



RRR000679

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

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L. Preston Bryant, Jr.
Secretary of Natural Resources

January 8, 2008

EIS Office
U.S. Department of Energy
Office of Civilian Radioactive Waste Management
1551 Hillshore Drive
Las Vegas, Nevada 89134

RE: Draft Supplemental Environmental Impact Statement for the Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain (DEQ 07-187F).
DOE/EIS-0250F-S1D

Dear Sir/Madam:

The Commonwealth of Virginia has completed its review of the above-referenced Draft Supplemental Environmental Impact Statement (EIS). The Department of Environmental Quality (DEQ) is responsible for coordinating Virginia's review of federal environmental documents prepared pursuant to the National Environmental Policy Act and responding to appropriate federal officials on behalf of the Commonwealth. The following agencies and planning district commission joined in this review:

- Department of Environmental Quality
- Department of Conservation and Recreation
- Department of Game and Inland Fisheries
- Department of Agriculture and Consumer Services
- Department of Transportation
- Department of Mines, Minerals and Energy
- Department of Health
- Hampton Roads Planning District Commission

The Marine Resources Commission, the Department of Rail & Public Transportation, the Department of Emergency Services, the Thomas Jefferson Planning District Commission, Louisa and Surry Counties were also invited to comment.

PROPOSED FEDERAL ACTION

The Department of Energy (DOE) proposes to construct, operate, monitor and eventually close a geologic repository at Yucca Mountain, Nevada. The facility would store spent nuclear fuel and high-level radioactive waste that is generated at 72 commercial and 4 DOE site throughout the United States. The Commonwealth of Virginia has two commercial sites, the North Anna Power Plant located in Louisa County and the Surry Nuclear Power Plant located in Surry County.

The Final Environmental Impact Statement was issued in February 2002 and signed into law on July 23, 2002. However, since that time, DOE has continued to develop the repository design and associated construction and operational plans. As now proposed, the repository would be operated using a primarily canistered approach, in which most commercial spent nuclear fuel would be packaged at the reactor sites in transportation, aging and disposal (TAD) canisters. The Draft Supplemental EIS considers the new design, construction and operational plans and updates the analysis and potential environmental impacts of transporting spent nuclear fuel and high-level radioactive waste to the repository.

COMMONWEALTH OF VIRGINIA COMMENTS

1 [The focus of the Commonwealth's comments is on the transportation of nuclear materials through the Commonwealth of Virginia. The reviewing agencies did not comment on either the potential environmental impacts from the construction, operation, monitoring and eventual closure of the facility or the potential long-term impacts from the disposal of spent nuclear fuel and high-level radioactive waste at Yucca Mountain.

1. Natural Heritage Resources.

1(a) Agency Jurisdiction. The mission of the Virginia Department of Conservation and Recreation (DCR) is to conserve Virginia's natural and recreational resources. DCR supports a variety of environmental programs organized within seven divisions including the Division of Natural Heritage (DNH). The Natural Heritage Program's (DCR-DNH) mission is conserving Virginia's biodiversity through inventory, protection, and stewardship. The Virginia Natural Area Preserves Act, 10.1-209 through 217 of the Code of Virginia, was passed in 1989 and codified DCR's powers and duties related to statewide biological inventory: maintaining a statewide database for conservation planning and project review, land protection for the conservation of biodiversity, and the protection and ecological management of natural heritage resources (the habitats of rare, threatened, and endangered species, significant natural communities, geologic sites, and other natural features).

1(b) Agency Comments. DCR's Division of Natural Heritage searched its Biotics Data System for occurrences of natural heritage resources within a 2-mile radius from the representative tail and truck transportation routes displayed in Figure 6-1 (Page 6-14).

Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

1(c) Findings. According to the information currently in DCR's files, there are several occurrences of natural heritage resources along the transportation corridors in Virginia that could potentially be impacted (see tables attached to DCR's comments).

In addition, the project area either overlies or is adjacent to a karst landscape characterized by sinkholes, caves, disappearing streams and large springs. Discharge of runoff to sinkholes or sinking streams, filling of sinkholes and alteration of cave entrances can lead to surface collapse, flooding, erosion and sedimentation, groundwater contamination and degradation of subterranean habitat.

1(d) Threatened and Endangered Plant and Insect Species. Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and DCR, DCR has the authority to report for VDACS on state-listed plant and insect species. DCR found that the current activity will not affect any documented state-listed plant and insect species.

VDACS has regulatory authority to conserve rare and endangered plant and insect species through the Virginia Endangered Plant and Insect Species Act. VDACS reviewed the document and stated that the document identifies endangered plant and insect species along the proposed transportation routes. Although uneventful transportation of materials should have no adverse impact on protected species, accidental or intentional disruption of transport routes could adversely impact listed species.

1(e) Recommendations. DCR has the following recommendations:

Conservation sites that are located around natural heritage resources should be incorporated into emergency response plans developed for the transportation corridors. Conservation sites are areas located around one or more rare plant, animal or natural communities which are designed to include the species and its habitat in order to allow for the species conservation. Conservation sites are given a biodiversity significance ranking based on the rarity, quality and number of element occurrences they contain; on a scale of 1-5, 1 being most significant.

- If karst features are encountered during transportation, please coordinate with Wil Orndorff (telephone, (540) 831-4056 or Wil.Orndorff@dcr.virginia.gov) to document and minimize adverse impacts.
- Since new and updated information is continually added to Biotics, please contact DCR's Division of Natural Heritage at (804) 786-7951 if a significant amount of time passes before the project is implemented.

In addition, VDACS recommends that the Final Supplemental EIS include a discussion of the location of and the protocol to preserve the threatened and endangered species should disruption of transportation routes occur.

