



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II**
245 PEACHTREE CENTER AVENUE NE, SUITE 1200
ATLANTA, GEORGIA 30303-1257

December 22, 2010

Mr. Tom E. Tynan
Vice President - Vogtle
Southern Nuclear Operating Company, Inc.
Vogtle Electric Generating Plant
7821 River Road
Waynesboro, GA 30830

**SUBJECT: PUBLIC MEETING SUMMARY – ISFSI PLANS - VOGTLE ELECTRIC
GENERATING PLANT DOCKET NOS.: 50-424 and 50-425**

Dear Mr. Tynan:

This refers to the meeting conducted at your staff's request at the Region II Office in Atlanta, Georgia, on December 15, 2010 at 1:30 p.m. The meeting's purpose was to discuss plans to construct and operate an Independent Spent Fuel Storage Installation (ISFSI) at the Vogtle Electric Generating Plant. Enclosed is a list of attendees and a copy of the slides presented at the meeting.

Vogtle representatives presented an overview of current spent fuel storage status and plans for long term spent fuel storage. The meeting did not result in specific action items or decisions.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room (PDR) or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room) Should you have any questions concerning this meeting, please contact me at (404) 997-4436.

Sincerely,

/RA/

Mark E. Franke, Chief
Engineering Branch 3
Division of Reactor Safety

Enclosures: As Stated

Docket Nos.: 50-424 50-425
License Nos.: NPF-68, NPF-81

cc w/encls: (See page 2)

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

(cc w/encl cont'd)

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Director, Division of Waste Management

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S.C. Department of Health and

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Electronic Mail Distribution

Letter to Tom E. Tynan from Mark E. Franke dated December 22, 2010.

SUBJECT: PUBLIC MEETING SUMMARY – ISFSI PLANS - VOGTLE ELECTRIC
GENERATING PLANT DOCKET NOS.: 50-424 and 50-425

Distribution w/encl:

RIDSNNRRDIRS

PUBLIC

RidsNrrPMVogle Resource

☒ PUBLICLY AVAILABLE

☐ NON-PUBLICLY AVAILABLE

☐ SENSITIVE

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ADAMS: ☒ Yes ACCESSION NUMBER: ML103620570

☒ SUNSI REVIEW COMPLETE

OFFICE	RII:DRS	RII:DRS					
SIGNATURE	RA	RA					
NAME	FLETCHER	FRANKE					
DATE	12/22/2010	12/22/2010					
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

OFFICIAL RECORD COPY
10.DOC

DOCUMENT NAME: S:\DRS\ENG BRANCH 3\VOGTLE ISFSI MEETING SUMMARY 12-15-

LIST OF ATTENDEES

Nuclear Regulatory Commission

H. Christensen, Deputy Director, Division of Reactor Safety (DRS), Region II (RII)
M. Franke, Branch Chief, Engineering Branch 3 (EB3), DRS, RII
R. Carrion, Senior Reactor Inspector, EB3, DRS, RII
C. Fletcher, Senior Reactor Inspector, EB3, DRS, RII

Southern Nuclear Operating Company

M. Ajluni - Licensing Director
R. Bunt - Engineering Supervisor - Dry Spent Fuel Storage
J. Cash - Project Manager - Vogtle ISFSI
D. Davis – Engineering Supervisor – Dry Cask Storage
R. Dedrickson - Plant Manager, Vogtle
A. Wesley - Vogtle-Site Engineering Supervisor
T. Sides - Sr. Licensing Engineer

Members of the Public

Carlyn Greene, Director, Backend Publications, The Ux Consulting Company, LLC

Vogtle Electric Generating Plant

Overview of Plans

for an Independent Spent Fuel

Storage Installation

Russ Dedrickson
Plant Manager
VEGP

December 15, 2010



Agenda

- 1. Introduction & Purpose**
- 2. Spent Fuel Storage Overview**
- 3. Licensing Requirements**
- 4. Loading Procedure**
- 5. Summary**



