

# $oldsymbol{A}$ TLANTIC INTERSTATE LOW-LEVEL

### RADIOACTIVE WASTE MANAGEMENT COMPACT COMMISSION

March 27, 2007

Connecticut New Jersey South Carolina

M. K. Batavia, P.E. Executive Director 1201 Main Street Suite 1830 Columbia, SC 29201

Phone: 803-737-1879 Fax: 803-737-5023

**COMMISSIONERS:** 

Benjamin A. Johnson Chairman Commissioner for South Carolina

Kevin T. A. McCarthy Commissioner for Connecticut

Jill Lipoti, Ph.D. Commissioner for New Jersey

Thomas W. Weeks Commissioner for South Carolina

ALTERNATE
COMMISSIONERS:

John F. Clark Alternate Commissioner For South Carolina

Brian E. Mattiello Alternate Commissioner For Connecticut

Hank Stallworth Alternate Commissioner For South Carolina

The Atlantic Compact was formerly known as the Northeast Compact

#### FOR IMMEDIATE RELEASE

Re: South Carolina House Bill 3545

The Atlantic Compact Commissioners believe that the Atlantic Compact Act of 2000 is working as intended and there is no need for additional legislation at this time. If this were not so, the Commission would be the first to declare, because it is the Commission's role to help preserve long-term economic viability and access to the Barnwell LLW site for its member states.

At a House sub-committee hearing on March 20, 2007, a representative for the Barnwell site operator made comments that require correction, as follows:

#### 1. <u>Atlantic Compact Capacity Needs</u>

The operator advised the sub-committee that the reduced licensed capacity of 1.2 million cubic feet was not an issue because she was sure Connecticut and New Jersey would be willing to relinquish a substantial part of the 800,000 cubic feet reserved for them by law.

The operator stated that (a) the decommissioning waste needs for Connecticut and New Jersey combined are "30,000 cubic feet total for all plants;" and (b) the decommissioning needs for all South Carolina nuclear plants is 65,000 cubic feet.

Connecticut and New Jersey deny the statement that they would be willing to relinquish their capacity reserves, which are needed. Connecticut and New Jersey will require all Compact members to adhere to the Agreement signed by all three member states, regardless of the legislation passed in any member state.

Attached to this document is a South Carolina Energy Office report, "Barnwell Disposal Capacity Projection," indicating that all of the licensed capacity - at least 1,128,840 cubic feet - is required by the Atlantic Compact states. CT and NJ alone are expected to require at least 707,745 cubic feet.<sup>1</sup>

SC's staff has an accurate measure of plant decommissioning needs based upon actual experience with the Connecticut Yankee's Haddam Neck plant and expected shipments from the Salem plant. The Haddam Neck plant alone sent over 31,000 cubic feet to Barnwell and hundreds of thousands of cubic feet of Class A waste to the Utah site. Of the 31,000 cubic feet sent to Barnwell, there were two steam generators and one reactor pressure vessel. New Jersey's Salem plant alone is currently planning to send 4 steam generators with a total of 27,000 cubic feet in fiscal year 2009. Each of these plants alone will exceed the numbers given out by the operator.

In considering H. 3545, it would be irresponsible for the Legislature to presume that any future increase in capacity at Barnwell, created by reason of a new trench design or otherwise, will be formally approved until appropriate studies are made and proceedings held.

Moreover, the first priority for any new capacity at Barnwell should be future Atlantic Region needs:

The March 12, 2007 Atlantic Compact projections are for containerized Class A, B and C waste and assume there will be other disposal options for large volumes of Class A waste. At the hearing, the operator emphasized that the Utah site would be available for large volumes of Class A waste. The operator did not advise the sub-committee that, on March 15, 2007, the Governor of Utah and Energy Solutions signed the attached Agreement designed to end Utah's nuclear waste role. If no other site is available when their plant decommissioning begins, Atlantic Compact states could have hundreds of thousands – if not millions - of cubic feet of additional Class A waste potentially in need of disposal at Barnwell.

