



RIC 2014 FACTOID SLIDESHOW





Harold Denton, former Director, Office of Nuclear Reactor Regulation, is the only NRC employee ever parodied on Saturday Night Live. He was played by Richard Benjamin in a skit titled, “The Pepsi Syndrome,” shortly after the reactor accident at the Three Mile Island plant in Pennsylvania.





The term “China Syndrome” was first coined in the early 1960s by an NRC employee, the late Roger Boyd, to describe an accident where a core melt penetrates a containment building foundation and metaphorically penetrates the earth from the United States to China.





The NRC publishes notices in the Federal Register to communicate information on regulatory actions of interest to the public, including licensing and rulemaking. These notices often provide the public with the opportunity to comment on a regulatory action.





In 2013, the NRC published about 595 non-rulemaking notices, 44 rulemaking-related notices, and 14 notices on petitions for rulemaking in the Federal Register.



Region I licenses and inspects over 950 materials licensees in the non-Agreement States in Regions I & II and is responsible for licensees in Puerto Rico and the Virgin Islands.





In the 1930s, a failed experiment by a Swiss physicist for detecting gas using a radioactive source led to the discovery of smoke detectors. This occurred when the scientist lit a cigarette and the detector registered a reaction. Smoke detectors are an example of the beneficial uses of radiation and radioactive materials.



Some lightning rods contain Radium-226 to make them more effective. It was thought that producing air ionization around the rod provided enhanced conductivity and increased the likelihood that lightning would strike the rod.





The indicator lights in early appliances – such as clothes washers and dryers, coffeemakers, and stereos – used Krypton-85.





Tritium gas is used to illuminate exit signs in buildings so they will function without power. In addition, the NRC approved Promethium-147 and Krypton-85 for use in self-luminous exits signs.





The largest contribution to our annual background dose is from Radon (roughly 55 percent).





The NRC and the Agreement States oversee about 21,800 licenses for medical, academic, industrial, and general uses of nuclear materials.





Each year, the NRC issues about 1,300 new licenses, renewals, or amendments for existing materials licenses. The NRC conducts around 1,000 health, safety, and security inspections of materials licensees each year.



The typical average individual exposure in the United States from natural background sources is about 300 millirems per year.



Currently, 435 operating reactors exist worldwide. United States (100 reactors) is the country with the most operating reactors followed by France (58 reactors) and Japan (48 reactors).





The reactor vessels for Vogtle 3 and 4 each weigh 600,000 pounds, which makes each vessel heavier than the Statue of Liberty. The Statue of Liberty weighs 450,000 pounds (225 tons).





Each new Vogtle 3 and 4 reactor will hold 13.5 million uranium fuel pellets. A single uranium pellet the size of a pencil eraser produces as much electricity as 17,000 cubic feet of natural gas, 1,780 pounds of coal or 149 gallons of oil.





December 20, 1951. In Arco, Idaho, Experimental Breeder Reactor I - (EBR1) produced the first electric power from nuclear energy, lighting four light bulbs.





December 2, 1957. The world's first large-scale nuclear power plant began operation in Shippingport, Pennsylvania. The plant reached full power three weeks later and supplied electricity to the area near the city of Pittsburgh, PA.





The NRC licenses 4,764 individuals to operate power and non-power reactors in the United States.





More than 400,000 views have been logged on the NRC blog since its start in January 2011.



The NRC currently has 400 subscribers to its YouTube channel and, since its launch in August 2011, viewers have tuned into our videos 46,000 times.





Brazil nuts are one of the most radioactive foods in the world because of the exceptionally deep tree roots absorbing radium.





The walls of New York City's Grand Central Station emit enough radiation to exceed legal limits imposed on nuclear power plants. This is because many of the walls of the station, as well as its foundations, were built using granite, a rock capable of holding natural radiation.





If a handful of bananas went through a radiation sensor at any border checkpoint, they would have enough radioactive potassium to set alarms off.





For the last 2 decades, about 50 percent of all electricity generated by nuclear power plants in the United States was from fuel made from blended down, highly enriched uranium obtained from dismantled Russian warheads under the Megatons to Megawatts Program. This is the equivalent of about 20,000 nuclear warheads.





The Turkey Point Nuclear Power Plant in Florida is responsible for removing the American crocodile from the Endangered Species List because it has provided a safe and ideal environment for them in its cooling canals.





The Palo Verde nuclear power plant site, the largest in the United States, uses wastewater from Phoenix, Arizona, and discharges no water to the environment.





The oldest nuclear reactor in the world is at Oklo in the country of Gabon, Africa. It was a naturally fissioning source and began operating 1.8 billion years ago for a period of 500,000 years. None of the transuranic waste produced by the reactor has migrated beyond the local geologic formation.





In the past 7 years, the NRC staff has issued 132 new or revised regulatory guides, withdrawn 47 guides, and conducted periodic reviews of 161 guides.





Five nuclear power reactors are currently under construction in the United States: Vogtle Units 3 & 4, V.C. Summer Units 2 & 3, and Watts Bar Unit 2.





Fermi Unit 1 was the only utility-operated liquid metal cooled reactor in the country; its Operating License was issued May 10, 1963.



Three offices in NRC were statutorily created by Congress in the Energy Reorganization Act of 1974. They are the Offices of Nuclear Reactor Regulation, Nuclear Regulatory Research, and Nuclear Material Safety and Safeguards.





The NRC's longest-serving Commissioner was Edward McGaffigan who served three appointments (1996-2000, 2000-2004, and 2004-2008).



Because the “nuclear renaissance” did not occur, the NRC will not occupy all of the new Three White Flint building. The Food and Drug Administration will occupy 8 of the 14 floors in the building starting in the Spring of 2014.





The NRC's Office of Nuclear Regulatory Research has over 100 bilateral or multilateral agreements with over 20 countries.





The NRC (and its predecessor, the AEC) has been a member of the Halden Reactor Project in Halden, Norway, since the project's inception in 1958.





A recent pipe break that occurred during the “polar inversion” cold snap last January flooded the NRC’s new Incident Response Center and caused extensive damage.



The NRC has created a new class of reports called a “NUREG/KM.” The KM stands for “Knowledge Management” and the reports capture information on key events that helped to shape the agency. So far, NRC has issued KM reports on the core melt accident at Three Mile Island, the fire at Brown’s Ferry, and fuel behavior under abnormal conditions.





The term “No Undue Risk” is required by the 1954 Atomic Energy Act.



No more than three NRC Commissioners
can come from the same political party.





It was not until the accident at Three Mile Island, Unit 2 (TMI-2) that the NRC's resident inspectors were permanently assigned to plant sites.





The Connecticut Yankee plant used stainless steel cladding on its fuel rather than Zirconium, and its ECCS temperature criterion was 2,300 degrees Fahrenheit rather than the 2,200 degrees required by 10 CFR 50.46.





Of the NRC's technical staff, 48 percent have a Bachelor's degree, 37 percent have a Master's degree, and 13 percent have a Ph.D.



Of the NRC's managers and supervisors, 40 percent have a Bachelor's degree, 38 percent have a Master's degree, and 2 percent have a Ph.D.