Southern Nuclear Dry Storage Experience

- **Operational ISFSI at Farley and Hatch**
- **Loaded industry-first HI-STAR in 2000**
- **Loaded industry-first HI-STORM in 2001**
- **54 Casks Loaded – 42 (HNP), 12 (FNP)**
- **Used Fuel Loading Outages managed in-house**

Spent Fuel Storage Overview

Jimmy Paul Cash
Dry Storage Project Manager

Spent Fuel Storage Overview

Wet Storage Capacity

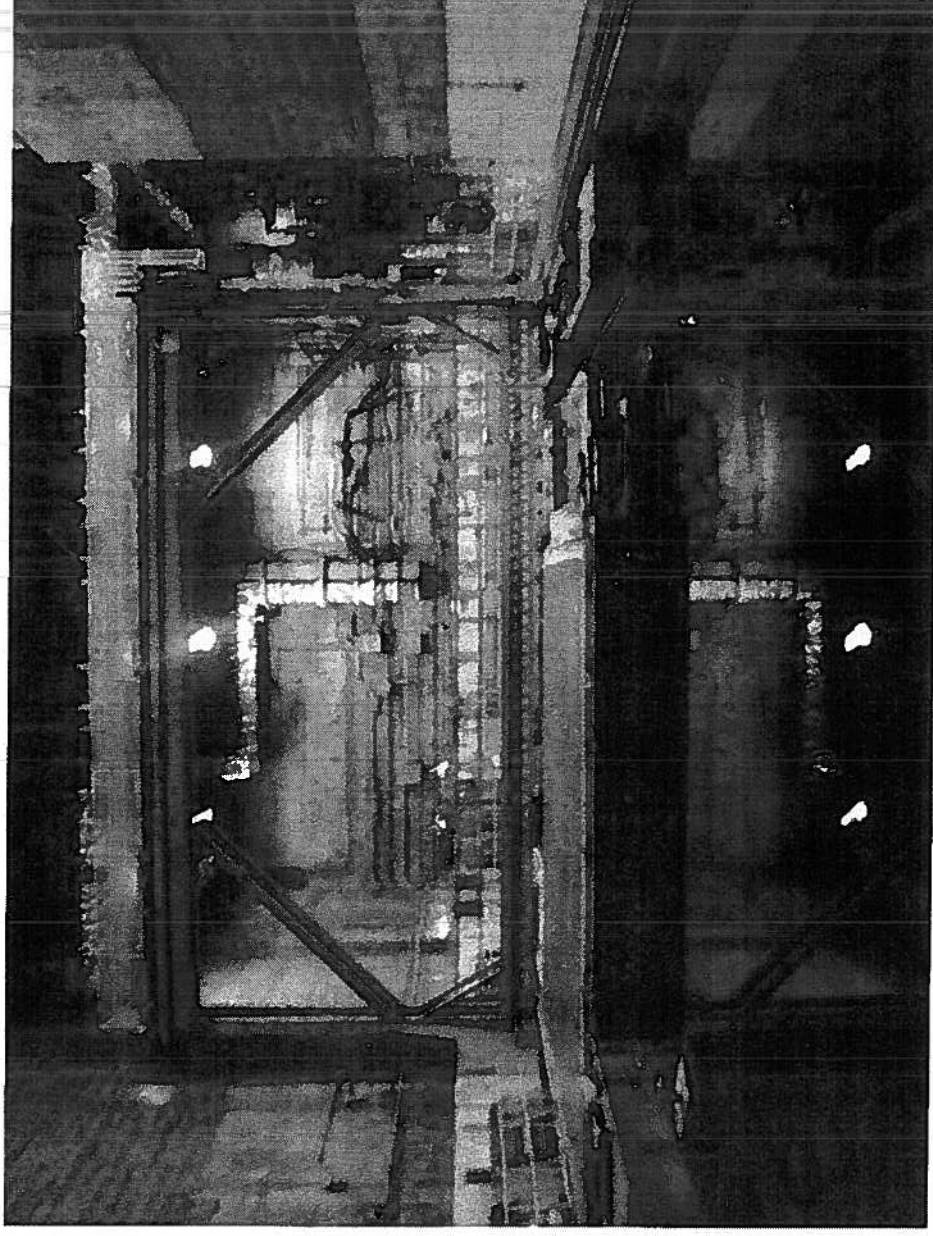
Dry Storage Needs

Cask Selection

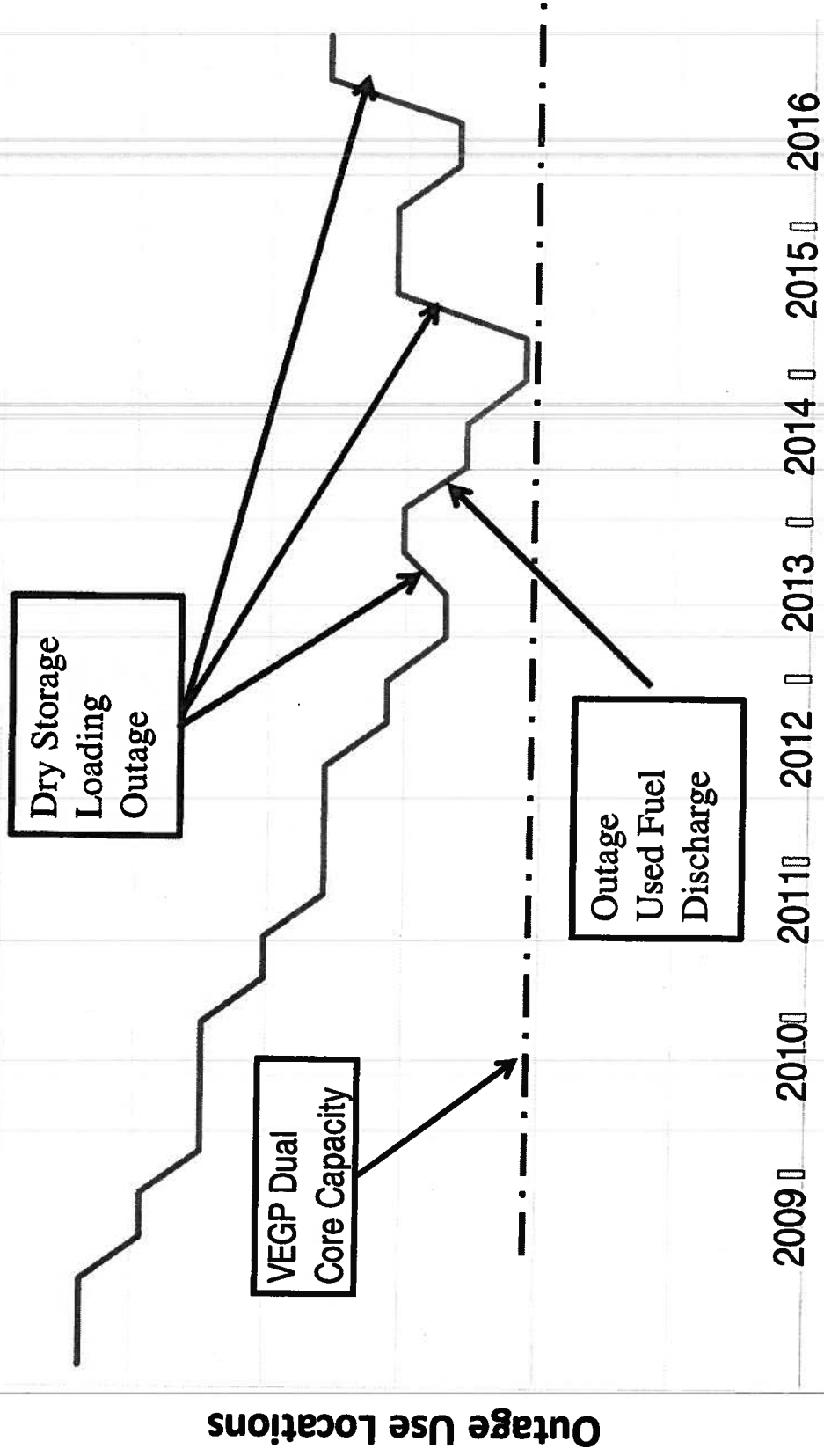
ISFSI Location and Design

Wet Storage

- Two pools interconnected via the Cask Loading Pit
- 3574 Total Cells
- Pools are at grade level



