RAS 14024

Testimony before the Atomic Safety and Licensing Board
Proposed Mixed Oxide Fabrication Facility at the
Savannah River Site, South Carolina

August 21, 2007

Gentlemen,

My name is Jeannine Honicker, I reside at 704 Camellia Drive, LaGrange, Georgia.

My testimony today is derived from information I gleaned from your Environmental Impact Statement on the Construction and Operation of a Proposed Mixed Oxide Fuel Fabrication Facility at the Savannah River Site, South Carolina, NUREG 1767, which I accessed at http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1767. All references in the body of this statement pertain to that document.

My concern with nuclear plants has always centered on routine releases, and this facility is no different. Section 2.2.2.3, Page 2-6 , Radioactive effluents and Waste at the PDCF, states: "Preliminary estimates indicate that small quantities of various plutonium isotopes and americium 241 and tritium gas would be emitted to the air from the facility"

However, page 4-20, paragraph 2, line 6 states "There would be no process emissions from the PDCF"

How does this square with page 2-6's statement of plutonium, americium and tritium gas emissions?

Page 3-55 "The most important potential exposure pathway for workers and the general public would be through inhalation of contaminants." It is a well established fact that even the smallest particle of inhaled plutonium is a death sentence.

Furthermore, your identification of the releases as small lacks specificity. How can this be evaluated as to the latent cancer fatalities with no quantitative amount given? This one fact negates all the rest of your claims of low impact for this proposed facility.

Furthermore, page 1-0 section 1.2.2 and page 2-3 section 2.2.2.1 states: "Since the PDCF and WSB would not be under NRC's Atomic Energy Act jurisdiction, the safety issues pertaining to the PDCF and WSB will not be addressed by the NRC in the FSER,"

The fact that the NRC has no authority over licensing or operation of the PDCF and WSB complexes which are vital components of the MOX production facility makes a sham of your ability to protect the health and safety of the public, which is the first stated purpose of the Nuclear Regulatory Commission. It is therefore the responsibility of this licensing board to deny the License of the MOX fuel facility.

Furthermore, page 4-86, section 4.5.1.1, Cumulative Impacts states:

"Impacts to water quality are not treated explicitly in the cumulative impact analysis because direct and indirect impacts are expected to be small."

Again, "small" is not a quantitative term.

Page 4- 36, 4-3-4-22, Waste management impacts from Operations states: "The liquid LLW generated 6.0 million gallons/10 years, from the three facilities, (MOX, PDCF, and WSB) would be transferred to the WSB for treatment and then discharged to the Upper Three River Creek. . . . Facility operations would not contribute to the cumulative impacts of SRS activities on water quality because liquid effluents would be discharged to surface water under existing NPDES permit guidelines."

The groundwater under the proposed MOX facility is already contaminated. Page 3-13: "Near the F. Area Tank Farm, tritium, mercury, nitrate-nitrite (as nitrogen), cadmium, gross alpha and lead were detected in concentrations that exceeded drinking water standards. . . In addition, a subsurface plume of tritium and strontium contamination has recently been found in F Area. . . The contaminated plume appears to originate inside F Area and extend beneath the MOX facility site, with movement in a fan-like direction of groundwater flow under the proposed MOX facility site. . . Gross alpha and beta activity, tritium, uranium and

trichloroethylene exceeding maximum contaminant levels for drinking water contamination is present beneath the entire MOX site."

Worker health issues: Operation workers at the three components of this facility, PDCF, MOX and WSB are called facility workers. Construction workers are separated from facility workers, and are classified as such. Other site wide employees are identified as SRS workers.

Even construction workers are at unquantifiable risks because of inadequate pre-testing for pre existing toxins in the soil. Section 4.3.1.2.1 page 4-12 "Tests were run on 50 soil samples from 0 to 12 inches deep, looking for 10 metals... The number of substances analyzed was low and did not include trichloroethylene and arsenic, which past history shows extensive contamination at SRS.... Also, if contamination was present at lower soil levels, (see discussion of groundwater above,) it would not have been detected." If after the soil is already excavated, and it is deemed warranted because of "odor," further tests would be done.

