



# US NUCLEAR ENERGY FOUNDATION

**“Evangelizing Nuclear Advocacy by Bringing Science to Citizens”**

A Non-Profit 501 (C)(3) Nevada Foundation

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## Submission to the U.S. Nuclear Waste Technical Review Board Meeting August, 6, Idaho Falls, ID 2014 under public comment and a recommendation for consideration by the U.S. Department of Energy

08/01/14

Dear Sirs:

The US Nuclear Energy Foundation would like submit our recommendation to the NWTRB to establish a National Above-Ground Temporary Storage Facility for America's Spent Nuclear Fuel (SNF). We would also indicate that USNEF would be interested in functioning as an “orchestrating entity” in this process. We are also considering establishment of an Expression of Interest (EOI) concerning this recommendation to the DOE.

To explain our position; politics, corporate lobbying, legislation, etc. are all hitting road blocks when it comes to dealing with national controversial public “issues” which government attempts to resolve. These include coal, natural gas fracking, geothermal, as well as nuclear energy and the Yucca Mountain Repository. Most of these issues can be resolved by these industries providing a scientific analysis of these energy technologies can be presented to the grassroots public in layman's terms. Large public educational programs do not provide a tangible Return on Investment (ROI) to these industries, we believe grassroots education should be provided by independent groups such as USNEF.

USNEF is suggesting that the DOE, NRC, etc., consider a local message provided by a local “entity.” Engaging local contractors, provides a GREATLY improved potential for “community acceptance.” We as citizens, have to accept that bureaucratic stalemates are NOT resolving our technical public programs and the only way we may be able to, is with a completely “out-of-the-box” Status-Quo business makeover.

We hope you and your colleagues will review our recommendation with an open mind and advance it along to your colleagues. It is a long process to modify standard procedures but it is important to evaluate procedures that reverse stalemate results.

Gary J. Duarte, Director

US Nuclear Energy Foundation

We are offering a method to redirect some of the misunderstanding about spent nuclear fuel, mostly termed as nuclear waste. The facts are that our current U.S. stockpile of about 76,000 metric tons has a potential wholesale new fuel **reprocessed** value of about \$12 billion dollars. In 2013 a paper was submitted by Kenneth D. Kok, PE Richland, WA to the 15<sup>th</sup> International Conference on Environmental Remediation and Radioactive Waste Management. His baseline analysis was done on 70,000 metric tons of used reactor fuel from analytical data recorded by the Energy Information Administration. His calculations indicate that the retail value of our 70,000 ton stockpile has a value of 53 trillion (2013) dollars.

The dilemma with Washington is the investment into a major commercial size reprocessing facility. We continue to purport that everything nuclear should be amortized over 70 years because that is the operational functioning life of nuclear technology. Meanwhile, the shutdown of Yucca Mountain is costing taxpayers billions in legal suits for non-performance by contract, of the DOE for non-removal of the spent fuels from the power companies' onsite storage. We would rather see these funds applied to the construction of a national temporary storage facility basically making it a trillion dollar safe deposit box.

**Taxpayers are footing the bill on Washington's failure to offload the SNF fuels from nuclear power companies nationwide to Yucca Mountain. In this light we believe that Nevada has several locations that would be an excellent site for a national temporary above ground SNF spent nuclear fuel storage facility. It could help fend off the law suits making those costs available for construction and operation of the facility. Below are some of the advantages.**



#### **Above ground spent fuel rods cask storage systems horizontal and vertical methods**

- There is a degree for consideration with or without the DOE completing or re-siting a permanent storage facility at Yucca Mountain. A high probability exists that the final selection site would be located in an expansive desert location in the Western U.S. This makes Nevada an ideal CENTRAL location for such a temporary above ground transfer facility. Nevada offers 100% security as our military test ranges provide a high security profile over much of the desert land mass.
- There is a push in Washington to move more DOD operations and facility management to the private sector reducing the costs of military operations. This same push could be applied to the DOE, NRC and the management of SNF nuclear technology and its security. The private sector has developed much of our U.S. nuclear industry in the U.S. and throughout the world, yet federal agencies manage it through regulation which is necessary but, at the same time should require common sense. In most of these government versus private industry tag team events the public almost always falls short in the educational process provided by the agencies and private sector. Public policy must re-brand education about nuclear energy technology and its waste repository alternatives and economic facts.
- The establishment of an above ground SNF facility managed by the private sector would be an asset to all rural Nevada Counties providing jobs, taxes and spinoff local commerce. Nevada needs to

diversify its economy into advanced high technology and this can be encouraged by logical common sense utilization of its land AND a successful education of its citizens in reprocessing technology.

- Projects such as this would include business development in rural areas for robotics, drone surveillance applications, high tech concrete technology and many other spinoff services, construction, housing, restaurants, etc.
- A misrepresentation of the spent nuclear fuel reprocessing technology is mute when we consider that the AREVA Company in La Hague France receives 250 requests annually for plant tours of that high tech facility. This is the message we need to bring to the grassroots public, **Reduce, Reuse, Recycle**.
- The current above ground systems we have developed over the past 40 years have proved their stability. There is no question that moving these casks to a “national SNF center” from 72 diverse locations around the country would be a much more secure resolution for the public.
- At the same time this program would provide the resolution of removing these materials from power plants so that they can continue operations based on their originally designed above ground storage facilities, not having to expand locally which would continue to offer a diverse security situation.
- Another very important consideration is that we are aware that several of our National Laboratories and other spent nuclear materials facilities are experiencing leaks and additional capacity overloading. It is only fair to suggest that engineering, materials and technology we had available for temporary containers 40 years ago are no longer adequate to provide safety as today’s improved products. It is also only fair to suggest that these materials were planned to be moved to the Yucca Mountain facility 20 years ago. It is this political dilemma that has prevented our government agencies from accomplishing a safe timely management of our radioactive materials. We have to get this educational awareness into our Public Policy and directly to the public itself. This is the mission of “US” US Nuclear Energy Foundation.
- USNEF is hopeful to generate and submit grant application funding that will provide us with the ability to get our nuclear advocacy and SNF educational material to our citizens.

We cannot expect to secure public acceptance without adequate educational awareness of “issues” to the grassroots. This may be the one of the most important factors that we should all address as we have a growing divide between, government, its agencies, business, science and the grassroots public.

Gary J Duarte, Director



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