Environmental Update:
Barnwell LLRW Disposal Facility

Prepared for the Governor’s Nuclear Advisory Council Meeting
April 13, 2017
Barnwell LLRW Disposal Facility

235 acres used for disposal and site buildings

Trench Areas

Site Buildings

120 acres capped

Started operating in 1971

120 acres capped
Groundwater and Surface Water: Monitoring the Tritium Plume

- Chem-Nuclear samples 180 monitoring locations
  - On-site wells
  - Off-site wells
  - Creek
- Sampling performed 4 times per year
- DHEC samples at least 21 of those locations
- DHEC splits samples with Chem-Nuclear
Tritium Concentrations in Zone 2 Wells

Highest Concentration

WM-0110
2,900,000 pCi/L

Headwaters of Creek

WC-0002
168,000 pCi/L

Compliance Point

WC-0008
42,700 pCi/L

Oldest trenches

2nd Quarter 2016
Annual Trending Report

- Monitors plume movement
- Looks at data for last 5 years
- 27 locations
- Statistical analysis
- 3 – upward trend
- 18 – downward trend
- 6 – no trend

Tritium levels are closely monitored at the compliance point to be sure they do not exceed regulatory limits.

Tritium levels are stable at compliance point.

The plume is well defined.

There are no receptors of the water.
Susan Jenkins, Manager
Infectious and Radioactive Waste Management Section
803-898-2631
jenkinse@dhec.sc.gov