Nuclear Plant Emergency Response

State of Georgia Nuclear Plant Emergency Plan

Module 8

Objective of the Radiological Emergency Preparedness (REP) Program

- Provide an overview of the State of Georgia Radiological Emergency Preparedness Program and key issues local and state officials would contend with during an event at a radiological facility impacting the State of Georgia.

What is the REP Program?

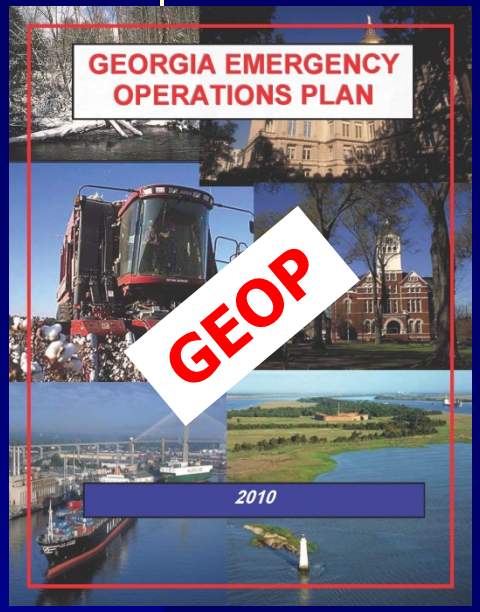
Program ensuring nuclear power plants, state and local governments have plans to protect public health and safety in the event of an accident.

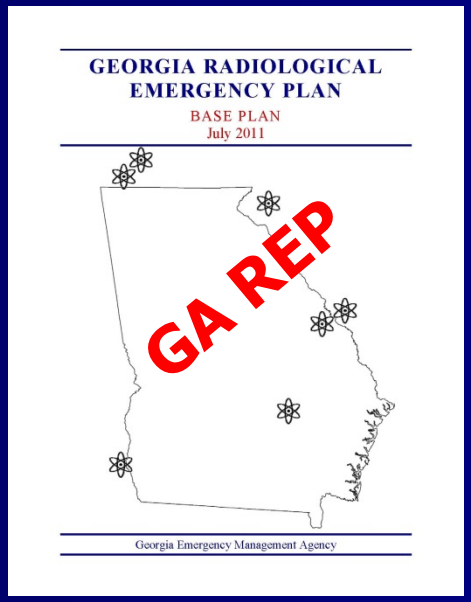
Why do we have a REP Program?

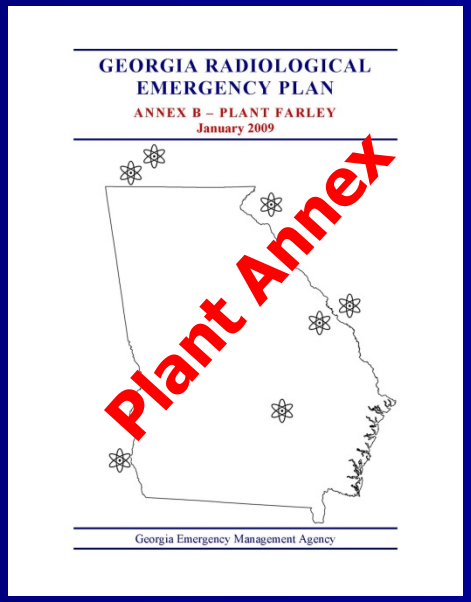
REP Program

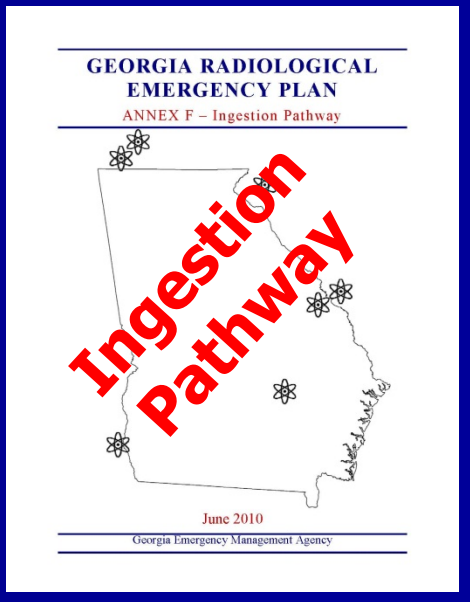
- NRC and FEMA
- Code of Federal Regulations
  - **10 CFR, part 50 and 70**
  - **44 CFR part 350-354**
- NUREG 0654 - *Criteria for the Preparation and Evaluation of Emergency Response Plans and Preparedness in Support of Nuclear Power Plants*

