

An Overview of the SRS Environmental Report for 2007

SRS Citizens Advisory Board

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Abbreviations and Acronyms

ANSP	Academy of Natural Sciences of Philadelphia
Diffuse & Fugitive Source	An air emission source that is calculated rather than directly measured, such as vents or basins
FDA	U.S. Food and Drug Administration
MEI	Maximally Exposed Individual
mrem	millirem
NPDES	National Pollutant Discharge Elimination System
Unidentified Alpha (UnA)	Alpha activity that is determined by subtracting the sum of individually measured alpha-emitting radionuclides from gross alpha values.
Unidentified Beta (UnB)	Beta activity that is determined by subtracting the sum of individually measured beta-emitting radionuclides from gross beta values.



Purpose

- Response to CAB request for a presentation and discussion of Site Environmental Report results



Environmental Monitoring

- Purpose of Program
 - Characterize and quantify contaminants
 - Demonstrate compliance with applicable requirements
 - Calculate radiation exposures to the public
 - Assess the effects, if any, on the local environment



2007 Monitoring Program Summary

- Savannah River Site's 2007 air and water releases, as well as all potential radiation doses from the site, were well below applicable regulatory standards.
- For 2007, the radiation dose to the
 - public living near SRS was well below DOE's 100-mrem/year standard
 - downriver water consumer was well below EPA's 4-mrem/year standard

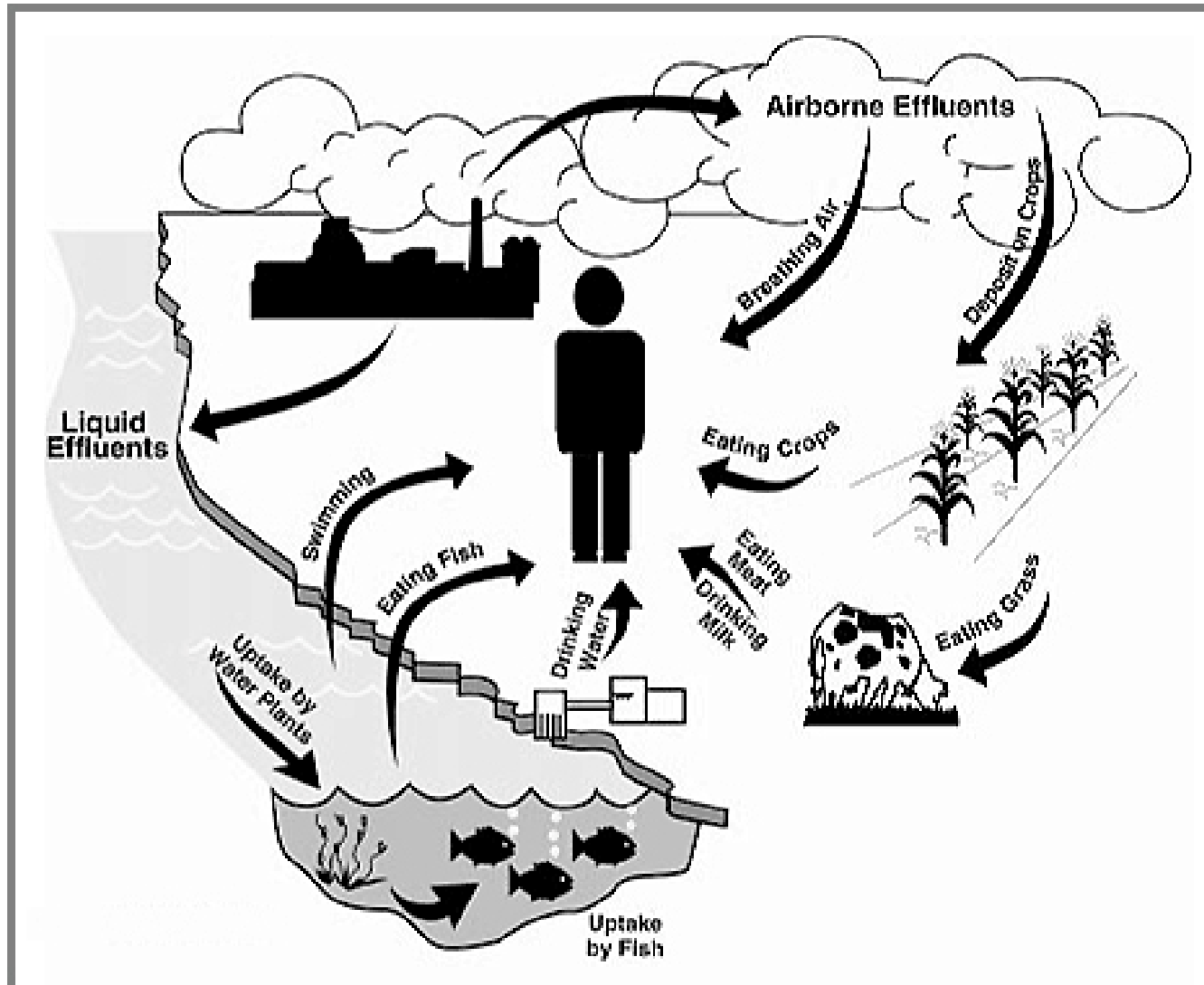


2007 Monitoring Program Summary

- Clean Air Act and Clean Water Act
 - Compliance rate of 100%
 - No notices of violation (NOV)



Contaminant Pathways



2007 Dose Summary

All values are mrem

	Standard	SRS Dose
DOE All-Pathway	100	0.10
EPA Clean Air Act	10	0.04
EPA Drinking Water	4	0.02
Annual Background	360	



2007 Monitoring Results Summary

- Individual Dose

	2007	2006
Water	0.05 mrem	0.09 mrem
Air	0.04 mrem	0.11 mrem
Total	0.10 mrem	0.20 mrem

- Drinking Water Dose

Beaufort-Jasper (Chelsea), South Carolina	0.02 mrem
Beaufort-Jasper (Purrysburg), South Carolina	0.02 mrem
Savannah, Georgia	0.02 mrem



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Differences Between 2006 and 2007 Air Dose

- Significant decrease in 2007
- Fewer contributing radionuclides
- General Separation Area Consolidated Unit (GSACU) Remediation Project completed
 - Increased diffuse and fugitive source observed in 2006



Special Case Doses

- Sportsman Dose
 - 30 mrem Annual Limit
 - Fish
 - 0.24 mrem (maximum, Lower Three Runs bass)
 - Deer/Hogs
 - 9 mrem (maximum onsite deer/hog hunter)
 - 1.9 mrem (maximum offsite deer hunter)
 - 2.3 mrem (maximum offsite hog hunter)



Nonradiological Surveillance

- Mercury in Fish
 - Generally higher in predators
 - Observed maximum Savannah River concentrations ($\mu\text{g/g}$)
 - Bass 1.66 (Lower Three Runs mouth)
 - Bream 2.13 (Hwy 17A)
 - Catfish 1.07 (Four Mile Creek mouth)
 - Levels similar above and below SRS



Nonradiological Surveillance (cont.)

- Long-term Savannah River Water Quality Survey Results
 - WSRC and ANSP monitoring results continue to show that site operations have had no adverse impact on the water quality of SRS streams and the Savannah River.



Closing Comments

- SRS continues to conduct a comprehensive environmental monitoring program.
- The site's airborne and liquid releases to the environment show a long-term decrease.



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Contact Information

- The report is available on the web at:
<http://www.srs.gov/general/pubs/ERsum/index.html>
- To inquire about the report, contact:

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