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1. One attachment is the same as Figure 1. The second attachment, the Environmental Assessment Determination, is not included.
2. The attachment, a list of organizations to inform about the EA, is not included.
3. Refer to Figure 1 of this EA for the attachment.
4. The attachment, previous correspondence dated Oct. 16, 1992, is included here.
5. The attachment is not included.
6. Refer to Figures 1, 2, 3, and 5 of this EA for four of the attachments. The other attachments, including the REMSA, Inc. report, are not included.



## Department of Energy

Oak Ridge Operations Office  
Thomas Jefferson National  
Accelerator Facility Site Office  
12000 Jefferson Avenue  
Newport News, Virginia 23606

February 23, 2001

Ms. Ellie L. Irons  
Environmental Impact Review Manager  
Virginia Department of Environmental  
Quality  
P.O. Box 10009  
Richmond, VA 23240-0009

Dear Ms. Irons:

It is Department of Energy (DOE) policy to notify states in which DOE facilities are located of each National Environmental Policy Act of 1969 (NEPA) determination regarding environmental review documentation to be prepared for a proposed action at the facility. Such notification is intended to facilitate early and open communication between the DOE and host states as part of the NEPA process.

Accordingly, with this letter I am advising you that during calendar year 2001, the DOE plans to prepare an Environmental Assessment (EA) for proposed improvements at the Thomas Jefferson National Accelerator Facility (TJNAF or Jefferson Lab) in Newport News, Virginia. The proposed action involves construction of three major additions to the Continuous Electron Beam Accelerator Facility (CEBAF) Center, the main facility administration building, and construction of four important structures on the accelerator site (a new storage building, a new technician support building, a new refrigeration service building, and an addition to the Free Electron Laser (FEL) Facility.) The FEL Building Addition will include the installation and operation of the new Helios, a High energy lithography source. A copy of the Environmental Assessment Determination (EAD) is enclosed. The EAD will provide you with more information on the different activities planned for the EA and a site plan that notes where the activities involving construction will take place.

These improvements to TJNAF will assist the Laboratory in making full use of this national physics resource by improving the facility to accommodate existing staff and additional research personnel and to extend research capabilities by the addition of a new synchrotron light source.

As discussed in a telephone conversation between you and Ms. Barbara Morgan of my staff, when the draft EA is completed we will provide the necessary copies for your review, comment and coordination with other State Departments and Agencies. I understand that you have a list of contacts that we should use to make our notifications. During the telephone call you mentioned that you would fax this list to our office upon receipt of our notification. Our fax number is (757) 269-7146. If you or your staff wishes to receive further information about this action, please contact Barbara Morgan at (757) 269-7139. Information on the Department Of Energy's

NEPA Process should be directed to Mr. David Allen, NEPA Compliance Officer, located in our Operations Office in Oak Ridge, Tennessee at (865) 576-0411.

Sincerely,  
/S/  
Jerry Conley, Site Manager  
Jefferson Lab Site Office

Enclosure

BMM:Notification Ltr to State:2/23/01:5440.I (Improvements EA)



James S. Gilmore, III  
Governor

John Paul Woodley, Jr.  
Secretary of Natural Resources

# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

Street address: 629 East Main Street, Richmond, Virginia 23219

Mailing address: P.O. Box 10009, Richmond, Virginia 23240

Fax (804) 698-4500 TDD (804) 698-4021

<http://www.deq.state.va.us>

Dennis H. Treacy  
Director

(804) 698-4000  
1-800-592-5482

March 6, 2001

Mr. Jerry Conley  
Site Manager  
Jefferson Lab Site Office, U.S. Department of Energy  
12000 Jefferson Avenue  
Newport News, Virginia 23606

RE: Notification of Intent to Prepare Environmental Assessment for Proposed  
Improvements at the Jefferson Lab (your February 23 letter)

Dear Mr. Conley:

Thank you for your February 23 letter in which you indicated the Department of Energy's intent to prepare an Environmental Assessment covering proposed improvements at the Thomas Jefferson National Accelerator Facility (Jefferson Lab).

Thank you, as well, for your willingness to send copies where needed according to our list. A copy of the list, appropriately marked, has been faxed to Barbara Morgan and is enclosed. We ask that you send one copy to our office and one copy to each recipient checked on the list, except as indicated on the list.

If you have questions, please feel free to contact me (telephone (804) 698-4325) or Charles Ellis of my staff (telephone (804) 698-4488).

Sincerely,

/S/

Ellie L. Irons  
Environmental Impact Review  
Program Manager

Enclosure  
cc: Charles H.  
Ellis III

*An Agency of the Natural Resources Secretariat*



**Department of Energy**  
**Oak Ridge Operations Office**  
**Thomas Jefferson National**  
**Accelerator Facility Site Office**  
**12000 Jefferson Avenue**  
**Newport News; Virginia 23606**

April 10, 2001

Mr. Frank Fulgham  
Office of Plant and Pest Services  
1100 Bank Street  
Richmond, VA 23219

Dear Mr. Fulgham:

**U.S. DEPARTMENT OF ENERGY PROPOSAL TO MAKE IMPROVEMENTS TO THE THOMAS JEFFERSON NATIONAL ACCELERATOR FACILITY (TJNAF OR JEFFERSON LAB)**

On behalf of the U.S. Department of Energy (DOE) I am writing to advise you of a proposal to make improvements to the Thomas Jefferson National Accelerator Facility (TJNAF or Jefferson Lab) which is located in Newport News, Virginia (Figure 1 attached). Jefferson Lab is managed and operated by the Southeastern Universities Research Association, Inc. (SURA) under contract to DOE.

This proposal is being analyzed in an Environmental Assessment (EA) to ensure that these proposed improvements present no significant impact to the environment. The proposed action involves the construction of three or four major additions to the Continuous Electron Beam Accelerator Facility (CEBAF) Center, the main facility administration building, and construction of four important structures on the accelerator site (a new storage building, a new technician support building, a new refrigeration service building, and an addition to the Free Electron Laser (FEL) Facility). The FEL Building Addition will include the installation and operation of the new synchrotron light source called Helios, a high-energy lithography source. These improvements to Jefferson Lab will assist the Laboratory in making full use of this national physics resource by: improving the facility infrastructure to better accommodate existing staff and additional research personnel; and, extending research capabilities by the addition of a new synchrotron light source.

We are in the process of conducting a survey of threatened and endangered species on our property using a contractor who has expertise in that area. The survey will include the plants and animals listed by the Virginia Natural Heritage Program for the local area, those identified by Virginia State Agencies, and any species identified on Federal lists. As we want to ensure that the survey addresses all areas of concern, we would appreciate your input on the survey content, including the identification of any special concerns that your office believes should be addressed during the preparation of this EA.

Mr. Frank Fulgham

2

April 10, 2001

If you have any questions or concerns about this request or our EA proposal, please contact Ms. Barbara Morgan, DOE Site Office at (757) 269-7139 or e-mail at: [bmorgan@jlab.org](mailto:bmorgan@jlab.org). If you would like to send your comments by facsimile, our number is (757) 269-7146. Thank you in advance for your assistance in this endeavor.

Sincerely,

/s/

Jerry M. Conley, Site Manager  
Jefferson Lab Site Office

Enclosure

cc:

D. R. Allen, ORO NCO, SE-32

Ms. Ellie L. Irons  
Environmental Impact Review Program Manager  
Department of Environmental Quality  
P.O. Box 10009  
Richmond, VA 23240

BMM:Ltr to Dept of Agriculture:4/9/01:5440.I



*J. Carlton Courter, III*  
Commissioner

COMMONWEALTH of VIRGINIA  
Department of Agriculture and Consumer Services

**Division of Consumer Protection**  
***Office of Plant & Pest Services***  
PO Box 1163, Richmond, Virginia 23218  
Phone: 804/786-3515 • Fax: 804/371-7793 • Hearing Impaired: 800/828-1120  
[www.vdacs.state.va.us](http://www.vdacs.state.va.us)

April 25, 2001

Jerry M. Conley  
Dept. of Energy  
Thomas Jefferson National  
Accelerator Facility Site Office  
12000 Jefferson Avenue  
Newport News, VA 23606

RE: Jefferson Lab Construction, Newport News, VA

This letter is in response to your request concerning threatened or endangered plant or insects species in the vicinity of the proposed construction at the Thomas Jefferson National Accelerator Facility in Newport News, VA. To date, Virginia Department of Agriculture and Consumer Services records indicate that no threatened or endangered plant or insect species have been documented in the area indicated in maps you provided. We do not anticipate significant adverse impacts upon plant or insect species under our jurisdiction to result from this project. However, the absence of data does not necessarily mean that no listed species occur in the area, but that our files do not currently contain information to document their presence.