The Atlantic Compact projections are based upon the existing 13 reactors in the Atlantic Region and do not account for new reactors. There are up to 4 new reactors on the drawing board for South Carolina alone. While these reactors could utilize new designs that produce less nuclear waste, it is reasonable to assume that these new nuclear reactors would call for an additional 60,000 cubic feet of low-level nuclear waste over the life of each reactor, plus decommissioning waste of 40,000 cubic feet per reactor. Four new SC reactors could call for another 400,000 in disposal capacity at Barnwell.

Also, the Atlantic Compact projections assume nuclear plant decommissioning starting in 2030 through 2055. It is possible that some nuclear plant operating permits will receive extensions from the current plans, although the Commission emphasizes that this would be a matter for other regulatory agencies. The Commission simply points out, however, that this is a possibility for some plants and that any further permit extensions will increase the amount of operating waste from what is currently projected.

#### 2. Operating Budget.

The Barnwell site operator has contended that additional waste should be brought in from out-of-region to help cover an expected \$3.6 million budget shortfall. But the legislation would circumvent the process envisioned by the 2000 Act.

The Atlantic Compact has given notice called for in § 48-46-40(B)(7)(a) of the 2000 Act. Next, the Commission expects that the Budget and Control Board will request a new site operating plan, which will be reviewed by the Board's staff, Compact's staff, and per statute the Office of Regulatory Compliance staff.

Based on the expected costs, revenues measure will be considered by the Board and Compact as necessary.

The Commission is optimistic about this review process and encouraged by a recent statement by the site operator's President to the Compact's staff that "it will be very easy to make up \$3.6 million bucks."

Finally, the site operator suggested to the sub-committee that bringing more nuclear waste into South Carolina would *help* the site, by avoiding use of the site's Extended Care Fund to cover monitoring costs. Based on the most recent study of the Barnwell extended care costs, \$96 million would be needed as of July 1, 2007 in order to cover all projected costs to the State of South Carolina for caring for the Barnwell site; at that time, the balance of the fund will be \$116 million. Beginning to shift long-term site monitoring costs for closed portions of the site over to the Extended Care Fund is *exactly* the intended purpose of the fund.

In conclusion, the Commission believes that the process in the Atlantic Compact Act of 2000 should be followed before any legislation is considered. Furthermore, the recent revelations that the Barnwell site's licensed capacity is diminished and the new concerns over the Atlantic Region's long-term disposal alternatives and future needs require that H. 3545 be rejected as imprudent.

### **Barnwell Disposal Capacity Projection**

South Carolina Energy Office Radioactive Waste Disposal Program March 27, 2007

This Table provides data on projected capacity and use of the Barnwell disposal site, in cubic feet, through the end of the Atlantic Compact commitment period, based on the assumptions that are detailed in the Notes. Based on the assumptions, the Barnwell site would have 71,130 cubic feet of capacity remaining at the end of this period.

