



Nuclear Regulatory Commission  
Exhibit # - SNCR00083-MA-BD01  
Docket # - 05200011  
Identified: 03/24/2009

Admitted: 03/24/2009  
Rejected:

Withdrawn:  
Stricken:

SNCR00083



**SNCR00083**  
**Vogtle ESP Mandatory Hearing Presentation #6**  
**Safety Topic #4**

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**Site Emergency Plan**  
**Ted Amundson**  
Consultant  
EP Consulting

# Ted Amundson

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## ◆ Professional Experience

- ◆ 32 years in the commercial nuclear industry
  - ◆ System Engineer
  - ◆ Training Manager
  - ◆ Quality Assurance Director
  - ◆ Engineering General Superintendent
  - ◆ Business Support Manager
    - ◆ Emergency Preparedness

## ◆ Education

- ◆ Bachelors Mechanical Engineering (Aeronautical Option)
- ◆ Masters Mechanical Engineering

*Exhibit SNC000084*

# Regulatory Bases

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- ◆ 10 CFR 52.17 (b)(2)(ii)
  - ◆ Propose complete and integrated emergency plan
- ◆ 10 CFR 50.47(b)
  - ◆ 16 planning standards
- ◆ 10 CFR 50 Appendix E
  - ◆ Content of emergency plans
  - ◆ Implementing procedures
  - ◆ Emergency Response Data System (ERDS)

# Regulatory Guidance

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- ◆ Reg. Guide 1.101
  - ◆ NUREG 0654/FEMA Rep 1, Rev. 1
  - ◆ NEI 99-01 - Emergency Action Levels (EALs)
- ◆ NUREG 0654/FEMA Rep 1, Supplement 2
- ◆ NEI 07-01
  - ◆ EAL Development
- ◆ NUREG 0696
  - ◆ Emergency Response Facility Function (TSC, OSC)
- ◆ NUREG 0737, Supplement 1
  - ◆ Emergency Response Facility Capability (TSC, OSC)

