



# TVA Fossil Plant Ash Dike Failure December 22, 2008

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# Overview of Local Response

- First 911 call was received at 0040 December 22, 2008
- First arriving emergency personnel at the Schean home was 0106
- Assistance was requested from Oak Ridge City Fire for Structural Collapse Rescue.
- 1 victim was removed from home, Mr. Schean @ 0134
- Subsequent searches discovered 2 additional homes with flood impact,
- County EOC Opened at 0349
- Roane State opened as shelter 0422
- A bus from Roane County Schools requested for transport of evacuees 0426

# Overview of Local Response

- A final search of the impacted area was completed at 0456
- All emergency personnel were moved to staging at Swan Pond and Swan Pond Circle next to the Methodist Church.
- Traffic Management Plan was implemented at 0625 at Swan Pond/Swan Pond Circle and Swan Pond Circle at Lakeshore.

# Overview of Local Response

- Received call of train derailment at 0636
- All units cancelled on train derailment at 0642 non-injury, train was not derailed.
- All emergency personnel were moved to Kingston Fossil Plant at 0734
- Unified Command Established with TVA / County 0742
- Utility Crews in the area assessing damage
- HUB confirms a 4 inch gas line break at 0811
- HUB advises sewer line damaged and being shut off 0912

# Overview of Local Response

- Emergency phase terminated at 0930
- Assessment and Recovery phase opened at 0930

# Damage Assessment Findings

- 3 homes with significant damage
- Damage to Swan Pond Rd and Swan Pd Circle Rd
- HUB Power lines down (112 out of power)
- HUB Gas line rupture ( 55 out of service)
- HUB Water line rupture (7 out of service)
- HUB Sewer pipe rupture
- Kingston Spring Line rupture ( 30 homes out of water)

# Damage Assessment Findings

- Environmental impact (5.4 Million cubic yards of material released into the environment)
- Concerns of water/air quality identified.

# Consequence Management Actions

- HUB capped and rerouted gas lines
- HUB Restored electrical service
- HUB stopped the flow of sewer thru the impacted pipe (effluent being pumped into the Emory with TDEC approval)
- HUB restored water
- Kingston Water and Roane Central were contacted about a temporary repair for the Spring line customers

# Consequence Management Actions

- County Building Officials condemned the three damaged homes and completed the personnel property assessment.
- TVA Contracts to CR Barger to complete RCUD water line extension
- County Requests Environmental monitoring of, Lake Water, Ground Water, Air Quality, and waste characterization of the ash.
- EPA promulgates initial notice on environmental samples.

# Consequence Management Actions

- Site security plan implemented by Roane County Sheriff's Office and TVA Police at Swan Pond Circle and Emory Heights
- Roane County Highway Dept building road Swan Pond Circle to Berkshire Ln
- Assistance requested from Harriman City to augment fire protection in affected area.
- Joint Information Center Established at the Roane Rescue building.
- School Bus route change needed

# Consequence Management Actions

- Cleaning debris from Swan Pond Road and rail road
- Relieving water accumulation concern on west side of Swan Pond Road
- Install subsurface rock weir on Emory just north of intake skimmer weir

# Consequence Management Actions

- Installed rock weir (Weir #2) from point on Swan Pond Circle to bank north of intake skimmer weir to confine existing ash debris and prevent egress into the river
- Repairs to C-Dike cracks
- Cenosphere removal

# Consequence Management Actions

- Booms placed at strategic locations on the river to control the cenospheres
- Air monitoring equipment installed.
- Developing a plan to control dust as the ash deposits dry.

# Long Term Recovery

- Long term environmental monitoring
- Roane County lacks the capability of detailed environmental monitoring.
- Long term public health monitoring
- Perception of event and recovery process
- Perception of TVA, State and Local leaders
- “Perception is Reality”

# Lessons Learned

- Build relationships before and event
- Plan, train, and exercise together
- Keep an updated Hazard Assessment
- Non-regulated material can still cause problems.