



Explore, enjoy and protect the planet

## WASTE CONTROL SPECIALISTS & THEIR PLANS IN ANDREWS COUNTY

Waste Control Specialists LLC (WCS), a hazardous and radioactive waste processing and disposal company, operates a state permitted 1,338-acre treatment, storage and disposal facility 30 km west of Andrews, Texas, just next to the New Mexico border. There, WCS operates a facility that takes hazardous and “mixed” waste for burial in a hazardous waste landfill, as well as a radioactive materials processing and storage license. This storage license includes highly radioactive “K-65” waste from Fernald, Ohio from an old weapons processing facility that was reclassified as “11(e)(2)” byproduct material waste by an act of Congress to facilitate its importation to Texas. WCS is also attempting to bring in low-level radioactive waste

into its storage license. The Texas Commission on Environmental Quality has issued conditional licenses to WCS to dispose of both Byproduct Material and Federal and Texas Compact Low Level Radioactive Waste, transforming the facility into the largest radioactive waste disposal facility in the country. Since most of the existing US nuclear waste disposal sites have closed, are leaking, or no longer accepting out-of-state waste, the nuclear power industry is strongly in favor of these proposed licenses. *WCS wants to become the nuclear waste disposal center for nuclear power and left-over weapon waste. The Lone Star Chapter of the Sierra Club has appealed both licenses to District Court.*



Photo from WCS Website

1. Access road to 1,338-acre fenced site (guarded entrance)
2. On-site rail spur and rail-unloading facility
3. Maintenance building
4. Administration building with analytical and radiological laboratories
5. Container Storage Building (CSB)
6. Stabilization Building (SB) (left portion) and Mixed Waste Treatment Facility (MWTF)

7. Bulk/Bin Storage Units (BSUs) 1-3 (bin storage area [BSA-1] is covered)
8. RCRA subtitle C landfill (being expanded to the East)
9. Proposed location for 11e (2) byproduct material landfill
10. Proposed location for Federal LLW/MLLW landfill
11. Proposed location for Texas Compact LLW landfill
12. Ten-acre storage area for low-specific-activity (LSA) waste

## **BYPRODUCT MATERIALS DISPOSAL LICENSE**

On October 26<sup>th</sup>, 2007, the Texas Commission on Environmental Quality issued a *draft* license to WCS to import up to 1,169,000 cubic yards (or about 32,000,000 cubic feet) and up to 24,350 radioactive curies of so-called “byproduct material.” (A curie is a very large unit of radioactivity equal to the amount of a radioactive isotope that decays at the rate of 37,000,000,000 disintegrations per second. Each decay is an alpha, beta or gamma ray that can initiate a cancer or other negative health effect.)

Although the issuance of the draft license might make it appear that the company had fulfilled the rules and regulations governing disposal of radioactive materials, the license was surprising since it added many conditions requiring that basic studies be performed by WCS before waste could be accepted.

Indeed, the Lone Star Chapter of the Sierra Club argued that the license could not and should not be granted since basic hydrology and geology studies were not complete, including information about the zone of saturation, fissures and fractures.

The WCS application is woefully incomplete leaving big questions about how the radioactive and hazardous waste will affect the precious water in the region.

On November 27<sup>th</sup>, 2007 Sierra Club and 11 residents of Eunice, New Mexico said the granting of the license would potentially impact the health, welfare and economic well-being of their lives, and asked for both a public meeting and contested case hearing on the application.

Then, on March 14, 2008, TCEQ responded to comments by WCS and the public and released a new, slightly revised draft license.

### **No public meeting!**

TCEQ also denied the request to have a public meeting on the license *because no one in Andrews*

*County had requested a public meeting*, even though both Sierra Club and multiple residents of Eunice (much closer to the site than Andrews residents) had asked for a meeting.

Apparently, the residents of New Mexico were not important to the TCEQ even though their homes were the nearest population center to the WCS site.

### **Will TCEQ allow Sierra Club to intervene?**

On May 21<sup>st</sup>, 2008, two out of the three Commissioners of the TCEQ refused to grant a contested case hearing to the Sierra Club and the 11 residents of Eunice who requested one. They also granted the license with certain conditions. Sierra Club has now appealed that decision not to grant a hearing to Texas State District Court in Travis County.

## **WHAT ARE BYPRODUCT MATERIALS?**

Byproduct material is the leftover residue from the processing of ore bearing uranium or thorium. The uranium is removed and converted into “yellowcake” either directly at the mine or at a nearby processing facility and subsequently enriched and converted into fuel for nuclear reactors.

