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Waste Control Specialists LLC's Consolidated Interim Spent Fuel Storage Facility Project

Comment On: NRC-2016-0231-0005

Environmental Reviews: Waste Control Specialists, LLC; Consolidated Interim Spent Fuel Storage Facility Project

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General Comment

126

See attached file(s)

Citizens' Environmental Coalition and other groups have joined in these comments.

Attachments

Final NRC Scope Comments WCS CIS 3.13.17

SUNSI Review Complete

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Add= J. Park (SRP)

**Alliance for a Green Economy * Citizens' Environmental Coalition *
Hudson River Sloop Clearwater, Inc.* People for Animal Rights *
West Valley Action Network**

March 13, 2017

Cindy Bladey
Office of Administration
Mail Stop: OWFN-12-HO8
US Nuclear Regulatory Commission
Washington, DC 20555-001

Submitted via
www.rulemaking.gov

Dear Ms. Bladey,

Re: Docket ID NRC-2016-0231 Scoping Comments on the Proposal by Waste Control Specialists, LLC (WCS) to construct and operate a Consolidated Interim Spent Fuel Storage Facility

We appreciate the opportunity to offer comments. The comments here are provided in response to the Nuclear Regulatory Commission's Federal Register Notice on January 30, 2017 regarding Public Scoping for the license application of Waste Control Specialists, LLC.

In order to participate meaningfully in the democratic process, the public must be adequately informed of the facts concerning this proposal. Currently there are multiple fundamental issues that pose enormous difficulties in properly processing the license application and clarifying the situation for the public.

- 1) Since WCS seeks a license with terms precluded by the Nuclear Waste Policy Act¹, NRC should not continue to process the application.
- 2) There is legal uncertainty about whether there can be a private entity as an applicant.
- 3) WCS assumes the DOE will take title to spent nuclear fuel from nuclear reactor sites.
- 4) WCS will not construct or operate the consolidated interim storage facility until DOE has title and provides a contract to WCS affirming this and providing the

¹ Curran, Diane, et al., Attorneys, on behalf of Beyond Nuclear, Nuclear Information & Resource Service, Public Citizen, and SEED Coalition, Letter to Victor McCree, Director of Operations, Nuclear Regulatory Commission, Oct. 26, 2016.

federal government assumes financial responsibility for maintaining the spent fuel.

- 5) DOE can only take title of spent nuclear fuel when it is received at a repository, not interim storage. (The interim storage provision of the Act ended in 1990 and was for smaller amounts of spent fuel than WCS plans to handle.)

These uncertainties suggest that the owner of the fuel and the site are unknown and the contractual relationships must be clarified at minimum. The NRC is also proceeding to a Draft EIS before accepting the application. That means the application is not complete because it is still being developed.

In addition the NRC is applying regulations developed for spent fuel storage facilities at reactors for WCS. We believe at minimum NRC should amend 10 CFR 72 to address the differences in personnel resources, equipment, emergency preparedness, etc. that relate to a consolidated interim storage facility located far from the resources that a nuclear reactor has readily available. In the absence of an amendment that establishes regulations for consolidated interim storage facilities NRC will need to write Site-specific regulations for the WCS facility.

We need a strong scientific and technical foundation for developing plans to store high level nuclear waste over the long term. There is a major gap in the scientific, technical and knowledge base for long term interim storage. The nation has failed to develop a more permanent repository. Altering course to long term interim storage requires a detailed plan and regulatory criteria including adequate public protection. Instead, DOE is choosing short cuts. DOE has focused primarily on consent-based siting rather than developing the regulatory criteria that would protect the public over 40 years or more at consolidated interim storage sites. Non-profit organizations urged government and the Blue Ribbon Commission to attend to existing problems at nuclear waste sites. By acknowledging the problems and addressing them a knowledge base could be developed that prevents spreading contamination and the need for more extensive and expensive remediations.

Currently there are two nuclear agencies involved with planning for Consolidated Interim Storage- NRC and DOE. This is a new initiative that must have a basis in law and regulation grounded in facts and science, especially given the nature of what we are dealing with—materials that are dangerous for hundreds of thousands, even millions of years. A detailed study should be prepared comparing interim storage to a permanent repository, the environmental and health impacts, the costs and the roles of our two principal nuclear agencies in providing public protection now and in the

future. This study should also be a Full Cost Accounting Study—accounting for all costs.