The Virginia Department of Agriculture and Consumer Services has jurisdiction only over plant and insect species listed as threatened or endangered by the Commonwealth of Virginia. To better serve citizens and agencies of the Commonwealth, the Virginia Departments of Agriculture and Consumer Services and Conservation and Recreation have entered into an agreement for the review of projects within Virginia. **Future requests for information concerning endangered and threatened plants and insects should be directed to the Natural Heritage Division of the Department of Conservation and Recreation for initial evaluation.** Projects found to demonstrate potential impact on these species will be referred to the Department of Agriculture and Consumer Services for further review and possible mitigation. Additional information on unique geologic formations, rare or critical habitat, and rare and candidate species can be obtained from VDCR/NH. The Virginia Department of Game and Inland Fisheries has jurisdiction over similarly listed endangered and threatened animal species.

Sincerely,

/s/

Keith R. Tignor  
Endangered Species Coordinator

- Equal Opportunity Employer -



**Department of Energy**  
Oak Ridge Operations Office  
Thomas Jefferson National  
Accelerator Facility Site Office  
12000 Jefferson Avenue  
Newport News, Virginia 23606

April 10, 2001

Ms. Karen L. Mayne  
United States Department of Interior  
Fish and Wildlife Service  
P. O. Box 99  
6669 Short Lane  
Gloucester, VA 23061

Dear Ms. Mayne:

**U.S. DEPARTMENT OF ENERGY PROPOSAL TO MAKE IMPROVEMENTS TO THE  
THOMAS JEFFERSON NATIONAL ACCELERATOR FACILITY (TJNAF OR  
JEFFERSON LAB)**

On behalf of the U.S. Department of Energy (DOE) I am writing to advise you of a proposal to make improvements to the Thomas Jefferson National Accelerator Facility (TJNAF or Jefferson Lab) which is located in Newport News, Virginia (Figure 1 attached). Jefferson Lab is managed and operated by the Southeastern Universities Research Association, Inc. (SURA) under contract to DOE.

This proposal is being analyzed in an Environmental Assessment (EA) to ensure that these proposed improvements present no significant impact to the environment. The proposed action involves the construction of three or four major additions to the Continuous Electron Beam Accelerator Facility (CEBAF) Center, the main facility administration building, and construction of four important structures on the accelerator site (a new storage building, a new technician support building, a new refrigeration service building, and an addition to the Free Electron Laser (FEL) Facility). The FEL Building Addition will include the installation and operation of the new synchrotron light source called Helios, a high-energy lithography source. These improvements to Jefferson Lab will assist the Laboratory in making full use of this national physics resource by: improving the facility infrastructure to better accommodate existing staff and additional research personnel; and, extending research capabilities by the addition of a new synchrotron light source.

We are in the process of conducting a survey of threatened and endanger species on our property using a contractor who has expertise in that area. The survey will include the plants and animals listed by the Virginia Natural Heritage Program for the local area, those identified by Virginia State Agencies, and any species identified on Federal lists. As we want to ensure that the survey addresses all areas of concern, we would appreciate your input on the survey content, including the identification of any special concerns that your office believes should be addressed during the preparation of this EA.

Ms. Karen L. Mayne

2

April 10, 2001

If you have any questions or concerns about this request or our EA proposal, please contact Ms. Barbara Morgan, DOE Site Office at (757) 269-7139 or e-mail at: [bmorgan@jlab.org](mailto:bmorgan@jlab.org) If you would like to send your comments by facsimile, our number is (757) 269-7146. Thank you in advance for your assistance in this endeavor.

Sincerely,

/s/

Jerry M. Conley, Site Manager  
Jefferson Lab Site Office

Enclosure

cc:

D.R. Allen, ORO NCO, SE-32

Ms. Ellie L. Irons  
Environmental Impact Review Program Manager  
Department of Environmental Quality  
P.O. Box 10009  
Richmond, VA 23240

BMM:Ltr to Dept of Interior:4/9/01:5440.1



# United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Ecological Services  
6669 Short Lane  
Gloucester, VA 23061

April 18, 2001

Mr. Jerry M. Conley  
U.S. Department of Energy  
Oak Ridge Operations Office  
Thomas Jefferson National Accelerator Facility  
12000 Jefferson Avenue  
Newport News, Virginia 23606

Re: Improvements to Thomas Jefferson  
National Accelerator Facility, City of  
Newport News, Virginia

Dear Mr. Conley:

The U.S. Fish and Wildlife Service (Service) has reviewed your April 10, 2001 request for information on federally listed species for the referenced project. The proposal is to make improvements to the Thomas Jefferson National Accelerator Facility in the City of Newport News, Virginia. This letter is submitted in accordance with provisions of the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and the National Environmental Policy Act (NEPA) of 1969 (83 Stat. 852; 42 U.S.C. 4321 et seq.).

The Service believes that the proposed action will have no effect on federally listed species.

If you have any questions or need further assistance concerning this project, contact Mr. Eric Davis at (804) 693-6694, extension 104.

Sincerely;

/s/

Karen L. Mayne  
Supervisor  
Virginia Field Office

cc: VDGIF (Tom Wilcox)  
VDCR, DNH (Rene Hypes)



**Department of Energy**  
Oak Ridge Operations Office  
Thomas Jefferson National  
Accelerator Facility Site Office  
12000 Jefferson Avenue  
Newport News; Virginia 23606

April 10, 2001

Mr. Ray Fernald  
Chief, Wildlife Information  
and Management  
Department of Game and  
Inland Fisheries  
4010 W. Broad Street  
Richmond, VA 23230

Dear Mr. Fernald:

**U.S. DEPARTMENT OF ENERGY PROPOSAL TO MAKE IMPROVEMENTS TO THE  
THOMAS JEFFERSON NATIONAL ACCELERATOR FACILITY (TJNAF OR  
JEFFERSON LAB)**

On behalf of the U.S. Department of Energy (DOE) I am writing to advise you of a proposal to make improvements to the Thomas Jefferson National Accelerator Facility (TJNAF or Jefferson Lab) which is located in Newport News, Virginia (Figure 1 attached). Jefferson Lab is managed and operated by the Southeastern Universities Research Association, Inc. (SURA) under contract to DOE.

This proposal is being analyzed in an Environmental Assessment (EA) to ensure that these proposed improvements present no significant impact to the environment. The proposed action involves the construction of three or four major additions to the Continuous Electron Beam Accelerator Facility (CEBAF) Center, the main facility administration building, and construction of four important structures on the accelerator site (a new storage building, a new technician support building, a new refrigeration service building, and an addition to the Free Electron Laser (FEL) Facility.) The FEL Building Addition will include the installation and operation of the new synchrotron light source called Helios, a high energy lithography source. These improvements to Jefferson Lab will assist the Laboratory in making full use of this national physics resource by: improving the facility infrastructure to better accommodate existing staff and additional research personnel; and, extending research capabilities by the addition of a new synchrotron light source.

We are in the process of conducting a survey of threatened and endangered species on our property using a contractor who has expertise in that area. The survey will include the plants and animals listed by the Virginia Natural Heritage Program for the local area, those identified by Virginia State Agencies, and any species identified on Federal lists. As we want to ensure that the survey addresses all areas of concern, we would appreciate your input on the survey content, including the identification of any special concerns that your office believes should be addressed during the preparation of this EA.

