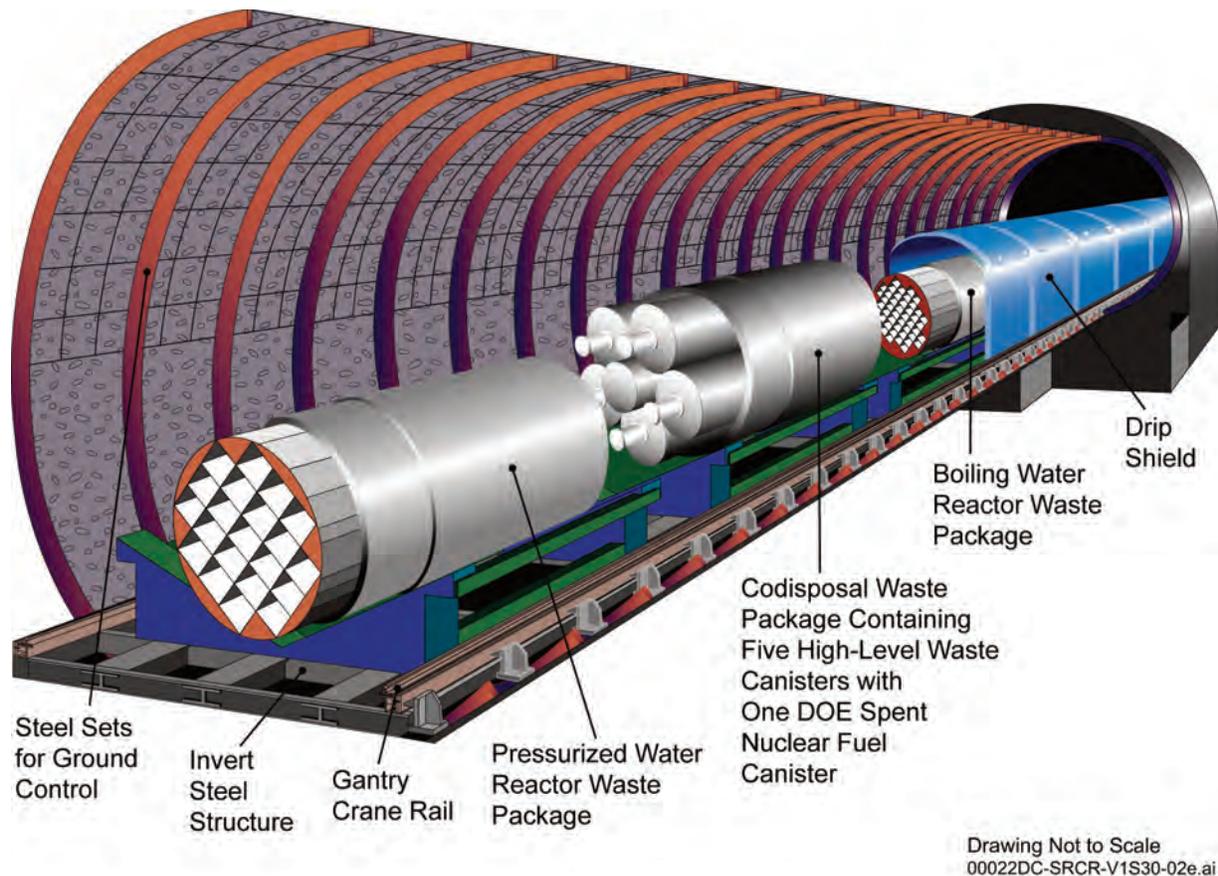


The Perception of Yucca Mountain

The Most Valuable Antiques Road Show On The Planet



**Does this look like a DUMP?
or a high-tech storage garage?**

For 30+ years our Nevada government has painted a biased picture about the Yucca Mountain nuclear spent fuel storage repository.

**THIS IS YOUR OPPORTUNITY TO LEARN THE TRUTH AND
PROVIDE YOUR GRASSROOTS VOICE ON the YUCCA MOUNTAIN PROJECT!**

What you should know about NUCLEAR

Where we are today:

- ✓ **99** nuclear energy facilities are operating in 31 states.
- ✓ **60%** of our non-carbon emitting energy comes from nuclear energy, making it by far the largest domestic source of clean energy.
- ✓ U.S. nuclear facilities remain at more than **92%**-unit capability, (a plant's ability to stay online and produce electricity) continually. Most downtime only attributed to refueling.
- ✓ It is safer to work at a nuclear power plant than in the manufacturing, real estate and financial sectors. On average, there were 0.13 industrial accidents at a nuclear plant per 200,000 worker hours.