# Emergency Plan Development

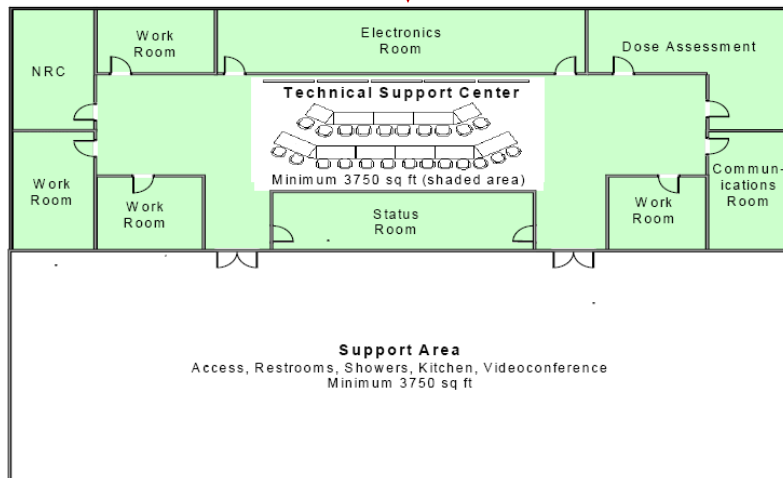
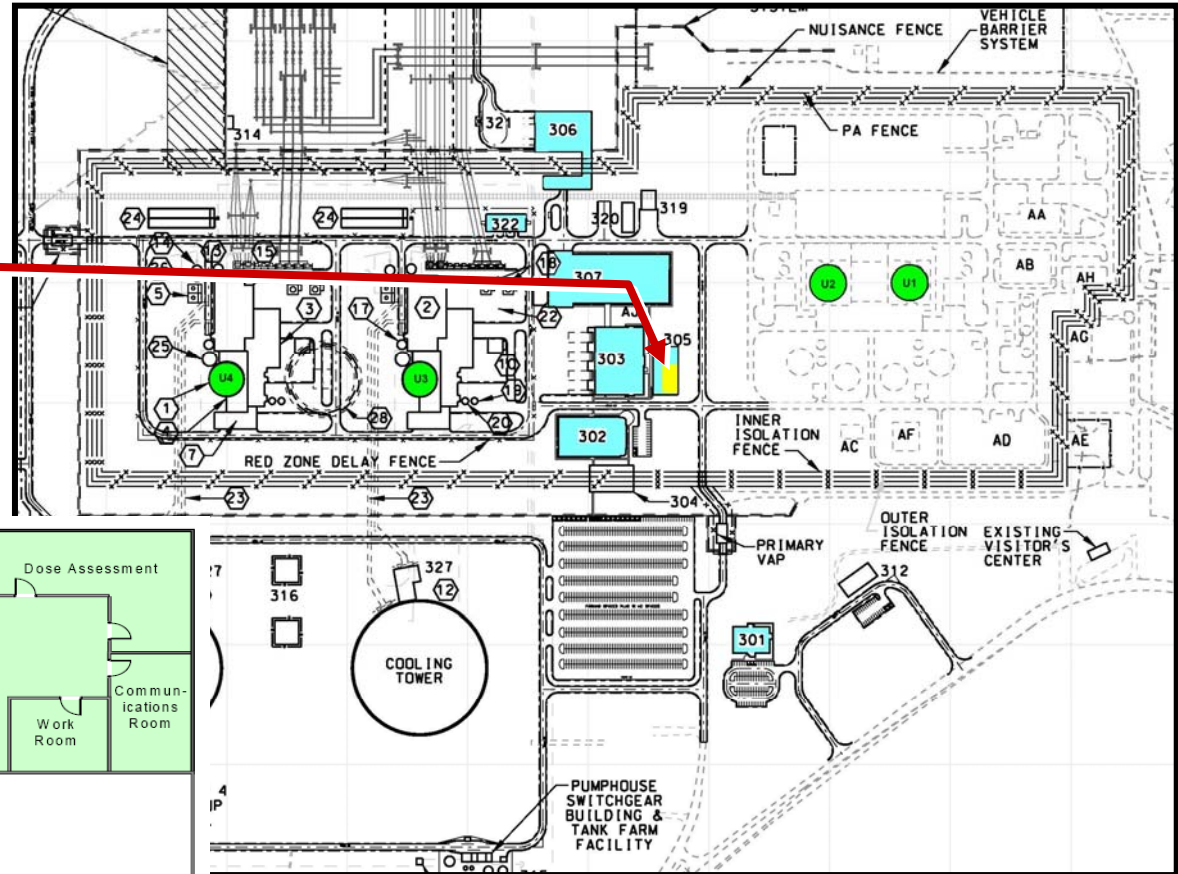
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- ◆ Existing emergency plan modified to include new Units
  - ◆ Base plan for elements common to all four Units
  - ◆ Base plan supported by two annexes
    - ◆ One annex for elements unique to Units 1 and 2
    - ◆ One annex for elements unique to Units 3 and 4
- ◆ Common Technical Support Center (TSC) for all Units
- ◆ Use existing Emergency Offsite Facility (EOF)
- ◆ New evacuation time estimate study
  - ◆ No significant impediments to Emergency planning
- ◆ Obtained concurrence from State and local agencies

SNC000085  
SNC000086  
SNC000087  
SNC000088 , App. 13.3A

# EP Features – TSC

- Common TSC
- Common PA
- TSC Location
- TSC Layout



**Exhibit SNC000089**

# Certifying Agencies

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- ◆ Aiken County Emergency Services
- ◆ Allendale County EPA
- ◆ AREVA ANP, Inc.
- ◆ Barnwell County EMA
- ◆ Bechtel Power Corporation
- ◆ Burke County EMA
- ◆ Burke County Sheriff's Department
- ◆ Burke County Medical Center
- ◆ Doctors Hospital
- ◆ Dr. B. Lamar Murray
- ◆ Georgia DNR

**Exhibit SNC000088, section 13.5, Table 13.3-3**

# Certifying Agencies (Cont.)

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- ◆ Georgia OHS
- ◆ Joseph M, Still Burn Centers Inc.
- ◆ Medical Specialists, Inc.
- ◆ National Oceanic and Atmospheric Administration (NWS)
- ◆ Radiation Management Consultants, Inc.
- ◆ South Carolina DHEC
- ◆ South Carolina EMD
- ◆ US DOE
- ◆ Westinghouse Electric Co. Nuclear Services
- ◆ WSRC Emergency Management