Mr. Ray Fernald

2

April 10, 2001

If you have any questions or concerns about this request or our EA proposal, please contact Ms. Barbara Morgan, DOE Site Office at (757) 269-7139 or e-mail at: [bmorgan@jlab.org](mailto:bmorgan@jlab.org) If you would like to send your comments by facsimile, our number is (757) 269-7146. Thank you in advance for your assistance in this endeavor.

Sincerely;

/s/

Jerry M. Conley, Site Manager

Jefferson Lab Site Office

Enclosure

cc:

D. R. Allen, ORO, NCO, SE-32

Ms. Ellie L. Irons  
Environmental Impact Review Program Manager  
Department of Environmental Quality  
P.O. Box 10009  
Richmond, VA 23240

**BMM:Ltr to Fish Wildlife2:4/9/01:5440.1**



James S. Gilmore, III  
Governor

John Paul Woodley, Jr.  
Secretary of Natural Resources

COMMONWEALTH of VIRGINIA  
**Department of Game and Inland Fisheries**

William L. Woodfin, Jr.  
Director

May 16, 2001

Jerry Conley  
Site Manager  
US Department of Energy  
TJNAF Site Office  
12000 Jefferson Avenue  
Newport News, VA 23606

RE: ESSLOG 14765; TJNAF Improvements

Dear Mr. Conley:

This letter is in response to your request for information related to the presence of threatened or endangered species in the vicinity of the above referenced project.

Information about fish and wildlife species was generated from our agency's computerized Fish and Wildlife Information System, which describes animals that are known or may occur in a particular geographic area. Field surveys may be necessary to determine the presence or absence of some of these species on or near the proposed area. Also, additional sensitive animal species may be present, but their presence has not been documented in our information system.

**The *state endangered* canebrake rattlesnake (*Crotalus horridus atric audatus*) has been documented in the project area. The applicant should coordinate with this Department to evaluate potential impacts on this species.**

**The state special concern species' yellow-crowned night heron (*Nyctanassa violacea*) and least tern (*Sterna antillarum*) have been documented in the project area. The classification of "state special concern species" is not a legal designation and does not require further coordination.**

**This project is located in the vicinity of a stream reach that contains a documented occurrence of striped bass (*Morone saxatilis*). The applicant should coordinate with this Department regarding potential impact on this species.**

**This project lies within 0.5 mile of a documented waterbird colony containing great egret (*Ardea alba egretta*) and great blue heron (*Ardea herodias*). Therefore, the applicant should coordinate with this Department and with the US Fish and Wildlife Service concerning potential impacts to these colonies.**

Endangered plants and insects are under the jurisdiction of the Virginia Department of Agriculture and Consumer Services, Bureau of Plant Protection. Questions concerning sensitive plant and insect species occurring at the project site should be directed to Keith Tignor at (804)

Jerry Conley  
USDOE  
May 16, 2001  
Page 2

786-3515.

This letter summarizes the likelihood of the occurrence of endangered or threatened animal species at the project site. If you have additional questions in this regard, please contact me at (804) 367-0909. Please note that this response does not address any other environmental concerns; these issues are analyzed by our Environmental Services Section, in conjunction with interagency review of applications for state and federal permits. If you have any questions in this regard, please contact Ray Fernald or Tom Wilcox at (804) 367-8999.

The Fish and Wildlife Information Service, the system of databases used to provide the information in this letter, can now be accessed via the Internet! The Service currently provides access to current and comprehensive information about all of Virginia's fish and wildlife

resources, including those listed as threatened, endangered, or special concern; colonial birds; waterfowl; trout streams; and all wildlife. Users can choose a geographic location and generate a report of species known or likely to occur around that point. From our main web page, at [www.dgif.state.va.us](http://www.dgif.state.va.us), choose the hyperlink to "Wildlife Information Online". For more information, please contact Amy Marti,; Online Services Coordinator, (804) 367-2211.

Thank you for your interest in the wildlife resources of Virginia.

Sincerely;

/s/

Amy Martin

Online Services Coordinator

cc: R.T. Fernald, VDGIF  
Karen Mayne; USFWS



**Department of Energy**  
Oak Ridge Operations Office  
Thomas Jefferson National  
Accelerator Facility Site Office  
12000 Jefferson Avenue  
Newport News, Virginia 23606

April 10, 2001

Ms. Cara Metz  
Department of Historic Resources  
2801 Kensington Avenue  
Richmond, VA 23221

Dear Ms. Metz:

**U.S. DEPARTMENT OF ENERGY PROPOSAL TO MAKE IMPROVEMENTS TO THE THOMAS JEFFERSON NATIONAL ACCELERATOR FACILITY (TJNAF OR JEFFERSON LAB)**

On behalf of the U.S. Department of Energy (DOE) I am writing to advise you of a proposal to make improvements to the Thomas Jefferson National Accelerator Facility (TJNAF or Jefferson Lab) which is located in Newport News, Virginia (Figure 1 attached). Jefferson Lab is managed and operated by the Southeastern Universities Research Association, Inc. (SURA) under contract to DOE.

This proposal is being analyzed in an Environmental Assessment (EA) to ensure that these proposed improvements present no significant impact to the environment. The proposed action involves the construction of three or four major additions to the Continuous Electron Beam Accelerator Facility (CEBAF) Center, the main facility administration building, and construction of four important structures on the accelerator site (a new storage building, a new technician support building, a new refrigeration service building, and an addition to the Free Electron Laser (FEL) Facility). The FEL Building Addition will include the installation and operation of the new synchrotron light source called Helios, a high-energy lithography source. These improvements to Jefferson Lab will assist the Laboratory in making full use of this national physics resource by: improving the facility infrastructure to better accommodate existing staff and additional research personnel; and, extending research capabilities by the addition of a new synchrotron light source.

In 1992, we received a letter from the Department of Historic Resources (copy enclosed) in response to a letter we wrote requesting an assessment of the requirements of Section 106 of the National Historic Preservation Act of 1966 as it relates to Jefferson Lab. Your office identified no concerns at that time since the Jefferson Lab site had been extensively disturbed and had a low potential to contain archeological features. We are again beginning to prepare a new EA and want to ensure that the EA addresses all areas of concern and would like to confirm the conclusion of your office in 1992. We would appreciate your input including the identification of any special concerns that your office believes should be addressed during the preparation of this EA.

If you have any questions or concerns about this request or our EA proposal, please contact Ms. Barbara Morgan, DOE Site Office at (757) 269-7139 or e-mail at: [bmorgan@jlab.org](mailto:bmorgan@jlab.org). If you would like to send your comments by facsimile, our number is (757) 269-7146. Thank you in advance for your assistance in this endeavor.

Sincerely,

/s/

Jerry M. Conley, Site Manager  
Jefferson Lab Site Office

Enclosure

cc:  
D.R. Allen, ORO NCO, SE-32

Ms. Ellie L. Irons  
Environmental Impact Review Program Manager  
Department of Environmental Quality  
P.O. Box 10009  
Richmond, VA 23240



## COMMONWEALTH of VIRGINIA

*Department of Historic Resources*

Hugh C. Miller, Director

221 Governor Street  
Richmond, Virginia 23219

TDD: (804) 786-1934  
Telephone (804) 786-2121  
FAX: (804) 225-4261

October 16, 1992

K. Dean Helms  
Manager, CEBAF Site Office  
Department of Energy  
Oak Ridge Operations  
Continuous Electron Beam  
Accelerator Facility Site Office  
12000 Jefferson Avenue  
Newport News, Virginia 23606

Re: Proposed Continuous Electron Beam Accelerator Facility  
City of Newport News, Virginia  
VDHR File No. 92-2142-F (formerly 997-NN)

Dear Mr. Helms:

Thank you for your letter of September 16, 1992 requesting updated comments on the proposed facility.