Section 4-3.1.1. "If contamination was found, potential exposure and health impacts to the construction workers would be assessed."

Section 5 mitigation, page 5-4, table 5-1 addresses the problem.
Human health risks: "Radiation doses to workers during construction will be kept to a minimum by using administrative levels, and ALARA, (as low as reasonably achievable) programs, including WORKER ROTATION."
This is coded REG, meaning it is required by regulations.

The NRC proposes: "Construction workers should be protected from inadvertent radiation and chemical exposure by soil testing and analysis prior to excavation to ascertain that levels of radiation and inorganic or organic chemicals in soil would not present a health hazard during construction activities."

Has excavation work already been done?

Not only construction workers but other SRS workers and even the public already may have received an inhalation dose or possibly an ingested dose if site excavation has been done.

However, section 4.3.1.1.1. states: "No additional radiological impacts are expected from the construction activities because no surface contamination is present."

With even the NRC recognizing the dangers and directing mitigation strategies prior to excavation, section 4's conclusion puts in doubt all other claims of low or no adverse impact. It seems as if two different entities wrote this FEIS, with certain segments giving facts, and writers of section 4, spouting the nuclear industry line, "No harm to the public or the workers."

Chemical exposure to facility workers are not evaluated for either routine operations or for accident conditions. Beryllium, which will be used in this operation, is so toxic that some nuclear workers, or their surviving spouses, have received compensation of up to $150,000 from the Department of Labor for beryllium related deaths and diseases. This is just one of many toxic chemicals threatening facility workers if this license is granted.

Page 4-13, "SRS employees and the public could be exposed to chemicals emitted to air, water or soil from the proposed MOX facility, the PDCF and the WSB."

Page 4-33, "TRC waste would include contaminated beryllium pieces and cuttings." Beryllium was not discussed in detail as to adverse health effects to workers.

Page 4-12, "For normal operations inhalation and risk for facility workers are difficult to estimate. This is due, in part, to the large amount of uncertainty associated with estimating airborne chemical concentrations in various rooms of the facility. For this reason, quantitative estimates of risk to facility workers from inhalation of substances emitted during facility operations were not developed for this FEIS."

Appendix E, page E-3,"Impacts to facility workers would be sensitive to the specific circumstances of each accident and are not estimated in this assessment."

Radiation doses are not quantified either, but assurance is given that they will not exceed the allowable dose.

Page E-18, "Radiation dose Conclusions:" (Was this written by the same people who wrote section 4?)

"The information on radiation sources, worker activities and number of required workers is subject to a large degree of uncertainty, as are the estimated collective and MEI (most exposed individual) worker doses. However, the radiation dose to the individual worker would be monitored and maintained below the NRC annual occupational total doses limits of 5 rems. (Code of Federal Regulations, Title 10, Part 20 {10CFR20{)"

Appendix J, page 8 explains how the doses are computed to not exceed the annual occupational total dose limits. "Radiation doses to facility workers were not affected because administrative limits were used to compute exposure."

Dosimeters only register external doses. Internal radiation doses, inhalation and ingestion, are more dangerous, and are ignored. Chemical doses are not considered, for either routine or accident exposures.

Risks from operation of the PDCF, MOX and WSB are not limited to only facility workers, however.

Page 4-88, "Cumulative collective doses to workers at SRS would increase approximately 9 percent." This is only from routine operation. See section E, page 3 "Accident risks to workers are not calculated."

Criticality accidents with bomb grade plutonium can not be quantified. How can the wind stop blowing at a 50 mile fence? Who can guarantee that the people of Atlanta, LaGrange, or even Washington DC will not be adversely affected in case of a criticality accident. The Price Anderson Act partially covers liability for accidents at nuclear power plants. But this not a nuclear power plant.

The licensees of this facility will be totally liable for accidents. Are they financially capable of this liability?

The state of Georgia stopped its radiation monitoring program a few years ago. DOE recently completely cancelled funding for the University of Georgia Ecology Lab, which was the only independent facility capable of monitoring SRS. Unable to secure independent funding, the lab is closing. The department of health should take over the funding and reinstate a truly independent monitoring program.