		CT/NJ	CT/NJ		SC	New Atlantic	Ni	AAIAI	CF
FY	CT&NJ <sup>1</sup>	Decom <sup>2</sup>	Cumulative 3	sc <sup>1</sup>	Decom <sup>2</sup>	4 Reactors	Non- Atlantic	ANN TOTAL	5
2001	16,353	0	16,353	5,312	0	Neactors 0	104,324	125,989	Remaining
2001	9,085	0	25,438	4,661	0	0	44,013	57,759	
2003	12,719	Ö	38,157	3,800	0	0	49,114	65,633	
2004	15,821	0	53,978	3,348	0	0	40,346	59,515	
2005	5,035	0	59,013	3,073	0	0	35,152	43,260	
2006	11,683	0	70,696	3,485	0	0	29,821	44,989	
2007	6,000	0	76,696	3,000	. 0	0	31,000	40,000	1,200,000
2008	4,000	0	80,696	3,000	0	0	28,000	35,000	1,165,000
2009	17,870	0	98,566	4,000	0	0	0	21,870	1,143,130
2010	8,000	0	106,566	4,000	0	0	0	12,000	1,131,130
2011	8,000	0	114,566	4,000	0	0	. 0	12,000	1,119,130
2012	8,000	0	122,566	4,000	0	0	0	12,000	1,107,130
2013	8,000	0	130,566	4,000	0	0	. 0	12,000	1,095,130
2014	8,000	0	138,566	4,000	0	0	0	12,000	1,083,130
2015	8,000	0	146,566	4,000	0	0	0	12,000	1,071,130
2016	8,000	0	154,566	4,000	0	0	0	12,000	1,059,130
2017 2018	8,000 8,000	0	162,566 170,566	4,000	0	0	0	12,000	1,047,130
2019	8,000	0	178,566	4,000	0	0	0	12,000 12,000	1,035,130 1,023,130
2020	8,000	0	186,566	4,000	0	0	0	12,000	1,023,130
2021	8,000	0	194,566	4,000	0	0	0	12,000	999,130
2022	8,000	0	202,566	4,000	0	0	0	12,000	987,130
2023	8,000	0	210,566	4,000	0	0	0	12,000	975,130
2024	8,000	0	218,566	4,000	0	0	0	12,000	963,130
2025	8,000	0	226,566	4,000	0	ő		12,000	951,130
2026	8,000	0	234,566	4,000	0	0	0	12,000	939,130
2027	8,000	0	242,566	4,000	0	0	0	12,000	927,130
2028	8,000	0	250,566	4,000	0	0	0	12,000	915,130
2029	8,000	0	258,566	4,000	0	0	0	12,000	903,130
2030	8,000	40,000	306,566	4,000	40,000	0	0	92,000	811,130
2031	8,000	0	314,566	4,000	0	0	0	12,000	799,130
2032	8,000	0	322,566	4,000	0	0	. 0	12,000	787,130
2033	8,000	0	330,566	4,000	0	0	0	12,000	775,130
2034	8,000	0	338,566	4,000	0	0	0	12,000	763,130
2035	8,000	40,000	386,566	4,000	80,000	0	0	132,000	631,130
2036	8,000	0	394,566	4,000	0	0	0	12,000	619,130
2037	8,000	0	402,566	4,000	0	0	0	12,000	607,130
2038	8,000	0	410,566	4,000	0	0	0	12,000	595,130
2039 2040	8,000 8,000	40,000	418,566 466,566	4,000	0 40.000	0	0	12,000 92,000	583,130
2040	8,000	40,000	400,500 474,566	4,000 4,000	40,000	0	0		491,130
2041	8,000	0	482,566	4,000	0	0	0	12,000 12,000	479,130 467,130
2042	8,000	0	490,566	4,000	0	0	0	12,000	455,130
2044	8,000	0	498,566	4,000	0	0	0	12,000	443,130
2045	8,000	40,000	546,566	4,000	40,000	0	0	92,000	351,130
2046	8,000	0	554,566	4,000	0	0	0	12,000	339,130
2047	8,000	0	562,566	4,000	0	0	0	12,000	327,130
2048	8,000	0	570,566	4,000	0	0	0	12,000	315,130
2049	8,000	0	578,566	4,000	0	0	0	12,000	303,130
2050	8,000	40,000	626,566	4,000	40,000	0	0	92,000	211,130
2051	8,000	0	634,566	4,000	0	0	0	12,000	199,130
2052	8,000	0	642,566	4,000	0	0	0	12,000	187,130
2053	8,000	0	650,566	4,000	0	0	0	12,000	175,130
2054	8,000	0	658,566	4,000	0	0	0	12,000	163,130
2055	8,000	40,000	706,566	4,000	40,000	0	0	92,000	71,130

#### **TABLE NOTES**

### <sup>1</sup>Ongoing operations waste projection

The table assumes 12,000 cubic feet per year (4,000 cubic feet per state) of waste from the Atlantic Compact region generated through normal operations of nuclear power plants, naval shipyards, and other facilities. This is less than the 14,760 cubic foot annual average for the three states over the past six years.

