plant and workforce needed, the proposed plant activities have negligible impacts on scioeconomics. No climate change mitigation actions will be anticipated.	7
S-5	Overall – Are expected climatological changes likely to alter the impacts of plant activities on employment, income, output, and tax revenues? Justify your answer in 4 sentences or less.			X		Due to the small size of the proposed plant and workforce needed, the proposed plant activities have negligible impacts on employment, income, output and tax revenue. ACU does not pay any property taxes or income taxes as a not-for-profit educational institution. ACU does not make any community benefits payments or payments in lieu of taxes. The overall tax revenue implications are relatively SMALL in comparison to the established tax base of Taylor County. Expected climatological changes are not likely to alter these impacts.	2
Conclusion	Overall – Will expected climatological changes affect the socioeconomic building or operational impact levels assigned in Chapters 4 and 5? Potential changes to the building impact level could occur if there are long-term, persistent impacts from building activities. Considering responses to previous questions, justify your answer in 4 sentences or less.			X		Expected climatological changes are not likely to affect the scioeconomic building or operational impact levels assigned in Chapters 4 and 5.	

Environmental Justice		Choose One Per Question				
Question		Likely Increase	Likely Decrease	Stay the Same	Don't Know	Comment
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
<b>Water Resources</b>						
FALSE	FALSE					
FALSE	FALSE					
EJ-3	Will expected climatological changes influence any effect of plant activities on established resource dependencies, cultural practices, or subsistence behaviors?					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
<b>Transportation</b>						
FALSE	FALSE					
FALSE	FALSE					
EJ-3	Will expected climatological changes influence any effect of plant activities on established resource dependencies, cultural practices, or subsistence behaviors?					
<b>Agriculture</b>						
EJ-1	Will expected climatological changes affect whether or not communities exist that are exceptionally dependent on subsistence resources in the region of interest?					
FALSE	FALSE					
EJ-3	Will expected climatological changes influence any effect of plant activities on established resource dependencies, cultural practices, or subsistence behaviors?					
<b>Forests</b>						
EJ-1	Will expected climatological changes affect whether or not communities exist that are exceptionally dependent on subsistence resources in the region of interest?					
FALSE	FALSE					
EJ-3	Will expected climatological changes influence any effect of plant activities on established resource dependencies, cultural practices, or subsistence behaviors?					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
<b>Human Health</b>						
FALSE	FALSE					
EJ-2	Will expected climatological changes affect any identified human health impacts of the plant to EJ populations of interest?					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
<b>Urban Systems, Infrastructure, and Vulnerability</b>						
FALSE	FALSE					
FALSE	FALSE					
EJ-3	Will expected climatological changes influence any effect of plant activities on established resource dependencies, cultural practices, or subsistence behaviors?					
<b>Indigenous Peoples, Land, and Resources</b>						
EJ-1	Will expected climatological changes affect whether or not communities exist that are					
FALSE	FALSE					