A program must be established to routinely test municipal water systems for radionuclides. Monitoring of milk for SR 90 must be reinstated. Fish, meat and vegetables grown in this area must be tested before they are released to the market place.

DOE is totally responsible for the contamination of the groundwater, which is extensive at SRS. To make them responsible for operation of buildings PDCF and WSB is totally unacceptable.

Dangers to residents of Rock Hill, SC, nearest populated area to Catawba Nuclear Plant, where MOX fuel is proposed to be used at the ratio of 40% MOX to 60% Low Enriched Uranium fuel, were not specifically identified as being at increased risks from the burning of this bomb grade plutonium being incorporated in the fuel for that facility. This FEIS calculates however, that consequences of a beyond design basis accident (a Chernobyl degree accident) will increase by 14%.

At the time this FEIS was written, there were no firm contracts for purchase of this MOX fuel. Can you confirm that the owners of Catawba and McGuire Nuclear Plants are going to buy it? How much will the utilities pay for this fuel, vs the taxpayers cost of producing it. including the cost of construction, operation of the facility for its lifetime, transportation, disposal of waste, and decommissioning? How can you estimate externalities, the costs to victims of any adverse health effects, and the total cost of damaged and destroyed property in case of an accident?

What are the green house effects of this operation?

Page 4-23 states, "Concentrations of lead and ozone were not modeled. Ozone is formed by photochemical reactions or precursors including NO2 and VOCs. At some time in the future EPA will issue conformity regulations for the new NAAQs for ozone and PM2.5." Compute the ozone contributions from this facility and the effect it will have on climate change.

Transportation associated with this operation of this facility, excluding construction, is estimated to be up to 5.1 million miles. How many gallons of fuel will be burned during transit? What will be the CO2 emissions?

Since this MOX fuel is designed to be used in a commercial nuclear reactor, the greenhouse gases, ozone and CO2 associated with its production and transportation, should be clearly defined and made available as part of the cost-benefit analysis.

The need for this project has been negated by recent DOE activities. The primary purpose of MOX was not to produce fuel for civilian reactors, but to dispose of weapons grade plutonium so that it could never be used in the manufacture of nuclear weapons. SRS, along with other locations, is being considered as a site for a modern pit facility to produce 450 plutonium pits/yr, for new nuclear weapons, Reliable Replacement Warheads (RRWs).

What difference does it make whether the plutonium is already weapons ready, as this plutonium is, or if new plutonium is used in nuclear weapons? Either will spark a renewed nuclear arms cold war that will bankrupt both Russia and the U.S., and/or lead to an eventual no-win nuclear war.

As part of the cost benefit analysis, consider the cost of the modern pit facility; add the cost of building and operating new military reactors to produce the plutonium, plus a reprocessing facility to extract it from the spent military fuel. These costs are avoided if the MOX facility isn't built. The savings to taxpayers would be the combined costs of construction, operation, transportation and decommissioning of this three-part facility. Add these

savings to the avoided costs of the Modern Pit Facility, the military reactors, and the new reprocessing facility if you chose the no action option. Why spend money to destroy bomb grade plutonium, then go to the expense of recreating it?

The 1954 Atomic Energy Act prohibits the co-mingling of nuclear material for weapons and commercial reactors. That has always been interpreted as prohibiting the production of nuclear weapons material at commercial nuclear plants, thereby necessitating the construction of new military reactors to produce plutonium for the new pit facility. A strict interpretation of that Act however would also prohibit the use of nuclear weapons material IN NUCLEAR POWER PLANTS.

So, I come to you today, not only to ask you to deny the license that is before this board today, but to ask you to take an unprecedented action. Rescind the construction permit of the MOX facility. The health risks to the workers and the public are too great. It is an economic boondoggle. The no action option offers greater security and avoids cost of construction of a new pit facility and associated complexes. Since the NRC does not have regulatory authority over PDCF and WSB, you can not protect the health of the public, which is the Nuclear Regulatory Commission's obligation.

Respectfully submitted,

Jeannine Honicker