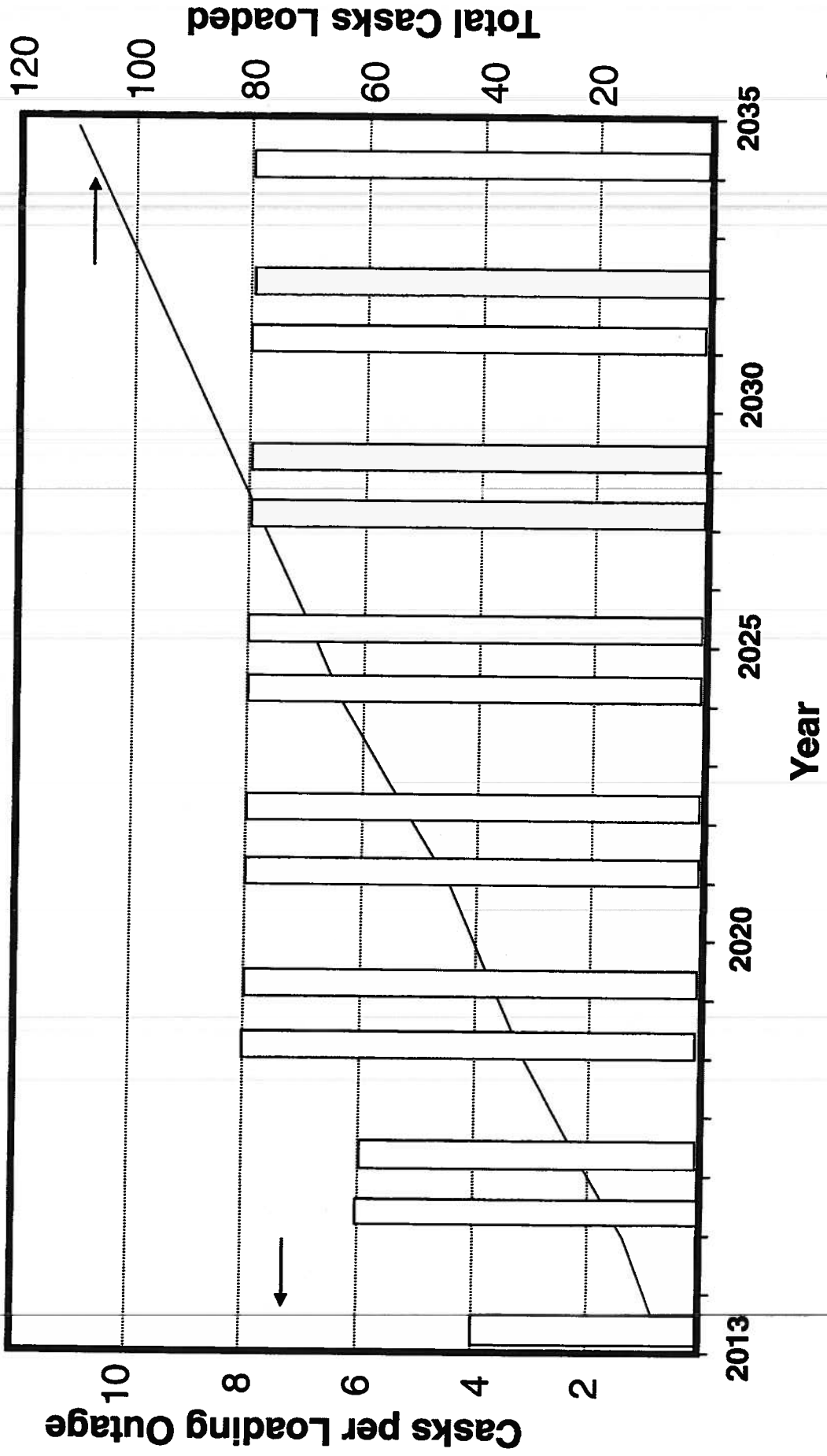
VEGP Spent Fuel Pool Outage Use Locations



