



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET, SW, SUITE 23T85
ATLANTA, GEORGIA 30303-8931

January 11, 2008

Mr. J.A. "Buzz" Miller, Senior Vice President
Southern Nuclear Operating Company, Inc.
40 Iverness Center Parkway
Post Office Box 1295
Birmingham, AL 35201

SUBJECT: SITE VISIT TO VOGTLE TO OBSERVE TEST PAD ACTIVITIES TO SUPPORT
EARLY SITE PERMIT, LIMITED WORK AUTHORIZATION, AND COMBINED
LICENSE PRE-APPLICATION ACTIVITIES (PROJECT NO. 755)

Dear: Mr. Miller,

On December 10-11, 2007, Region II inspectors conducted a site visit at the Vogtle site accompanied by members of the Office of New Reactors (NRO) staff. The purpose of this site visit was to observe activities related to the construction and testing of a compacted soil test pad, which will be used to validate early site permit (ESP) application and combined license (COL) pre-application geotechnical/seismic data. The NRC staff's observations will provide background information for the NRC's on-going review of the ESP application and future review of the expected COL application for Vogtle Units 3 and 4.

Enclosed is a summary of the site visit, which includes a list of NRC participants and persons with whom discussions were held.

Sincerely,

/RA/

Mark S. Lesser, Chief
Construction Inspection Branch 1
Division of Construction Inspection

Project No. 755

Enclosure: As stated

cc: w/encl: (See next page)

January 11, 2008

Mr. J.A. "Buzz" Miller, Senior Vice President
Southern Nuclear Operating Company, Inc.
40 Iverness Center Parkway
Post Office Box 1295
Birmingham, AL 35201

SUBJECT: SITE VISIT TO VOGTLE TO OBSERVE TEST PAD ACTIVITIES TO
SUPPORT EARLY SITE PERMIT, LIMITED WORK AUTHORIZATION,
AND COMBINED LICENSE PRE-APPLICATION ACTIVITIES (PROJECT
NO. 755)

Dear: Mr. Miller,

On December 10 and 11, 2007, Region II inspectors conducted a site visit at the Vogtle site accompanied by members of the Office of New Reactors (NRO) staff. The purpose of this site visit was to observe activities related to the construction and testing of a compacted soil test pad, which will be used to validate early site permit (ESP) application and combined license (COL) pre-application geotechnical/seismic data. The NRC staff's observations will provide background information for the NRC's on-going review of the ESP application and future review of the expected COL application for Vogtle Units 3 and 4.

Enclosed is a summary of the site visit, which includes a list of NRC participants and persons with whom discussions were held.

Sincerely,

/RA/

Mark S. Lesser, Chief
Construction Inspection Branch 1
Division of Construction Inspection

Project No. 755

Enclosure: As stated

cc: w/encl: (See next page)

☒ PUBLICLY AVAILABLE ☐ NON-PUBLICLY AVAILABLE ☐ SENSITIVE ☒ NON-SENSITIVE

ADAMS: ☒ Yes ACCESSION NUMBER: ML080110651

OFFICE	RII:DCI	HQ:NRO					
SIGNATURE	JDF	CA via email					
NAME	J. Fuller	C. Araguas					
DATE	1/ /2008	1/ /2008					
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

OFFICIAL RECORD COPY
FULLER

DOCUMENT NAME: G:\CIP\INSPECTION REPORTS\NEW REACTORS\VOGTLE\SITE VISIT -
DEC 2007.DOC

cc w/encl:

Attorney General
Law Department
132 Judicial Building
Atlanta, GA 30334

Mr. Laurence Bergen
Oglethorpe Power Corporation
2100 East Exchange Place
P.O. Box 1349
Tucker, GA 30085-1349

Mr. M. Stanford Blanton
Esquire
Balch and Bingham, LLP
P.O. Box 306
Birmingham, AL 35201

Ms. Michele Boyd
Legislative Director
Energy Program
Public Citizens Critical Mass Energy
and Environmental Program
215 Pennsylvania Avenue, SE
Washington, DC 20003

W. Craig Conklin, Director
Chemical and Nuclear Preparedness &
Protection Division (CNPPD)
Office of Infrastructure Protection
Department of Homeland Security
Washington, DC 20528

County Commissioner
Office of the County Commissioner
Burke County Commission
Waynesboro, GA 30830

O. C. Harper, IV
Vice President - Resources Planning and
Nuclear Development
Georgia Power Company
241 Ralph McGill Boulevard
Atlanta, GA 30308

Mr. James Davis
ESP Project Engineer
Southern Nuclear Company
PO Box 1295, BIN B056
Birmingham, AL 35201