State Response Plans





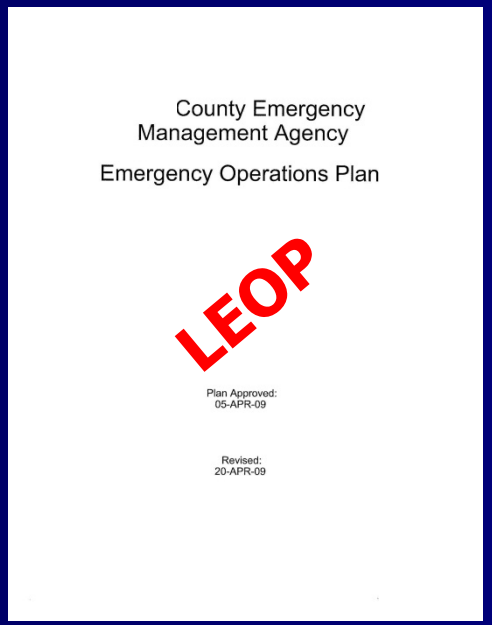


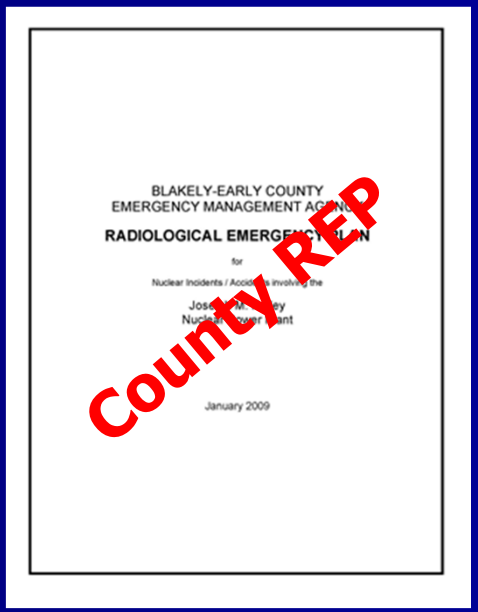


All Emergencies are Local

- Like all emergencies, the state primarily plays a support role ensuring resources are available to local governments and responders.
- State does play a greater role in the protective action decision making process for nuclear power plant emergencies

County Response Plans





State Response

- Georgia Emergency Management Agency
- Georgia Department of Natural Resources, Environmental Protection Division
  - Environmental Radiation Program
- Georgia Department of Agriculture
- Georgia Department of Public Health
- State Emergency Support Functions (ESFs)
- 4th Civil Support Team (Georgia National Guard)
- County Emergency Management Agencies

Federal Support

- Radiological Assistance Program (RAP)
- Federal Radiological Monitoring and Assessment Center (FRMAC)
- Advisory Team for Environment, Food, and Health (A-Team)
- National Atmospheric Release Advisory Capability (NARAC)
- Aerial Measuring System (AMS)
- Radiation Emergency Assistance Center/Training Site (REAC/TS)
- Nuclear Emergency Support Team (NEST)
- Accident Response Group (ARG)