2. Wildlife Resources.

2(a) Agency Jurisdiction. The Department of Game and Inland Fisheries (DGIF), as the Commonwealth's wildlife and freshwater fish management agency, exercises enforcement and regulatory jurisdiction over wildlife and freshwater fish, including state or federally listed endangered or threatened species, but excluding listed insects (*Virginia Code* Title 29.1). DGIF is a consulting agency under the U.S. Fish and Wildlife Coordination Act (16 U.S.C. sections 661 *et seq.*) and provides environmental analysis of projects or permit applications coordinated through DEQ and several other state and federal agencies. DGIF determines likely impacts upon fish and wildlife resources and habitat, and recommends appropriate measures to avoid, reduce, or compensate for those impacts. For more information, see the DGIF website at www.dgif.state.va.us

2(b) Agency Comments. DGIF supports the use of railways for transportation of the spent nuclear fuel to Nevada. It appears that both Virginia facilities are within close proximity to rail lines that allow for transportation to Nevada. However, DGIF states that the Draft Supplemental EIS is unclear as to whether trucks will be used to transport the materials to the rail. Also, the document is lacking in detail regarding the effects that exposure may have on wildlife, waterways and other natural resources.

2(c) Additional Wildlife Information. DGIF maintains a data base of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters. The data base is at the following web site:

http://www.dgif/virginia.gov/wildlife/info_map/index.html

Questions on the data base may be directed to the Department of Game and Inland Fisheries (Shirl Dressler, telephone, (804) 367-6913).

2(d) Recommendations. DGIF recommends that if trucks are used to transport the spent nuclear fuel to the rail lines that appropriate safety precautions be in place to minimize the possibility of accidents or spills. Also, if improvements or additions to the rail lines are needed, DGIF recommends that these projects be reviewed by DGIF for possible impacts upon wildlife.

3. Solid and Hazardous Wastes and Hazardous Materials.

3(a) Agency Jurisdiction. Solid and hazardous wastes in Virginia are regulated by the Virginia Department of Environmental Quality, the Virginia Waste Management Board (VWMB) and the U.S. Environmental Protection Agency. They administer programs created by the federal Resource Conservation and Recovery Act, Comprehensive Environmental Response Compensation and Liability Act, commonly called Superfund,

and the Virginia Waste Management Act. DEQ administers regulations established by the VWMB and reviews permit applications for completeness and conformance with facility standards and financial assurance requirements. All Virginia localities are required, under the Solid Waste Management Planning Regulations, to identify the strategies they will follow on the management of their solid wastes to include items such as facility siting, long-term (20-year) use, and alternative programs such as materials recycling and composting.

3(b) Recommendations. DEQ-Waste Division recommends that for each area in Virginia where transportation of nuclear materials will occur, DOE conduct an environmental investigation on and near the areas to identify any solid or hazardous waste sites or issues before transportation commences. The investigation should include a search of waste related databases (see attached for more information). For additional information, contact DEQ-Waste Division (Paul Kohler, telephone (804) 698-4208).

4. Transportation Impacts.

4(a) Agency Comments. The Virginia Department of Transportation (VDOT) states that while the project should not produce adverse traffic impacts, it is essential that the local routes used are investigated and coordinated with local agencies to accommodate critical issues such as restricted bridge weight, height restrictions, pavement width or time of travel restrictions through densely populated areas. VDOT encourages compliance with all applicable practices and standards to limit long-term environmental consequences and promote safety.

Also, as noted by the Virginia Department of Health, the proposed rail corridor from North Anna Nuclear Power Plant goes to Washington D.C., then west. Although this proposed rail corridor would avoid the Richmond Metropolitan area, it goes through D.C., which is an even larger metropolitan area.

4(b) Agency Findings. VDOT reviewed the Six Year Plan, the 2026 Plan and the Draft 2030 Long Range Plan concluded that there are no conflicts with current or future construction projects.

4(c) Recommendations. Prior to the transportation of hazardous waste through Virginia, notify the appropriate localities and contact the Virginia Department of Emergency Management at (804) 897-6500.

Also, any land use requirements, lane closures, traffic control, or work zone safety issues should be closely coordinated with VDOT's Waverly Residency (telephone, (804) 524-8427) and the Louisa Residency Office (telephone, (540) 967-3710).

5. Geologic and Mineral Resources.

5(a) Agency Jurisdiction. The mission of the Department of Mines, Minerals and Energy (DMME), Division of Mineral Resources (DMR) is to enhance the development and conservation of energy and mineral resources in a safe and environmentally sound manner to support a more productive economy in Virginia. Serving as Virginia's geological survey, DMME-DMR generates, collects, compiles, and evaluates geologic data, creates and publishes geologic maps and reports, works cooperatively with other state and federal agencies, and is the primary source of information on geology, mineral and energy resources, and geologic hazards for both the mineral and energy industries and the general public. DMME-DMR also provides the necessary geologic support for those divisions of DMME that regulate the permitting of new mineral and fuel extraction sites, miner safety, and land reclamation.

5(b) Agency Comments. The DMME states that they do not anticipate impacts to geology or mineral resources as a result of this proposed project.

6. Regional Comments. The Hampton Roads Planning District Commission states that the proposed plans are generally consistent with local and regional plans and policies.]

CONCLUSIONS


2 [The Commonwealth of Virginia continues to support the development of a national spent nuclear fuel and high-level radioactive repository. The Commonwealth reiterates its previous comments submitted on the Draft EIS (DEQ 99-088F), the State of Nevada Petition (DEQ 99-106F) and the Yucca Mountain Preliminary Site Sustainability Evaluation (DEQ 01-160F).

The focus of these comments is on the transportation of nuclear material through the Commonwealth of Virginia. Virginia has no objection to the overall design, construction and operation of the facility, nor does the Commonwealth oppose the use of a canister based system for the transportation or storage of spent nuclear fuel. However, activities proposed in Virginia must be implemented in accordance with all applicable laws and regulations, including applicable state laws. While Virginia has no objection to the use of trucks between the nearest rail line and the repository site, we defer to the state of Nevada and the Tribal Nations in Nevada on the mode of transportation within Nevada.]

Draft Supplemental EIS
DOE/EIS-0250F-S1D

Thank you for the opportunity to review the Draft Supplemental Environmental Impact Statement. Detailed comments of reviewing agencies are attached for your review. Please contact me at (804) 698-4325 or Anne Pinion at (804) 698-4488 for clarification of these comments.