<b>Environmental Justice</b>		Choose One Per Question				
	<b>Question</b>	<b>Likely Increase</b>	<b>Likely Decrease</b>	<b>Stay the Same</b>	<b>Don't Know</b>	<b>Comment</b>
EJ-3	Will expected climatological changes influence any effect of plant activities on established resource dependencies, cultural practices, or subsistence behaviors?					
<b>Land Use and Land Cover Change</b>						
FALSE	FALSE					
FALSE	FALSE					
EJ-3	Will expected climatological changes influence any effect of plant activities on established resource dependencies, cultural practices, or subsistence behaviors?					
<b>Rural Communities</b>						
FALSE	FALSE					
FALSE	FALSE					
EJ-3	Will expected climatological changes influence any effect of plant activities on established resource dependencies, cultural practices, or subsistence behaviors?					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
<b>Environmental Justice Summary</b>						<b>Summary Text</b>
EJ-1	<b>Overall – Will expected climatological changes affect whether or not communities exist that are exceptionally dependent on subsistence resources in the region of interest? Justify your answer in 4 sentences or less.</b>			X		Noticeable adverse health or environmental impacts are not expected from the proposed action. No pathways could be identified linking minority or low-income EJ populations with any adverse impacts from the proposed action. Expected climatological changes are not likely to affect any communities that are exceptionally dependent on subsistence resources if there are any in the region of interest
EJ-2	<b>Overall – Will expected climatological changes affect any identified human health impacts of the plant to EJ populations of interest? Justify your answer in 4 sentences or less.</b>			X		Noticeable adverse health or environmental impacts are not expected from the proposed action. No pathways could be identified linking minority or low-income EJ populations with any adverse impacts from the proposed action. Expected climatological changes are not likely to affect any identified human health impacts of the plant to EJ populations of interest.
EJ-3	<b>Overall – Will expected climatological changes influence any effect of plant activities on established resource dependencies, cultural practices, or subsistence behaviors? Justify your answer in 4 sentences or less.</b>			X		Noticeable adverse health or environmental impacts are not expected from the proposed action. No pathways could be identified linking minority or low-income EJ populations with any adverse impacts from the proposed action. Expected climatological changes
<b>Conclusion</b>	<b>Overall – Will expected climatological changes affect the environmental justice building or operational impact levels assigned in Chapters 4 or 5? Potential changes to the building impact level could occur if there are long-term, persistent impacts from building activities. Considering responses to previous questions, justify your answer in 4 sentences or less.</b>			X		Expected climatological changes are not likely to affect the environmental justice building or operational impact levels assigned in Chapters 4 and 5.

<b>Historic and Cultural Resources</b>		Choose One Per Question				
	<b>Question</b>	<b>Likely Increase</b>	<b>Likely Decrease</b>	<b>Stay the Same</b>	<b>Don't Know</b>	<b>Comment</b>
<b>Climate</b>						
HCR-1	Will expected climatological changes affect the impact of operations and maintenance activities on identified onsite and offsite historic properties and/or cultural resources?			x		As the project already is unlikely to effect any cultural resources, climate change is unlikely to increase that impact to a significant level.
<b>Water Resources</b>						
HCR-1	Will expected climatological changes affect the impact of operations and maintenance activities on identified onsite and offsite historic properties and/or cultural resources?			x		As the project already is unlikely to effect any cultural resources, climate change is unlikely to increase that impact to a significant level.
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
<b>Indigenous Peoples, Land, and Resources</b>						
HCR-1	Will expected climatological changes affect the impact of operations and maintenance activities on identified onsite and offsite historic properties and/or cultural resources?			x		As the project already is unlikely to effect any cultural resources, climate change is unlikely to increase that impact to a significant level.
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					



<b>Historic and Cultural Resources</b>		Choose One Per Question				
		Likely Increase	Likely Decrease	Stay the Same	Don't Know	
Question						Comment
<b>Historic and Cultural Resources Summary</b>						<b>Summary Text</b>
HCR-1	Overall – Will expected climatological changes affect the impact of operations and maintenance activities on identified onsite and offsite historic properties and/or cultural resources? Justify your answer in 4 sentences or less.			x		
Conclusion	Overall – Will expected climatological changes affect the historic and cultural resource operational impact level assigned in Chapter 5? Considering responses to previous question, justify your answer in 4 sentences or less:			x		Operational impact is expected to be less than the construction impacts on the cultural resources area. Climatological changes are unlikely to increase the operational impact of the facility on historic and cultural resources.