Director
Consumer's Utility
Counsel Division
Governor's Office of Consumer Affairs
2 Martin Luther King, Jr. Drive
Plaza Level East, Suite 356
Atlanta, GA 30334-4600

Mr. Arthur H. Dombey, Esquire
Troutman Sanders
Nations Bank Plaza
600 Peachtree Street, NE
Suite 200
Atlanta, GA 30308-2216

Mr. Marvin Fertel
Senior Vice President
and Chief Nuclear Officer
Nuclear Energy Institute
1776 I Street, NW
Suite 400
Washington, DC 20006-3708

Mr. Jeffrey T. Gasser
Executive Vice President
Southern Nuclear Operating Company, Inc.
P.O. Box 1295
Birmingham, AL 35201-1295

Mr. Charles R. Pierce
Vogtle Deployment Licensing Manager
Southern Nuclear Operating Co. Inc.
P.O. Box 1295
Birmingham, AL 35201-1295

cc w/encl cont'd: (See page 3)

cont'd:

Mr. Steven M. Jackson
Senior Engineer - Power Supply
Municipal Electric Authority of Georgia
1470 Riveredge Parkway, NW
Atlanta, GA 30328-4684

Mr. Louis B. Long
Vice President Technical Support
Southern Nuclear Operating Company, Inc.
P.O. Box 1295
Birmingham, AL 35201-1295

Mr. Reece McAlister
Executive Secretary
Georgia Public Service Commission
Atlanta, GA 30334

Mr. Thomas O. McCallum
Site Development Project Engineer
Southern Nuclear Operating Co., Inc.
PO Box 1295
Birmingham, AL 35201-1295

Mr. Thomas Moorer
Environmental Project Manager
Southern Nuclear Operating Co., Inc
PO Box 1295
Birmingham, AL 35201-1295

Bentina C. Terry
Southern Nuclear Operating Company, Inc.
PO Box 1295, BIN B-022
Birmingham, AL 35201-1295

Vanessa E. Quinn, Acting Director
Technological Hazards Division
National Preparedness Directorate
Federal Emergency Management Agency
500 C Street, NW
Washington, DC 20472

Resident Inspector
Vogtle Plant
8805 River Road
Waynesboro, GA 30830

Resident Manager
Oglethorpe Power Corporation
Alvin W. Vogtle Nuclear Plant
7821 River Road
Waynesboro, GA 30830

Mr. Jerry Smith
Commissioner
District 8
Augusta-Richmond County Commission
1332 Brown Road
Hephzibah, GA 30815

Mr. Robert E. Sweeney
IBEX ESI
4641 Montgomery Avenue
Suite 350
Bethesda, MD 20814

cc email distribution w/encl:

Adrian Heymer
Anne W. Cottingham
Steve A. Bennett
Charles Brinkman
Chris Maslak
C.R. Pierce
C. Waltman
David Hinds
David Lewis
David Lochbaum
Eddie R. Grant
Frank Quinn
James Gresham
James Beard
Jay M. Gutierrez
James Riccio
Jim Warren
James J. Nesrsta
John O'Neil
Joseph Savage
Joseph Hegner
Kathryn M. Sutton
Kenneth O. Waugh
Margaret Bennet
Maria Webb
Mark Beaumont
Matias Travieso-Diaz
Moanica Caston
Scott Peterson
Mike Moran
Michael Mariotte
Patricia L. Campbell
Paul Gaukler
Paul Gunter
Paul Hinnenkamp
Peter Hastings
Russell Bell
R.K. Temple
Roberta Swain
Ronald Hagen
Sandra Sloan
Stephen P. Frantz
Steven Hucik
Tom McCallum
Bill Victor
Rosemarie E. Waraks

Letter to J.A. Miller from Mark S. Lesser dated January 11, 2008

SUBJECT: SITE VISIT TO VOGTLE TO OBSERVE TEST PAD ACTIVITIES TO SUPPORT
EARLY SITE PERMIT, LIMITED WORK AUTHORIZATION, AND COMBINED
LICENSE PRE-APPLICATION ACTIVITIES (PROJECT NO. 755)

Distribution w/encl:

M. Lesser, DCI, RII

C. Araguas, NRO

J. George, NRO

Z. Cruz-Perez, NRO

G. McCoy, SRI Vogtle

PUBLIC

OBSERVATION OF TEST PAD ACTIVITIES
TO SUPPORT EARLY SITE PERMIT, LIMITED WORK AUTHORIZATION,
AND COMBINED LICENSE PRE-APPLICATION ACTIVITIES
FOR VOGTLE UNITS 3 AND 4 (PROJECT NO. 755)

Purpose of Site Visit:

A site visit was conducted on December 10 and 11, 2007 by Nuclear Regulatory Commission (NRC) Region II and Office of New Reactors (NRO) staff. NRC inspectors observed and reviewed activities related to the construction and testing of a compacted soil test pad to support combined license (COL) pre-application geotechnical and seismic data for Vogtle Units 3 and 4. Although this visit was not an official NRC inspection the inspectors used NRC Inspection Procedure 45051, "Geotechnical/Foundation Activities Procedure Review," as guidance.