Emergency Planning Zones

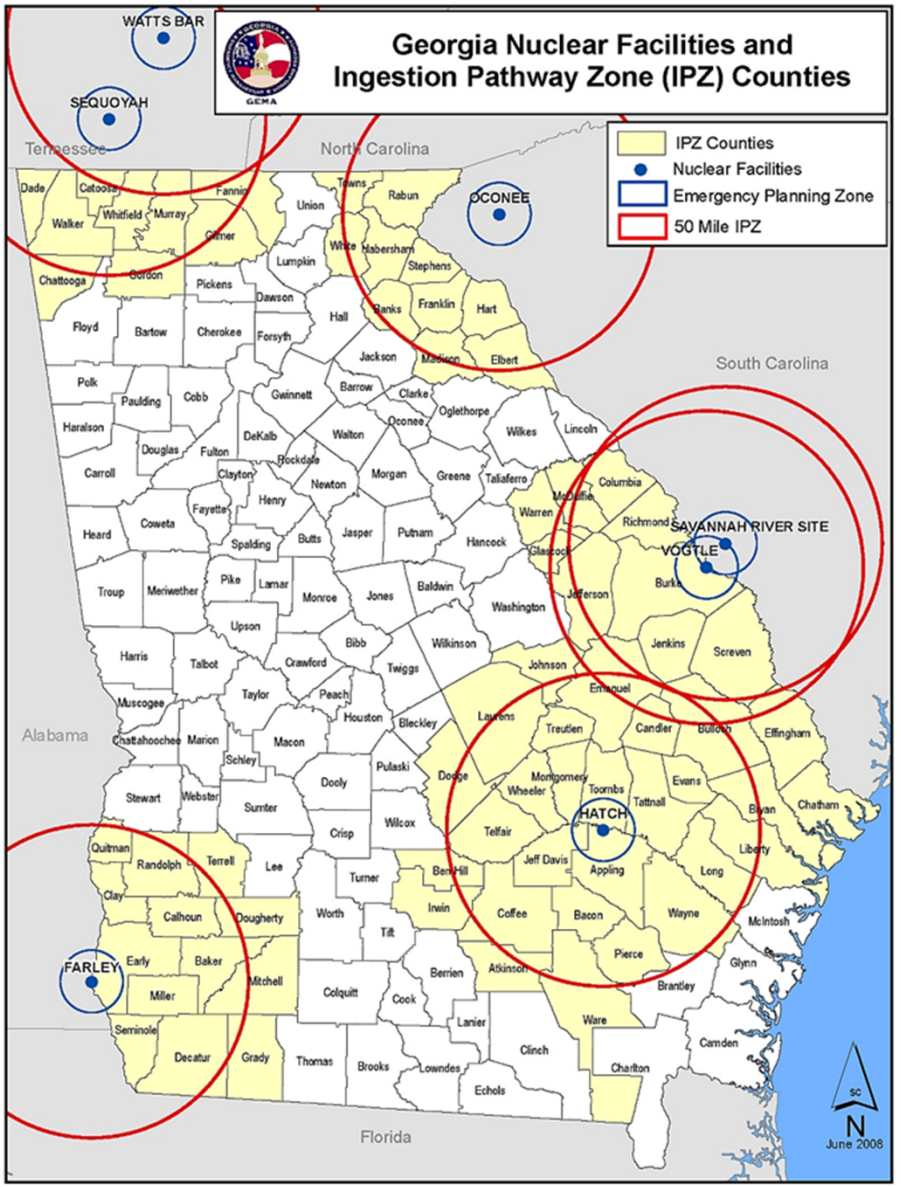
10 mile (plume exposure pathway)
Possibility of direct radiation exposure

50 mile (ingestion pathway)
Possibility of ingesting contaminated material

EPZs & IPZs

10 mile – EPZ (plume exposure pathway)

50 mile – IPZ (ingestion pathway)



