TVA Fossil Plant Ash Dike Failure
December 22, 2008

William Rose
Director of Emergency Services
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 caped 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 railroad
- 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.