Sincerely,



Ellie L. Irons, Manager
Office of Environmental Impact Review

Enclosures

cc: Paul Kohler, DEQ-ORP
Michelle Hollis, DEQ-TRO
Keith Tignor, VDACS
Amy Ewing, DGIF
Mary Stanley, VDOT
Matt Heller, DMME

DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF AIR PROGRAM COORDINATION

ENVIRONMENTAL REVIEW COMMENTS APPLICABLE TO AIR QUALITY

TO: Anne N. Pinion

DEQ - OEIA PROJECT NUMBER: 07 - 187F

RECEIVED

PROJECT TYPE: STATE EA / EIR X FEDERAL EA / EIS SCC

NOV 13 2007

CONSISTENCY DETERMINATION

DEQ-Div. of Environmental
Enhancement

PROJECT TITLE: GEOLOGIC REPOSITORY FOR THE DISPOSAL OF SPENT NUCLEAR
FUEL & HIGH LEVEL RADIOACTIVE WASTE AT YUCCA MOUNTAIN

PROJECT SPONSOR: U. S. DEPARTMENT OF ENERGY

PROJECT LOCATION: X OZONE ATTAINMENT AREA

REGULATORY REQUIREMENTS MAY BE APPLICABLE TO: CONSTRUCTION
X OPERATION

STATE AIR POLLUTION CONTROL BOARD REGULATIONS THAT MAY APPLY:

1. 9 VAC 5-40-5200 C & 9 VAC 5-40-5220 E - STAGE I
2. 9 VAC 5-40-5200 C & 9 VAC 5-40-5220 F - STAGE II Vapor Recovery
3. 9 VAC 5-40-5490 et seq. - Asphalt Paving operations
4. 9 VAC 5-40-5600 et seq. - Open Burning
5. 9 VAC 5-50-60 et seq. Fugitive Dust Emissions
6. 9 VAC 5-50-130 et seq. - Odorous Emissions; Applicable to _____
7. 9 VAC 5-50-160 et seq. - Standards of Performance for Toxic Pollutants
8. 9 VAC 5-50-400 Subpart _____, Standards of Performance for New Stationary Sources, designates standards of performance for the _____
9. 9 VAC 5-80-10 et seq. of the regulations - Permits for Stationary Sources
10. 9 VAC 5-80-1700 et seq. Of the regulations - Major or Modified Sources located in PSD areas. This rule may be applicable to the _____
11. 9 VAC 5-80-2000 et seq. of the regulations - New and modified sources located in non-attainment areas
12. 9 VAC 5-80-800 et seq. Of the regulations - Operating Permits and exemptions. This rule may be applicable to _____

COMMENTS SPECIFIC TO THE PROJECT:

As far as Virginia is concerned the project is limited to road/rail transfer of packaged nuclear waste material to Yucca Mountain in Nevada and as such no air quality issues are involved.



(Kotur S. Narasimhan)
Office of Air Data Analysis

DATE: November 9, 2007

the federal waste-related regulations mentioned above, State regulations 9VAC 20-80-640 for ACM and 9VAC 20-60-261 for LBP must be followed.

Please note that DEQ encourages all construction projects and facilities to implement pollution prevention principles, including the reduction, reuse, and recycling of all solid wastes generated. All generation of hazardous wastes should be minimized and handled appropriately.

If you have any questions or need further information, please contact Paul Kohler at (804) 698-4208.

Attachment: Waste Information



DEPARTMENT OF ENVIRONMENTAL QUALITY
TIDEWATER REGIONAL OFFICE
ENVIRONMENTAL IMPACT REVIEW COMMENTS

November 19, 2007

PROJECT NUMBER: 07-187F

PROJECT TITLE: Geologic Repository for the Disposal of Spent Nuclear Fuel & High-Level Radioactive Waste at Yucca Mountain

As Requested, TRO staff has reviewed the supplied information and has the following comments:

Petroleum Storage Tank Cleanups:

No comments.

Petroleum Storage Tank Compliance/Inspections:

We see no impacts to registered / regulated petroleum storage tanks in the Tidewater Region of Virginia.

Virginia Water Protection Permit Program (VWPP):

No comments.

Air Permit Program :

No comments.

Water Permit Program :

No comment. No action will be required by the TRO Water Permits Section in connection with the activity discussed in this document

Waste Permit Program :

No comments.

The staff from the Tidewater Regional Office thanks you for the opportunity to provide comments.

Sincerely,

Michelle R. Hollis
Environmental Specialist
5636 Southern Blvd.
VA Beach, VA 23462
(757) 518-2146
(757) 518-2009 Fax
mrhollis@deq.virginia.gov

Conservation and Recreation (DCR). Under this Agreement DCR's Division of Natural Heritage, in consultation with VDACS, represents VDACS in its comments and recommendations regarding the potential impact of reviewed projects or activities on state-listed plant and insect species. Since it has been determined that this project or activity may impact several state-protected plants, VDACS will respond directly to ensure compliance with Virginia's Endangered Plant and Insect Species Act. Further correspondence regarding the potential impacts of this project or activity on state-listed plant and insect species should be directed to VDACS.

According to the topographic map, this project either overlies or is adjacent to a karst landscape characterized by sinkholes, caves, disappearing streams, and large springs. Discharge of runoff to sinkholes or sinking streams, filling of sinkholes, and alteration of cave entrances can lead to surface collapse, flooding, erosion and sedimentation, groundwater contamination, and degradation of subterranean habitat for natural heritage resources. Please coordinate with Wil Orndorff (540-831-4056, Wil.Orndorff@dcr.virginia.gov) to document and minimize adverse impacts.

DCR recommends implementation of safety measures and to notify localities of when and where the transportation of nuclear waste will occur.

New and updated information is continually added to Biotics. Please contact DCR for an update on this natural heritage information if a significant amount of time passes before it is utilized.

The Virginia Department of Game and Inland Fisheries maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters, that may contain information not documented in this letter. Their database may be accessed from www.dgif.virginia.gov/wildlifeinfo_map/index.html, or contact Shirl Dressler at (804) 367-6913.