Dry Storage Loading Plan

Number of Casks Loaded by Year

□ Unit 1 and Unit 2



Spent Fuel Characteristics

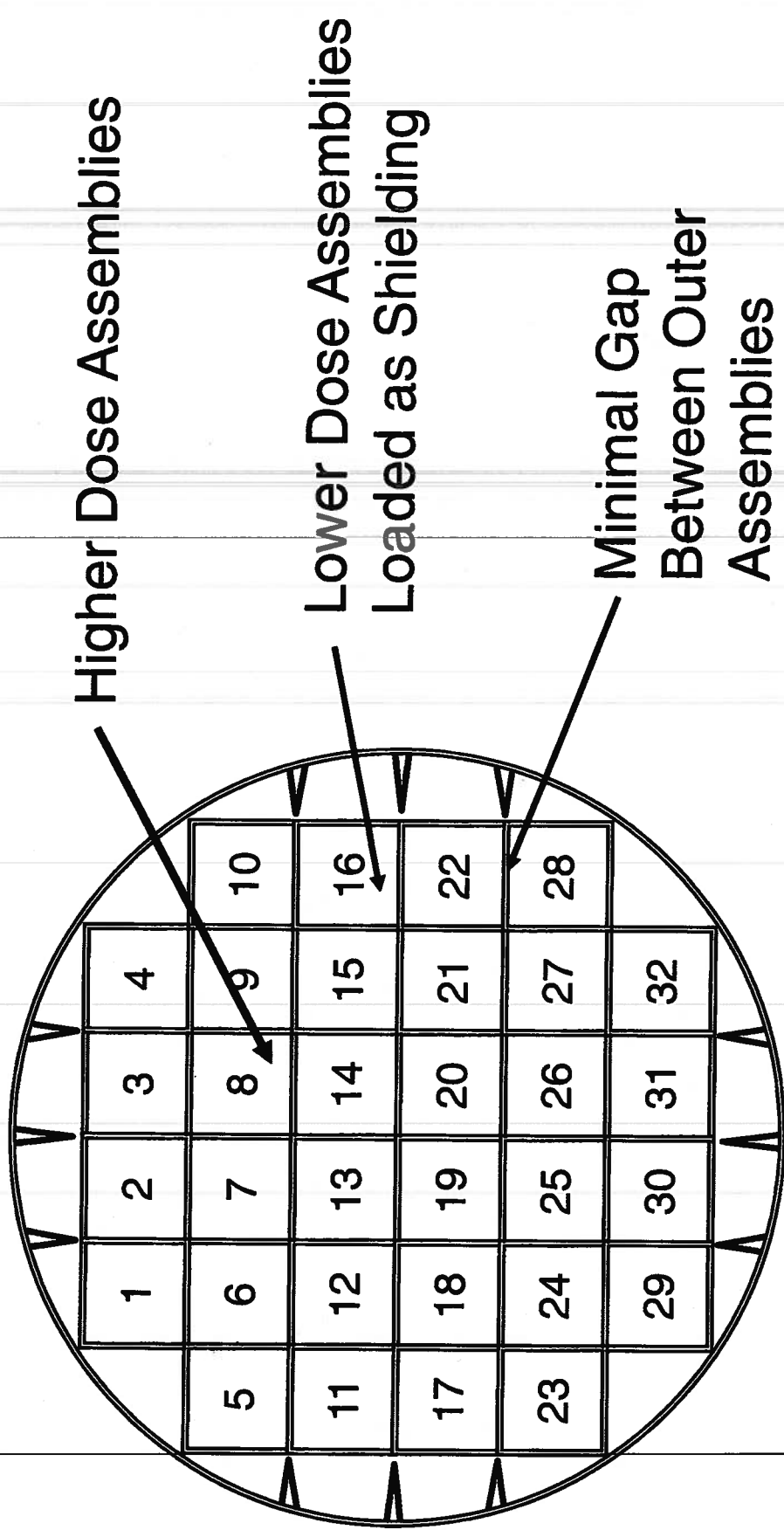
Current pool inventory:

- 56% of assemblies are high burnup (exceed 45 GWD/MTU burnup)

