

OPSMPEm Resource

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An Open Forum Now Available

posted on Fri, 01 Jun 2012 20:03:45 +0000



The NRC welcomes comments on the topics we're blogging about. But we realize there are other topics you might want to talk about. This post serves as the Open Forum section of the NRC Blog. You may post comments here on any topic relevant to the role and mission of the NRC. Comments here are still moderated and must adhere to the Comment Guidelines. If we determine a comment on another post is more appropriate here, we'll move it over. This post will stay open for comments and not be subject to the 30-day comment period of other posts. You can always find this post by clicking on the Open Forum category on the side bar.

Holly Harrington

NRC Blog Moderator

Comments

comment #282 posted on 2011-03-10 12:22:26 by Peter Van der Does

Thank you for the opportunity to comment. In a few days the NRC will likely give Vermont Yankee another license period. This is the same plant which has had a cooling tower collapse , a two story transformer fire ,unaccounted for missing fuel rods , cracks in the steam dryer and Tritium , Cobalt 60 and Ziinc 55 found in the groundwater test wells nearby and I won't repeat the earlier post about Strontium 90 in the fish in the nearby river. In a recent NRC report (2009 ?) the estimate for a severe accident was every 1 million hours of man-operations. That works out to every 114 years. I suppose "severe accident" is a euphemism for a meltdown. Great research guys ! The 4 partial meltdowns we've had in the US were all within 15 years of starting operations : Simi Valley , Idaho SL-1 , Enrico Fermi and TMI. Your Radioprotection Health Officer , a nice woman who I've met , would be interested to know that a health study was done and the 6 towns surrounding Vermont Yankee were found to have a slightly higher incidence of Leukemia in comparison with the rest of the county. Please forward this comment to your chairman. Thanks.

comment #203 posted on 2011-02-25 10:27:15 by Moderator in response to comment #95

It's not clear what reviews or reports you're referring to, but here are some links that might be helpful: How the NRC reviews new plant designs: <http://www.nrc.gov/reading-rm/doc-collections/fact-sheets/new-nuc-plant-des-bg.html> How the NRC reviews new reactor applications: <http://www.nrc.gov/reading-rm/doc-collections/nuregs/brochures/br0298/> How the NRC reviews reactor license renewals: <http://www.nrc.gov/reading-rm/doc-collections/nuregs/brochures/br0291/> Moderator

comment #286 posted on 2011-03-11 10:32:12 by Dan

Is the NRC staff following the recent news from the earthquake in Japan? Can you post some reliable technical information regarding the impact of the earthquake on Japanes nuclear facilities? What is the significance of the evacuations that have been ordered due to "failure of backup generators"?

comment #71 posted on 2011-02-07 16:01:35 by Moderator in response to comment #69

You can learn more about the NRC's license renewal process for existing nuclear power plants here: <http://www.nrc.gov/reading-rm/doc-collections/fact-sheets/license-renewal-bg.html> .

comment #51 posted on 2011-02-04 16:15:57 by Moderator

Thank you for the opportunity to speak out. The NRC allowed Vermont Yankee to forgo the ASME 10 year welds exam scheduled for 2010 and replace it with their own welds exam while Vermont Yankee has had the same internal radioactive leaks due to old welds in the same area two years running ?!?. The Connecticut river now has Strontium 90 found in the fish in proximity to the Vermont Yankee nuclear power plant. Strontium 90 which the EPA says on their website causes Leukemia and bone cancer. Strontium 90 which has a half-life of 27.8 years and was produced at Vermont Yankee as effluents in 2002 , 2003 and 2004. We can collectively thank the NRC for contributing to the health of the American people. Peter Van der Does Moderator: This comment has been moved here from a different post.

comment #52 posted on 2011-02-04 16:17:30 by Moderator

When will the NRC be releasing SER, Volume 3? What is the rationale for holding it up and how does this support the commission's commitment to openness and transparency? Frank Moderator: This comment has been moved here from a different post.

comment #53 posted on 2011-02-04 16:18:47 by Moderator

I am concerned about the aging nuclear reactors in the US. Recently there have been multiple incidents — scrams — that indicate less than secure conditions. I believe the public is being kept in the dark about the danger they are in because of the lack of repairs and continued use of aging nuclear reactors. I would like to see them all shut down, and replaced by solar and wind systems. Kathryn Barnes Moderator: This comment has been moved here from a different post.