We have previously reviewed the environmental assessment for the proposed project. We understand that the selected site is in the City of Newport News. Our comments on this site remain the same as in our correspondence dated April 1, 1987. No historic districts or structures will be affected by this project. An archeological assessment was prepared for this property in May, 1985 by Daniel V. Mouer, Ph.D. of Virginia Commonwealth University's Archaeological Research Center. As a result of his study, we concurred with his opinion that the property has been extensively disturbed and has a low potential to contain contact archeological levels and features. No archeological investigations are warranted in connection with this project.

Our comments remain the same. Construction of the proposed facility will have no effect on historic properties. The requirements of Section 106 of the National Historic Preservation Act of 1966, as amended, have been met for this particular project.

If you have any questions, please contact Ethel R. Eaton of our staff.

We look forward to working with you on future projects.

Sincerely,

/S/  
Bruce J. Larson  
Project Review Supervisor

cc. Barbara Morgan



**James S. Gilmore, III**  
Governor

**COMMONWEALTH of VIRGINIA**

**Department of Historic Resources**  
2801 Kensington Avenue, Richmond Virginia 23221

**Kathleen S. Kilpatrick**  
Director

Tel: (804) 367-2323  
Fax: (804) 367-2391  
TDD: (804) 367-2386

**John Paul Woodley, Jr.**  
Secretary of Natural

April 16, 2001

Mr. Jerry M. Conley  
Site Manager  
Department of Energy  
Oak Ridge Operations Office  
Thomas Jefferson National  
Accelerator Facility Site Office  
1200 Jefferson Avenue  
Newport News, Virginia 23606

Re: Improvements to Jefferson National Accelerator Facility  
DHR File Number 1992-2142

Dear Mr. Conley:

Thank you for your letter of April 10, 2001 requesting updated comments on the proposed project. Before we can make an effect determination for the referenced project we will need the following information:

- Updated information on the standing structures at the Jefferson Facility. Existing architectural information was collected 13 years ago; it is possible that structures previously found ineligible have since then gained sufficient age to be considered potentially eligible.

Thank you again for consulting with us concerning the referenced project. Once we have received the requested information we will proceed with our effect determination. If you have any questions or if we can be of any further assistance, do not hesitate to contact me at (804) 367-2323 ext. 140.

Sincerely,  
/s/

Lily A. Richards  
Archaeologist, Division of Resource Services and Review  
Cc. Ellie Irons, DEQ

Program Services Div.  
10 Courthouse Ave.  
Petersburg, VA 23808  
Tel: (804) 863-1685  
Fax: (804) 862-6196

Petersburg Office  
19-B Bollin gbrook Street  
Petersburg, VA 23803  
Tel: (804) 883-1620  
Fax: (804) 863 -1627

Portsmouth Office  
612 Court St., 3rd Fl.  
Portsmouth, VA 23704  
Tel: (757) 396-6707  
Fax: (757) 396-6712

Roanoke Office  
1030 Penmar Ave., SE  
Roanoke, VA 24013  
Tel: (540) 85 7-7585  
Fax: (540) 857-7688

Winchester Offices  
107 N. Kent St.# 203  
Winchester, VA 23801  
Tel: (540) 722-3427  
Fax: (540) 723-7535



Department of Energy  
Oak Ridge Operations Office  
Thomas Jefferson National  
Accelerator Facility Site Office  
12000 Jefferson Avenue  
Newport News, Virginia 23606

August 29, 2001

Ms. Lily A. Richards  
Archaeologist  
Division of Resource Services and Review  
Department of Historic Resources  
2801 Kensington Avenue  
Richmond, VA 23221

Dear Ms. Richards:

**U. S. DEPARTMENT OF ENERGY PROPOSAL TO MAKE IMPROVEMENTS TO  
THE THOMAS JEFFERSON NATIONAL ACCELERATOR FACILITY (TJNAF OR  
JEFFERSON LAB)**

In response to your April 16, 2001 letter that you were so kind to fax to me last month and subsequent telephone messages, enclosed is a printout of the facilities on site that provides the building age and year built. We hope that this information will assist you in making a determination regarding any special concerns that your office believes should be addressed during the preparation of an Environmental Assessment (EA) that we are in the process of performing. Our letter dated April 10, 2001, provides further information on the EA proposal.

We are trying to finalize the draft of the EA before the end of September 2001. If you have any questions or concerns about this request or our EA proposal, please contact Ms. Barbara Morgan, DOE Site Office at (757) 269-7139 or e-mail at [bmorgan@jlab.org](mailto:bmorgan@jlab.org). If you would like to send your comments by facsimile, our number is (757) 269-7146. Thank you in advance for your assistance in this endeavor.

Sincerely,

/s/

Barbara M. Morgan  
DOE NEPA Document Manager

Enclosure

cc w/enclosure:  
D.R. Allen, ORO NCO, SE-32  
Ms. Ellie L. Irons  
Environmental Impact Review Program Manager  
Department of Environmental Quality  
P.O. Box 10009  
Richmond, VA 23240

**U.S. Department of Energy  
Facilities Information Management System  
Owned Building Age Report**

(FIMS 04)

Field Office 10 Oak Ridge Oic  
Site 10012 Thomas Jefferson National Accelerator Facility  
Area 001 All

Property ID	Property Name	Building Age	Year Built	Deficiency	Model Bldg	Usage Code	Usage Description
	EXIT STAIR 1	0				785	Accelerator Building
	Central Helium Lifter	11	1960		Steel Braced Frame	785	Accelerator Building
	Cryo Trailer	11	1960		Wood, Light Frame	731	Electrical/Electronics Laboratory
	Physics Trailer	8	1993		Wood, Light Frame	101	Office
	Accelerator Trailer	0			Wood, Light Frame	101	Office
	Accelerator Trailer	12	1989		Wood, Light Frame	101	Office
	CEBAF Center	12	1989		Steel Moment Frame	101	Office
	Trailer City	15	1966		Wood, Light Frame	101	Office
	PE MAINTENANCE SHED	2	1999		Steel Light Frame	400	General Storage
	Free Electron Laser Building (FEL)	4	1997		Steel Light Frame	785	Accelerator Building
	Acid Building	12	1969		Unreinforced Masonry Bearing Walls	410	Hazardous/Flammable Storage
	Chemical Storage	12	1969		Unreinforced Masonry Bearing Walls	410	Hazardous/Flammable Storage
	Accel. Tech.	14	1987		Wood, Light Frame	791	Laboratories, General (Non-Nuc)
	Accel Tech Trailer B	14	1987		Wood, Light Frame	791	Laboratories, General (Non-Nuc)
	User Liaison Group	14	1987		Wood, Light Frame	612	Electronics Shops
	User Liaison Group	13	1986		Wood, Light Frame	801	Other
	Accel Tech Trailer F	14	1987		Wood, Light Frame	401	Programmatic General Storage
	User Group Trailer	11	1990		Wood, Light Frame	709	Other Support Labs
	Accelerator EH&S Trailer	12	1989		Wood, Light Frame	101	Office
	Test Lab Annex	36	1965		Unreinforced Masonry Bearing Walls	709	Other Support Labs
	Radiation Control Trailer	11	1990		Wood, Light Frame	101	Office
	Radiation Control Trailer	8	1995		Wood, Light Frame	101	Office
	Radiation Training Center	7	1994		Wood, Light Frame	709	Other Support Labs
	Accel Installation Trailer	6	1995		Wood, Light Frame	101	Office
	Accel Installation Trailer	6	1995		Wood, Light Frame	101	Office
	Radiation Calibration	6	1995		Steel Light Frame	709	Other Support Labs
	Cryogenics Test Facility	14	1987		Precast/Tilt-up Concr Walls/Lightweight Fla	709	Other Support Labs
	Test Lab	39	1962		Steel Light Frame	709	Other Support Labs
	Accelerator Tech Shop	13	1988		Steel Light Frame	400	General Storage
	Physics Storage Building	3	1998		Steel Light Frame	400	General Storage
	Machine Control Center	11	1990		Steel Light Frame	702	Computation Laboratory
	Accel Maintenance & Support Bldg	6	1995		Steel Light Frame	101	Office
	ATS Building	5	1996		Steel Light Frame	101	Office
	Experimental Equipment Lab	11	1990		Steel Light Frame	709	Other Support Labs