Division of the Chesapeake Bay Local Assistance

Based on the information provided to DCR from the Department of Energy's website, no land disturbance will be occurring in Virginia, thus we have no comment.

The remaining DCR divisions have no comments regarding the scope of this project. Thank you for the opportunity to comment.

Cc: Amy Ewing, VDGIF
Kim Smith, USFWS
Keith Tignor, VDACS
Wil Orndorff, DCR-Karst

<i>Echinacea laevigata</i>	Smooth Coneflower	G2	LE	S2	LT	ROUTE 641 ROADBANK
<i>Echinacea laevigata</i>	Smooth Coneflower	G2	LE	S2	LT	SENECA HOLLOW WOODLAND
<i>Echinacea laevigata</i>	Smooth Coneflower	G2	LE	S2	LT	SWEET SPRING HOLLOW
<i>Echinacea laevigata</i>	Smooth Coneflower	G2	LE	S2	LT	WILSON CREEK BLUFFS
<i>Pleocharis compressa</i>	Flat-stemmed Spike-rush	G4		S2		CONNELLYS RUN
<i>Eriosecandus chaetodon</i>	Blackbanded Sunfish	G4		S1	LE	
<i>Epiblastema borealis walkeri</i>	Tan Rattleshell	G1T1	LE	S1	LE	MIDDLE FORK HOLSTON RIVER - SULPHUR SPRING CREEK SCU
<i>Eryngyon succella</i>	Lake Chubucker	G5		S2		
<i>Eriocaulon decanulare</i>	Ten-angle Pipewort	G5		S2		(Multiple occurrences)
<i>Eryngium yuccifolium</i> var. <i>yuccifolium</i>	Rattlesnake-master	G5T5		S2		(Multiple occurrences)
<i>Erynnis marialis</i>	Mottled Duskywing	G3G4		S1S3		
<i>Etheostoma osburni</i>	Candy Darter	G3		S1	SC	
<i>Eupatorium incanatum</i>	Pink Thoroughwort	G5		S2		
<i>Fundulus limnoides</i>	Lined Topminnow	G5		S2S3		
<i>Fusconale barnesiana</i>	Tennessee Pigtoe	G2G3	SOC	S2	SC	BEAVER CREEK SCU
<i>Fusconale barnesiana</i>	Tennessee Pigtoe	G2G3	SOC	S2	SC	MIDDLE FORK HOLSTON RIVER - SULPHUR SPRING CREEK SCU (Multiple
<i>Gambusia affinis holbrooki</i>	Pine-barran Gambusia	G3		S1		
<i>Haliaeetus leucoccephalus</i>	Bald Eagle	G5		S2S3B, S3N	LT	LAKE COHOON HABITAT ZONE
<i>Haliaeetus leucoccephalus</i>	Bald Eagle	G5		S2S3B, S3N	LT	WALTON HABITAT ZONE
<i>Hyparicum sotosum</i>	A St. Johns-wort	G4G5		S1S2		(Multiple occurrences)
<i>Ictioles virgata</i>	Virginia Quiltwort	G1	SOC	S17		FARMVILLE FLATWOODS
<i>Juncus brachycephalus</i>	Small-head Rush	G5		S2		MONTGOMERY MARL MEADOW AND GLADES
<i>Juncus ellipticus</i>	Bog Rush	G4G5		S1S2		
<i>Juncus torreyi</i>	Torrey's Rush	G5		S2		
<i>Lachnocaulon anceps</i>	Bog-burdens	G5		S2		(Multiple occurrences)
<i>Lanius ludovicianus</i>	Loggerhead Shrike	G4		S2B, S3N	LT	CHILHOWIE HABITAT ZONE
<i>Lesmignea holstoni</i>	Tennessee Heelsplitter	G3		S1	LE	MIDDLE FORK HOLSTON RIVER - BEAR CREEK SCU
<i>Lesmignea subviridis</i>	Green Floater	G3		S2	LT	(Multiple occurrences)
<i>Lesna trisulca</i>	Star Duckweed	G5		S1		
<i>Lacrogonia dolabellaeoides</i>	Slaboids Pearlflymussel	G2	C	S2	LT	MIDDLE FORK HOLSTON RIVER - SULPHUR SPRING CREEK SCU
<i>Limestone / Dolomite Barren</i>	Limestone / Dolomite Barren	GNR		SNR		ELLISTON GLADES (Multiple occurrences)
<i>Limestone / Dolomite Barren</i>	Limestone / Dolomite Barren	GNR		SNR		LITTLE ROCK GLADE
<i>Limestone / Dolomite Barren</i>	Limestone / Dolomite Barren	GNR		SNR		MONTGOMERY MARL MEADOW AND GLADES
<i>Limestone / Dolomite Barren</i>	Limestone / Dolomite Barren	GNR		SNR		SENECA HOLLOW WOODLAND
<i>Limestone / Dolomite Barren</i>	Limestone / Dolomite Barren	GNR		SNR		WILSON CREEK BLUFFS (Multiple occurrences)
<i>Liparis loeselii</i>	Loesel's Twayblade	G5		S2		MONTGOMERY MARL MEADOW AND GLADES
<i>Lilicampa sp. 3</i>	A Cave Dipturan	G2	SOC	S2		(Multiple occurrences)
<i>Lilicampa sp. 3</i>	A Cave Dipturan	G2	SOC	S2		BELL-CRICKET-MEBANE
<i>Ludwigia hirtella</i>	Heavy Seedbox	G5		S1		
<i>Ludwigia rayana</i>	Rayon's Seedbox	G1G2	SOC	S1		(Multiple occurrences)
<i>Ludwigia rayana</i>	Rayon's Seedbox	G1G2	SOC	S1		KILBY NORTHWEST POWERLINE
<i>Ludwigia virginica</i>	Savanna Seedbox	G5		S1		
<i>Mirrola petiolata</i>	Lax Hornpod	G5		S1		(Multiple occurrences)
<i>Mirrola petiolata</i>	Lax Hornpod	G5		S1		ANTIOCH SWAMP SCU
<i>Montana Depression Wetlands</i>	Montana Depression Wetlands	GHR		SHR		DAY CREEK POND
<i>Montana Dry Calcareous Forest / Woodland</i>	Montana Dry Calcareous Forest / Woodland	GNR		SHR		CONNELLYS RUN
<i>Montana Dry Calcareous Forest / Woodland</i>	Montana Dry Calcareous Forest / Woodland	GNR		SHR		ELLISTON GLADES (Multiple occurrences)
<i>Mountain / Piedmont Calcareous Cliff</i>	Mountain / Piedmont Calcareous Cliff	GNR		SHR		DIXIE CLIFF
<i>Muhlenbergia cuspidata</i>	Plains Muhly	G4		S2		DIXIE CLIFF
<i>Myotis grisescens</i>	Gray Bat	G3	LE	S1S2	LE	BRISTOL CULVERT
<i>Nipaeae dioica</i>	Glade Milkow	G3		S17		REED CREEK AT MAX MEADOWS
<i>Neonympha helecta</i>	Helicta satyr	G3G4		S2S3		MANRY WAKEFIELD
<i>Neonympha helecta</i>	Helicta satyr	G3G4		S2S3		PINEY GROVE BOG HABITAT ZONE
<i>Notropis spectunculus</i>	Mirror Shiner	G4		S2	SC	
<i>Noturus gilberti</i>	Orangefin Madtom	G2	SOC	S2	LT	(Multiple occurrences)
<i>Noturus gilberti</i>	Orangefin Madtom	G2	SOC	S2	LT	ROANOKE RIVER - MILL RACE EAST TO CITY LIMIT SCU
<i>Noturus gilberti</i>	Orangefin Madtom	G2	SOC	S2	LT	ROANOKE RIVER - RIVERSIDE SCU
<i>Noturus gilberti</i>	Orangefin Madtom	G2	SOC	S2	LT	SOUTH FORK ROANOKE RIVER - SPRING BRANCH SCU (Multiple occurrences)
<i>Oligoneuron rigidum</i> var. <i>rigidum</i>	Stiff Goldenrod	G5T5		S2		
<i>Oligoneuron rigidum</i> var. <i>rigidum</i>	Stiff Goldenrod	G5T5		S2		SENECA HOLLOW WOODLAND
<i>Oligoneuron rigidum</i> var. <i>rigidum</i>	Stiff Goldenrod	G5T5		S2		WILSON CREEK BLUFFS
<i>Parnassia grandifolia</i>	Large-leaved Grass-of-parnassus	G3		S2		MONTGOMERY MARL MEADOW AND GLADES
<i>Paspalum arachox</i>	Early Paspalum	G4		S1		(Multiple occurrences)
<i>Paxillina canbyi</i>	Canby's Mountain-lover	G2	SOC	S2		(Multiple occurrences)
<i>Paxillina canbyi</i>	Canby's Mountain-lover	G2	SOC	S2		HORSE FARM BLUFF
<i>Paxillina canbyi</i>	Canby's Mountain-lover	G2	SOC	S2		LITTLE ROCK GLADE
<i>Pegias fabula</i>	Little-winged Pearlflymussel	G1	LE	S1	LE	
<i>Pegias fabula</i>	Little-winged Pearlflymussel	G1	LE	S1	LE	MIDDLE FORK HOLSTON RIVER - SULPHUR SPRING CREEK SCU
<i>Percina rox</i>	Roanoke Logperch	G1G2	LE	S1S2	LE	
<i>Percina rox</i>	Roanoke Logperch	G1G2	LE	S1S2	LE	ROANOKE RIVER - MILL RACE EAST TO CITY LIMIT SCU (Multiple occurrences)
<i>Percina rox</i>	Roanoke Logperch	G1G2	LE	S1S2	LE	ROANOKE RIVER - RIVERSIDE SCU, SOUTH FORK ROANOKE RIVER - SPRING BRANCH SCU
<i>Percina rox</i>	Roanoke Logperch	G1G2	LE	S1S2	LE	SOUTH FORK ROANOKE RIVER - SPRING BRANCH SCU
<i>Phlox buckleyi</i>	Sword-leaved Phlox	G2	SOC	S2		
<i>Proxenus tennesseensis</i>	Tennessee Dece	G3		S1	LE	MIDDLE FORK HOLSTON RIVER - BEAR CREEK SCU
<i>Picoides borealis</i>	Red-cockaded Woodpecker	G3	LE	S1	LE	MANRY 604-606
<i>Picoides borealis</i>	Red-cockaded Woodpecker	G3	LE	S1	LE	MANRY WAKEFIELD
<i>Prunus palustris</i>	Long-leaf Pine	G5		S1		