comment #54 posted on 2011-02-04 16:20:13 by Moderator

The NRC Chairman's recent actions regarding suspension of Yucca Mountain staff review of the license application is a disgrace to the NRC as an agency. If one person, chairman or not, can stop a licensing proceeding the stability of the NRC licensing process is undermined. NRC's only job should be nuclear safety — not political favoritism. Not allowing the Commission vote on the Yucca Mountain CAB ruling is nothing short of a coverup. So much for openness in government. Joe Ziegler Moderator: This comment has been moved here from a different post.

comment #55 posted on 2011-02-04 16:26:52 by Moderator

Public Participation Wondering if you will make this a separate NRC blog issue? (The point I make, is public participation fun for the NRC, they don't take it as a serious business. NRC "having fun" over Vermont Yankee 2.206 So I am on the phone bridge this morning Feb 3, 2011 at 9am, I identify myself to the mechanical voice message system, then I am just kind of waiting around in silence on the phone waiting for them to push the button to join the conference. I assume there are people on the voice bridge, and then there are NRC officials in one or more rooms on a speaker phone device. All of a sudden I hear a click, I hear the snippet "and have a little fun", then I hear the talking of all the NRC officials, then the "welcome to this is a 2.206 petition...". All the background chatter of the officials stops...then we are off to the races with the 2.206 processes. From this point on everything is recorded in the NRC ops center and it is transcribed for addition into the public record. They do the introduction, then they give me the microphone so to speak. I say I got to get this down on the record. I just heard a snippet of "and have a little fun" when I first came into the meeting, when I was connected to the phone bridge...what did you mean by this? It was a male voice talking to a female. I am thinking two NRC officials were talking about outside activities, but you never can tell what is behind it. I said to myself too, they just might be talking about have having a little fun with me in the meeting. The chairman of the petition board pops up explaining on my phone, "I was introducing a new NRC official to the petition board and I was telling her to have a little fun as she participates and listens to your review board" concerning tritium and root cause analyze issues at Vermont Yankee. I want to force a shutdown of VY and remove the licenses of all the Entergy nuclear plants, or at least get peoples attention... Can you imagine a 2.206 petition meeting chairman indoctrinating a new NRC official into the petition process by saying have a little fun with it. Are they all laughing and making faces behind my back as I am stuttering and fumbling my way through my speech. Are they laughing and having a little fun over us all? Mike Mulligan Moderator: This comment has been moved here from a different post.

comment #56 posted on 2011-02-04 19:15:15 by James E. Foster

Since at least 1982, NRC Office of Investigations (OI) personnel at grade levels of GS-12 - 14, and GS-15 have been misclassified as series 1811, "Criminal Investigator." To be classified in this series, an individual must meet most of the "frontline law enforcement" factors, and have them largely constitute the position duties: 1. Perform investigations (long-term, complicated reviews); 2. Investigate individuals suspected of or convicted of violating criminal laws of the United States (employing agency must have criminal investigation authority); 3. Have the authority to carry weapons; 4. Have the authority to arrest, seize evidence, give Miranda warnings, and execute search warrants; 5. Have a "rigorous" position which includes unusual physical hazards due to frequent contacts with criminals and suspected criminals, working for long periods without a break, and being in on-call status 24 hours a day. For LEO retirement credit, one must show that the primary duties of the position are the investigation, apprehension, and detention of criminals or suspects. The most important factors, are: 1) frequently pursuing or detaining criminals; 2) an early mandatory retirement age; 3) a youthful maximum entry age; 4) the job is physically demanding requiring a youthful workforce; and 5) exposure to hazard or danger. The factors (above) may also be considered as appropriate. OI duties and authorities do not match these criteria, especially since NRC lacks statutory authority for performing criminal investigations. They lack arrest responsibilities, agency authority to carry firearms or other weapons, do not perform undercover work, do not execute search or seizure warrants, do not give Miranda warnings, and are not exposed to hazardous conditions nor inclement weather. Most work takes place in an office setting, and is not "rigorous." OI investigations do not involve felonies, but violations of the regulations contained in 10 Code of Federal Regulations (Energy). None of their work is "frontline law enforcement work, entailing unusual physical demands and hazards." In March 2007, the Director of OI admitted that OI personnel have never performed a single arrest. When OI was created, a proposed desk audit of investigative positions to determine the correct job classification was cancelled. OI personnel have indicated that "NRC is the best-kept secret on the 1811 circuit!" Letters from the NRC to the Civil Service Commission or Office of Personnel Management (OPM) regarding 1811 classifications and law enforcement retirement contained vague, erroneous, or misleading and false information. These letters indicated high percentages of criminal investigations, or investigations involving "matters of potential criminality covering a wide spectrum of violations." The position of "Investigation Specialist," later "Investigator," began with the Atomic Energy Commission (AEC). These positions were series 1810, located in the Division of Compliance, and the investigation reports issued were titled "Compliance Investigations." These positions were clearly originally established to conduct civil investigations to determine compliance with the regulations found in 10 Code of Federal Regulations (Energy). OI investigative personnel actually perform the duties and responsibilities of the series 1801 or 1810 classifications, and meet the 1801 or 1810 position classification guidelines and qualification requirements. Personnel classified in series 1801 or 1810 do not receive early retirement nor availability premium pay. The 1801 series guide, for example, specifically speaks to positions where investigations relate to violations of

