

Comment# 292

77 FR 65137

10/25/2012

PUBLIC SUBMISSION

As of: January 08, 2013
Received: December 21, 2012
Status: Pending Post
Tracking No. 1jw-82o0-n9sk
Comments Due: January 02, 2013
Submission Type: Web

Docket: NRC-2012-0246

Consideration on Environmental Impacts on Temporary Storage of Spent Fuel After Cessation of Reactor Operation

Comment On: NRC-2012-0246-0001

Consideration of Environmental Impacts of Temporary Storage of Spent Fuel After Cessation of Reactor Operation

Document: NRC-2012-0246-DRAFT-0440

Comment on FR Doc # 2012-26295

Submitter Information**Name:** Michael Bell**Address:**4679 Barcelona Way
Oceanside, CA, 92056

RECEIVED

2011 JAN -8 PM 3:48

RULES AND DIRECTIVES
BRANCH
USNRC**General Comment**

See attached file(s)

Attachments

WasteConfidenceletter

SUNSI Review Complete

Template = ADM - 013

E-RIDS= ADM -03

Add S Lopez (SL2)

December 21, 2012

To: The US Nuclear Regulatory Commission
From: Michael J. Bell, Ph.D.
Subject: Docket ID NRC-2012-0246: The Commission's Waste Confidence Decision

I am pleased to have the opportunity to submit comments in response to your Federal Register notice of October 25, 2012 requesting Public comment on the scope of NRC's Waste Confidence environmental review. Waste Confidence is a fairly narrow topic, dealing with the absence of a repository or other means of disposition of spent nuclear fuel from commercial nuclear power plants (NPPs) and the answers to two questions: 1) Does the Commission have confidence that a repository will eventually become available? 2) Until such time, does the Commission have confidence that spent fuel can be stored safely and with acceptable environmental impacts? These issues are treated generically in the Waste Confidence rule because the absence of a repository has a similar impact on all NPPs, necessitating a longer storage period onsite than initially expected and because the Commission considered that spent nuclear fuel could be stored up to a few decades with no significant environmental impact. However, I consider the DC Circuit Court has significantly muddled the regulatory picture with the questions it has asked the Commission to address.

Spent Fuel Pool Fires and Leaks

Spent fuel pool fires and leaks are not generic issues within the scope of the Waste Confidence proceeding, but are site specific design and safety matters. Spent fuel pool cooling, criticality, structural integrity and related matters were reviewed on a site specific basis when the current generation of operating NPPs was licensed. Many were reviewed again when spent fuel pool capacities were increased by re-racking. All spent fuel pool cooling systems have been recently re-reviewed as part of the NRC's post-Fukushima response and in some cases corrective actions are being taken to strengthen their ability to withstand earthquakes, flooding and loss of off-site power. For new reactors currently under construction, the safety and environmental impacts of storage in spent fuel pools will be addressed on a site specific basis as part of the license review. Likewise, spent fuel pool leakage is an operational matter that is being dealt with elsewhere (see Generic Safety Issue 202 and associated NUREG-0933). If spent fuel needs to be stored for several decades, fires are no longer a concern because heat generation rates decrease to a level where dry storage is possible and has been implemented by many utilities. If the lack of a repository necessitates decades of spent fuel storage, more utilities will opt for this alternative to reduce operating and maintenance costs (an article in the November-December Radwaste Solutions Magazine states that Dairyland Power Co-operative will save \$3 million annually in pool monitoring and maintenance costs by going from wet to dry storage.)

Failure to secure permanent disposal

The Court has asked the Commission to evaluate the environmental effects of failing to secure permanent disposal. The scenario that the court has asked the NRC to evaluate is in conflict with US policy, law and international treaty. Under the Nuclear Waste Policy Act of 1982, as amended, it remains national policy that the US government "...has the responsibility to provide for the permanent disposal of ... spent nuclear fuel in order to protect the public health and safety and the environment...." [Sec. 111. (a)(4) of the NWPA] Congress is actively working on legislation to implement a program based on the recommendations of the Blue Ribbon Commission that will establish a replacement for the Yucca Mountain Program. Meanwhile, the Department of Energy is still collecting fees from utilities to fund a future spent fuel disposal program that, at the end of fiscal year 2012, contained \$38.7 billion. In addition, the US government has ratified the IAEA's Joint Convention on the Management of Spent Nuclear Fuel and the Management of Radioactive Waste, which commits all Contracting Parties to provide for disposal of spent fuel, if considered a waste, in order to prevent undue burdens on future generations.

In fact, compared with the original Waste Confidence Decision nearly 3 decades ago, the Commission has much more justification to have confidence that a repository will be established. An EPA standard for a non-Yucca Mountain repository, 40 CFR 190, is already in place and has been successfully implemented once to certify the WIPP facility. There is broad international consensus that deep geologic disposal, using a combination of engineered and natural barriers, is the appropriate technology for safe disposal of spent nuclear fuel or high level waste (HLW) from reprocessing. Similar to the Blue Ribbon Commission in the US, major reassessments of disposal programs have been conducted in the last several years in Canada, France and the UK. All reached the conclusion that deep geologic disposal is eventually necessary for disposal of spent nuclear fuel and HLW. You might say they concluded that failure to secure geologic disposal is not an option.

During the three decades since the first Waste Confidence Decision, geologic repository programs in several European countries, the US and Canada have improved the technology to characterize sites, test engineered and natural barriers and to model their performance. Two countries, Finland and Sweden, have selected sites for development as repositories. Compared to 1984, technology is less of an issue than public acceptance. In 1984 the NWPA required multiple site characterization before a site was selected, a second repository in a different geographic location, and was sensitive to many of the public acceptance issues in siting a repository. The 1987 amendments to NWPA unraveled these provisions because they were considered by Congress to be too expensive, not recognizing that the resulting loss of public acceptance would eventually lead to the termination of the Yucca Mountain Project, and the loss of 25 years of work and \$15 billion of ratepayers' and taxpayers' money. Recognizing that a geologic repository is a national need, Federal Agencies, State, Local and Tribal Governments, the nuclear industry, NGOs and interested members of the public need to ensure that Congress recognizes the role of public acceptance in any new legislation that is enacted. However, the success of the WIPP project and of repository programs in Finland and Sweden shows that public acceptance of repositories for very long-lived radioactive wastes can be achieved, thereby providing a basis for Commission confidence.