CONSERVATION SITES		
SITE NAME	Bank	Legislat
ADDISON BOG HABITAT ZONE	B5	NL
ANTIOCH SWAMP SCU	B4	NL
BEAVER CREEK SCU	B3	NL
BELL CRICKET-MEBANE	B2	NL
BERRY CREEK - FIFTEEN MILE CREEK SCU	B3	NL
BRISTOL CULVERT	B4	FL
CHILHOWEE HABITAT ZONE	B5	SL
CONNELLYS RUN	B3	SL
DAY CREEK POND	B4	NL
DEN CREEK SPUR	B3	NL
DEN HILL	B2	FL
DEVILS MILLPOND	B4	NL
DISPUTANTA POWERLINES HABITAT ZONE	B5	NL
DIXIE	B4	NL
DIXIE CLIFF	B2	NL
ELLISTON GLADES	B2	FL
FARMVILLE FLATWOODS	B2	NL
HORSE FARM BLUFF	B3	NL
IVOR EAST POWERLINE	B4	NL
JAMES RIVER - BLACKWATER CREEK SCU	B5	SL
KILBY NORTHWEST POWERLINE	B2	NL
LAKE COHOON HABITAT ZONE	B5	FL
LEE MEMORIAL PARK	B5	NL
LITTLE ROCK GLADE	B2	FL
MANRY 604-606	B4	FL
MANRY WAKEFIELD	B2	FL
MIDDLE FORK HOLSTON RIVER - BEAR CREEK SCU	B4	SL
MIDDLE FORK HOLSTON RIVER - SULPHUR SPRING CREEK SCU	B2	FL
MONTGOMERY MARL MEADOW AND GLADES	B2	FL
NEW RIVER INDUSTRIAL PARK - DUBLIN	B3	NL
NORTH FORK ROANOKE RIVER - DEN CREEK SCU	B2	FL
PINEY GROVE BOG HABITAT ZONE	B3	NL
POPLAR HOLLOW	B2	NL
RADFORD	B3	NL
RADFORD ARMY AMMUNITION PLANT - DUBLIN	B3	SL
RADFORD SITE	B2	FL
REED CREEK AT MAX MEADOWS	B4	NL
ROANOKE RIVER - MILL RACE EAST TO CITY LIMIT SCU	B2	FL
ROANOKE RIVER - RIVERSIDE SCU	B3	SL
ROUTE 604 POWERLINE HABITAT ZONE	B5	NL
ROUTE 641 ROADBANK	B2	FL
SENECA HOLLOW WOODLAND	B3	FL
SHAND BOG HABITAT ZONE	B5	NL
SLAUGHTERPEN HOLLOW	B2	FL
SOUTH FORK ROANOKE RIVER - SPRING BRANCH SCU	B2	FL
SWEET SPRING HOLLOW	B2	FL
UPPER WARWICK SWAMP POWERLINE	B5	NL
WAKEFIELD SOUTH POWERLINE HABITAT ZONE	B5	NL
WALTON HABITAT ZONE	B5	FL
WARWICK SWAMP POWERLINE	B5	NL
WILSON CREEK BLUFFS	B2	FL
ZUNI PINE BARRENS	B2	SL
ZUNI VILLAGE SANDHILL HABITAT ZONE	B5	NL