The residue left behind by the processing of the uranium ore is called byproduct material. Not only can it include the actual uranium ore residues, but when processing plants are decommissioned, it can also include piping, valves, tanks and other equipment.

## **WHAT IS K-65 WASTE?**

K-65 wastes are the uranium mill tailings resulting from a uniquely concentrated uranium ore discovered before WW II in the former Belgian Congo, now Democratic Republic of Congo. This ore had a record 65% uranium content (as opposed to 0.1 % uranium content of most ore used by the Atomic Energy Commission).

It also held very high concentrations of thorium and radium (and their decay products, including

radon gas), retained in the tailings (residues). The K-65 ores were refined as a key part of the Manhattan Project during World War II at the Linde Ceramics Plant at Tonawanda, NY, and at the Mallinckrodt Chemical Works in St. Louis. The Mallinckrodt "K-65 residues" were later moved to a huge new Cold War uranium refinery at Fernald, OH (outside of Cincinnati) that commenced operations in 1951. The refining of "K-65" ore was continued at Fernald. The Linde "K-65 residues" were transported to a storage silo built at the Lake Ontario Ordnance Works site outside of Lewiston, NY, a short distance from Niagara Falls.

Because of a controversial decision by the U.S. Congress, so-called K-65 wastes were reclassified in 2003 as byproduct material.

The decision allowed the waste being stored at both the Fernald Ohio site as well as the similar Department of Energy Niagara Falls Storage Site (Lewiston, New York) to be legally disposed of at sites with licenses to dispose of byproduct material waste, even though the K-65 waste has much higher radioactivity levels.

While DOE initially sought to bury the waste at an Energy Solutions facility in Utah, the legislature there was so concerned they barred some of the waste from being imported. It is important to also note that the recommendation from many experts was that the waste should be "vitrified" as opposed to being placed in its present metal containers.

In 2005, WCS amended its existing byproduct materials storage license to be able to import the Fernald Ohio waste and store it on-site, until it could be disposed of. Under the WCS byproduct material draft license, WCS would be allowed to dispose of both the Fernald waste but also potentially the Niagara Falls waste.

### **WHAT ISSUES DID RESIDENTS LIVING NEAR THE PROPOSED SITE RAISE?**

In comments submitted to the TCEQ, those seeking a "contested case hearing" (including 11 residents of Eunice, New Mexico and the Sierra Club, which has several members in both Eunice,

New Mexico and Andrews, Texas) raised numerous objections to the proposed license, including:

1. the lack of an accurate characterization of the geology and hydrology of the proposed site;
2. the failure to take into account severe weather events and their impacts, including high wind and high rain events;
3. the failure to consider the full range and impact of traffic accidents in route;
4. the failure to look at the potential impacts of the nearby Resource Conservation and Recovery Act (RCRA) hazardous waste landfill and the possible low-level radioactive waste license on the application;
5. the failure to submit a more finalized design of the site, including the use of railcars to import waste to the site;
6. The failure to consider all design alternatives to the proposed near-surface burial of byproduct materials.

In making these arguments, those opposed to the granting of the license relied principally on the internal analysis done by TCEQ staff, which found major problems with the application.

Nearby residents are concerned that accidents, high winds or tornadoes or gradual leaching of wastes underground could impact their groundwater and health.

### **"LOW-LEVEL" RADIOACTIVE WASTE**

While the byproduct materials site is of concern to many residents of Eunice and within Andrews County, in terms of its radioactive content, it is a much smaller application than the license for a low-level radioactive waste site at the facility.

**So-called "low-level" radioactive waste has all the same radioactive elements of high level radioactive waste but in a different form.** So plutonium (radioactively hazardous for a half million years) and cesium and strontium (bone and muscle seekers that must be isolated for 300 to 600 years, and which can concentrate in the food chain) are in this deceptively named category.

The proposed low-level waste facility has a long and convoluted history.

Briefly, the State of Texas entered into an agreement – called a Compact – with the states of Maine and Vermont to dispose of low-level radioactive waste in Texas under provisions of a federal law on low-level radioactive waste.

Maine has since dropped out of the Compact. Initially, the State was to select the site, and design and operate a low-level radioactive waste site. However, after several previous attempts failed, the state selected a site in Hudspeth County near Sierra Blanca that was riddled with problems, principally related to seismic activity. The TCEQ rejected the proposed site after a lengthy hearing in 2000.