**U.S. Department of Energy  
Facilities Information Management System  
Owned Building Age Report**

(FIMS 04)

Field Office 10 Oak Ridge Otc  
Site 10012 Thomas Jefferson National Accelerator Facility  
Area 001 All

Property ID	Property Name	Building Age	Year Built	Deficiency	Model Bldg	Usage Code	Usage Description	
094A	Physica Trailer Hall B	14	1987		Wood, Light Frame	791	Laboratories, General (Non-Nucl)	
096D	Install Trailer Hall B	8	1993		Wood, Light Frame	611	Machine Shops	
097	Counting House	8	1993		Steel Moment Frame	703	Applied Science Laboratory	
098	Cryo Weld Shop/Service Bldg	8	1993		Steel Light Frame	601	Maintenance Shops, General	
101B	Hall A Tech Trailer	4	1997		Wood, Light Frame	612	Electronics Shops	
102	End Station Refrigeration Bldg	8	1993		Steel Light Frame	801	Other	
803	Container SNS	0			Other-Describe briefly in comments fields	400	General Storage	
804	Container	0			Other-Describe briefly in comments fields	400	General Storage	
805	Container	0			Other-Describe briefly in comments fields	501	Production/Manufacturing Buildi	
810	Container F2667	0			Other-Describe briefly in comments fields	400	General Storage	
Total Buildings:		45	Total Avg Age:	9				

1 003

TEL: 757 269 7559

DEFF. LAB. HKRS

AUG -14 01 (TUE) 16:24

08/14/01 (TUE) 15:26 [TX/RX NO 6085]



# COMMONWEALTH of VIRGINIA

Department of Historic Resources  
2801 Kensington Avenue, Richmond, Virginia 23221

James S. Gilmore, III  
Governor

John Paul Woodley, Jr.  
Secretary of Natural Resources

Kathleen S. Kilpatrick  
*Director*

Tel: (804) 367-2323  
Fax: (804) 367-2391  
TDD: (804) 367-2386  
www.dhr.state.va.us

September 6, 2001

**Ms. Barbara Morgan**

DOE NEPA Document Manager  
Department of Energy  
Thomas Jefferson National  
Accelerator Facility Site Office  
12000 Jefferson Avenue  
Newport News, Virginia 23606

**Re:** Improvements to Thomas Jefferson National Accelerator Facility  
Newport News, Virginia  
DHR File Number 1992-2142

Dear Ms. Morgan:

Thank you for providing us with the additional information requested. Based on that information, the DHR concurs with the DOE that the proposed improvements to the Thomas Jefferson National Accelerator Facility will not effect historic properties.

Thank you again for consulting with us. If I can be of any further assistance, do not hesitate to contact me at (804) 367-2323 ext. 140 or lrichards@dhr.state.va.us.

Sincerely,

Lily A. Richards  
Archaeologist and Historian, Division of Resource Services and Review

Program Services Div.  
10 Courthouse Ave.  
Petersburg, VA 23803  
Tel: (804) 863-1685  
Fax: (804) 862-6196

Petersburg Office  
19-B Bollingbrook Street  
Petersburg, VA 23803  
Tel: (804) 863-1620  
Fax: (804) 863-1627

Portsmouth Office  
612 Court St, 3rd Fl.  
Portsmouth, VA 23704  
Tel: (757) 396-6707  
Fax: (757) 396-6712

Roanoke Office  
1030 Penmar Ave., SE  
Roanoke, VA 24013  
Tel: (540) 857-7585  
Fax: (540) 857-7588

Winchester Office  
107 N. Kent St., #203  
Winchester, VA 22601  
Tel: (540) 722-3427  
Fax: (540) 722-7535



**Department of Energy**  
Oak Ridge Operations Office  
Thomas Jefferson National  
Accelerator Facility Site Office  
12000 Jefferson Avenue  
Newport News, Virginia 23606

August 1, 2001

Department of the Army  
Norfolk District, Corps of Engineers  
ATTN: Ric hard Berg  
Regulatory Branch  
803 Front Street  
Norfolk, Virginia 23510

Dear Mr. Berg:

**REVIEW OF WETLAND DELINEATION SURVEY FOR THE THOMAS JEFFERSON  
NATIONAL ACCELERATOR FACILITY**

In accordance with our telephone conversation today, enclosed for your review is a copy of the "Wetland Delineation and Threatened and Endangered Species Survey" for the Thomas Jefferson National Accelerator Facility (Jefferson Lab) located in Newport News, Virginia. This survey was performed by Research, Environmental & Management Support (REMSA), Inc. In addition, I am enclosing a U.S.G.S. Topographic Map, aerial photograph, soil map, a colored site plan, and a black and white site plan marked to show you where the new building construction will be performed.

I would appreciate your review of this information to determine if there are any jurisdictional wetlands on our property. If you have any questions or need to visit the facility, please call me at 269-7139.

Sincerely,  
/s/  
Barbara M. Morgan  
ES&H Manager  
TJNAF DOE Site Office

Enclosures

cc: w/o  
enclosures R.  
Sundelin  
R. Sprouse  
L. Even

BMM:5440.1:ImpEA:8/1/01



**DEPARTMENT OF THE ARMY**  
NORFOLK DISTRICT, CORPS OF ENGINEERS  
FORT NORFOLK, 803 FRONT STREET  
NORFOLK, VIRGINIA 23510-1096

**REPLY TO**  
**ATTENTION OF:**

September 25, 2001

Western Virginia Regulatory Section  
01-R1917-29 (Brick Kiln Creek)

Department of Energy  
Oak Ridge Operations Office  
Thomas Jefferson National Accelerator  
Facility Site Office  
Attn: Barbara Morgan  
12000 Jefferson Avenue  
Newport News, Virginia 23606

Dear Ms. Morgan:

Robert Berg of my staff met with you on September 25, 2001 to examine a number of areas into which the expansion of existing buildings and construction of new buildings is proposed.

The proposed work, as shown on the Environmental Assessment Site Plan (enclosed), will not impact any areas within U.S. Army Corps of Engineers jurisdiction. No Department of the Army permit will be required for the proposed work. However, be aware that not all portions of the facility were examined and jurisdictional areas may exist on other portions of this property. Should any deviation from the above cited plan, or new work be proposed in the future, contact Robert Berg of my staff at (757) 441-7793 for advise on wetland matters.

Sincerely,

A handwritten signature in cursive script that reads "Michael A. Schwinn".

Michael A. Schwinn  
Chief, Western Virginia  
Regulatory Section



City of Newport News

**Department of Planning and Development**

2400 Washington Avenue • Newport News, VA 23607  
Planning (757) 926-8761 • Development (757) 926-8428  
Graphic Services (757) 926-8881 • Harbor Master (757) 247-8437

RECEIVED  
DOE/TJNAF

FAX (757) 926-3504

01 APR 31 PM 3:31

April 25, 2001

Department of Energy

Garry Conley

12000 Jefferson Avenue  
Newport News, VA 23606

Dear Mr. Conley:

The property located at 12000 Jefferson Avenue contain neither Chesapeake Bay Resource Protection nor Resource Management features. It, therefore, does not fall under the purview of the Chesapeake Bay Protection Act.