Future core discharges:

- Average burnup 48 GWD/MTU
- Highest burnup 53 GWD/MTU

MPC 32 Loading Configuration

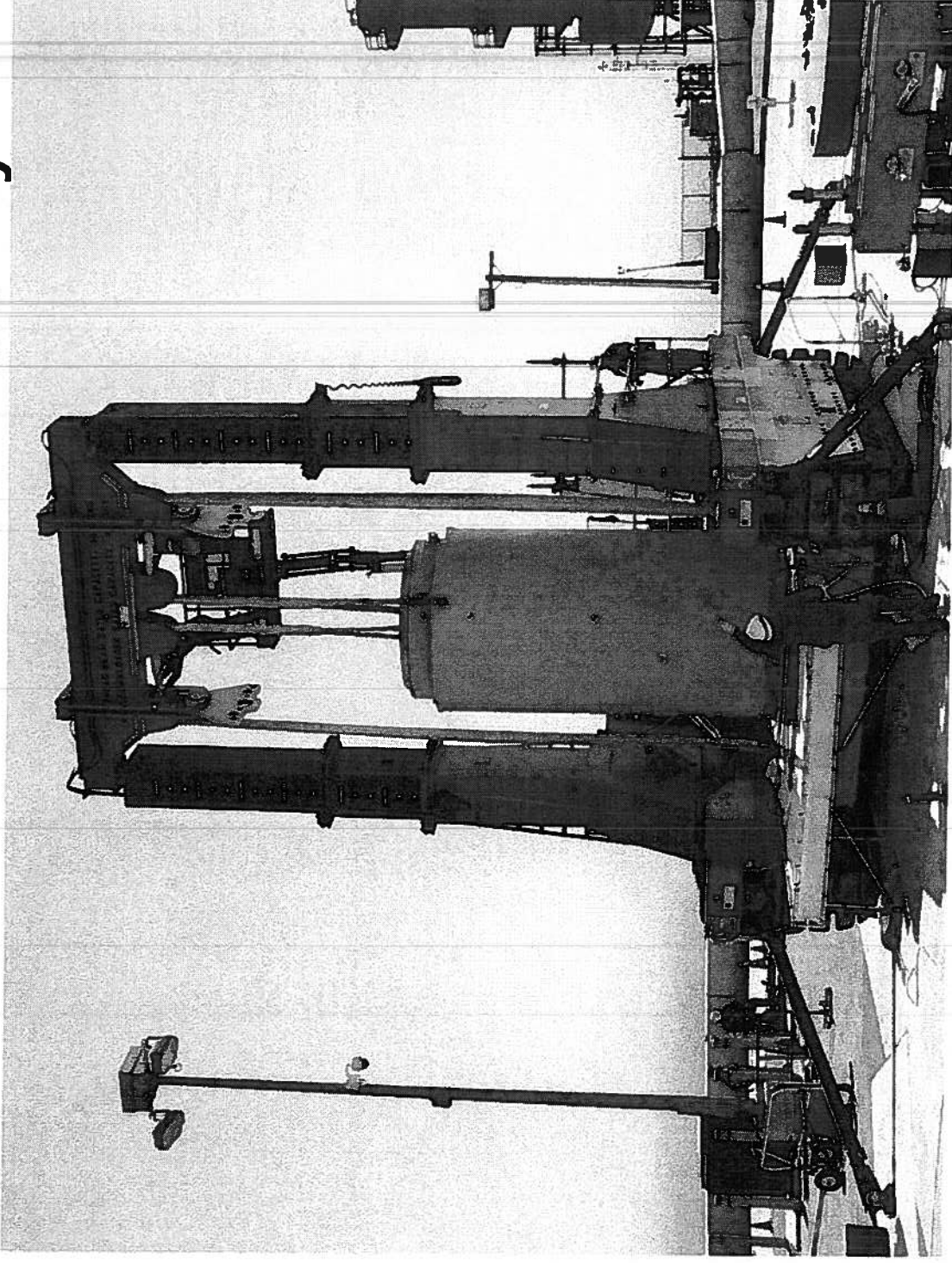


Cask Selection

Selected Cask Design

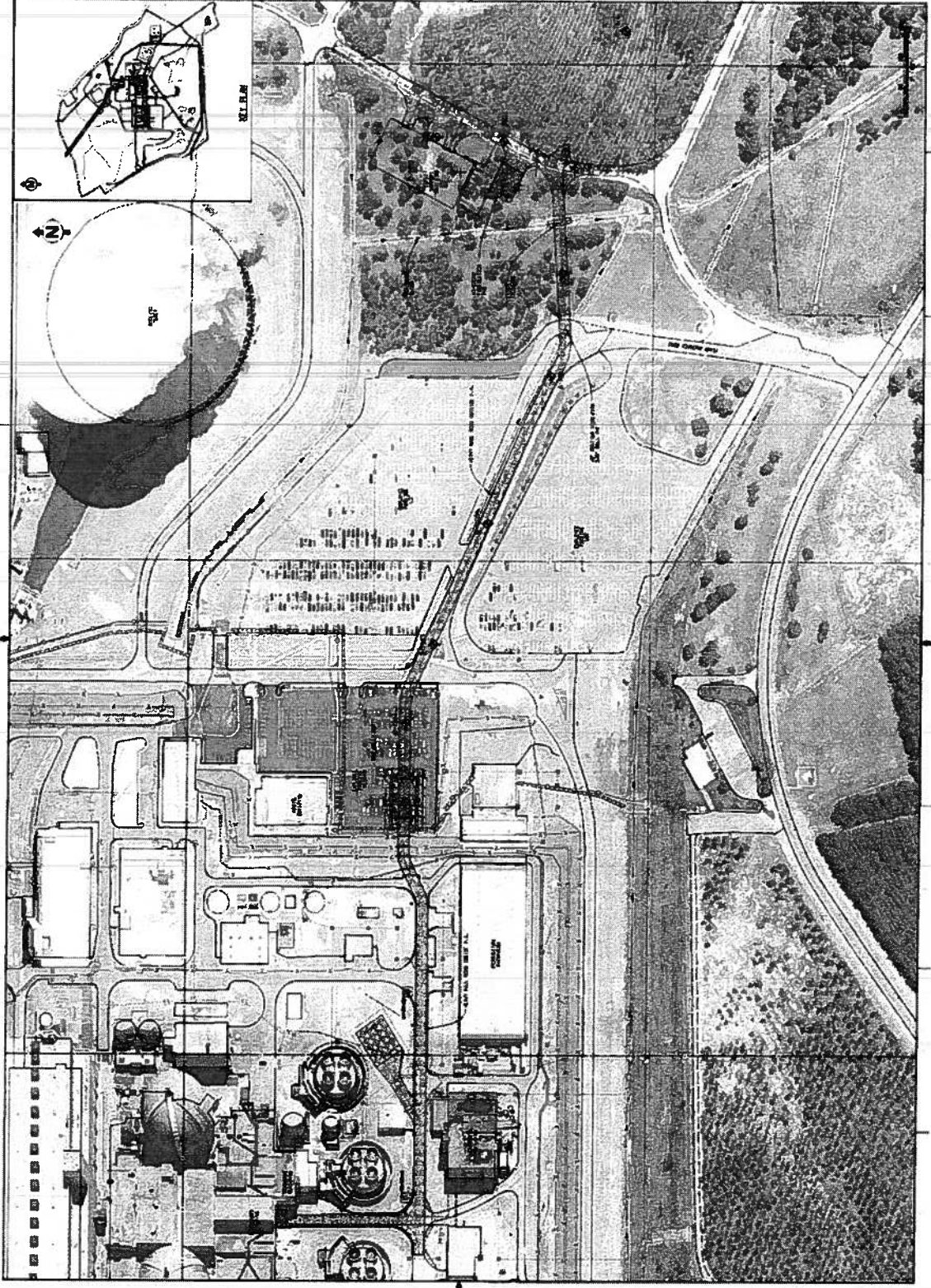
- Holtec Dry Cask Storage System
 - Multi-Purpose Canister MPC-32
 - HI-STORM 100S Storage Overpack
 - HI-TRAC 125D Transfer Overpack
 - Vertical Cask Transporter
 - Low Profile Transporter
 - Forced Helium drying system
 - Cask Transfer Facility