Because data collected from this test pad will be used to support licensing activities for Vogtle Units 3 and 4, this visit served to ascertain whether the applicant's activities were being appropriately controlled in accordance with their quality assurance program.

Principal Persons Contacted:

T. McCallum, Southern Nuclear Company
F. Page, Project Manager, Southern Nuclear Company
J. Lynch, QA Manager, MACTEC
J. Giddens, QA Manager, Southern Nuclear Company
A. Lancaster, MACTEC

NRC Inspector:

J. Fuller, Sr. Construction Inspector

NRC Accompanying Personnel:

C. Araguas, Project Manager, NRO
J. George, Geotechnical Reviewer, NRO
C. Costantino, NRO Contractor
Z. Cruz-Perez, Geotechnical Reviewer, NRO

Enclosure

Background:

By letter dated July 17, 2006, Southern Nuclear Operating Company (SNC) informed the NRC staff that it had selected the Vogtle site to be the subject for a COL application, with plans to submit the application in March 2008. A COL is a combined construction permit and operating license with conditions for a nuclear power facility pursuant to 10 CFR Part 52 Subpart C. Additionally, by letter dated May 3, 2007, SNC submitted Revision 2 to their Early Site Permit (ESP) application, and in letter dated August 15, 2007, SNC submitted a supplement to the ESP application for authority to perform selected construction activities described in 10 CFR 50.10(e)(3) (LWA-2).

Overview of Test Pad Construction Activities Discussed and/or Observed:

The NRC staff observed and reviewed the construction and testing of a compacted soil test pad near the future site of Vogtle Units 3 and 4. The final test pad will not be used as part of the physical foundation for any safety-related structure, and therefore these activities are not considered construction activities as defined by 10 CFR Part 52. The test pad construction is designed to simulate the compaction process for a production backfill operation in accordance with specification and quality assurance program requirements. The data collected from the test pad will be used to support licensing activities related to the current ESP and future COL applications.

The test pad construction and testing has been divided into two phases. The NRC staff was on-site during phase 1 activities and confirmed that phase 2 activities are scheduled for early 2008. The purpose of the phase 1 program is to provide soil properties representative of backfill properties for the new units, on a schedule that will support NRC staff review activities for the ESP and LWA. The phase 2 program will include an investigation of backfill placement techniques and variability of the onsite soils to determine site-specific procedures for Vogtle 3 and 4 backfill placements.

Testing Observed:

The NRC staff observed test pad construction activities including the placement and compaction of backfill including surveying activities associated with controlling the lift thickness. The NRC staff also observed a sample of backfill testing activities such as: in place field density testing by the Sand Cone Method, moisture tests using oven heating and direct heating, gradation tests, soil classification, and Modified Proctor maximum dry density compaction tests. The NRC also observed a demonstration of spectral analysis of surface waves (SASW) testing activities.

The NRC staff observed that the construction and testing of the compacted soil test pad were being performed in accordance with Work Procedure ND-ARL-014, Engineered Fill Test Pad Phase 1 Activities, Version 2.0 and Specification SV0-SSAR-XGS-001, Specification for Engineered Fill Below-Grade Test Pad for Vogtle Electric Generating Plant - Units 3 & 4, Version 2.0.

The NRC staff did make three quality assurance related observations that the applicant entered in their corrective action program. None of these observations had any technical impact to the data being collected. Therefore, through observation and review of test pad related activities

and through discussions with appropriate project personnel the NRC staff concluded that test pad activities were being adequately controlled with an appropriate level of supervisory and quality assurance oversight and in accordance with procedural requirements, applicable ASTM standards, and other industry standards.

Overview of Discussions with SNC on the Limited Work Authorization Request (LWA)

The staff discussed with SNC its proposed responses to the October 26, 2007, request for additional information letter, which were generated as a result of the NRO staff's review of the LWA supplement. The staff informed SNC that any questions that resulted from these discussions would be included in the upcoming request for information letter.