**Exhibit SNC000088, section 13.5, Table 13.3-3**



# Emergency Plan Key Elements

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- ◆ Emergency Classifications – 10 CFR 50.47(b)(4)
- ◆ Notifications – 10 CFR 50.47(b)(5)
- ◆ Accident Assessment – 10 CFR 50.47(b)(9)
- ◆ Protective Response – 10 CFR 50.47(b)(10)
- ◆ Emergency Communications – 10 CFR 50.47(b)(6)
- ◆ Emergency Facilities and Equipment – 10 CFR 50.47(b)(8)

# Emergency Classifications

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- ◆ Classification and Emergency Action Level Basis
  - ◆ EAL - A pre-determined, site specific, observable threshold for a plant Initiating Condition (IC) that places the plant in a given emergency classification level.
  - ◆ IC - One of a predetermined subset of nuclear power plant conditions where either the potential exists for a radiological emergency, or such an emergency has occurred.
  - ◆ NEI 07-01
    - ◆ NEI 99-01

**SNC000085, Annex V2,  
Section D and Appendix V2-3**

# Notifications

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- ◆ ERO
  - ◆ On-site – public address system
  - ◆ Off-site – auto dialer
- ◆ State, Local, SRS, and NRC
  - ◆ ENN
  - ◆ ENS
- ◆ Public
  - ◆ Tone Alert Radios
  - ◆ Sirens
  - ◆ Local routing of vehicles and boats

Exhibit SNC000085, section E

# Accident Assessment

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- ◆ Methods
  - ◆ Radiological monitoring
    - ◆ On-site
    - ◆ Off-site
  - ◆ Radiochemistry analysis
- ◆ Equipment
  - ◆ Radiation monitors
  - ◆ Plant computer monitoring systems
- ◆ Systems
  - ◆ Meteorological Information Data Acquisition System (MIDAS)

**Exhibit:SNCO00085, Section I**

# Protective Response

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- ◆ On-site Personnel
  - ◆ Alerting
  - ◆ Assembly and Accountability
  - ◆ Site Dismissal
- ◆ Public
  - ◆ Protective Action Recommendations (PARs)
    - ◆ Sheltering
    - ◆ Evacuation

# Emergency Communications

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- ◆ NRC
  - ◆ Federal Telecommunications System (FTS)
    - ◆ Emergency Notification System (ENS)
    - ◆ Health Physics Network (HPN)
  - ◆ Emergency Response Data System (ERDS)
- ◆ State and Local
  - ◆ Emergency Notification Network (ENN)
- ◆ On – Site
  - ◆ Control Room
    - ◆ Dedicated circuits – TSC, EOF, OSC
    - ◆ ENS
    - ◆ ENN
    - ◆ Other normal power plant communications

