

# An alternative coal ash disposal method

Coal ash is one of the largest industrial waste streams in the U.S. Each year, and **around 600** coal-fired power plants in the United States produce **140 million tons** of coal ash. Nearly **56%** of the coal ash is stored in more than **1,400 sites in 45 states by landfills** (dry impoundments) or **coal-ash ponds** (wet impoundments), and the remaining is reused for concrete, cement and other construction materials.

North Carolina is the top-ten largest producer of coal ash in the nation. Power plants in North Carolina produce **5.5 million tons of coal ash annually** and **there are 26 enormous coal ash dams, which average store 65,000 acre feet of coal sludge in N.C.**

**EPA regulations for coal ash disposal are weak and dumping coal ash into landfills is absolutely wrong! Alternative solutions are needed.**

## BREDL is on the fight with Coal Ash!

In March 2014, BREDL announced a campaign against coal ash landfilling disposal, and proposed an alternative coal ash disposal method called the “**Salt-Stone**”, which is developed to isolate hazardous radioactive nuclear waste by the Department of Energy (DOE).

### What’s the Salt stone facility?

The Salt-stone facilities consist of two segments: the Salt-stone Production Facility (SPF) and the Salt-stone Disposal Facility (SDF).

#### Model of Salt Stone Facility

- The SPF receives the low-radioactive treated salt solution and mixes it with cement, fly ash and slag for stabilization.
- Then the remaining grout mixture is mechanically pumped into concrete disposal vaults that make up the SDF. These solidified non-hazardous, low-radioactive grout materials are called “salt-stone”.
- The filled vaults will be capped with clean concrete to isolate it from the environment. Final closure of the area will consist of covering the vaults with closure caps, backfilling with earth and seeding to control water infiltration and erosion.

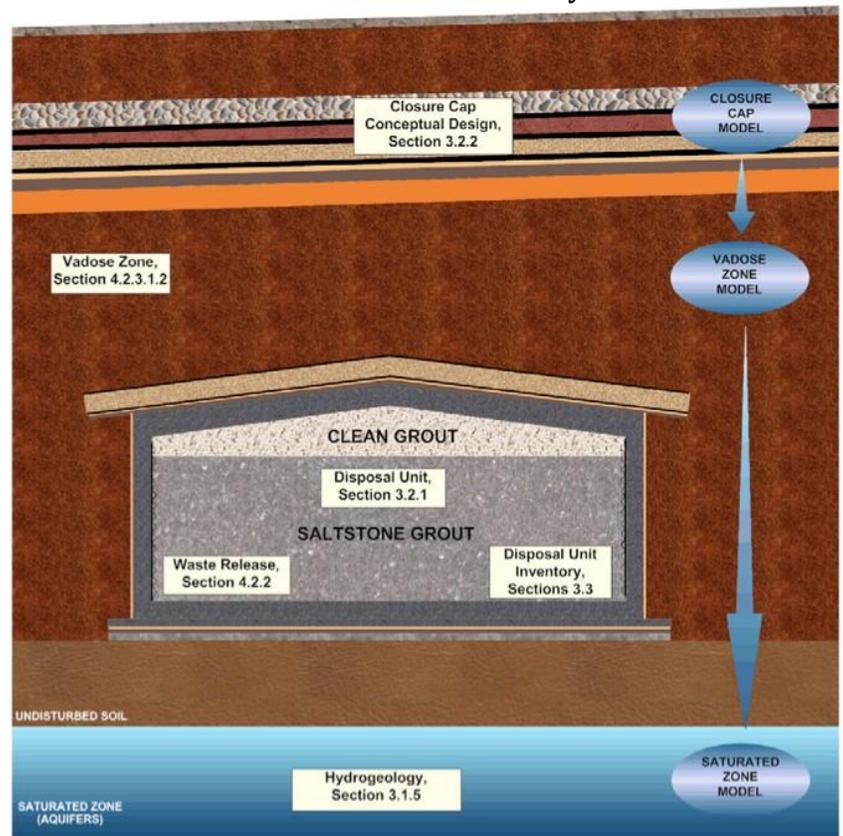


Photo <http://www.srs.gov/general/pubs/srr-lw-systemplan.pdf>

## Blue Ridge Environmental Defense League

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## Development of Salt Stone Facility

Construction of the SPF and the first two vaults of SDF were completed between February 1986 and July 1988 at the **cost of \$45 million** at the Savannah River Site. The radioactive operations began in June 1990, and **to date, it has processed approximately 3.1 million gallons of low-activity waste.**

In order to meet the increasing demand for the safer radioactive nuclear waste disposal method, in 2005, the DOE proposed a draft waste determination plan to modify and upgrade the design and operation of the facility.

Parsons Cooperation is the contractor of the latest designed and constructed Salt Waste Process facility at Savannah River Site. The current Parsons contract value is **\$1.74 billion** and it aims to process **100 million gallons** of radioactive wastes.

The size and quantity of materials involved are briefly described as following:

- “ 145,000 square feet facility
- “ 40,000 cubic yards of concrete
- “ 8,000 tons of structural rebar and steel
- “ 130 miles of wire and cable
- “ 27 miles of piping
- “ 3,700 valves.

### New Disposal Units being built



Photo <http://www.srs.gov/general/news/factsheets/salt.pdf>

### Resources:

- “ Environmental &Energy Publishing, “Dangerous water: America’s coal ash crisis”, May 2014.  
[http://www.eenews.net/assets/2014/05/15/document\\_gw\\_02.pdf](http://www.eenews.net/assets/2014/05/15/document_gw_02.pdf)
- “ S.G. Gilber, “Coal Ash: Toxic threat to our health and environment”, 2012.  
<http://www.psr.org/assets/pdfs/coal-ash.pdf>
- “ SRR, “Saltstone Facility Fact sheet”, 2013.  
<http://www.srs.gov/general/news/factsheets/salt.pdf>
- “ Frank Sheppard, “Written Testimony of Frank Sheppard Parsons Salt Waste Processing Facility”, June 2013.  
<http://www.hsgac.senate.gov/download/?id=584c2946-29b8-4d37-b03b-4c5c49c73bac>
- “ D.P.Chew, “Liquid Waste System Plan”, May 2014.  
<http://www.srs.gov/general/pubs/srr-lw-systemplan.pdf>

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