A Presentation to the
SRS Citizens Advisory Board
Facilities Disposition and Site Remediation Committee

Lower Three Runs
Integrator Operable Unit (IOU) Early Action Update

Brian Hennessey,
Federal Facility Agreement Project Manager
Department of Energy, Savannah River Operations Office

February 14, 2012
Purpose

• Provide status of Lower Three Runs IOU

• Path Forward for the LTR IOU Program
IOU Program

- SRS streams added to the FFA in FY 1997
- Includes surface water, sediment, sediment/soil, and biota (plants and animals)
Integrator Operable Unit Purpose

- Determine and monitor contaminants in SRS streams
- Assess the health (i.e., habitat quality) of the stream systems
- Evaluate human health risk in stream corridors
- Determine whether early actions are needed
- Make final IOU cleanup decisions after operations have ceased and as Operable Unit (OU) cleanup decisions are completed
Lower Three Runs Planned Early Action
Lower Three Runs

- Receives surface water discharge from PAR pond
- PAR pond received discharges from P and R Reactors during operations
- Characterization of the LTR conducted through the IOU program
  - Initiated and completed through the 2009/2010 ARRA Stimulus Program
  - Results showed a benefit to conducting an early action below Par Pond Dam, although EA benchmarks were not exceeded
Lanthanum bromide (LaBr) Detector
Proposed Early Action at the LTR

Scope of Removal Action:
- **LTR Tail Section**
  - Install signs along entire stream boundary
  - Fence in strategic locations
  - Limited soil removal; appropriate disposal
- **Upper LTR**
  - Limited soil removal; appropriate disposal

Benefits:
- Reduces public exposure
- First SRS Integrator Operable Unit (IOU) Final Closure Activity
- Remediate contaminated SRS property adjacent to public
- Reduces opportunity for inadvertent trespassing
- Endorsed by Regulators
- Accelerates remediation by about 9 years
- No additional characterization required (completed under ARRA)

Considerations:
- Regulatory documentation required
- Property owners (property access)
Early Action Strategy

• PART 1: STRATEGIC PLACEMENT OF FENCING

• PART 2: PLACEMENT OF ADDITIONAL SIGNS ALONG BOUNDARY

• PART 3: LIMITED EXCAVATION OF CONTAMINATED SOIL
Additional Fencing (Tail Section)

Fencing Considerations:

- More Accessible Areas
- Proximity to Roads & Railroad Crossings
- Utility Easements
Additional Signs (Tail Section)

Dual Signs To Be Placed Every 200 Feet

CAUTION
UNAUTHORIZED ENTRY PROHIBITED
CHEMICAL OR RADIOACTIVE
CONTAMINANTS
MAY BE PRESENT
CONTACT SAVANNAH RIVER SITE
PUBLIC INVOLVEMENT AT
1-800-249-8155

No Trespassing
By Order Of The
United States
Department of Energy

The unauthorized entry upon any facility, installation, or real property subject to the jurisdiction, administration, or in the custody of the Department of Energy, which has been designated as subject to the provisions contained in Title 10, Code of Federal Regulations, Part 860, is prohibited. The unauthorized carrying, transporting, or otherwise introducing or causing to be introduced, any dangerous Weapon, explosive, or other dangerous instrument or material likely to produce substantial injury or damage to persons or property, into or upon such facility, installation, or real property is likely prohibited.

Whoever willfully violates these regulations, shall, upon conviction, be punishable by a fine of not more than $5,000. Whoever willfully violates these regulations with respect to any facility, installation, or real property enclosed by a fence, wall, floor, roof, or other structural barrier, shall be guilty of a misdemeanor and, upon conviction, shall be punished by a fine not to exceed $100,000 or imprisonment for not more than 1 year, or both (Title 42, United States Code, 2278(a), Title 18, United States Code 3571.)

By authority of Section 229 of the Atomic Energy Act of 1954, as amended (Title 42, United States Code, 2279(u) and Title 10, Code of Federal Regulations, Part 860 of the rules and regulations of the Department of Energy) this facility, installation, or real property has been designated as subject to these regulations by the United States Department of Energy. Trespassers may be subject to the provisions stated above.
Soil Excavation Focused at Three Areas (Middle LTR and LTR Tail)

- Remove up to 1 acre contaminated soil at each location
- Minimal impact to vegetation
- Perform post excavation confirmation sampling
Path Forward for LTR

• Excavate approximately 3 acres of contaminated soil

• Install approximately 6.6 miles of fencing along the LTR tail

• Install/place approximately 1000 additional signs along the LTR tail

• Provide an early response action that will be incorporated into the final remedial strategy for the LTR IOU
Cesium-137 Activities (based on 2009/2010 data)