Atlantic waste to Barnwell, FY01 – FY06 (excluding reactor pressure vessel from Connecticut)

,	cubic feet
FY2001	21,664
FY2002	13,745
FY2003	16,411
FY2004	13,461
FY2005	8,108
FY2006	15,168
TOTAL	88,557
ANNUAL AVERAGE	14,760

### <sup>2</sup>Decommissioning waste projection

A benchmark for the amount of decommissioning waste to plan for from each of the 13 reactors may be the total amount of decommissioning waste received at Barnwell from Connecticut Yankee's Haddam Neck plant from the time of its shut down in 1998 through 2006. (These shipments continued into December 2006, but are winding down in frequency.)

Haddam Neck was a 565 megawatt pressurized water reactor that operated for 28 years. There are 6 operating nuclear power reactors in Connecticut and New Jersey, and 7 in South Carolina.

Haddam Neck has thus far shipped 31,064 cubic feet of containerized Class A, B and C decommissioning waste and large components to Barnwell since its shut down. The table projects 40,000 cubic feet of waste per reactor, instead of 31,000, because of Haddam's Neck's comparatively small size and because reactors in the Atlantic Compact region, on average, will ship for disposal more than two steam generators.

For illustration purposes, the Table shows all decommissioning waste from each reactor received for disposal in a single year. In practice, the waste from each reactor would be received over a period of five or more years, and steam generators from the plants could be shipped for disposal at any time prior to decommissioning.

Haddam Neck Decommissioning Waste 7/1/98 - 12/31/06

cubic feet	
16,401	Miscellaneous
3,578	Steam generator #1
3,578	Steam generator #2
7,507	Reactor pressure vessel
31,064	TOTAL

All of the nuclear power reactors now operating in the Atlantic Compact region have received or applied for renewal of their original operating licenses, and this assumption is included in the Table. It has also been contemplated by NRC staff and others that many nuclear power reactors in the United States will seek subsequent license renewals, which would allow them operate for many more years than indicated on the Table. Should some or all of the nuclear power plants in the Atlantic Compact region receive subsequent license extensions, this would delay the delivery of decommissioning waste by 20 years or more, during which time additional volumes of operational waste would be received.

# <sup>3</sup>800,000 cubic foot obligation to CT and NJ

South Carolina has committed to reserve 800,000 cubic feet of capacity at Barnwell for use by Connecticut and New Jersey. The projections in the Table result in 707,745 cubic feet of disposal capacity being used by Connecticut and New Jersey generators.

"To be eligible for Compact membership, a state must warrant the availability of a regional disposal facility that will accommodate 800,000 cubic feet of waste from generators located within the border of the existing party states (i.e., Connecticut and New Jersey)." 10 CFR 1800.13(c)

"A portion of the Barnwell economic development funding provided by Connecticut and New Jersey must be returned to those states if "the regional disposal facility... is unavailable for disposal of 800,000 cubic feet of waste from generators within the borders of the existing states (i.e., Connecticut and New Jersey)." 10 CFR 1800.13(h) If 800,000 cubic feet is not available prior to January 1, 2009, then they are due a refund of \$2,586,000, plus interest. If 800,000 cubic feet become unavailable any time after January 1, 2009, then they are due a refund of \$1,293,000, plus interest.

# <sup>4</sup>Waste from New Power Reactors

If any new nuclear power reactors are built between now and mid-century they would be eligible to ship waste to Barnwell. Large volumes of waste would not be expected from new nuclear power reactors. No waste from new power reactors or other new facilities is included in the waste projections.