Georgia's Nuclear Plants

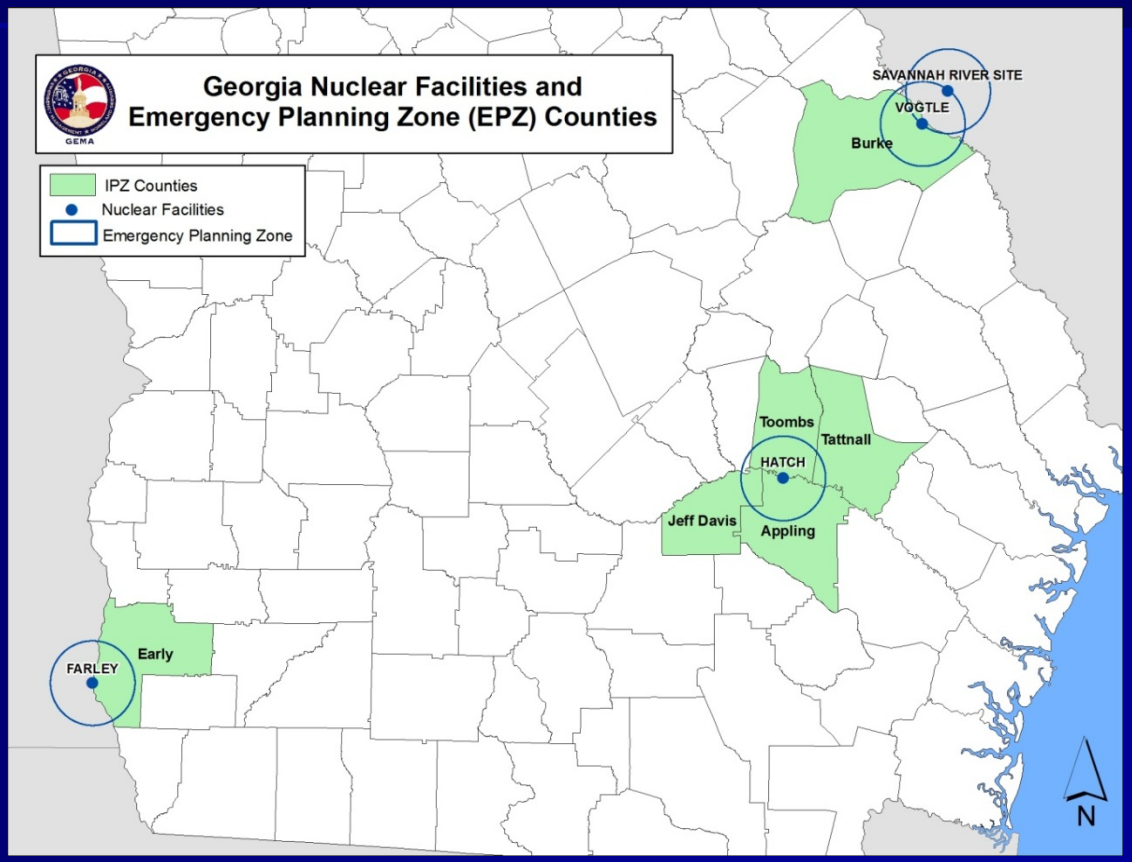
Plant Vogtle

Plant Hatch

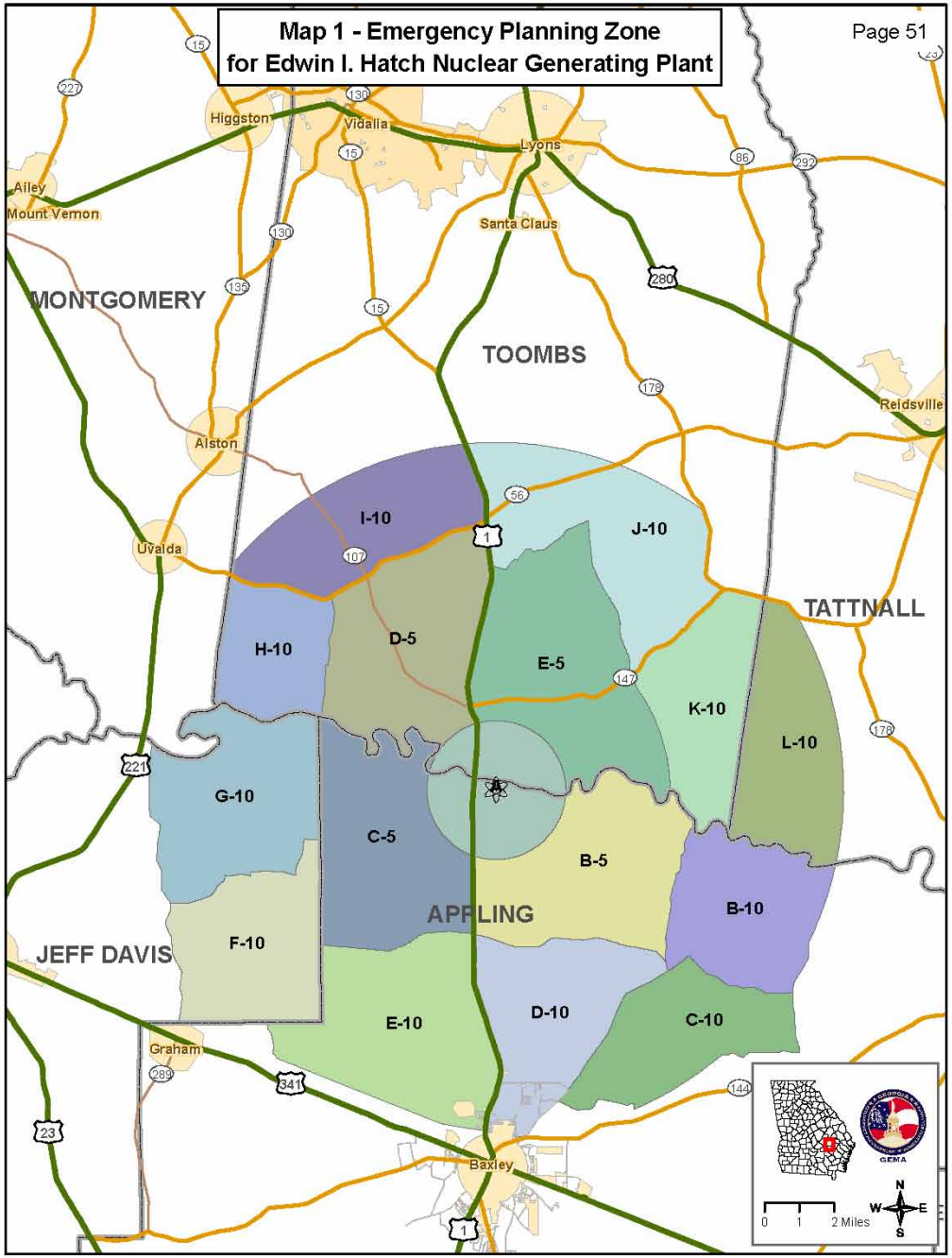
Plant Farley

Georgia's 10 Mile Emergency Planning Zone (EPZ) Counties

Appling
Burke
Early
Toombs
Tattnall
Jeff Davis



Plant Hatch Emergency Planning Zones



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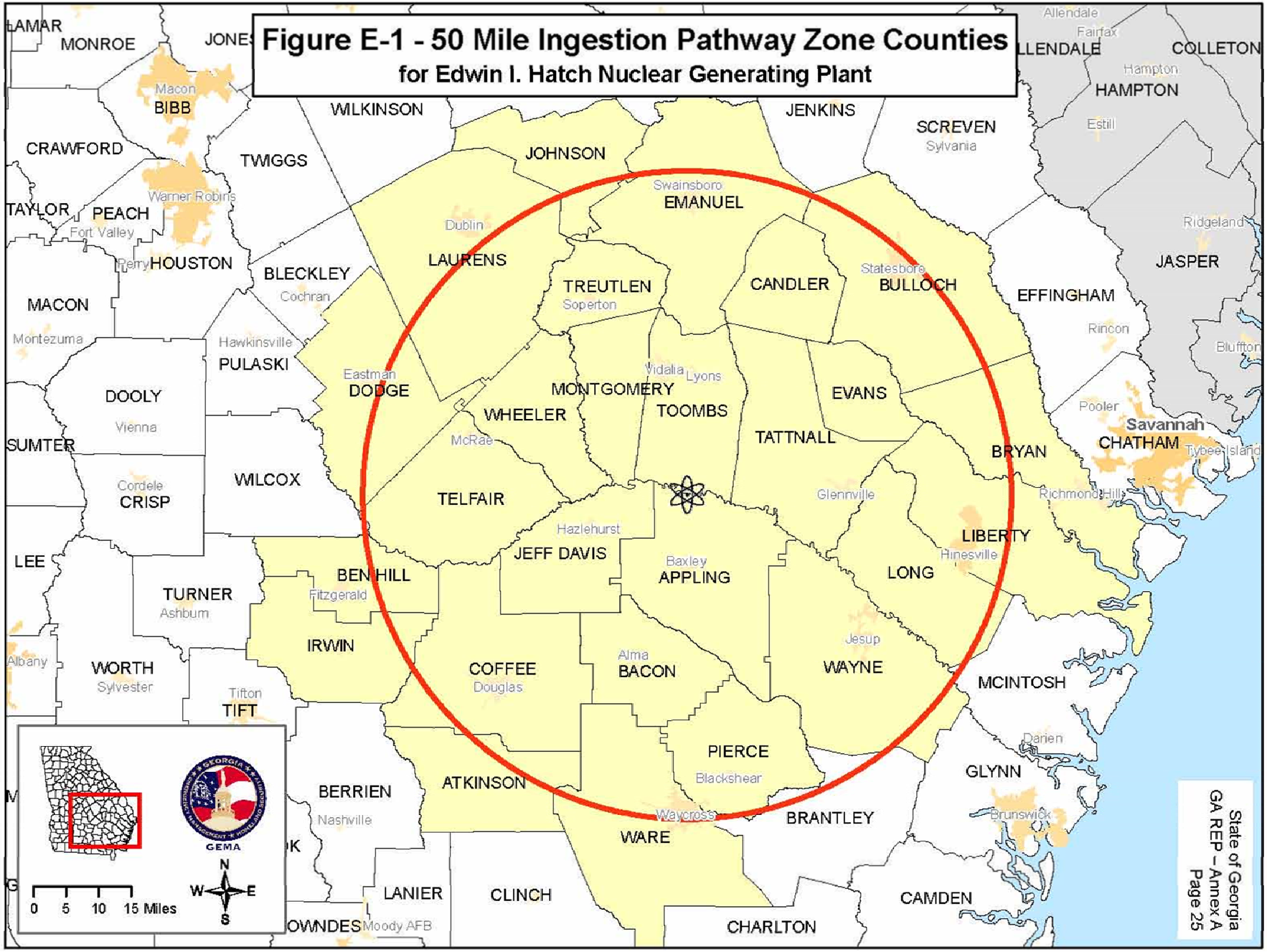
Figure E-1 - 50 Mile Ingestion Pathway Zone Counties
for Edwin I. Hatch Nuclear Generating Plant
LAMAR
MONROE
JONES
Macon
BIBB
CRAWFORD
TAYLOR
PEACH
Fort Valley
Perry
HOUSTON
MACON
Montezuma
DOOLY
Vienna
SUMTER
Cordele
CRISP
LEE
TURNER
Ashburn
Albany
WORTH
Sylvester
Tifton
TIFT
BERRIEN
Nashville
LANIER
OWNDES
Moody AFB
WILKINSON
TWIGGS
Warner Robins
BLECKLEY
Cochran
Hawkinsville
PULASKI
WILCOX
Eastman
DODGE
Dublin
LAURENS
JOHNSON
JENKINS
SCREVEN
Sylvania
Swainsboro
EMANUEL
TREUTLEN
Soperton
CANDLER
Statesboro
BULLOCH
EFFINGHAM
Rincon
Allendale
Fairfax
LLENDALE
COLLETON
Hampton
HAMPTON
Estill
Ridgeland
JASPER
Bluffton
Pooler
Savannah
CHATHAM
Tybee Island
Richmond Hill
BRYAN
Glennville
TATTNALL
EVANS
Vidalia
Lyons
MONTGOMERY
TOOMBS
WHEELER
McRae
TELFAIR
Hazlehurst
JEFF DAVIS
Baxley
APPLING
BEN HILL
Fitzgerald
IRWIN
COFFEE
Douglas
Alma
BACON
Jesup
WAYNE
LIBERTY
Hinesville
LONG
MCINTOSH
Darien
GLYNN
Brunswick
BRANTLEY
PIERCE
Blackshear
ATKINSON
Waycross
WARE
CLINCH
CAMDEN
CHARLTON
GEMA
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Emergency Classifications