<b>Air Quality</b>		Choose One Per Question				
Question		Likely Increase	Likely Decrease	Stay the Same	Don't Know	Comment
<b>Climate</b>						
AirQ-1	Will expected climatological changes affect the sources, types, and estimates of annual air emissions from the operating plant and transmission lines?			X		Slight increase in truck emissions likely with temperature increase as mentioned in USEPA (Choi, David, Megan Beardsley, David Brzezinski, John Koupal, and James Warila. "MOVES sensitivity analysis: the impacts of temperature and humidity on emissions." In US EPA–Proceedings from the 19th Annual International Emission Inventory Conference, Ann Arbor, MI. 2010.)
<b>Water Resources</b>						
AirQ-1	Will expected climatological changes affect the sources, types, and estimates of annual air emissions from the operating plant and transmission lines?					
<b>Energy Supply and Use</b>						
AirQ-1	Will expected climatological changes affect the sources, types, and estimates of annual air emissions from the operating plant and transmission lines?					
<b>Transportation</b>						
AirQ-1	Will expected climatological changes affect the sources, types, and estimates of annual air emissions from the operating plant and transmission lines?			X		Slight increase in vehicle emissions likely with temperature increase as mentioned in USEPA (Choi, David, Megan Beardsley, David Brzezinski, John Koupal, and James Warila. "MOVES sensitivity analysis: the impacts of temperature and humidity on emissions." In US EPA–Proceedings from the 19th Annual International Emission Inventory Conference, Ann Arbor, MI. 2010.)
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					

<b>Air Quality</b>		Choose One Per Question				
FALSE	FALSE					
FALSE	FALSE	FALSE				
FALSE	FALSE					
FALSE	FALSE	FALSE				
FALSE	FALSE					
FALSE	FALSE	FALSE				
FALSE	FALSE					
	<b>Air Quality</b>					<b>Summary Text</b>
<b>AQ-1</b>	<b>Overall – Will expected climatological changes affect the sources, types, and estimates of annual air emissions from the operating plant and transmission lines? Justify your answer in 4 sentences or less.</b>			X		Slight increase in truck emissions likely with temperature increase as mentioned in USEPA (Choi, David, Megan Beardsley, David Brzezinski, John Koupal, and James Warila. "MOVES sensitivity analysis: the impacts of temperature and humidity on emissions." In US EPA–Proceedings from the 19th Annual International Emission Inventory Conference, Ann Arbor, MI. 2010.)
<b>Conclusion</b>	<b>Overall – Will expected climatological changes affect the air quality resource operational impact level assigned in Chapter 5? Considering responses to previous question, justify your answer in 4 sentences or less:</b>			X		Very slight change to ozone is likely due to temperature increase. ACU has very low emissions that may contribute much less than 1 ppb increase in ozone and therefore the climate change impact would be nominal. Use of any additional diesel engine for emergency power supply may also increase the air pollution





<b>NonRad Health</b>		Choose One Per Question				
	<b>Question</b>	<b>Likely Increase</b>	<b>Likely Decrease</b>	<b>Stay the Same</b>	<b>Don't Know</b>	<b>Comment</b>
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
<b>Biogeochemical Cycles</b>						
NRH-1	Will expected climatological changes affect any health impacts from the presence of etiological agents?					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
<b>NonRad Health Summary</b>						
<b>Summary Text</b>						
NRH-1	<b>Overall – Will expected climatological changes affect any health impacts from the presence of etiological agents? Justify your answer in 4 sentences or less.</b>					
NRH-2	<b>Overall – Will expected climatological changes affect any health impacts from noise associated with plant operations? Justify your answer in 4 sentences or</b>					
NRH-3	<b>Overall – Will expected climatological changes affect any health impacts from electromagnetic fields associated with plant operations? Justify your answer in 4 sentences or less.</b>					
NRH-4	<b>Overall – Will expected climatological changes affect any occupational health risks associated with plant operations? Justify your answer in 4 sentences or</b>					
NRH-5	<b>Overall – Will expected climatological changes affect potential health impacts related to nonradiological traffic-related accidents for operations and outage workers? Justify your answer in 4 sentences or less.</b>					
<b>Conclusion</b>	<b>Overall – Will expected climatological changes affect the nonradiological health resource operational impact level assigned in Chapter 5? Considering responses to previous questions, justify your answer in 4 sentences or less:</b>			X		Impacts to nonradiological health hazards are mitigated through Occupational Safety and Health Administration (OSHA) regulations,. Additionally, the quantities of chemicals held on site are small due to the size of the facility. Therefore, no change to the assessments made in Chapter 3 of this EA are anticipated.