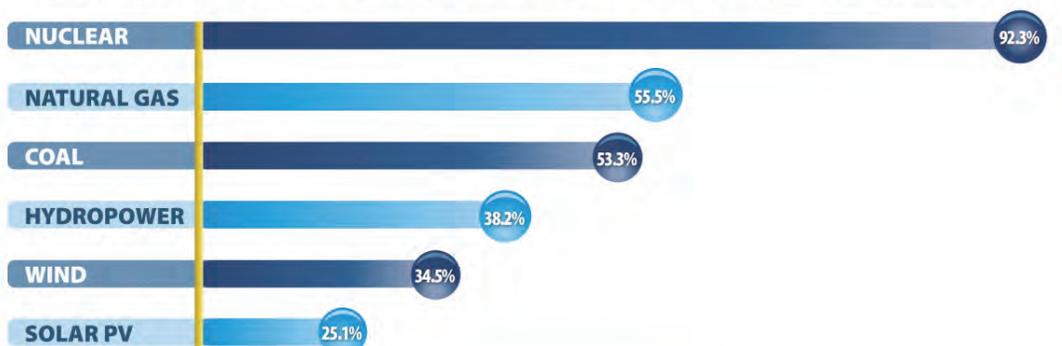
Nuclear 101 One uranium pellet (1/2" long, 3/8" diameter) remains in a nuclear reactor for almost five years, producing the same amount of energy as **1 ton of coal**, **3-barrels** of oil, or **17,000 ft³** of natural gas. These fuel pellets are put into long 16' rods, which are then grouped into a bundle. The heat produced from splitting of atoms (fission) in the uranium fuel produces steam, which drives a turbine to produce the electricity.

Nothing is burned, so there are no combustion by-products. And after these pellet rods are removed, **95 %** of what is then called **Spent Nuclear Fuel (SNF)** can be **recycled and used in future fuel bundles**. We recycle glass, plastic and steel. We can recycle wrongly termed, nuclear waste. About 17% of France's electricity is from recycled nuclear fuel. France is the world's largest net exporter of electricity due to its very low cost of generation, and gains over **\$3.6-billion** per year from power exports.

Did you know?

- ✓ One nuclear energy facility can generate enough power for the city of Los Angeles, CA (**3.8 million people**).
- ✓ France has the cleanest air in Europe and the lowest energy costs. **75%** of its power is generated by nuclear energy
- ✓ Nuclear power is the lowest cost energy producer in the U.S. at about **1.76 cents per KWh**.

CAPACITY FACTORS FOR UTILITY SCALE GENERATORS 2016



U.S. DEPARTMENT OF
ENERGY | Office of
NUCLEAR ENERGY

*Source: U.S. Energy Information Administration

The Clean Partnership

Clean energies—wind, solar, and nuclear—all have a role to play in reaching our nation's clean-energy goals. They create a diversity of supply, which translates into greater security of supply.

Nuclear energy emits NO greenhouse gases, and lifecycle CO₂ emissions puts nuclear on par with renewables.

Keeping your energy costs low

- ✓ Just since 1990, improvements in efficiency at nuclear energy facilities have raised electrical output by an amount equal to 29 new reactors, eliminating the need to build new energy facilities.
- ✓ Because fuel pellets stay in the reactor so long, electricity prices are much less affected by fuel-price fluctuations.
- ✓ While costs to build new nuclear energy facilities are substantial, their 60-year life span is much longer than other energy technologies. This long lifecycle, plus low-cost production, helps keep energy prices down.

Used Fuel

- ✓ If your lifetime energy needs came from nuclear energy, the waste produced would fit in one soda can.
- ✓ If your lifetime energy needs came from coal, the waste produced would need 98,000 soda cans!
- ✓ 95% of the used fuel can be recycled.
- ✓ France, Japan, the UK and Russia, recycle about 2,500 metric tons of fuel annually - about 1/4 of the annual used fuel discharge worldwide.

Quotable: "I believe that nuclear power has to be part of the energy mix in this century."

Dr. Stephen Chu, Energy Secretary April 22, 2009

"A nuclear power revival in the United States can, and will, result in a middle class economic revival."

Mark H. Ayers, President Building & Construction Trade Dept., AFL-CIO

"Nuclear energy is the best option to curb carbon emissions."

Dr. R.K. Pachauri, Chairman, Intergovernmental Panel on Climate Change

Reliable and Safe

Nuclear energy facilities provide power 24-hours a day, seven days a week, 365 days a year.

In fact, Calvert Cliffs Nuclear Power Plant Unit 2 in Maryland set a world record in March 2009 for operating non-stop for 692 days, before shutting down temporarily for a planned maintenance.

U.S. nuclear energy facilities have been operating safely for more than 30 years.

