

WASTE CONTROL SPECIALISTS LLC

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Cindy Bladey, Chief
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Division of Administrative Services
Office of Administration
Mail Stop: TWB-05-BOIM
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

8/15/2011
76 FR 50500 (3)

- References:
- (1) Texas Radioactive Material License No. R04100, Amendment 08
 - (2) Federal Register, Request for Comments on Volume Reduction and Low-Level Radioactive Waste, Volume 76, Number 157, published on August 15, 2011
 - (3) Letter from J. Scott Kirk, CHP (WCS), to Annette L. Vietti-Cook (NRC), NRC Commissioners' Briefing Regarding Waste Blending (SECY-10-0043) dated June 10, 2011
 - (4) Letter from J. Scott Kirk, CHP (WCS), to Annette L. Vietti-Cook (NRC), Low-Level Radioactive Waste Policy, dated September 22, 2009
 - (5) Federal Register, Policy Statement on Low-Level Waste Volume Reduction, Volume 46, Number 200, published on October 16, 1981

Subject: WCS Comments on the Draft Policy Statement on Volume Reduction and Low-Level Radioactive Waste Management

Dear Ms. Bladey:

Waste Control Specialists LLC (WCS) is pleased to provide comments on the subject *Draft Policy Statement on Volume Reduction and Low-Level Radioactive Waste (LLW) Management* as requested in the U.S. Nuclear Regulatory Commission's (NRC's) Federal Register Notice dated August 15, 2011 (Reference 2).

SUNSI Review Complete.

FRIDS = ADM-03

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WCS had previously provided substantive comments (Reference 3) on the subject of waste blending commending the NRC on the tremendous success that the 1981 Policy Statement on Low-Level Radioactive Waste Volume Reduction has had on industry. As such, WCS believes that volume reduction of radioactive waste is preferable to waste blending and more consistent with maintaining occupational and public doses from ionizing radiation to levels that are As Low As Is Reasonably Achievable.

ENVIRONMENTAL STEWARDSHIP

As discussed in our comments on waste blending (Reference 4), WCS believes that volume reduction, waste minimization, isolation and containment of radioactive waste are the cornerstones of radioactive waste management—a practice that has been endorsed by the U.S. Environmental Protection Agency, the U.S. Department of Energy (DOE), and the international community.

This policy of environmental stewardship has helped reduce the number of shipments of radioactive waste and helped extend the lifetime of existing commercial radioactive waste disposal facilities. It has also provided a framework to better assure that such waste may be isolated, contained, and thus protective of the biosphere.

While we strongly support the volume reduction policy statement established in 1981 (Reference 5), many of the same issues that prompted the Commission to establish the volume reduction policy in 1981 still exist today—namely the high cost of waste disposal and storage, as well as the failure to site new facilities as envisioned under the Low-Level Radioactive Waste Policy Act of 1980, as amended in 1985 (LLWPAA).

CHANGES IN WASTE MANAGEMENT PRACTICES SINCE 1981

The creation of a volume reduction radioactive waste policy statement was innovative at the time and addressed a national need that existed in 1981. However, the nuclear industry and radioactive waste management practices have since matured considerably. The operational efficiencies of the U.S. fleet of commercial nuclear power facilities have increased substantially. Many electric utilities are also contemplating building new and safer reactors that may employ advanced types of fuels to power the national grid. Additionally, the health care system has also matured and requires new radiopharmaceuticals to better diagnose and provide medical treatments for a population that is increasing in age and numbers nationally.

The National Council on Radiation Protection and Measurements (NCRP) reported¹ a six fold increase in the estimated medical component of exposures received by the public since the 1980s. While much of the increase in medical radiation exposures are attributable to computerized tomography and short-lived radionuclides, it also provides testimony regarding the reliance and increased use of radiation and radioactive materials by the medical community that has improved the quality of health care in the U.S.

Over the past few years, stakeholders and policy-makers addressed resurrecting used fuel recycling technologies that were discontinued in the U.S. in the 1980s. These conversations have focused on the feasibility and technologies to reprocess and volume reduce used fuel currently in storage at facilities owned by the DOE and at commercial nuclear power plants across the country. These recycling technologies may significantly reduce the volume of radioactive waste generated. However, they may also pose additional challenges to ensure public safety and protection of the environment from unique waste streams that were not considered or widely encountered when the NRC promulgated Title 10 of the Code of Federal Regulations, Part 61 (10 CFR 61) in 1981.