Transportation to WCS is part and parcel of a project planning to handle 40,000 metric tons of spent nuclear fuel. Environmental impact statements under NEPA are supposed to study all the impacts of a proposal. The spent nuclear fuel does not magically arrive at the WCS facility. Failure to study transportation impacts means important safety, health, logistical and cost considerations will not be able to be reviewed by the public, public officials or emergency responders.

The public has major concerns about a process that has no scientific or technical foundation. Critical questions that have been brought to agency attention receive surprise and interest but no appropriate follow-up. What kind of casks are capable of storing nuclear waste over 40 years without developing cracks and leaking millions of curies into the atmosphere? If you cannot inspect the canisters for cracks in advance of leaks, how can you prevent serious radiation exposure to the public? If a canister is leaking dangerous doses of radiation, what is the appropriate emergency response if the canister is in transport or at a fixed site? What equipment would be necessary for the response? Where would the leaking canister be taken?

Why have US agencies refused to comparatively evaluate European casks compared to those in use in the US—particularly since the more robust design means they can be used for shipping and storage? The total effort and total costs involved in developing a two-step plan for interim storage and then a final repository should be compiled that includes transportation twice and movement in and out of shipping containers. Then it should be compared to using more robust European cask designs.

How long does hi-burnup fuel need to be held at reactors before it can be transported elsewhere? Would interim storage need different requirements for hi-burnup fuel? If NRC or DOE have launched studies on these issues, please provide the information or references to us.

Despite decades of dealing with nuclear waste DOE has not prepared the necessary underlying scientific documents that identify the requirements for long term nuclear waste storage as compared to a repository. Instead DOE is taking short cuts as if the only problem is finding a parking lot where it can store this material. Short cuts have been costly for DOE and the nation. The WIPP, Waste Isolation Pilot Project, is a perfect example. WIPP- has been out of service after it suffered a catastrophic explosion, closing it to transuranic waste. This particular catastrophe occurred because multiple layers of protective barriers, and operational requirements were systematically

discontinued, as a result of budget cuts, weakening the protections previously deemed necessary. The kitty litter error was only the final mistake. These decisions were largely driven by inadequate funding for nuclear waste-- nationwide. In general the nation has no problem identifying major new nuclear projects costing billions and even a trillion dollars, like the planned new Star Wars II (our name) program, while leaving a growing mountain of nuclear waste totally underfunded. Underfunding means cuts to essential public protections. At WIPP it meant a closed nuclear waste facility that backed up waste at Savannah River. The ultimate cost of repair is \$2 billion, but it will probably cost more since insufficient funds will require annual budget battles.

Scoping should include a discussion of the two national nuclear agencies, their separate and joint responsibilities for a science and technical basis to ensure that interim storage of spent nuclear fuel is safe for the public now and continues to be safe indefinitely.

Promises regarding nuclear waste have been broken many times, including the availability of adequate funding to maintain containment and prevent spreading contamination. The first step to considering any long term storage facility should be a thorough review of the nation's experience with nuclear waste at various existing sites and what the record of problems, leaks, contamination, and violations has been. A comprehensive study including federal and state inspections and a database could inform what the characteristics of an operation grounded in protection of the public and the environment would be. The Federal Register notice indicated that a Safety Evaluation Report would be prepared by NRC, although it did not provide a timeline. We urge that it be prepared jointly with DOE, fulfilling the need for a scientific basis as discussed here. The Safety Evaluation Report should be made available to the public well before the Draft EIS is available.

The EIS must consider the importance of the Ogallala aquifer to eight states as well as its precarious current condition in not receiving sufficient recharging for the volume used. Contamination of this important aquifer could be impossible to remediate. The loss of this aquifer would be disastrous for the communities impacted.

The Scope of the EIS should carefully evaluate all potential emergency conditions, whether intentionally occurring such as terrorism, or unintentional accidental releases, explosions or material degradation of containers, corrosion, leaks, etc. Terrorism should include a range of high powered weapons and motorized equipment including airplanes in a deliberate attack. A 40,000 metric ton spent fuel facility poses a major desirable target for terrorists and NRC should consider a variety of options including not allowing that much highly radioactive waste to be in a single geographic location. It

is a national security issue. There is always the potential for inaccurate information about contents of a cask and the possibility of chemical incompatibility, which deserves study in the EIS. A spent fuel facility should not be located in close proximity to other nearby waste impoundments or activities that could impact the spent fuel.