## <sup>5</sup>Barnwell site - remaining capacity

Under a Chem-Nuclear proposal to DHEC, the remaining disposal capacity of the site shown in the Table could be increased. On December 14, 2006, Chem-Nuclear submitted to DHEC a report that proposes a different approach to the construction of disposal trenches. Under the proposal, trenches would be progressively constructed in phases and operated based on projected waste types and volumes. On March 7, 2007, DHEC concurred with the concept described in the report. DHEC has indicated that the specific proposal must undergo a technical review. The DHEC letter states,

"As required in the SC Radioactive Material License No 097, revisions to the drawing specifications, trench qualification and phased trench construction procedures, construction details, waste disposal operations procedures and other

applicable issues associated with the proposed concept must be reviewed and approved by the Department prior to implementation."

#### A DHEC status report explains:

"The estimated capacity of the site is 1.2 million cubic feet based on current disposal technology and operations methods. A progressive trench concept submitted by CNS to streamline disposal trench operations would increase remaining waste capacity to approximately 2.2 million cubic feet." From: Status of the Barnwell Low-Level Radioactive Waste Disposal Facility, February 2007, Department of Health and Environmental Control, Bureau of Land Management. On the web at: <a href="http://www.scdhec.net/lwm/pubs/barnwell\_llwdf\_status.pdf">http://www.scdhec.net/lwm/pubs/barnwell\_llwdf\_status.pdf</a>

Close Window

Send To Printer

### Guv and EnergySolutions strike a deal

By Judy Fahys The Salt Lake Tribune Salt Lake Tribune

Article Last Updated:03/16/2007 09:17:44 AM MDT

Gov. Jon Huntsman Jr. announced a deal Thursday that eventually will slam the gate shut on additional radioactive waste bound for Utah.

Under the agreement, EnergySolutions will abandon a pending application to stack waste higher at its Tooele County landfill, about 80 miles west of Salt Lake City. In exchange, Huntsman agreed not to ask the regional radioactive waste authority to put an overall cap on the volumes going to the site, as he pledged to do last month.

"This is a monumental win for Utahns," the Republican governor said at a news conference.

"As I always have said: I don't think Utah should be a dumping ground for [radioactive] waste."

The deal allows EnergySolutions to continue to accept waste until the areas currently licensed are full. But it requires the company to scrap its plans for a "Supercell" that would pile waste 83-feet-high rather than the 45-feet-high currently permitted.

In effect, the agreement closes the gate to an additional 4.3 million cubic yards of low-level radioactive waste that might have come primarily from nuclear reactor maintenance and from government cleanup sites contaminated with radioactive material.

Based on the trend of shipments since 2002, the commercial portion of the mile-square radioactive waste site would close in about 23 years rather than seven years.

The agreement gives EnergySolutions some certainty to offer its customers and investment partners who might be uncomfortable with a lawsuit over the capacity question. It also leaves the door open for the company to convert an area that takes strictly government waste to commercial and other waste.

"The agreement we have reached preserves the respective rights and interests of Governor Huntsman and EnergySolutions," said company President and CEO Steve Creamer in a news release.

Calling his company's facilities "national assets serving the American people," Creamer said the agreement preserves EnergySolutions' license rights and its ability to meet the long-term needs of its customers.

EnergySolutions and its supporters in the state Legislature were successful last month in making it easier for the company to make changes within its current landfill, as long as the waste stays at or below the contamination level of Class A waste, which is regarded as losing its radioactive danger within 100 years.

If another company wanted to start a waste site, or if EnergySolutions wanted hotter waste or to expand outside its current one-mile-square footprint, approval would be needed from local elected officials, the governor and the Legislature. SB155 basically frees EnergySolutions from that multistep approval scheme.

When Huntsman announced Feb. 27, he would allow the bill to become the first during his administration to go into law without his signature, he also announced he would seek a cap on waste at EnergySolutions. His plan was to seek the limit through an organization called the Northwest Compact, which oversees the flow of low-level radioactive waste within 11 states. When it began as Envirocare of Utah 19 years ago, the company had requested and received an exception from that organization in order to take the kinds of waste that now make up the bulk of its Utah disposal business.

