

CHAIRMAN Resource

From: Vinod Arora <avparorainternational@gmail.com>
Sent: Wednesday, January 25, 2017 2:06 PM
To: john.kotek@nuclear.energy.gov; macfarlane@gwu.edu; CHAIRMAN Resource
Cc: David Victor; Tom Palmisano; ppatterson@sanjuancapistrano.org; Maureen Brown; brownt@san-clemente.org
Subject: [External_Sender] DOE/NRC should appeal to President Donald Trump to take steps to restore construction of Yucca Mountain Project (AVP Report Attached)
Attachments: Yucca-Mountain (2).docx

Thank you for contacting the White House.

I congratulate Honorable President Donald Trump for steps to advance construction of two oil pipeline projects that have been fiercely disputed and were delayed under his predecessor.

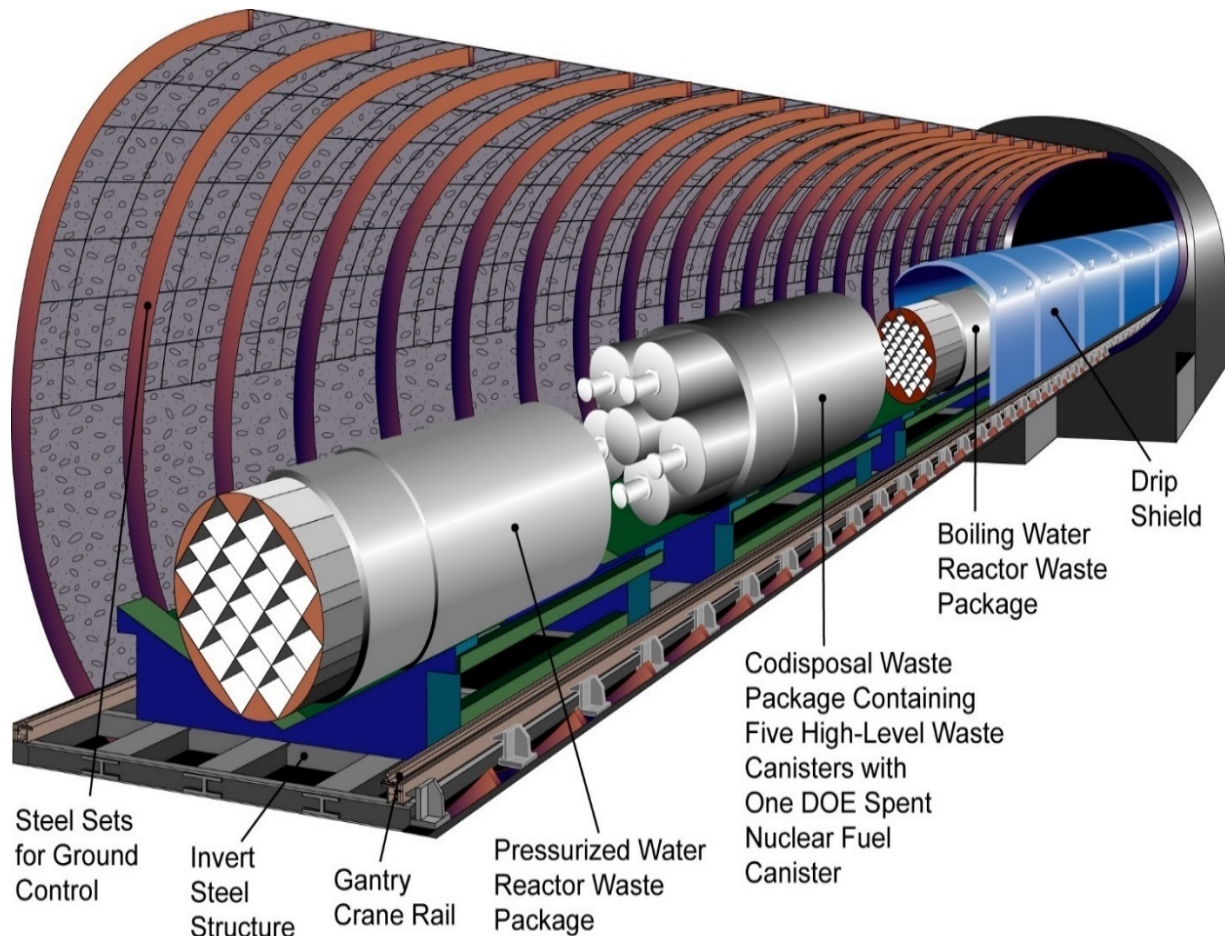
I appeal to President Donald Trump to take steps to restore construction of Yucca Mountain Project that was fiercely disputed and halted under his predecessor based on pressure from Retired Harry Reid. This will make nuclear plants and the communities near nuclear plant safer.