<b>Accidents</b>		Choose One Per Question				
	<b>Question</b>	<b>Likely Increase</b>	<b>Likely Decrease</b>	<b>Stay the Same</b>	<b>Don't Know</b>	<b>Comment</b>
<b>Climate</b>						
ACC-1	Will expected climatological changes affect the site-specific, 50th percentile atmospheric dilution factor (i.e., $\chi/Q$ ) used to evaluate dose consequences from postulated design basis accidents (DBAs)?					
ACC-2	Will expected climatological changes affect average environmental risks of severe accidents due to either changes in severe accident probabilities or associated consequences?					
ACC-3	Will expected climatological changes affect the severe accident mitigation alternative (SAMA) cost-benefit of the proposed facility?					
<b>Water Resources</b>						
ACC-1	Will expected climatological changes affect the site-specific, 50th percentile atmospheric dilution factor (i.e., $\chi/Q$ ) used to evaluate dose consequences from postulated design basis accidents (DBAs)?					
ACC-2	Will expected climatological changes affect average environmental risks of severe accidents due to either changes in severe accident probabilities or associated consequences?					
ACC-3	Will expected climatological changes affect the severe accident mitigation alternative (SAMA) cost-benefit of the proposed facility?					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
<b>Transportation</b>						
FALSE	FALSE					
ACC-2	Will expected climatological changes affect average environmental risks of severe accidents due to either changes in severe accident probabilities or associated consequences?					
ACC-3	Will expected climatological changes affect the severe accident mitigation alternative (SAMA) cost-benefit of the proposed facility?					
<b>Agriculture</b>						
FALSE	FALSE					
ACC-2	Will expected climatological changes affect average environmental risks of severe accidents due to either changes in severe accident probabilities or associated consequences?					
ACC-3	Will expected climatological changes affect the severe accident mitigation alternative (SAMA) cost-benefit of the proposed facility?					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					
FALSE	FALSE					



<b>Accidents</b>					
		Choose One Per Question			
	<b>Accidents Summary</b>				<b>Summary Text</b>
<b>ACC-1</b>	Overall – Will expected climatological changes affect the site-specific, 50th percentile atmospheric dilution factor (i.e., $\chi/Q$ ) used to evaluate dose consequences from postulated design basis accidents (DBAs)? Justify your answer in 4 sentences or less.			No change	The potential risks for offsite consequences are low and would not significantly change with changes in the climate.
<b>ACC-2</b>	Overall – Will expected climatological changes affect average environmental risks of severe accidents due to either changes in severe accident probabilities or associated consequences? Justify your answer in 4 sentences or less.			No change	The potential risks for offsite consequences are low and would not significantly change with changes in the climate.
<b>ACC-3</b>	Overall – Will expected climatological changes affect the severe accident mitigation alternative (SAMA) cost-benefit of the proposed facility? Justify your answer in 4 sentences or less.			No change	The potential risks for offsite consequences are low and would not significantly change with changes in the climate.
<b>Conclusion</b>	Overall – Will expected climatological changes affect the accident impact level assigned in Chapter 5? Considering responses to previous questions, justify your answer in 4 sentences or less:			No change	The potential risks for offsite consequences are low and would not significantly change with changes in the climate.







	<b>Benefit-Cost</b>					
		Choose One Per Question				
FALSE	FALSE					
	<b>Benefit-Cost Summary</b>					<b>Summary Text</b>
FALSE	Overall – Justify your answer in 4 sentences or less.					
FALSE	Overall – Justify your answer in 4 sentences or less.					
Conclusion	Overall – Will expected climatological changes affect the impact level assigned to the benefit-cost analysis in Chapter 10? Considering responses to previous questions, justify your answer in 4 sentences or less:					