WCS encourages the Commission to revise its *Policy Statement on Volume Reduction and Low-Level Radioactive Waste Management* to reflect not only its important environmental stewardship role, but also to update the many changes to nuclear technologies and radioactive waste management that have emerged since 1981. Additionally, WCS encourages the NRC to include in its revised *Policy Statement on Volume Reduction and Low-Level Radioactive Waste Management* that the risk posed to human health and the environment from radioactive waste must be balanced against the benefits to the quality of life provided to our society by nuclear technologies.

OPENING OF A NEW DISPOSAL FACILITY

As discussed Reference 2, the Government Accountability Office² (GAO) encouraged the Commission to establish a volume reduction policy to, among other things, extend the lifetime of the existing commercial waste disposal facilities operating in the 1980s. The most compelling reasons for this recommendation was the scarcity of waste disposal capacity since two of the three operating radioactive waste disposal facilities had been threatening to close, and one had reduced the annual amount authorized for disposal by half.

The closure of the waste disposal facility located in Barnwell, South Carolina, to non-regional generators in July 2008, has further underscored the importance of not only the continued reliance on a national policy of waste volume reduction, but more importantly on the need to ensure the availability and access to new and existing radioactive disposal sites.

¹ See NCRP Report No. 160, *Ionizing Radiation Exposure of the Population of the United States*. This report provides an updated estimate the levels of ionizing received by the populations of the United States as previously stated in NCRP Report No. 93 published in 1987.

² Formerly know as the General Accountability Office prior to July 2004.

On September 10, 2009, the Texas Commission on Environmental Quality approved a license (Reference 1) authorizing WCS to dispose of Class A, B and C LLW at its facility in Andrews County, Texas—the first new waste disposal facility developed under the LLWPAA. In June 2011, the Texas legislature approved legislation that would allow importation of Class A, B, and C LLW for disposal in the Texas Compact Waste Disposal Facility. Most recently, the Texas Low-Level Radioactive Waste Disposal Compact Commission approved by-laws governing the import and export of Class A, B, and C LLW into and out of the Texas Compact³. These recent developments mark a tremendous achievement that will once again provide a disposal pathway for radioactive waste that has effectively been stranded and placed in storage at facilities located in 36 states across the country since July 2008.

WCS believes that its facility in Andrews County, Texas, will ensure that waste that has been volume reduced to higher concentrations of radioactivity, including new and emerging unique waste streams, may be safely disposed of for tens-of-thousands of years into the future.

CONCLUSIONS

The NRC is commended for its leadership role in establishing a waste reduction policy that has resulted in significant reductions in both the volume of radioactive generated as well as the number of radioactive waste shipments across the U.S. over the past three decades. While this policy has served its intended purposes, many changes have occurred since the policy was first established. The NRC is encouraged to update its *Policy Statement on Volume Reduction and Low-Level Radioactive Waste Management* to reflect the lessons learned and emerging issues that may challenge the radioactive material licensed community.

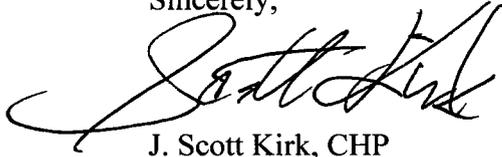
The use of radioactive materials will continue to increase in both the generation of nuclear powered electricity and in the diagnosis and treatment of medical illness and diseases. The small volumes of radioactive waste that is generated, and further volume reduced, cannot be separated from the beneficial uses that arise from these nuclear technologies. A revised *Policy Statement on Volume Reduction and Low-Level Radioactive Waste Management* should clearly reflect that the benefits that such technologies provide are balanced against the small risk that the incidental waste generated poses to human health and the environment.

While the volume reduction policy was established to prolong the lifetime of the existing commercial waste disposal facilities, the closure of the disposal facility located in Barnwell, South Carolina, has underscored the need to develop solutions for LLW management other than just volume reduction and long-term storage. Currently, Class B/C LLW generated in 36 states that do not have access to the Barnwell facility is stranded until a permanent solution can be provided. The opening of the first new disposal facility developed since enactment of the LLWPAA offers a tremendous and promising national solution to radioactive waste management.

³ The Texas Compact comprises Texas and Vermont.

WCS requests that a copy of all correspondence regarding this matter be submitted directly to my attention by fax (972-448-1419) or email (skirk@valhi.net). Thank you for your consideration of these comments on the *Policy Statement for Volume Reduction and Low-Level Radioactive Waste Management*.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Scott Kirk". The signature is fluid and cursive, with a large initial "J" and "K".

J. Scott Kirk, CHP

Vice President, Licensing, Corporate Compliance & Radiation Safety Officer

cc: Larry M. Camper
William P. Dornsife, WCS
Jim Van Vliet, WCS
Linda Beach, WCS
Mike Woodward, Hance Scarborough
Pam Giblin, Baker Botts