VDGIF Endangered Species Waters

Name
 Bear Creek
 Blackwater Swamp
 Coppershank Swamp
 Glade Creek
 Holston River, M Fk 1
 Holston River, M Fk 2
 Roanoke River 2
 Roanoke River, N Fk
 Roanoke River, S Fk
 Sulphur Spring Creek
 Tinker Creek
 Unnamed trib of MF Holston, headwaters 1
 Unnamed trib of MF Holston, headwaters 2
 White Oak Creek

CONSERVATION SITES		
SITE NAME	Bank	Legstatus
BOARS CREEK HABITAT ZONE	B5	FL
BRENT MARSH	B3	FL
CATTLE CREEK - TURKEY TRACK CREEK	B2	FL
CHAMBERLAIN VILLAGE	B5	FL
CHERRY HILL HABITAT ZONE	B5	FL
CHOPAWAMSIK CREEK	B2	FL
COLEMAN'S MILL BOG	B3	SL
CROWS NEST	B2	FL
Fort Belvoir Proving Ground	B3	FL
FREESTONE POINT	B5	NL
GOURDS POINT HABITAT ZONE	B5	FL
LOWER AQUIA CREEK	B4	NL
LOWER POLECAT CREEK	B5	NL
MASSEY CREEK HABITAT ZONE	B5	FL
MATTAPONI SPRINGS	B4	FL
NEABSCO CREEK	B5	FL
PICKETTS CIRCLE	B3	NL
POLECAT CREEK - PENOLA SCU	B5	NL
POWELLS CREEK	B3	FL
REEDY CREEK SEEPS	B3	SL
SOUTH FREDERICKSBURG	B2	NL
SUMMIT RAILROAD TRACKS	B4	NL
TANK CREEK	B5	FL

LIST OF NATURAL HERITAGE OCCURANCES ON A 2 MILES RADIUS OF THE REPRESENTATIVE TRUCK HAUL ROUTES.

Scientific Name	Common Name	Global Rank	Federal Status	State Rank	State Status	Site Name
<i>Ambystoma mabeei</i>	Mabee's Salamander	G4		S1S2	LT	CAT PONDS
<i>Ambystoma tigrinum</i>	Tiger Salamander	G5		S1	LE	CAT PONDS
<i>Caecidolea phreatica</i>	Phreatic Isopod	G2G3	SOC	S1S3		BARLOW FARM - CHUCKATUCK CREEK
<i>Caecidolea phreatica</i>	Phreatic Isopod	G2G3	SOC	S1S3		TAYLOR FARM
<i>Carex decomposita</i>	Epiphytic Sedge	G3		S2		
Coastal Plain Depression Wetland	Coastal Plain Depression Wetland	GNR		SNR		CAT PONDS
<i>Deirochelys reticularia</i>	Chicken Turtle	G5		S1	LE	CAT PONDS
<i>Eleocharis melanocarpa</i>	Black-fruited Spikerush	G4		S2		CAT PONDS
<i>Eleocharis tricostata</i>	Three-angle Spikerush	G4		S1		CAT PONDS
<i>Haliaeetus leucocephalus</i>	Bald Eagle	G5		S2S3B,S3N	LT	BAILEYS BEACH HABITAT ZONE
<i>Haliaeetus leucocephalus</i>	Bald Eagle	G5		S2S3B,S3N	LT	LAKE MEADE HABITAT ZONE
<i>Haliaeetus leucocephalus</i>	Bald Eagle	G5		S2S3B,S3N	LT	SHACKLEY HABITAT ZONE
<i>Haliaeetus leucocephalus</i>	Bald Eagle	G5		S2S3B,S3N	LT	WESTERN BRANCH RESERVOIR HABITAT ZONE
<i>Hyla gratiosa</i>	Barking Treefrog	G5		S1	LT	CAT PONDS
<i>Hyla gratiosa</i>	Barking Treefrog	G5		S1	LT	RUSHMERE HABITAT ZONE
<i>Ludwigia brevipes</i>	Long Beach Seedbox	G2G3	SOC	S2		CAT PONDS
<i>Ludwigia ravenii</i>	Raven's Seedbox	G1G2	SOC	S1		
<i>Panicum hemitomon</i>	Maidencane	G5?		S2		CAT PONDS
<i>Rhynchospora macrostachya</i> var. <i>macrostachya</i>	Tall Hornedrush	G4T4		S2		CAT PONDS
<i>Sabatia difformis</i>	Two-formed Pink	G4G5		S1		CAT PONDS
<i>Siren intermedia</i>	Lesser Siren	G5		S2		CAT PONDS
<i>Sphagnum macrophyllum</i> var. <i>macrophyllum</i>	Large-leaf Peatmoss	G3T3?		S2		CAT PONDS
<i>Tillandsia usneoides</i>	Spanish Moss	G5		S2		
<i>Utricularia purpurea</i>	Purple Bladderwort	G5		S2		CAT PONDS
<i>Verbena scabra</i>	Sandpaper Vervain	G5		S2		
CONSERVATION SITES						
SITE NAME	Brank		Legstatus			
BAILEYS BEACH HABITAT ZONE	B5		FL			
BARLOW FARM - CHUCKATUCK CREEK	B3		FL			
CAT PONDS	B1		SL			
LAKE MEADE HABITAT ZONE	B5		FL			
RUSHMERE HABITAT ZONE	B5		SL			
SHACKLEY HABITAT ZONE	B5		FL			
TAYLOR FARM	B3		NL			
WARREN CREEK HABITAT ZONE	B6		FL			
WESTERN BRANCH RESERVOIR HABITAT ZONE	B5		FL			
WESTERN BRANCH RESERVOIR SOUTH HABITAT ZONE	B5		FL			

