

HOW MUCH RADIOACTIVE
WASTE COULD POTENTIALLY
BE IMPORTED INTO TEXAS?
WHAT ARE THE RISKS TO
PUBLIC HEALTH AND THE
ENVIRONMENT?

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Potential Import Volume and Radioactivity



Commercial low-level radioactive waste disposed of in the US between 1/1/06 and 12/31/08:

- 8,760,000 ft³
- 2,230,000 curies of radioactivity
- Average: 2.9 million cubic feet and 0.74 million curies per year
- Almost all this waste is now generated in states that do not have an in-compact disposal facility

(Data cited here are from the DOE MIMS database)

Importation Could Easily Overwhelm the Site as Licensed

Class A Waste

The only facility open to non-compact commercial waste at present is the Clive, Utah facility, which is licensed for only Class A waste.

- From 2006 to 2008 Clive took on average 2.8+ million cubic feet of Class A waste per year
- Under the Proposed Rule, much or most of those 2.8 million cubic feet of Class A waste per year could be diverted to Texas, depending on relative economics.
- The WCS site is licensed to hold 2.31 million cubic feet and could be **exceeded by out-of-compact waste in one year**

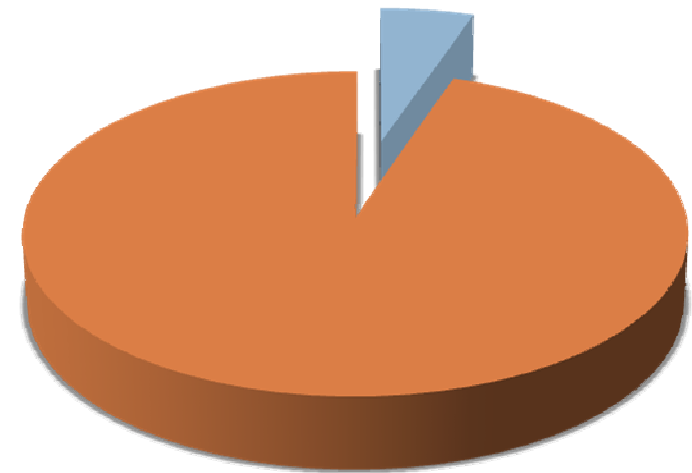
Class B&C Waste

Opening up the WCS site to waste imports could result in the importation of a significant amount of Class B and C waste as well – there is currently no site that is accepting out-of-compact Class B and C waste.

- Well over 90 percent of the approximately 2.2 million curies LLRW was generated in states without waste compacts
- The vast majority of this is Class B and C waste.
- This is an out-of-compact average of about 700,000 curies per year which would likely come to Texas
- The WCS facility is only licensed for 3.89 million curies and could be **exceeded by out-of-compact waste in less than six years**

19 Times the Radioactivity of Compact States Texas and Vermont

- Radioactivity from commercial wastes comes largely from nuclear power plants
- Texas-Vermont Compact has only 5 operating nuclear reactors, with total reactor capacity of 5,500 megawatts
- US has 104 reactors, with a total power rating of 106,000 megawatts
- Thus, importation would increase the radioactivity in the waste that could be sent to Texas roughly 19 times



■ TX-VT
■ Rest of US

Risks to Public Health and Environment → Major Environmental Rule

In § 2001.0225, Texas Government Code , a “Major Environmental Rule” is one:

“that may adversely affect, in a material way... the environment or the public health and safety of the state or a sector of the state.”

- The Compact Commission does not consider the proposed rule to be a “Major Environmental Rule”
- If the Texas facility is opened to **19 times** the total reactor capacity, the likely environmental impact can be expected to increase commensurately.
- LLRW consists of fission products that are dangerous to human health if ingested or inhaled in amounts of a **fraction of a curie**
- This import rule could result in **millions of additional curies** of radioactivity being brought to Texas
- LLRW also contains depleted uranium. While smaller in amounts (average for 200-2008 about 98 curies per year), it is very long lived and radioactivity builds up over time
- The Compact Commission has concluded, without analysis, that the transport, handling, storage, and disposal of millions of curies of radioactivity, some being very long-lived, does not constitute a “Major Environmental Rule”
- Increasing potential volume and radioactivity by more than an order of magnitude over the presently licensed amounts without a detailed estimation of environmental impact would be unwise
- The facts warrant a conclusion that the Proposed Rule should be considered a Major Environmental Rule until an impact assessment is completed

Risks to Public Health

- The impact of at least some non-compact long-lived radionuclides disposed of at the WCS site could be significant
- Radiation and radionuclides are Class 1 carcinogens. Exposure to radionuclides and radiation increases the risk of cancer and potentially other diseases as well.
- Dose from disposal of a single average year of non-compact depleted uranium (about 98 curies per year, 2006 to 2008 average) would likely cause the long-term dose (thousands or tens of thousands of years) to exceed the 10 CFR 61 regulation limit of 25 millirem per year.
- Multi-year disposal at these rates would cause the 10 CFR 61 radiation dose limit to be greatly exceeded.
- Disposal of other long-lived radionuclides would increase the health impacts even further.
- It should be noted that there is no time limit for performance under 10 CFR 61. Dose limits must be met at all times in the future.