In 2003, the Texas Legislature “privatized” the disposal of low-level radioactive waste, while also allowing any applicant to also *import federal low-level radioactive waste from Department of Energy sites*. WCS was the only applicant.

### **WHAT IS THE STATUS OF THE LICENSE?**

While WCS initially submitted an application in 2004, the application has been riddled with deficiencies requiring additional submittals. In March of 2007, the Texas Commission on Environmental Quality declared that the application was administratively complete.

In August of 2008, the TCEQ issued a draft license, a license opposed by some residents of Eunice, New Mexico and the Sierra Club. Finally, on January 14, 2009, two of the three TCEQ commissioners approved the license – conditioned on certain pre-construction conditions being met – and denied the request by the Sierra Club and residents of Eunice for a contested case hearing.

In March 2009, the Sierra Club appealed the decision not to grant a hearing to Texas State District Court.

### **WHAT KIND OF WASTE; HOW MUCH?**

Although the TCEQ has yet to issue a draft license,

based upon the law passed by the Texas legislature and earlier license drafts, the license would authorize a total volume of 2,310,000 cubic feet and radioactivity not to exceed 3,890,000 curies of Compact Waste from Texas and Vermont. This would consist mainly of waste from (a) the nuclear plant in Vermont and (b) two existing nuclear plants in Texas (Comanche Peak and the South Texas Project in Matagorda County), and (c) much less radioactive waste from hospitals and research facilities.

If additional nuclear plants are built in Texas – and there are applications for seven more – that would come to the site as well. It is important to note that the states of the Central Compact – Louisiana, Arkansas, Oklahoma, Nebraska and Kansas – have also expressed an interest in sending their waste to Texas.

In addition, the license is likely to also authorize – based on the 2003 law – up to 26,000,000 cubic feet of FEDERAL facility waste, not to exceed 5,600,000 curies. This waste would come from old nuclear power and weapon plants managed by the federal government.

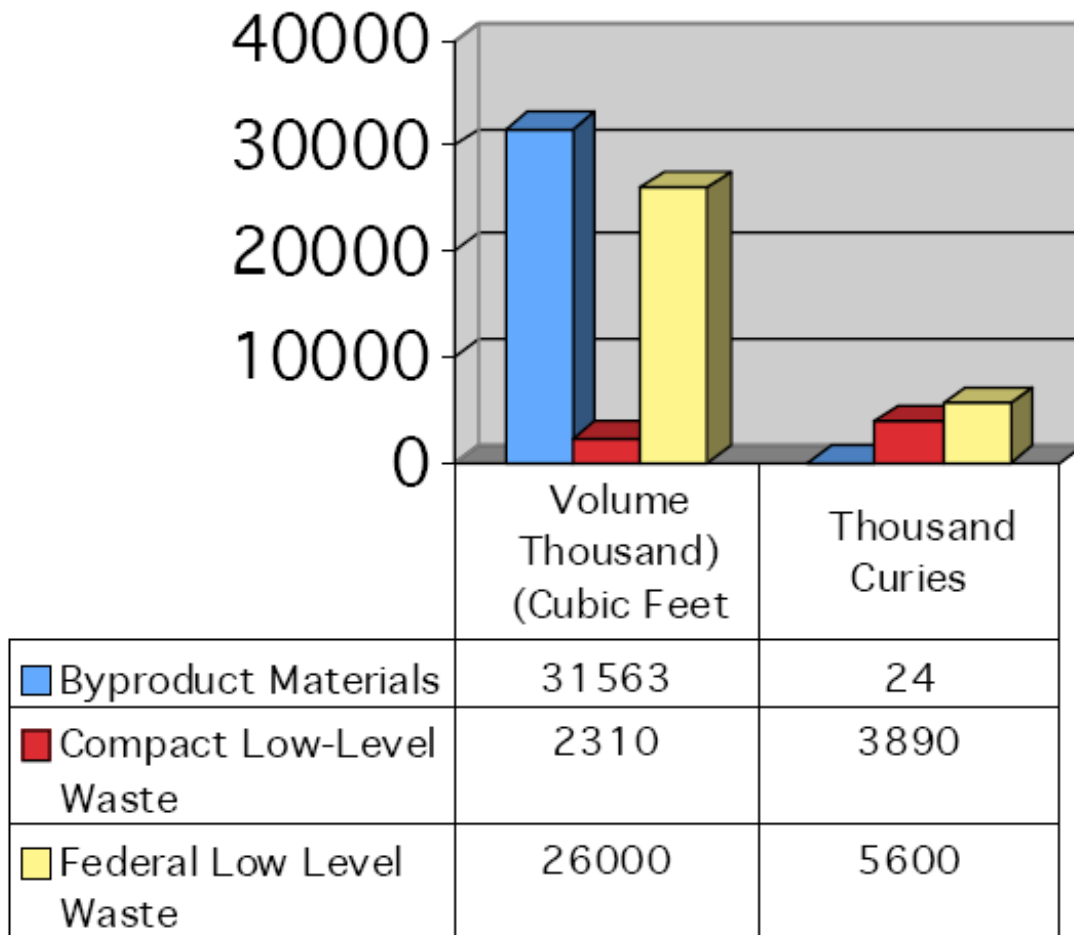
Moreover, a loophole in the Compact law allows the Compact Commission to import waste from anywhere on a simple majority vote. Finally, because of the recent permitting of the LES Uranium Enrichment Plant in New Mexico across the border, future depleted uranium waste could potentially be buried at the WCS low-level radioactive site as indicated by press statements of the LES owners.