BALD EAGLES OCCURANCES

<i>Percina burtoni</i>	Bloachside Logperch	G2	SOC	S1	SC	CLINCH RIVER - COPPER CREEK SCU (Multiple occurrences)
<i>Percina copelandi</i>	Channel Darter	G4		S2	SC	CLINCH RIVER - COPPER CREEK SCU (Multiple occurrences)
<i>Plethobasus cyphus</i>	Sheepnose	G3	C	S1	LT	CLINCH RIVER - COPPER CREEK SCU (Multiple occurrences)
<i>Pleurobema cordatum</i>	Ohio Pigtoe	G3		S1	LE	CLINCH RIVER - COPPER CREEK SCU (Multiple occurrences)
<i>Pleurobema oviforme</i>	Tennessee Clubshell	G2G3	SOC	S2S3		
<i>Pleurobema oviforme</i>	Tennessee Clubshell	G2G3	SOC	S2S3		CLINCH RIVER - COPPER CREEK SCU (Multiple occurrences)
<i>Pleurobema plenum</i>	Rough Pigtoe	G1	LE	SH	LE	CLINCH RIVER - COPPER CREEK SCU (Multiple occurrences)
<i>Pseudanophthalmus sanctipauli</i>	Saint Paul Cave Beetle	G1G2	SOC	S1		GREEARS QUEEN
<i>Pseudanophthalmus sp. 4</i>	A Cave Beetle	G1	SOC	S1		GREEARS QUEEN
<i>Pseudosinella extra</i>	A Cave Springtail	G1G2	SOC	S1		
<i>Psychobranchius subtentum</i>	Fluted Kidneyshell	G2	C	S2		CLINCH RIVER - COPPER CREEK SCU (Multiple occurrences)
<i>Quadrula cylindrica strigilata</i>	Rough Rabbits Foot	G3T2	LE	S2	LE	CLINCH RIVER - COPPER CREEK SCU
<i>Quadrula intermedia</i>	Cumberland Monkeyface	G1	LE	S1	LE	CLINCH RIVER - COPPER CREEK SCU (Multiple occurrences)
<i>Quadrula pustulosa</i>	Pimple Back	G5		S2	LT	CLINCH RIVER - COPPER CREEK SCU (Multiple occurrences)
<i>Quadrula sparsa</i>	Appalachian Monkeyface	G1	LE	S1	LE	CLINCH RIVER - COPPER CREEK SCU (Multiple occurrences)
<i>Rich Cove / Slope Forest</i>	Rich Cove / Slope Forest	GNR		SNR		LOWER LITTLE STONY CREEK
<i>Rocky Bar and Shore</i>	Rocky Bar and Shore	GNR		SNR		RUSSELL FORK - CAMP BRANCH CREEK SCU
<i>Significant cave</i>	Significant Cave	G3		SNR		(Multiple occurrences)
<i>Significant cave</i>	Significant Cave	G3		SNR		COX BURR
<i>Significant cave</i>	Significant Cave	G3		SNR		GREEARS QUEEN
<i>Significant cave</i>	Significant Cave	G3		SNR		RYE COVE
<i>Significant cave</i>	Significant Cave	G3		SNR		WOLFE SPEERS (Multiple occurrences)
<i>Silene rotundifolia</i>	Roundleaf Catchfly	G4		S2		(Multiple occurrences)
<i>Silene rotundifolia</i>	Roundleaf Catchfly	G4		S2		CHIMNEY CLIFFS AND RUSSELL FORK (Multiple occurrences)
<i>Spartina pectinata</i>	Freshwater Cordgrass	G5		S2		CHIMNEY CLIFFS AND RUSSELL FORK
<i>Spiraea virginiana</i>	Virginia Spiraea	G2	LT	S1	LE	RUSSELL FORK - CAMP BRANCH CREEK SCU
<i>Spiranthes lucida</i>	Shining Ladies'-tresses	G5		S1		CHIMNEY CLIFFS AND RUSSELL FORK
<i>Stemotherus minor</i>	Loggerhead Musk Turtle	G5		S2		CLINCH RIVER - COPPER CREEK SCU (Multiple occurrences)
<i>Stylophorum diphylum</i>	Celandine Poppy	G5		S2		
<i>Synandra hispidula</i>	Gyandotte Beauty	G4		S2		
<i>Synandra hispidula</i>	Gyandotte Beauty	G4		S2		WOLFE SPEERS
<i>Toxotesma kvidus</i>	Purple Lilput	G2	SOC	S1	LE	CLINCH RIVER - COPPER CREEK SCU
<i>Tnchomanes boschanum</i>	Bristle-fern	G4		S1		CONFLUENCE CLIFF
<i>Tnphora trianthophora</i>	Nodding Pogonia	G3G4		S1		BREAKS INTERSTATE PARK ROADSIDE
<i>Tnucilla truncata</i>	Dearoe	G5		S1	LE	CLINCH RIVER - COPPER CREEK SCU (Multiple occurrences)
<i>Vilosa porpurpurea</i>	Purple Bean	G1	LE	S1	LE	
<i>Vilosa porpurpurea</i>	Purple Bean	G1	LE	S1	LE	CLINCH RIVER - COPPER CREEK SCU (Multiple occurrences)
<i>Vilosa irabaks</i>	Cumberland Bean	G1	LE	SX	LE	CLINCH RIVER - COPPER CREEK SCU (Multiple occurrences)