Learn More

nei.org

general nuclear education

nrc.gov

new nuclear energy facility applications and status

world-nuclear.org

Information on nuclear energy construction and events around the world

win-global.org

Women In Nuclear, working professionally in the nuclear industry

Originally written by

UniStar Nuclear

Updated 2018 by

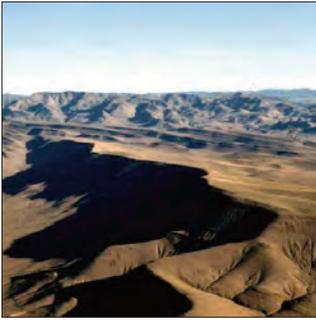


**US NUCLEAR ENERGY
FOUNDATION**

"Nuclear Advocacy Through Grassroots Education"

PO Box 2867, Sparks, NV 89432

www.usnuclearenergy.org



**In order for pictures to paint the truth,
the painter must be truthful**

Does Yucca Mountain offer an economy to Nevada?

**The 4 largest Las Vegas casinos were a 5.6-billion-dollar build.
The Tesla giga-factory, Sparks, NV is a 6-billion-dollar build.
Yucca Mountain is projected at being a 97-billion-dollar build.**

The **funeral services for spent nuclear fuel** as purported by Nevada politics & media are highly misleading, not based on the science study. The public **VOICE** has been muted. A Yucca economy offers science, engineering, robotics, drone surveillance and technology education.

THINK ABOUT IT!

1st generation reactors only burn about 6% of the fuel leaving 94% for reprocessing.
Our past inventory can be **recycled, valued at \$14 trillion dollars, think about that!**

Yucca Mountain is the largest single infrastructure project ever designed, contrary to the Nevada political-business “opinions”. It is a massive temporary storage garage incorporating the most advanced technology in robotics, drone surveillance and many other ground breaking engineering resolutions. The fear from the political and casino industry is that, in itself, the Yucca build will have the capacity to alter the technology economic direction of the entire state which will reduce “control” by Nevada politics and the casinos entertainment industry. The infusion of 4,000 scientists & engineers, 4,000 homes, 4,000 refrigerators, 4,000 cars will redirect Nevada’s education system with much more input from an educated science & engineering community to Nevada’s university system.

This misunderstanding by both the casinos and politicians is that nothing could match Yucca’s ability to quadruple the casino market and tax base for the state. Then, over the next fifty years, there is no argument that future science WILL make us capable of REPROCESSING 96% of the erroneously called “waste” in our storage garage for future nuclear fuel. You can argue detail economics today, but, a cell phone proves that science and technology has replaced our “phone booth” a few years back and will do the same as nuclear reprocessing matures.

USED FUEL AND DEPLETED URANIUM WORTH TRILLIONS

Kenneth D. Kok, PE, Paper No. ICEM2013-96001, 7-pages, 08-12-13.

American Society of Mechanical Engineers: 2013 15th International Conference on Environmental Remediation and Radioactive Waste Mgmt. Brussels, Belgium, September 8–12, 2013, Copyright © 2013 by ASME.

<http://proceedings.asmedigitalcollection.asme.org/proceeding.aspx?articleid=1832623> = complete paper link

ABSTRACT: The purpose of this paper is to examine the energy and economic value of used nuclear fuel and depleted uranium. In the USA these materials are considered to be wastes. As such they are candidates for permanent disposal. The disposal of these materials in a manner that isolates them from human contact is a scientific, engineering, economic and political problem. Isolation can be defined requiring no potential human contact during a stated period of time due to failed containment. The period of isolation is to be in excess of one million years.

The uranium in the used fuel and the depleted uranium left over from the enrichment process represent about 99.5 percent of the uranium that was removed from the ground by mining uranium ores. If these materials can be utilized they would not be considered to be wastes. In addition, they would carry a positive economic value. The value of these materials, based on the energy that can be extracted from the uranium, (the worldwide inventory) exceeds \$100 trillion dollars. **(The U.S. 77,000 metric tons is valued at \$14 Trillion dollars).** Based on this, the conclusion is that the material is a very valuable resource and definitely is not a waste.

Although, it seems, the casino industry fails to see the encompassing “business economics” more than likely, a “**Yucca build**” would double the Vegas area retail and business community, in all its factions. \$40 billion and 4,000 employees are awaiting the “go button”. Just the 4,000 employees would likely bring 50,000 friends and family visitors to Las Vegas not to mention the 2nd and 3rd generation ancillary business activity. 4,000 homes, cars, refrigerators, etc. You can run the matrix; what percentage of a \$100-billion-dollar build can be attributed to employee economics sustainment?