- Notification of an Unusual Event (NOUE)
- Alert
- Site Area Emergency (SAE)
- General Emergency (GE)

Protective Actions

Protective Action Recommendations (PARS)

Based on plant status, meteorological conditions, field monitoring data, models, and utility's recommendation

Protective Action Decisions (PADS)

Based on PARs and offsite conditions
Coordinated with County Officials, Bordering State, and Utility

Plume (Early) Phase Activities
County EOC

- EOC Activation
- Public Warning Notification
- Evacuation (Special Needs)
- Sheltering
- Reception Center
- Traffic Control
- River Clearance
- Public Information
- Emergency Medical Services
- Radiological Exposure Control

Plume (Early) Phase Activities - State Operations Center

- SOC Activation to include appropriate ESFs
- Facilitate request for assistance from affected local counties
- Public Warning Notification
- Evacuation Coordination and Support
- Radiological monitoring and assessment
- Radiological technical assistance
- Public Information
- Request support from surrounding states (SMRAP, EMAC)
- Coordinate federal resource support (eg - FRMAC)

Public Warning and Notification

Alert and Notification System

- Tone Alert Radios
- Sirens
- EAS

Ingestion (Intermediate) Phase Considerations

- Notification and Warning
- Evacuation vs. Sheltering in Place
- Identification of Specific Zones
- Activation of Pre-Identified Reception Center and Shelter
- Public Information Development and Dissemination
- Traffic and Access Controls
- Re-location, Re-Entry (temporary), and Return
- Recovery

Questions or Comments?

Summary Points