CONSERVATION SITES

SITE NAME	Bank	Legstatus
BANNER	B1	NL
BREAKS INTERSTATE PARK ROADSIDE	B4	NL
CHIMNEY CLIFFS AND RUSSELL FORK	B3	FL
CLINCH RIVER - COPPER CREEK SCU	B2	FL
CONFLUENCE CLIFF	B5	NL
COX BURR	B4	NL
DUNGANNON BRIDGE ROOST	B3	FL
FORT BLACKMORE RIVERSIDE FOREST	B4	FL
GREEARS QUEEN	B2	NL
LOWER LITTLE STONY CREEK	B4	NL
MILLER YARD CLIFFS	B5	NL
POUND RIVER - RUSSELL FORK SCU	B3	FL
RUSSELL FORK - CAMP BRANCH CREEK	B3	FL
RYE COVE	B1	NL
SKEGG BRANCH BOTTOMLAND	B3	FL
SKEGG RIDGE	B4	NL
SKEGG WOODLANDS	B3	NL
WOLFE SPEERS	B3	FL

VDGIF Endangered Species Waters

Clinch River
Copper Creek
Possum Creek
Russell Fork, Big Sandy River

STATE LEGAL STATUS

The Division of Natural Heritage uses similar abbreviations for State endangerment.

LE - Listed Endangered
PE - Proposed Endangered
SC - Special Concern - animals that merit special concern according to VDGIF (not a regulatory category)
LT - Listed Threatened
PT - Proposed Threatened
C - Candidate
NL - no state legal status

For information on the laws pertaining to threatened or endangered species, please contact:

U.S. Fish and Wildlife Service for all **FEDERALLY** listed species;
Department of Agriculture and Consumer Services, Plant Protection Bureau for **STATE** listed plants and insects
Department of Game and Inland Fisheries for all other **STATE** listed animals

Conservation Sites Ranking

Rank is a rating of the significance of the conservation site based on presence and number of natural heritage resources; on a scale of 1-5, 1 being most significant. Sites are also coded to reflect the presence/absence of federally/state listed species:

Conservation Site Ranks

B1 – Outstanding significance
B2 – Very High significance
B3 – High significance
B4 – Moderate significance
B5 – Of general Biodiversity significance

Legal Status of Site

FL – Federally listed species present
SL – State listed species present
NL – No listed species present

If you cannot meet the deadline, please notify ANNE N. PINION at 804/698-4488 prior to the date given. Arrangements will be made to extend the date for your review if possible. An agency will not be considered to have reviewed a document if no comments are received (or contact is made) within the period specified.

REVIEW INSTRUCTIONS:

- A. Please review the document carefully. If the proposal has been reviewed earlier (i.e. if the document is a federal Final EIS or a state supplement), please consider whether your earlier comments have been adequately addressed.
- B. Prepare your agency's comments in a form which would be acceptable for responding directly to a project proponent agency.
- C. Use your agency stationery or the space below for your comments. **IF YOU USE THE SPACE BELOW, THE FORM MUST BE SIGNED AND DATED.**

Please return your comments to:

MS. ANNE N. PINION
 DEPARTMENT OF ENVIRONMENTAL QUALITY
 OFFICE OF ENVIRONMENTAL IMPACT REVIEW
 629 EAST MAIN STREET, SIXTH FLOOR
 RICHMOND, VA 23219
 FAX #804/698-4319
apinion@deq.virginia.gov

RECEIVED

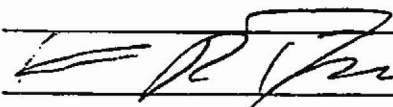
NOV 27 2007

DEQ-Office of Environmental Impact Review


 ANNE N. PINION
 ENVIRONMENTAL PROGRAM PLANNER

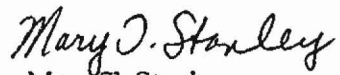
COMMENTS

Proposed ~~VDACS, Office of Plant and Pest Service~~ related to the Yucca Mtn. repository is believed to be limited to the loading and transport of spent nuclear fuel and radioactive waste. Anticipated transportation will be by rail or truck over pre-existing routes. Endangered & threatened plant and insect species have been identified along the proposed transportation routes. Uneventful transport of materials should have no adverse impact on protected species. However, accidental or intentional disruption of transport routes could adversely impact listed species. Identification of species locations and protocol to preserve these species should be included in when addressing disruption to transport routes.

(signed) _____ (date) _____
 (title)  (Keith R. Tignor) November 20, 2007
 (agency) Endangered Species Coordinator, VDACS

Thank you for the opportunity to comment on this project.

Sincerely,

A handwritten signature in cursive script that reads "Mary T. Stanley".

Mary T. Stanley

Environmental Engineer

Virginia Department of Transportation

(804) 786-0868

If you cannot meet the deadline, please notify ANNE N. PINION at 804/698-4488 prior to the date given. Arrangements will be made to extend the date for your review if possible. An agency will not be considered to have reviewed a document if no comments are received (or contact is made) within the period specified.

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FAX #804/698-4319
anpinion@deq.virginia.gov


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NOV 26 2007


ANNE N. PINION
ENVIRONMENTAL PROGRAM PLANNER

COMMENTS DEQ-Office of Environmental
Impact Review

I do not anticipate an impact to geology or mineral resources in Virginia related to this project.

(signed)  (date) 11/19/07
(title) Geologist Manager
(agency) DMME