Sincerely,

David Watson  
Environmental Planner



# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

James S. Gilmore, III  
Governor  
  
John Paul Woodley, Jr.  
Secretary of Natural Resources

Street address: 629 East Main Street, Richmond, Virginia 23219  
Mailing address: P.O. Box 10009, Richmond, Virginia 23240  
Fax (804) 698-4500 TDD (804) 698-4021  
<http://www.deq.state.va.us>

Dennis H. Treacy  
Director  
  
(804) 698-4000  
1-800-592-5482

December 17, 2001

Mr. Jerry M. Conley, Site Manager  
Thomas Jefferson National Accelerator Facility Site Office  
U.S. Department of Energy  
12000 Jefferson Avenue  
Newport News, Virginia 23606

RE: Draft Environmental Assessment, Improvements at the Thomas Jefferson National Accelerator Facility ("TJNAF" or "Jefferson Lab"), Newport News, Virginia (DOE/EA-1384)  
DEQ-01-205F

Dear Mr. Conley:

The Commonwealth of Virginia has completed its review of the Environmental Assessment for the above project. The Department of Environmental Quality is responsible for coordinating Virginia's review of federal environmental documents and responding to appropriate federal officials on behalf of the Commonwealth. The following agencies participated in this review:

- Department of Environmental Quality
- Department of Game and Inland Fisheries
- Department of Agriculture and Consumer Services
- Department of Conservation and Recreation
- Department of Transportation
- Marine Resources Commission
- Department of Historic Resources
- Department of Mines, Minerals, and Energy
- Department of Forestry
- Chesapeake Bay Local Assistance Department.

In addition, the Hampton Roads Planning District Commission and the City of Newport News were invited to comment.

*An Agency of the Natural Resources Secretariat*

B-18

Mr. Jerry M. Conley

### Project Description

The Department of Energy (DOE) proposes to construct several buildings and building additions in the Jefferson Lab complex along Jefferson Avenue (state Route 143) in the City of Newport News. The individual projects include:

- as many as four additions, totaling 151,000 square feet, to the main CEBAF Center administration building. Each would have two or three floors, and approximately 81,000 square feet of parking area and access roads would be provided;
- one Refrigeration Support Building, total disturbance about 5,000 square feet;
- a one-story Technical Support Building, with an access ramp and 25 additional parking spaces and a "material lay-down area." This part of the project would involve moving 400 feet of the security fence about 20 feet outward. It would disturb about 54,000 square feet;
- a one-story Accelerator Site Storage Building, built in two phases, disturbing about 30,000 square feet of land; and
- A two-story addition to the PEL (Free Electron Laser) Building, including a new driveway and about 14 parking spaces, covering approximately 25,000 square feet. This building is to house a Helios particle beam accelerator, which may generate "small quantities of radioactivity" and also NOx and ozone.

(See Draft EA, pages 12-13, sections 2.2.1 through 2.2.5; page 40, section 4.5.1.7)

### Environmental Impacts and Mitigation

*1. Air Quality Impacts.* The DEQ's Division of Air Programs Coordination indicates that the project site is located within an ozone maintenance area, and recommends that precautionary measures be employed to reduce ground-level ozone concentrations, especially during ozone alert days. This can be done by minimizing the generation of ozone precursors such as volatile organic compounds (VOC) and nitrogen oxides (NOx) during operation of construction equipment and vehicles. Any access roads, parking lots/garage, ingress/egress, or interchanges/intersections should be designed and constructed so as to avoid or minimize traffic congestion and/or unnecessary localized vehicular idling. Precautions relative to NOx and ozone are also important because of the operation of the Helios machine, which is likely to emit both pollutants, in the proposed FEL Addition (EA, page 13, section 2.2.5 and page 40, section 4.5.1.7).

During construction, fugitive dust must be kept at a minimum by using control methods outlined in 9 VAC 5-50-60 et seq. of the Regulations for the Control and Abatement of Air Pollution. These precautions include, but are not limited to, the following:

- Use, where possible, of water or chemicals for dust control;
- Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials;
- Covering of open equipment for conveying materials; and
- Prompt removal of spilled or tracked dirt or other materials from paved streets, and of dried sediments resulting from soil erosion.

(See the Regulations, 9 VAC 5-50-90.)

One or more of the buildings in this project may include heating facilities or other fuel-burning equipment. DOE staff should contact the DEQ's Tidewater Regional Office to determine the application of air permitting requirements to this project; see "Regulatory and Coordination Needs," item 1, below.

2. *Natural Heritage and Wildlife Resources.* According to the Department of Conservation and Recreation and the Department of Game and Inland Fisheries, the canebrake rattlesnake (*Crotalus horridus atricaudatus*), a state-listed endangered species, has been documented in close proximity to the project area. The canebrake rattlesnake inhabits hardwood and mixed hardwood-pine forests, cane thickets, and the ridges and glades of swampy areas. These snakes are generally terrestrial and feed on a variety of small animals. The species is widespread throughout the Southeast, but the northern limit of its range is in Virginia, where it is known in only six counties. Primary threats to the species are loss of habitat due to development and also persecution. Based on the scope of the project, the amount of disturbance existing on the property, and the minimal disturbance to potential habitat for this species, the Department of Game and Inland Fisheries does not anticipate that the project will have significant adverse impacts upon the canebrake rattlesnake. However, if one is observed during construction, DOE staff should contact that Department. See "Regulatory and Coordination Needs," item 2, below.

The Department of Agriculture and Consumer Services, which has responsibility for state-listed endangered and threatened plant and insect species, anticipates no adverse impacts to such species from this project.

3. *Chesapeake Bay Preservation Areas.* According to the Chesapeake Bay Local Assistance Department (CBLAD), the graphics in the Draft EA do not provide the detail

necessary for verification of any Chesapeake Bay Preservation Areas in the project area. Accordingly, CBLAD staff scaled the location of the proposed construction onto a U.S. Geological Survey topographic map of the Newport News North quadrangle. From this analysis, it appears that the existing buildings may have previously obliterated a perennial stream, ponds, and any wetlands associated with them. If so, CBLAD would agree with DOE that there do not appear to be any Resource Protection Areas (RPA, the more restrictive of two categories of Chesapeake Bay Preservation Areas) on the property (Draft EA, page 30, section 4.4.1 and Appendix B, page B-17). However, CBLAD recommends that DOE conduct a site-specific survey to verify whether any RPA features (including the 100-foot buffer) exist on the property affected by the new buildings, or the property adjacent to it. This applies particularly to the Accelerator Site Storage Building (Phases 1 and 2) and the Technical Support Building.

"RPA features" in Newport News include the following:

- tidal wetlands;
- non-tidal wetlands which are connected by surface flow and contiguous to tidal wetlands or to perennial tributary streams;
- tidal shores;
- a 100-foot vegetated buffer area adjacent to and landward of the other RPA features.

"RPA features" in Newport News do not include man-made watercourses such as any ditch, canal, drain, or culvert; or a waterbody used in a system to achieve stormwater management either by detention or retention of stormwater runoff.

Resource Management Areas (RMAs, the less restrictive category of Chesapeake Bay Preservation Areas) in Newport News include:

- all lands within 100 feet landward of the landward boundary of the RPA buffer;
- all land containing slopes greater than 15%;
- all areas within the 100-year floodplain;
- highly erodible soils.

In this regard, CBLAD notes that soil types in the areas to be disturbed include Chickahominy silt loam. This soil has a K factor of 0.37, which is in a range considered highly erodible. It appears, accordingly, that some RMA features do exist on the property.

Mr. Jerry M. Conley  
December 17, 2001  
Page 5

In order to be consistent with the Chesapeake Bay Preservation Act (*Virginia Code* sections 10.1-2100 et seq.), DOE must demonstrate that its project activities address the performance criteria in the Chesapeake Bay Preservation Area Designation and Management Regulations (9 VAC 10-20-10 et seq.). According to descriptions in the Draft EA (pages 12-13, sections 2.2.1 through 2.2.5), approximately 8 acres of existing vegetated land will be disturbed, and yet the Draft EA does not state how stormwater will be managed. The discussion of stormwater control on page 24 (section 3.4.2.1.3) is vague. However, unless runoff from the new development is collected and treated through a water quality Best Management Practice, it is unlikely that these buildings will meet the stormwater quality criteria of the Regulations. Accordingly, CBLAD recommends that DOE document consistency with the performance standards of the Regulations. See "Regulatory and Coordination Needs," item 3, below.