regulations and criminal matters are referred to another agency for criminal investigation. The result of the misclassification is that the NRC has unnecessarily paid OI investigators early retirement and premium pay (Administratively Uncontrollable Overtime [AUO] or "availability pay" of 25% of their salary), amounting to hundreds of thousands of dollars per year, and totaling millions of dollars during the period 1982-2010. The 25% availability pay is included in the OI investigators' basic pay, and therefore raises the "high three" salary years utilized to determine retirement pay. Also, a more beneficial percentage is used to calculate retirement benefits. A very conservative analysis indicates that the overpayments greatly exceed \$700,000 per year (the effect on Thrift Savings Plan agency contributions and retirement benefits of an additional 25% during an employee's "high three" years was not calculated). OI Investigations largely consist of interviews with a court reporter present, and document reviews. Between 7% - 30% of the cases are referred to the Department of Justice (DOJ) for prosecutorial review, but very few are accepted for further investigation, and even fewer result in convictions. In extremely rare cases, the OI investigator may provide assistance to the DOJ in its review or investigation, and may provide testimony in court or before a Grand Jury. In vanishingly rare cases, the investigator may assist in obtaining and executing a search warrant (accompanying the primary law enforcement officers), or collecting physical evidence. A chronology of events indicates that NRC senior management was well aware that NRC did not have the authority to conduct criminal investigations, had not given such authority to OI, and that OI did not perform criminal investigations. In the early years, OI did not even directly interface with the DOJ, but passed their investigations to the Office of Inspector and Auditor for referral to DOJ. Of central importance is a memorandum dated October 15, 1982 in which the NRC Deputy General Counsel advised that, lacking statutory authority, NRC personnel should not conduct criminal investigations under any circumstances. Subsequently, numerous submittals were made to OPM, claiming that all OI investigations were criminal investigations. Perhaps as importantly, on April 9, 1984, the full NRC Commission received a Briefing on Criminal versus Civil Investigations. A draft document giving OI the authority to conduct criminal investigations was discussed, with the Commission strongly objecting to and directing removal of the term "conduct" and substitution of the word "assist." Quotes: "we believe that the Commission – and OGC has taken this position in the past – that the Commission does not have independent authority to conduct criminal investigations." "Yes, our policy is to first serve our civil purpose and then help DOJ." This briefing led to a commission paper used as guidance in negotiating a Memorandum of Understanding with the Department of Justice.

comment #57 posted on 2011-02-05 01:08:01 by Andrew Williams

An issue which the NRC very much needs to address is the matter of the Yucca Mountain Nuclear Waste Repository. NRC Chairman Gregory Jaczko's actions regarding this matter have been extremely disturbing. Last year, the NRC's Atomic Safety and Licensing Board ruled that the Energy Department does not have the authority to withdraw its application to build the Yucca Mountain site. This decision is now appealed to the full NRC commission of which Gregory Jaczko is the chairman. In what took the ASLB 39 days to decide, the NRC commission is still deciding and has been doing so for over 200 days. It is quite obvious to everyone involved as well as the public that the decision is being delayed for political reasons. Of five NRC commissioners, two oppose Yucca mountain (Jaczko and Magwood), two support Yucca mountain (Ostendorff and Svinicki), and one recused himself from voting (Apostolakis). If the decision on whether to uphold the ASLB decision was made now, the vote would end in a tie meaning the ASLB decision would stand. This scenario is obviously untenable to Gregory Jaczko so he has delayed the commission's vote for over 200 days. It is worth noting, at this point, that George Apostolakis, the commissioner who recused himself from voting on this issue, did so because he earlier worked on the DOE license application for the Yucca project. Ironically, Gregory Jaczko, who was senate majority leader Harry Reid's science advisor and who helped Reid frame arguments against Yucca mountain, has NOT recused himself. In this blatantly political action, Jaczko has made it clear that he will use any means at his disposal to stop Yucca Mountain from going forward. Jaczko has already delayed a commission ruling for over 200 days and I have no doubt that he will delay further. In fact, I believe he will delay the decision until William Ostendorff's term as NRC commissioner expires in June of this year. This will give him free reign to decide the matter how he wishes. Gregory Jaczko has turned the once apolitical Nuclear Regulatory Commission into a political tool for Harry Reid to exert control over America's nuclear policy. He refuses to allow a vote to occur to decide the fate of the Yucca Repository until he can control the outcome. The NRC has lost credibility and will continue to lose credibility in the eyes of the American people until a decision is made by the commission. Gregory Jaczko is delaying a legal proceeding for political gain and should resign immediately from his position, as he has lost the confidence of the public. I also find it abhorrent that on this blog an NRC moderator said "The decision to cancel the Yucca Mountain Project was made by the White House and the Department of Energy, not the NRC." The decision on whether or not to cancel Yucca Mountain is still in review! Furthermore, the NRC ultimately WILL decide on whether or not the project will go forward or not based on the commission's ruling.