Transportation routes will have key intersections and points of congestion where a variety of unique hazards should be identified and considered. Would emergency supplies be stockpiled along transportation routes? The possibility of waterborne transport must be fully evaluated for the ability to retrieve lost containers, including damaged ones, while protecting water supplies and the public.

All extreme weather events should be considered including tornadoes, hurricanes, extreme rainfall & flooding. There has been a significant increase in the rate of change for weather events. The Agencies should be using the most recent data to capture the high end of extreme rainfall events—not data more than ten years old. However, there should not be exclusive reliance on local data and local weather only. California was in extreme drought for several years and recently in one season the drought was eliminated by heavy rainfall events for most of California. This year there have been many extreme rainfall events around the country of more than 20 inches of rainfall in 24 hours. Fires and wildfires, earthquakes, landslides, and sinkholes should also be studied. Past history of the site could include drilling activities, abandoned pipelines or equipment, or just unstable geology.

A key basic principle for nuclear waste beyond effective containment is monitoring. This principle should be used throughout the Draft EIS to thoroughly evaluate the proposal. We believe Spent Nuclear Fuel must be monitored frequently so that adverse conditions are immediately identified and corrected. Secondly, the NRC uses defense in depth for nuclear reactors. Consolidated interim storage also requires redundancy and defense in depth.

Funding should be studied in the Draft EIS. We recommend that the costs of nuclear waste be better funded up front than the current method of annual budgeting which has shortchanged site cleanups nationwide, resulting in a massive growing nuclear waste problem that threatens the public health. In addition, the problem is so long-standing that the principal nuclear agencies have a tendency to ignore the problem. Nationwide, we recommend paying up front for nuclear waste with a set percentage, 20% of spending on all new nuclear projects—dedicated to dealing with nuclear waste. In the case of the WCS proposal we recommend that real money be placed in an escrow account in order to deal with deteriorating facility conditions, installing additional

safety measures or other needs. We cannot arrive at an amount without more information.

All of the applicable Regulatory Structure should be studied in the EIS. The Proposed EIS mentions compliance with NEPA, the National Environmental Policy Act. The scope of the EIS needs to address other relevant laws – federal and state. The Nuclear Waste Policy Act is particularly important. However, we believe all relevant federal and state laws, executive orders, and federal and state regulations should be included in a comprehensive examination of the regulatory structure for this proposal.

Two key Presidential Executive Orders provide guidance to addressing impacts to special vulnerable populations. We urge the NRC to actively consider the impacts and inequities related to children and environmental justice communities in the Draft EIS.

- **Children's Health** Risk assessments address not only the hazard but also the populations impacted and whether there exist particular vulnerabilities. The Executive Order on the Protection of Children from Environmental Health Risks and Safety Risks, was signed on April 21, 1977. This Executive Order requires all federal agencies to assign a high priority to addressing health and safety risks to children, coordinate research priorities on children's health, and ensure that their standards take into account special risks to children. The Order also created a President's Task Force on Environmental Health Risks and Safety Risks to Children to implement the Executive Order.

The nature of the hazard is critical to this discussion. We are talking about radioactivity which damages genes, causing mutations and affecting reproduction, in addition to a long list of other organ and system impacts. Some of the radionuclides are long-lived and therefore can affect many generations into the future. The health of our children and of the whole reproductive part of the human life cycle is critical to the survival of humans as a species. The required consideration of children should be part of the EIS.

Environmental Justice is addressed in Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. The Order states that federal agencies must identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations. These communities often experience

high pollution levels as well as inadequate oversight and enforcement from environmental agencies.

Minority and Low income populations are living in the vicinity of the WCS facility. Special efforts should be made to listen to and address their concerns about the proposal.

We strongly recommend that the agencies develop a strong scientific foundation and regulatory structure for consolidated interim storage of spent nuclear fuel, if they plan to pursue it.

If the Agencies plan to pursue the WCS proposal, all questions about the Nuclear Waste Policy Act provisions must be answered—title, contract, DOE's role, etc. A complete application, and an appropriate regulatory structure for a consolidated interim storage facility should be available for review at least 60 days before the Draft EIS is released. The public needs to have sufficient time to review voluminous materials and a complete and final application, not one that continues to be modified.

Thank you for consideration of our concerns about this proposal. If there are questions, please feel free to contact B. Warren.

Sincerely,



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