*4. Solid and Hazardous Waste Management.* The Draft EA mentioned some potential solid and hazardous waste contamination issues, such as buffered chemical polish, but the Draft EA did not include a search of environmental data bases. A full environmental investigation should be conducted before construction begins, according to the DEQ's Office of Remedial Programs, in order to ensure that there are no unaddressed waste or contamination issues. The Office of Remedial Programs conducted a cursory review of its data files and found no additional contamination sites.

Any soil that is suspected of contamination, and any wastes generated, must be tested and disposed of in accordance with the Virginia Hazardous Waste Management Regulations (9 VAC 20-60 et seq.) and the Virginia Regulations for the Transportation of Hazardous Materials (9 VAC 20-110 et seq.). Other federal and state regulations may also apply, since the Jefferson Lab is also a small-quantity generator of hazardous waste. Liquid hazardous wastes will be located on the property after construction, so the Spill Prevention, Control, and Countermeasures provisions of Title 40, Code of Federal Regulations, Part 112 must also be followed.

With regard to solid wastes, DEQ recommends that they be reduced at the source, re-used, and recycled to the greatest extent practicable.

*5. Water Quality and Wetlands.* According to the Draft EA (page 25, section 3.4.2.1.5), the Army Corps of Engineers has reviewed a recent wetland delineation and confirmed that these buildings will not affect any wetlands. For this reason and because there will be no direct stream impacts, a Virginia Water Protection Permit will not be required for this project. In general, DEQ's Virginia Water Protection Program recommends use of appropriate erosion and sediment control measures and careful construction practices to minimize project impacts upon state waters.

B-18 (cont.)

Mr. Jerry M. Conley  
December 17, 2001

6. *Erosion and Sediment Control; Stormwater Management.* Executive Order 12088, "Federal Compliance with Pollution Control Standards and the Sykes Act," authorizes cooperation between state and federal agencies regarding the conservation of natural resources. Compliance with the state Erosion and Sediment Control and Stormwater Management programs through proper design and implementation is consistent with the mandate of these federal directives. Notwithstanding cooperation with the Department of Conservation and Recreation, federal agencies are responsible for ensuring compliance with the state program on regulated activities under their authority through separate agreements with contractors, training, field inspection, enforcement action, or other means that are consistent with agency policy and federal and state mandates. See "Regulatory and Coordination Needs," item 5, below.

7. *Historic and Archaeological Resources.* This project will not affect any historic properties, according to the Department of Historic Resources. This conclusion is based on an earlier request for information, and satisfactory fulfillment of that request (see Draft EA, Appendix B, letters on pages B-12 through B-14).

8. *Recreation Resources.* The Department of Conservation and Recreation has indicated that the proposed project will not affect any streams on the National Park Service Nationwide Inventory, Final List of Rivers, or existing or potential State Scenic Rivers. Nor will the project affect existing or potential State Scenic Byways.

9. *Pesticides and Herbicides.* If pesticides or herbicides must be used, their use should be strictly in accordance with manufacturers' recommendations. In addition, we recommend that DOE use the least toxic herbicides or pesticides effective for landscape maintenance. Products containing volatile organic compounds as their active ingredient should be avoided in order to protect air quality. For more information on this subject, please contact the Department of Agriculture and Consumer Services (telephone (804) 786-3501).

10. *Transportation Impacts.* This project will not affect existing or planned transportation facilities.

11. *Forest and Tree Protection.* In order to protect trees on the DOE property from the effects of this project, DOE should mark and fence them at least to the drip line or the end of the root system, whichever extends farther from the tree stem. Marking should be done with highly visible ribbon so that equipment operators see the protected areas easily. Parking and stacking of heavy equipment and construction materials near trees can damage root systems by compacting the soil. Soil compaction, from weight or vibration, affects root growth, water and nutrient uptake, and gas exchange. The protection measures suggested above should be used for parking and stacking as well as

for moving of equipment and materials. If parking and stacking are unavoidable, DOE should use temporary crossing bridges or mats to minimize soil compaction and mechanical injury to plants.

Any stockpiling of soil, such as from the trenches for the water lines, should take place away from trees. Piling soil at a tree stem can kill the root system of the tree. Soil stockpiles should be covered, as well, to prevent soil erosion and fugitive dust (see item 2, above).

Questions on tree protection may be directed to the Department of Forestry (Mike Foreman, telephone (804) 977-6555).

*12. Pollution Prevention.* The DEQ advocates that principles of pollution prevention be used in all construction projects as well as in facility operations. Effective siting, planning, and on-site Best Management Practices (BMPs) will help to ensure that environmental impacts are minimized. However, pollution prevention techniques also include decisions related to construction materials, design, and operational procedures that will facilitate the reduction of wastes at the source. We have several pollution prevention recommendations that may be helpful in constructing or operating this project:

- Consider development of an effective Environmental Management System (EMS). An effective EMS will ensure that the proposed facility is committed to minimizing its environmental impacts, setting environmental goals, and achieving improvements in its environmental performance. DEQ offers EMS development assistance and recognizes facilities with effective Environmental Management Systems through its Virginia Environmental Excellence Program.
- Consider designs, techniques, and technologies that will facilitate the re-circulation and re-use of waters used for cooling and steam generation. These techniques can save money by minimizing intake and treatment needs.
- Consider environmental attributes when purchasing materials. For example, the extent of recycled material content, toxicity level, and amount of packaging should be considered and can be specified in purchasing contracts.
- Consider contractors' commitment to the environment (such as an EMS) when choosing contractors. Specifications regarding raw materials and construction practices can be included in contract documents and requests for proposals.

Mr. Jerry M. Conley

December 17, 2001

Page 8

- Choose sustainable materials and practices for infrastructure and building construction and design. These could include asphalt and concrete containing recycled materials, and integrated pest management in landscaping, among other things.
- Integrate pollution prevention techniques into the facility maintenance and operation, to include the following: inventory control (record-keeping and centralized storage for hazardous materials), product substitution (use of non-toxic cleaners), and source reduction (fixing leaks, energy-efficient HVAC and equipment). Maintenance facilities should be designed with sufficient and suitable space to allow for effective inventory control and preventive maintenance.

DEQ's Office of Pollution Prevention provides free information and technical assistance relating to pollution prevention techniques and EMS. If interested, DOE may contact that Office (Tom Griffin, telephone (804) 698-4545).

#### Regulatory and Coordination Needs

*1. Air Quality Regulation.* As indicated above, one or more heating facilities, or other fuel-burning equipment, may require an air permit, pursuant to the Regulations for the Control and Abatement of Air Pollution, 9 VAC 5-80-10. In addition, if any open burning of land-clearing or other debris is contemplated as part of project construction, an open burning permit will be required, pursuant to 9 VAC 5-40-5600 *et seq.* in the Regulations. Both of these permit programs are administered by the DEQ's Tidewater Regional Office. Questions on permit applicability may be addressed to that Office (Jane Workman, Air Permits Manager, telephone (757) 518-2112).

*2. Endangered Species Protection.* To ensure compliance with endangered species legislation, DOE staff should contact the Department of Game and Inland Fisheries (Ray Fernald, telephone (804) 367-6913) if a canebrake rattlesnake is encountered.

*3. Chesapeake Bay Preservation Act Compliance.* The Chesapeake Bay Local Assistance Department (CBLAD) offers to discuss these buildings further with DOE or its project manager, in order to help DOE achieve and maintain compliance with the performance standards of the Chesapeake Bay Preservation Area Designation and Management Regulations (see the discussion in "Environmental Impacts and Mitigation," item 3, above). We recommend that DOE contact CBLAD (Catherine Harold, telephone (804) 371-7501) to begin this consultation,

Mr. Jerry M. Conley  
December 17, 2001  
Page 9

4. *Water Quality Regulation.* Because the project will disturb 5 acres or more of land area (see "Environmental Impacts and Mitigation; item 3, above), there may be a need for a Virginia Pollutant Discharge Elimination System (VPDES) Stormwater General Permit. DOE should consult with the DEQ's Tidewater Regional Office (Sheri Kattan, telephone (757) 518-2156) to determine whether its existing VPDES Stormwater Permit needs modification.