### **WHAT ARE THE ISSUES WITH GROUNDLEVEL BURIAL OF RADIOACTIVE WASTE?**

The history of burying low-level radioactive waste in trenches in near-surface burial has not been a good one. Of the six sites that have been licensed in the U.S. for burial of low-level radioactive waste, three are now closed, and all six have had environmental problems due to accidents and leakage into groundwater.

## WCS SEEKS TO MAKE TEXAS THE DUMPING GROUND FOR HUGE VOLUMES OF RADIOACTIVE WASTE

Volume (Thousand Cubic Feet) and Radioactivity (Thousand Curies) of Proposed Disposal Sites, WCS



In Andrews County, there remain concerns and uncertainties about the “dryline” and “wetline” under the site, about the basic hydrology and connections to the Dockum Aquifer water table, and about the presence of saturated sand formations.

Many experts believe that in fact, Andrews County is not a good place to bury low-level radioactive waste – particularly when they are applying to bring in federal radioactive waste, the extremely “hot” K-65 uranium weapons waste from Ohio and New York and depleted uranium in addition to the “Compact” waste.

### **HAS WCS EVER HAD A PROBLEM MANAGING RADIOACTIVE WASTE?**

In March 2005, Waste Control began processing radioactive waste from the Rocky Flats plant, a site in Colorado that manufactured plutonium triggers for the hydrogen bomb program. On June 2, 2005, while processing this waste, a worker was wounded on his leg by a piece of contaminated metal at WCS’s mixed waste facility. Elevated levels of two plutonium isotopes, as well as americium-241 were found in the worker’s urine and feces. The investigation expanded to include eight co-workers. All but one tested positive for low levels of radio nuclides. On September 22, Waste Control management decided to suspend operations at the



mixed waste facility and expand the testing to virtually all employees.

In all, 43 individuals had been exposed to plutonium and americium. According to Waste Control, a ventilation system wasn't working properly, allowing plutonium and americium particles to escape into the lunchroom and adjacent hallways.

Waste Control officials assert that the workers were exposed to plutonium and americium-241 over a six-month period in 2005. In contrast, a 2007 TCEQ audit found that the exposures "might have been going on since 2002."

Four male workers tested positive for radio nuclides in 2007, according to TCEQ documents. One employee told inspectors in an August 2007 interview that "the air vents at the mixed waste treatment facility had not been fixed completely." There have been other accidents involving radioactive material. In October 2005, two state inspectors investigated a string of contamination events, including the worker exposures.

Their report notes three other "cross-contamination" incidents that had occurred in as many years: one involving tritium; one involving radon gas; and a leakage of americium-241 and plutonium-239 into a septic system.

Recently, Waste Control agreed to pay \$151,000 in fines to TCEQ for contaminating septic systems on two occasions, and for elevated levels of heavy metals such as arsenic, lead, and mercury at a railcar unloading area.

## HOW CAN THE PUBLIC BECOME INVOLVED?

What should the public do? There are several steps that members of the public in West Texas and Eastern New Mexico could take to assure that the proposed licenses are protective of human health and the environment.

First, if the TCEQ grants a preliminary hearing through the State Office of Administrative

Hearings for the byproduct materials license, then there will be an opportunity for members of the public to become involved... in addition to those residents and organizations which have already asked for a contested case hearing.

Second, the low-level radioactive license application may lead to a public meeting at which the concerns, expertise and views of any member of the public can be shared with the TCEQ and applicant.