AVP ARORA International

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Yucca Mountain – Engineering Marvel -Evaluation of DOE SAR/TSPA & NRC SERs

Complex technical problems are resolved by complete scientific & engineering investigations. If that was not the case, America would not be a technological leader in the world today. Based on AVP's engineering judgement, exhaustive in-depth research & critical questioning attitude & investigative attitude, Yucca Mountain is the only proposed and abandoned repository, which meets the substantial criteria for 10 CFR 63.114 & 63.342(c) for ultimate and long term safe disposal (>1,000,000 years) of spent nuclear fuel & defense HLW and enhancement of public safety in America. "This is encouraging news for Southern Californians," Congressman Darrell Issa (R-CA) said. "For many of us, especially those in the San Clemente area, the storage of nuclear waste at SONGS is really a major source of concern. Until we can either stop the obstruction of Yucca Mountain [a Nevada waste storage site proposal site that has stalled] or find an interim solution, we're going to be stuck with more than 3.6 million pounds of high-level nuclear waste stored in less-than-optimal conditions in a highly populated area. Now that SONGS is shut down, the spent nuclear fuel and other radioactive materials should be removed from the site as soon as possible (Starting in 2020)." Pending a decision on Yucca Mountain by the New President & Congress, proposed interim waste storage facilities by Waste Control Specialists and Holtec would be operational in 2020 and offer permanent relief for San Onofre Residents.



Drawing Not to Scale
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Design Basis & AVP Conclusions

Design Basis: A major component of the strategy for safe disposal of nuclear waste is to isolate radionuclides from the environment in waste packages for extended time frames. In a multi-barrier approach, the Engineered Barrier Systems (EBS) works in association with the natural barriers by preventing or substantially reducing the release rate of radionuclides from the waste and preventing or substantially reducing the rate of movement of radionuclides from the repository to the accessible environment. The waste package and drip shield are significant features of the EBS. The primary purposes of the waste package are to contain the waste and to limit the transport of radionuclides. The drip shields are designed to prevent water in the Emplacement Tunnels from contacting the waste package and protect the waste package from falling rocks.

AVP Conclusions: Design of a successful geological underground repository requires: (a) Location of natural barriers to minimize the seepage of water into the emplacement tunnels, and (b) EBS to minimize the corrosion caused by seeping waters, minerals, pH and temperature to delay the introduction of radionuclides into the geosphere, biosphere, groundwater and environment until rendered harmless in 2-3 million years. AVP cautiously but reasonably concludes: (a) The repository is expected to exceed performance criteria and regulatory limits by a significant margin, and (4) DOE assessments of the proposed repository performance to be overly conservative. AVP agrees with DOE & NRC that Yucca Mountain's proposed and abandoned repository substantially meets the criteria for 10 CFR 63.114 & 63.342(c) for ultimate safe disposal of SNF and Defense HLW in America.

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Table 1 - Summary of AVP's Review of NRC's SER on Yucca Mountain Repository

Barrier	Barrier Feature	SAR Table 2.1-1 ITWI* Components	SAR Table 2.1-1 Non-ITWI Components	AVP's Review
Upper Natural	Topography and Surficial	Topography and Surficial Soils	None	AVP concurs with DOE & NRC review
Upper Natural	Unsaturated Zone Above the	Unsaturated Zone Above the Repository	None	AVP concurs with DOE & NRC review
Engineered Barrier System (EBS)	Emplacement Drift	Emplacement Drift	Emplacement Drift: Non-emplacment Openings, Closure, Ground Support, and Ventilation	AVP concurs with DOE & NRC review
EBS	Drip Shield	Drip Shield	None	AVP concurs with DOE & NRC review
EBS	Waste Package	Waste Package	None	AVP concurs with DOE & NRC review
EBS	Waste Form and Waste Package Internals	<ul style="list-style-type: none"> • Transport, aging, and disposal (TAD) canister • Naval canister • Commercial spent nuclear fuel (SNF) and high-level waste glass • Naval SNF • Naval SNF canister system components† • TAD canister internals† 	<ul style="list-style-type: none"> • DOE SNF canister • High-level waste canister • Codisposal package internals • DOE SNF • Cladding 	AVP concurs with DOE & NRC review
EBS	Emplacement Pallet and Invert	None	<ul style="list-style-type: none"> • Waste Package Pallet • Invert 	AVP concurs with DOE & NRC review
Lower Natural Barrier	Unsaturated Zone	Unsaturated Zone & Clay/Zeolite Layer Beneath Repository in the Unsaturated Zone	Clay/Zeolite Layer buffer delays the escape of any radioactive water & substances into the Saturated Zone	AVP concurs with DOE & NRC review
Lower Natural	Saturated Zone	Saturated Zone	None	AVP concurs with DOE & NRC review
<p>*ITWI stands for "important to waste isolation." †DOE identified these components as important to waste isolation solely in relation to their capability to reduce the probability of criticality.</p>				