

# Update on ATSDR's Public Health Activities at DOE's Savannah River Site (SRS)

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## **Who is ATSDR?**

- ❑ A non-regulatory federal public health agency of the U.S. Department of Health and Human Services**
- ❑ Created by the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act (SARA) of 1986**
- ❑ Conducts public health assessments (PHAs) at sites proposed for EPA's National Priorities List (NPL) and at non-NPL sites at the request of EPA, state, or local officials, and in response to petitions.**

## **Who is ATSDR? (continued)**

- ❑ Responds to emergency releases of hazardous substances**
- ❑ Provides education and training concerning hazardous substances to health care providers and communities**

## **CDC and ATSDR Activities at SRS**

### **□ CDC**

- dose reconstruction project (2005) addressed community exposures to radioactive materials released from SRS from 1954 through 1992.

### **□ ATSDR**

- issued a health consultation (Tritium Releases and Potential Offsite Exposures) in 2002 focusing on two Lawrence Livermore sites and SRS (2002).
- issued a PHA evaluating human exposures to offsite groundwater and surface water contamination (2007).
- issued the final PHA evaluating human exposures from eating plants and animals potentially contaminated with radioactive and chemical contaminants (2012).
- Current PHA is addressing potential offsite exposures from SRS air releases from 1993 through 2010.

## **Summary of Conclusions from Past PHAs**

- ❑ **Under existing conditions and normal operations, SRS poses no apparent public health hazard for the surrounding community from exposure to *groundwater* or *surface water*.**
- ❑ ***Mercury* contamination in fish from the Savannah River is well documented. A fish advisory has been issued for certain species. If fishers do not follow the advisory recommendations, consuming large amounts of certain fish could increase health risks, especially to sensitive persons such as fetuses and children who are nursing.**

## **Summary of Conclusions (continued)**

- ❑ **Some fish from the Savannah River can be eaten without harm to people's health if species-specific consumption advisories issued by South Carolina and Georgia are followed.**

**South Carolina:**

**<http://www.scdhec.net/environment/water/fish/advisories.htm>**

**Georgia: [http://www.gaepd.org/Documents/fish\\_guide.html](http://www.gaepd.org/Documents/fish_guide.html)**

## **Summary of Conclusions (continued)**

- ❑ **The levels of *other metals* in the Savannah River fish do not pose a public health hazard.**
- ❑ ***Mercury and other metals* have been measured in a small number of *wild game species* at or near the site. Additional monitoring of edible portions of wild game is needed to better characterize the nature and concentration of mercury and other metals in species such as deer, feral hogs, ducks, and alligators.**

## Summary of Conclusions (continued)

- ❑ The general population is not exposed to harmful levels of *radioactive contaminants* if they eat *offsite* crops, livestock, and fish harvested or produced near SRS.
- ❑ Persons eating *onsite* animals harvested during controlled hunts are not likely to be exposed to harmful levels of *radioactive contaminants*; however, these animals should continue to be monitored.

## **Summary of Conclusions (continued)**

- ❑ **Additional monitoring for chemicals and radioactive contamination should be considered for some animals potentially consumed by humans, such as**
  - alligators, rabbits, squirrel, birds, ducks, turtles and other small animals,
  - migratory animals such as birds and ducks that frequent SRS's contaminated ponds and streams will continue to present a pathway for possible exposure
  - turtles and alligators should be monitored for chemicals and radioactive contaminants found in ponds and stream sediments.

## **ATSDR's Current Activity**

- ❑ Drafting a third PHA evaluating air releases and exposure to off-site populations (from both radioactive and chemical releases between 1993 and 2010).**
- ❑ The major onsite sources of airborne radionuclides include the separation, waste management, and tritium facilities; the reactors; the Savannah River National Laboratory; and diffuse and fugitive sources.**
- ❑ Both sampling data and modeling results are available for radioactive releases. Tritium continues to be the predominant radionuclide released from the site.**

## **ATSDR's Current Activity (continued)**

- ❑ **For chemical releases, most of the gathered information comes from modeling completed to meet air permitting requirements (permits issued by SCDHEC's Bureau of Air Quality).**
- ❑ **This modeling included pollutants regulated by the National Ambient Air Quality Standards (criteria pollutants) and pollutants regulated by SCDHEC's Standard No. 8 (toxic air pollutants).**

## **ATSDR's Current Activity (continued)**

- Although ATSDR is in the early stages of this document, we hope to have a public comment version available in the fall of this year.**
- This is our last planned PHA for SRS.**

## **For information on ATSDR's public health activities at SRS, please visit**

**<http://www.atsdr.cdc.gov/HAC/PHA/HCPHA.asp?State=SC>**

**Or contact**

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