Finally, the most important way to prevent the need for radioactive waste disposal is to defeat proposals for additional power plants fueled by uranium mining (a problem in South Texas), enrichment and conversion to nuclear fuels. With plans on the books to build seven new nuclear power plant units in Texas, it is time for citizens to become active in stopping these new plants and instead to **move toward a clean, renewable energy future.**

For More Information, please contact:

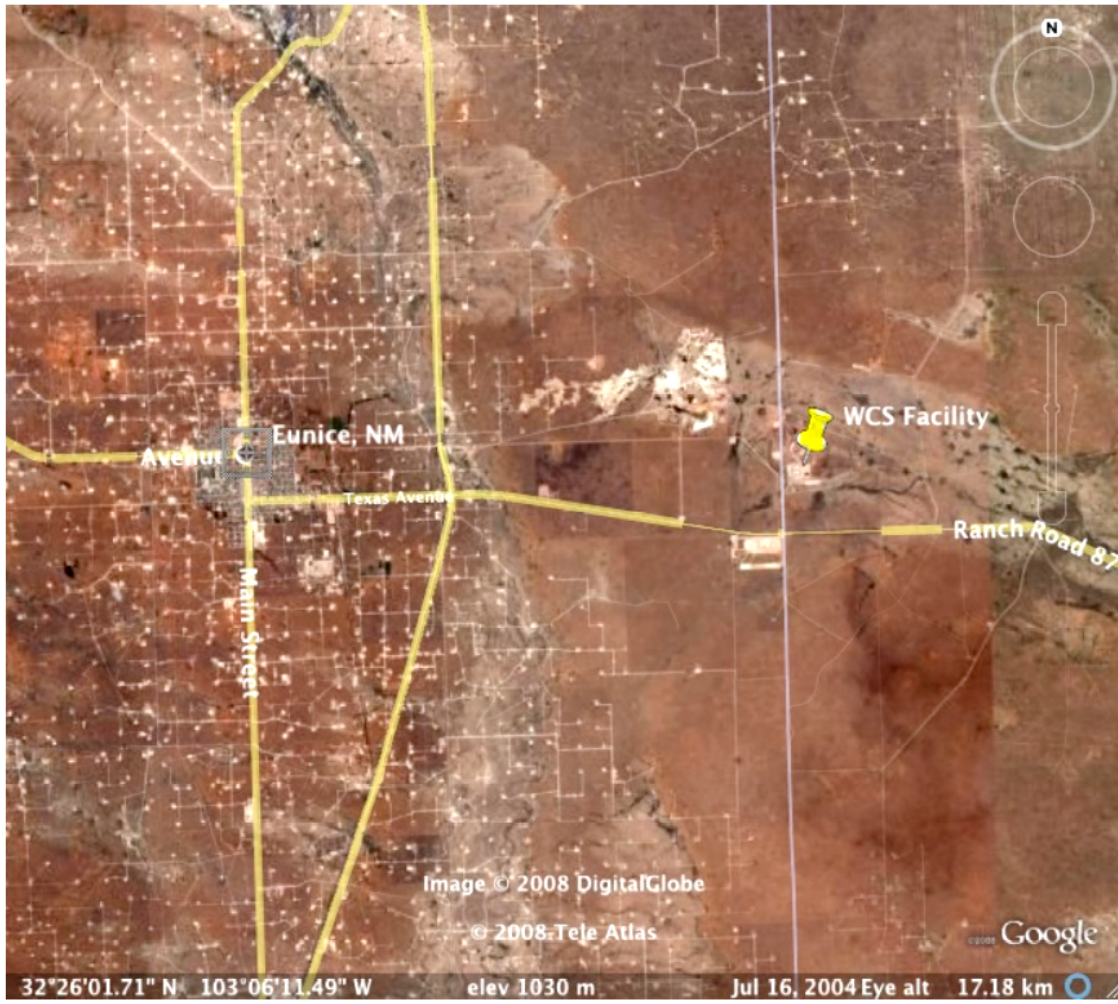
Cyrus Reed, PhD  
Conservation Director  
Sierra Club, Lone Star Chapter  
512-477-1729 or 512-740-4086 (cell)  
[cyrus.reed@sierraclub.org](mailto:cyrus.reed@sierraclub.org)  
PO Box 1931  
Austin, Texas 78767

Also visit our website at  
<http://texas.sierraclub.org>



SIERRA  
CLUB  
FOUNDED 1892

Map showing location of WCS Facility to Eunice, New Mexico



7.08 kilometers