Vertical Cask Transporter & Cask Transfer Facility



Proposed ISFSI Location and Design

Proposed ISFSI Location



Major Modifications



Major Modifications

- **Auxiliary Building Modifications**
- **Haul Roads**
- **Cask Transfer Facility**
- **ISFSI Pad**
- **Spent Fuel Cask Crane Trolley**

Spent Fuel Cask Crane Trolley



Schedule for Major Milestones



Schedule

Design work	2010-2011
Construction	2011-2012
Equipment delivery	4 th Qtr 2012
Dry Run	1 st Qtr 2013
NRC Demonstration	2 nd Qtr 2013
1 st Four Cask on Pad	3 rd Qtr 2013
16 th Cask on Pad	3 rd Qtr 2016

Licensing Overview

Terry Sides

**Sr. Licensing Engineer
Southern Nuclear Operating Company**

Licensing Overview

- **General License Requirements**
- **Part 50 Licensing Bases**
- **Part 50/72 Modifications**
- **Program Changes**
- **Industry Participation/Operating Experience**

General License – 10 CFR 72, Subpart K

Requires:

- NRC approved cask design
- Use in accordance with CoC
- Limited to fuel licensed to possess
- Cask design bounds reactor site parameters
- Evaluate direct radiation/effluents
- Evaluate impact on reactor plant
- Modification of existing programs
- Document in 72.212 Report

Part 50 Licensing Bases

Spent Fuel Cask Crane:

- 125 Ton design capacity
- Single Failure Proof Crane – NUREG-0554
- Special lift devices – ANSI N14.6-1976
- Crane operators – ANSI B30.2-1976
- Inspected – ANSI B30.2-1976
- Procedures – NUREG-0612

As a result, cask drop accident is not credible

Part 50 Modifications

Cask crane trolley replacement

- DCP/10 CFR 50.59
- No change to original Licensing/Design Bases
 - 125 ton capacity
 - NUREG-0554
- Existing bridge/structure qualified for 125 tons

Cask drop accident remains not credible

Part 50/72 Modifications

Haul Route

- CoC 1014, Appendix A, Section 5.5
- Completely within PA
- Cask Transporter - ANSI N14.6/redundant drop protection
- Capable of stopping and holding load during DBE
- Fire/hazards review of route
- Address Part 50 impacts (e.g., underground conveyances, etc.)

Part 50/72 Modifications

Cask Transfer Facility

- CoC 1014, Appendix B, Section 3.5
- External to Part 50 structures
- Near-grade transfer
- Cask transporter used for MPC transfer
- NUREG-0612, Section 5.1
- Redundant drop features
- Capable of stopping and holding load during DBE

General License – 10 CFR 72, Subpart K

Use of existing Part 50 plans/programs:

- QA program
- Emergency Plan
- Radiation Protection Program
- Security Plan
- Training Program
- Corrective Action Program

Industry Participation/OE

Industry Participation

- Holtec Users Group
- NEI Dry Storage Task Force
- PWROG Licensing Subcommittee

Operating Experience

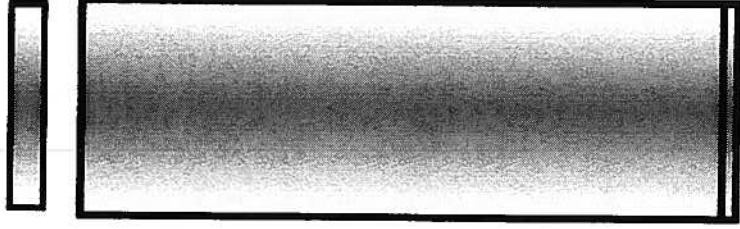
- Stack-up issues
- Pad design issues

Loading Procedure

Demitrius Davis

**Dry Storage Engineering Supervisor
Southern Nuclear Operating Company**

General Loading Procedure



SUMMARY

Mark Ajluni

**Licensing Manager
Southern Nuclear Operating Company**