So, Huntsman's threat to use his position in the Northwest Compact to cap waste coming to Utah evidently prompted Creamer to look for an alternative. The company president approached the governor at an investment conference in Deer Valley last week and requested a meeting to try to work out an agreement.

Vanessa Pierce, director of the Healthy Environment Alliance of Utah (HEAL), said many of the more than 1,000 people who called Huntsman's office urging him to veto the bill equated enactment of the bill with less control over the site.

"The governor listened to the people who spoke out during the session and said, 'We don't want to be the dumping ground,' " said Pierce.

But she cautioned: "Utahns must still remain vigilant because this is a promise made by Governor Huntsman, and we need to make sure future governors continue to hold the line when it comes to nuclear waste."

Huntsman doesn't believe there is much risk of his policy being reversed. He said he thinks the culture of Utah has changed to become antagonistic toward hazardous materials.

fahys@sltrib.com

#### The compromise:

- \* This agreement between the governor and EnergySolutions puts a limit on the amount of radioactive waste that can come to the company's landfill in Tooele County.
- \* EnergySolutions' current licensed capacity is about 9.8 million cubic yards. The company has said previously it should be able to dispose of as much as 30 million cubic yards at the mile-square site.
  - \* The company reaffirmed it will not accept "hotter" waste than what is currently allowed.
- \* Huntsman has abandoned his plan to seek a waste cap through a regional waste-oversight organization, but reserves the right to do so if EnergySolutions attempts to amend its license to receive more waste in the future.

#### **AGREEMENT**

This agreement is entered into by and between the Governor of the State of Utah and Energy Solutions. LLC, and any successor or assignee ("EnergySolutions") as follows:

- 1. Energy Solutions will promptly withdraw the Combined Class A Cell license amendment currently pending before the Utah Board of Radiation Control and its Executive Secretary. Energy Solutions may complete the required licensing process for conversion of the remaining already licensed unused capacity (the "converted already licensed capacity") of the currently-licensed 11e.(2) Cell to a Class A Cell (the "Converted Class A Cell"), and upon successfully meeting all technical and legal requirements, utilize the converted already licensed capacity for the disposal of low-level radioactive waste in the Converted Class A Cell.
- 2. EnergySolutions and the State of Utah reiterate their commitment that they do not support Class B or C low-level radioactive waste or radioactive waste having a higher radionuclide concentration than the highest radionuclide concentration allowed under licenses existing on February 25, 2005, being disposed in the State of Utah as outlined in Utah Code Annotated Section 19-3-103.7.
- 3. For so long as EnergySolutions refrains from applying for a license, license amendment, or license renewal for disposal of low-level radioactive waste beyond the currently-licensed low-level radioactive waste cell volumes, which were licensed as of May 1, 2006, and the Converted Class A Cell the Governor agrees to refrain from making, and shall not permit his designee to make, any request to the Northwest Interstate Compact on Low-Level Radioactive Waste Management (the "Compact") regarding low-level radioactive waste volumes for receipt by EnergySolutions, except as necessary to facilitate the Converted Class A Cell volume, or to initiate or support action to limit the volume of low-level radioactive waste on Section 32, Township 1S, Range 11W, of Energy Solutions' Clive Facility.
- 4. Nothing in this agreement shall be construed as an admission by EnergySolutions that the Compact has jurisdiction over its operations or facilities or a waiver of Energy Solutions' rights of recovery, if any, for unlawful taking without due process of law, impairment of third-party contracts, violation of vested property rights, or similar claims, based on future actions of the State of Utah or the Compact. Notwithstanding the foregoing, this agreement shall not be used as the basis for any claims against the State of Utah or the Compact.
- 5. Except for the commitments made by the Governor pursuant to this agreement, nothing in this agreement shall alter or limit the authority or legal rights of the State of Utah, the Compact, the Utah Board of Radiation Control, or the Board's Executive Secretary.

This Agreement will take effect upon the signatures of the parties.

ntsman. Jr.

B Steve Creamer

Chief Executive Officer

EnergySolutions, LLC