



United States Nuclear Regulatory Commission

*Protecting People and the Environment*

# OVERVIEW OF NUREG-1307, Revision 14, “REPORT ON WASTE BURIAL CHARGES”

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## **NUREG-1307, Revision 14 (2010):**

- Advised licensees when new disposal facilities become available, disposal rates will likely be significantly higher.
- Information received since the waste vendor option was introduced in 1998 suggests that the percentage of waste that is actually processed by a waste vendor may be less than 100 percent.
- NRC is considering adjusting the waste vendor option to reflect this additional information in the next revision of NUREG-1307, which could result in an increase in the cost estimate for the waste vendor option.

## **Key Assumptions/Points:**

- Low level Waste (LLW) generated during operations is disposed of using operating funds;
- Plants that have no disposal site available are forced to provide interim storage for this waste; volumes may become significant;
- If additional disposal sites do not become available prior to shutdown, LLW generated during plant operations will be disposed of during decommissioning;

## **Key Assumptions/Points (Continued):**

- Disposal cost for stored waste not accounted for in minimum amount under 10 CFR 50.75(c) (nor would cost of D&D of the storage facility);
- For plants that have no disposal site available, the cost for disposal is the same as that provided for the Atlantic Compact, for lack of a better alternative at this time; and
- NUREG-1307, Rev 8 (1998), applied the assumption of 100/0 Vendor/Direct Disposal option.



## **NUREG-1307, Revision 15, Proposed Changes:**

- Vendor/Direct Disposal ratio of 70/30:
  - Current ratio 100/0 has an approximate \$350 million delta
  - Review of licensee's submitted site specific cost estimate and actual decommissioning experience (more than 30 cases – ML110390111) support 70/30 ratio
  - Potential cost impact range from \$50 – \$70 million
- Aligns formula amount with site specific cost estimates/assumptions, including possible impacts from life extension;



## **NUREG-1307, Revision 15, Proposed Changes (Continued):**

- Update Disposal Costs based on new disposal facility costs; and
- When new disposal facilities become available, disposal rates will likely be significantly higher.

## **Example: SONGS Unit 1**

- **SONGS submittal March 31, 2009**
  - Formula amount \$344.1 million
  - Site specific estimate \$394.0 million
  - Actual radiological expenditure \$385.2 million
  - Balance to complete decommissioning \$8.8 million
  
- **SONGS submittal March 31, 2010**
  - Formula amount \$337.3 million
  - Site specific estimate \$490.4 million
  - Actual radiological expenditure \$461.8 million
  - Balance to complete decommissioning \$28.6 million

## SONGS Unit 1

### RESULTS:

- Despite expected completion cost of \$8.8 million, SONGS spent \$76.6 million since their March 31, 2009 report, and needs an additional \$28.6 million to complete decommissioning;
- The increase in decommissioning costs of \$86.4 million from 2009 to 2010 is mostly due to LLW disposal cost; and
- Actual decommissioning costs exceed the formula by \$153 million (45%)

## FORMULA - 10 CFR 50.75(c):

Estimated Cost (Year X) = [1986 \$ Cost] [A Lx + B Ex + C Bx]

A, B, and C are the fractions of the total dollar costs that are attributable to labor (0.65), energy (0.13), and burial (0.22), respectively, and sum to 1.0. The factors Lx, Ex, and Bx are defined by:

- Lx = labor cost adjustment,
- Ex = energy cost adjustment,
- Bx = LLW burial/disposition cost adjustment<sup>[1]</sup>

# QUESTIONS?



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