**Exhibit SNC000085, section F**

# Facilities and Equipment

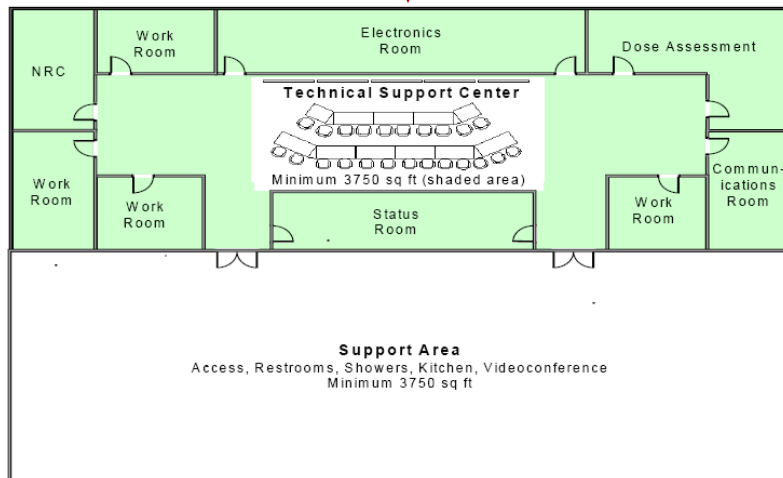
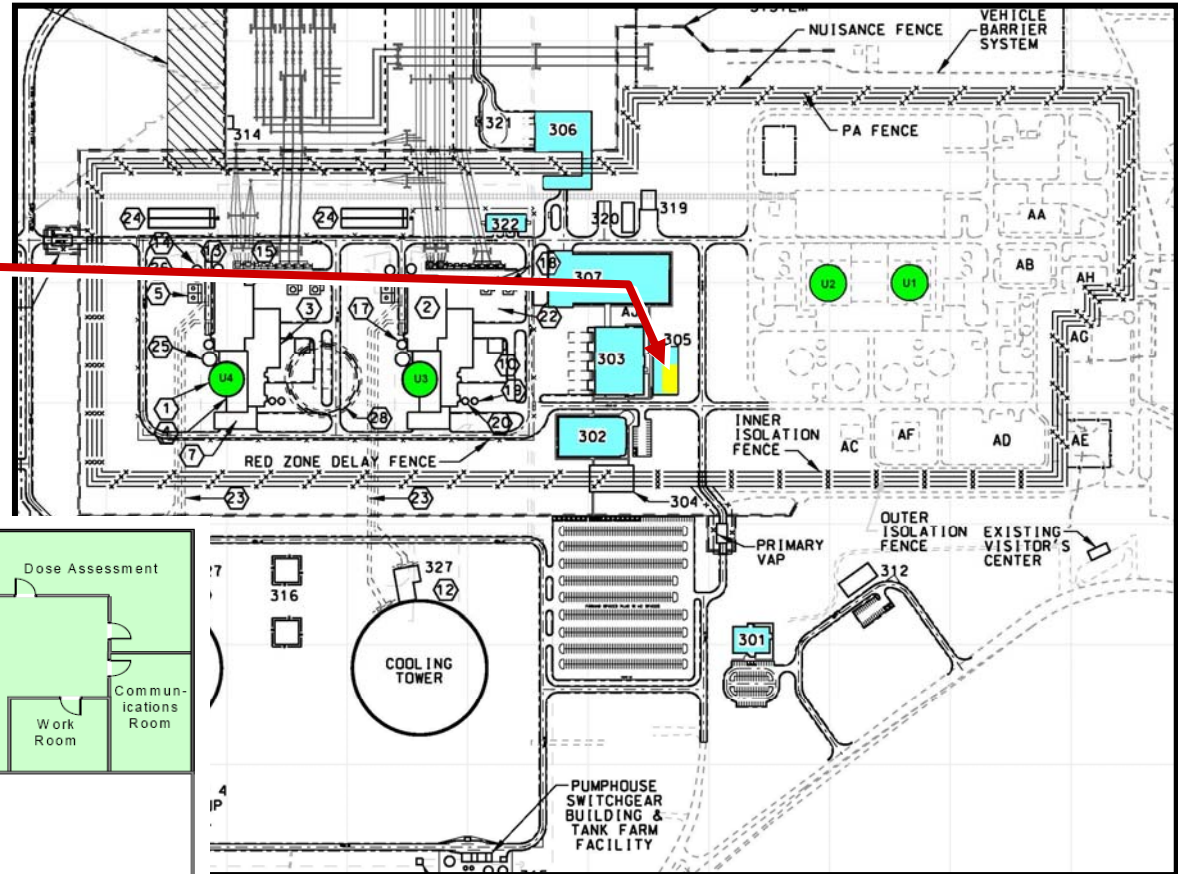
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- ◆ TSC
  - ◆ Communication Support Center
- ◆ OSC
  - ◆ Control Support Area
- ◆ EOF
  - ◆ Existing Corporate Facility (Birmingham, AL)
    - ◆ Approved by NRC for all SNC licensed facilities in February 2005.

**NUREG 0696  
NUREG 0737 Sup 1  
Exhibit SNC000090**

# EP Features – TSC

- Common TSC
- Common PA
- TSC Location
- TSC Layout





# Summary

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- ◆ Regulatory Compliance
- ◆ Incorporation into Existing Plans
- ◆ Key Elements