5. *Erosion and Sediment Control and Stormwater Management Plans; Compliance.* Advice on meeting requirements for erosion and sediment control and for Stormwater management may be obtained by contacting the Department of Conservation and Recreation's Chowan-Albemarle Watersheds Office (Ernie Brown, telephone (757) 925-2468).

6. *Radiological Health Considerations.* We recommend that DOE consult with the Radiological Health Division of the Virginia Department of Health (Les Foldesi, telephone (804) 786-5932) in order to more effectively address questions of radiological health associated with this project (see Draft EA, pages 37-41, section 4.5).

7. *Federal Consistency under the Coastal Zone Management Act.* The Virginia Coastal Resources Management Program is comprised of a network of programs administered by several agencies. In order to be consistent with the VCP, the DOE must obtain all the applicable permits and approvals listed under the Enforceable Programs of the VCP prior to commencing the project. Based on the commitments provided in the consistency determination that DOE will obtain and comply with all approvals from agencies administering the applicable enforceable policies (Draft EA, pages 30-31, section 4.4.1), and subject to the guidance given by the Chesapeake Bay Local Assistance Department (item 3, above), we concur with the finding that this proposal is consistent with the VCP. Questions on federal consistency may be directed to DEQ's Office of Environmental Impact Review (Charles Ellis, telephone (804) 698-4488).

8. *Local Government Coordination.* The City of Newport News expects to reply directly to you concerning this Draft EA.

Thank you for the opportunity to review this project.

Sincerely,



Michael P. Murphy, Director  
Division of Environmental Enhancement

Mr. Jerry M. Conley  
December 17, 2001  
Page 10

Enclosures

cc: Catherine M. Harold, CBLAD  
Sheryl A. Kattan, DEQ-TRO  
Derral Jones, DCR  
Keith R. Tignor, DACS  
Alan D. Weber, VDH  
Leslie P. Foldesi, VDH  
K. S. Narasimhan, DEQ-DAPC-OADA  
Thomas D. Modena, DEQ-DWPC-ORP  
Carolyn Browder, DEQ-VWPP  
Angel N. Deem, VDOT  
Raymond T. Fernald, DGIF  
Lily A. Richards, DHR  
J. Michael Foreman, DOF  
Eugene K. Rader, DMME  
R. B. Stagg, MRC  
Deborah Ossa, City of Newport News  
Shonia Holloway, Hampton Roads PDC



Tel (757) 926-8611

## City of Newport News

Department of Engineering  
2400 Washington Avenue  
Newport News, Virginia 23607



Fax (757) 926-8300

OFFICE OF THE DIRECTOR

December 20, 2001

Mr. Charles H. Ellis, III  
Department of Environmental Quality  
Office of Environmental Impact Review  
629 East Main Street, Sixth Floor  
Richmond VA 23219

Re: Improvements to the Thomas Jefferson National Accelerator Facility Newport  
News, VA; Project Number: 01-205F

Dear Mr. Ellis:

The October 2001 draft Environmental Assessment (EA) for the referenced project does not clearly or adequately address stormwater quantity control issues for the site. In Section 3.4.2.1.3 there appears to be conflicting statements as to exactly how, when and to what extent the resulting impacts to both on- and off-site storm drainage facilities will be evaluated and/or mitigated.

The original TJNAF site plan included an onsite retention system that was never built. Instead, manually controlled floodgates were installed on the two outlet pipes that serve the entire 160+ acre facility. The need for stormwater retention in this area of the City has long been established as evidenced in the surrounding developments. The Oyster Point Business Park to the south has a combination pond/canal retention system and the proposed Jefferson Center Development to the north will be required to install two retention ponds to handle planned improvements.

It is requested that a comprehensive evaluation of stormwater quantity control requirements be included as a prerequisite to proposed improvement at the TJNAF. This evaluation should determine the effectiveness, reliability, and operational guidelines for the manually controlled floodgates; and whether stormwater retention can be adequately handled on-site or incorporated with planned offsite retention in the Jefferson Center Development.

Should you have any questions please contact Lambert Logan at 926-8314.

Sincerely,  
  
Mostafa A. Sabbah, Ph.D., P.E.  
Director of Engineering

MAS:LBL:mcm

cc: Director of Planning & Development, P. Miller  
Director of Public Works, R. Fowler  
HRPDC, Shonia Holloway



**HAMPTON ROADS**

PLANNING DISTRICT COMMISSION

SHEILA S. NOLL, CHAIRMAN, LOUIS R. JONES, VICE-CHAIRMAN, MYLES E. STANDISH, TREASURER

Arthur Collins, Executive Director/Secretary

December 20, 2001

Mr. Charles H. Ellis III  
Department of Environmental Quality  
Office of Environmental Impact Review  
629 East Main Street, Sixth Floor  
Richmond, Virginia 23219

Re: Improvements to the Thomas  
Jefferson National

Facility, Newport News, Virginia,  
**DEQ#01-205F (ENV:GEN)**

Accelerator

Dear Mr. Ellis:

Pursuant to your request of November 13, 2001, the staff of the Hampton Roads Planning District Commission has reviewed the Improvements to the Thomas Jefferson National Accelerator Facility, Newport News, Virginia. We have contacted the City of Newport News concerning the project.

The City of Newport News is concerned that the proposed stormwater quantity controls mitigation does not adequately address the issues for this site. Past measures to implement an onsite retention system were substituted with manually controlled floodgates on only two outlet pipes that service the entire site. This area of the City has historically demonstrated the need for effective stormwater control measures. Other surrounding developments have or will require onsite retention systems to handle current and planned development. We recommend that the applicant coordinate with the City to develop a comprehensive evaluation of stormwater quantity control measures that address these issues.

We appreciate the opportunity to review this project. If you have any questions, please do not hesitate to call.

Sincerely,

Arthur L Collins  
Executive Director/Secretary

SMH:fh

Cc: Dr. Mostafa A. Sabbah, P.E., NN  
Mr. Jerry M. Conley, TJNAF

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Debbie Ritter, Council Member  
William E. Ward, Mayor

**FRANKLIN**

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Administrator  
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**WILLIAMSBURG**

Jackson C. Turtle, II, City Manager  
Jeanne Zeldar, Mayor

**YORK COUNTY**

Sheila S. Noll, Board Member



**Department of Energy**  
Oak Ridge Operations Office  
Thomas Jefferson National  
Accelerator Facility Site Office  
12000 Jefferson Avenue  
Newport News, Virginia 23606

MEMORANDUM TO FILE

DATE: May 3 1.2002

FROM: Barbara M. Morgan /s/  
NEPA Document Manager

**SUBJECT: CLOSURE OF COMMENTS FROM THE VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY, HAMPTON ROADS PLANNING DISTRICT COMMISSION, AND THE CITY OF NEWPORT NEWS DRAFT ENVIRONMENTAL ASSESSMENT FOR THE THOMAS JEFFERSON NATIONAL ACCELERATOR FACILITY**

This Memorandum documents that the comments received from the Virginia Department of Environmental Quality, the Hampton Roads Planning District Commission, and the City of Newport News on the Thomas Jefferson National Accelerator Facility's draft Environmental Assessment (EA) have been addressed and coordinated with each commenter. Each commenter or a representative from their organization was contacted regarding the actions that were taken to address their comments. Follow-up correspondence documenting the changes made to the EA to address each of the commenter's input was faxed or emailed to them for review. All commenters found the changes to be acceptable.

This memorandum is included in the EA in lieu of the follow-up correspondence addressing comments. If anyone would like to review the letters, please make a request to:

Department of Energy  
Jefferson Lab Site  
Office  
ATTN: Barbara  
Morgan  
12000 Jefferson  
Avenue  
Newport News, VA  
23606