comment #58 posted on 2011-02-05 08:06:49 by Tom Clements

The NRC has a regulatory role related to DOE's program seeking utilities to use weapons-grade plutonium fuel (MOX) in commercial nuclear reactors. After Duke Energy withdrew from a failed test of MOX fuel in 2008, DOE was left with no utilities which even had interest in MOX. Now, DOE has turned to the TVA and Energy Northwest (Richland, WA), and is attempting to convince them to use weapons-grade MOX, which has never been used on a commercial scale and never even tested in a BWR. But any use in BWRs or PWRs will need a full three cycles of testing, licensed by the NRC, to see if "batch" use of MOX can be licensed by the NRC. As DOE, Energy Northwest (EN) and TVA, which has a MOU with EN (see that in documents linked below) failed to provide information to the public about the interest in MOX by EN, that has been done by Friends of the Earth, in the public interest: "Secret Plan Exposed to Use Surplus Weapons Plutonium in Washington State Nuclear Reactor" - see: <http://www.foe.org/secret-plan-exposed-use-surplus-weapons-plutonium-washington-state-nuclear-reactor>

comment #61 posted on 2011-02-05 09:43:01 by Rod Clemetson

Part Two ==> China has grand plans to build enough nuclear power plants to supply 200 gigawatts by 2030, and do it with a modified

(Gen-III) Westinghouse AP 1000 design. Now they've included TFMSR's in the plans, which may eliminate the need for the much more expensive Westinghouse LWR's. Their nuclear capacity is already replacing coal-fired plants amounting to 60 gigawatts since 2006. China has 13 nuclear plants in operation today, another 25 under construction, and 200+ more on the drawing boards. They aren't waiting around to sign any pollution reduction treaties, they're just **DOING** it! Now they're siezing the fantastic opportunity to leap straight ahead to Gen-IV designs, such as TFMSR and Liquid Flouride Thorium Reactors (LFTR's). Please google "Energy From Thorium" and "Thorium Energy Alliance". I promise you'll be amazed. By the way, the United States is preparing to destroy (i.e., down-blend and bury) one thousand kilograms of Uranium 233 (currently classified as toxic nuclear waste). U233 can be used to produce many beneficial medical and industrial isotopes, and is an ideal "starter" fuel for TFMSR's. It's going to cost several hundred million dollars to destroy this valuable stockpile of U233. The United States could proceed with the destruction plans -- which would make the Chinese TFMSR success more difficult -- or, we could develop our own TFMSR program and beat the Chinese to the patent office. The latter notion gets my vote. So here's a new challenge for the NRC: adopt and adapt regulations to take into account the concept of liquid fueled reactors that can operate at atmospheric pressure and passively shut down in an emergency. The SCRAM process for a liquid fuel reactor will manually or automatically drain the molten core into holding tanks where the fuel solidifies and traps all the radioactive materials. What a concept!

comment #66 posted on 2011-02-07 09:09:06 by Mike Mulligan in response to comment #55

This is my test drive of the new car. If this is the new NRC...it is something? This transparency is powerful stuff...having people see events in their near immediacy....having people all see the information at the same time, or at least letting people see indiveguals interpretation of events, not just the bureaucrats' and licensee interpretation of events. ...It is transformational. Congratulations to the NRC!

comment #67 posted on 2011-02-07 12:08:23 by Moderator

I have read that the American military has more freedom as do research labs. If the military wanted to start developing their own Generation 4 reactor is there any reason they need to consult with the NRC? Moderator: This comment has been moved here from a different post.

comment #68 posted on 2011-02-07 12:11:53 by Moderator in response to comment #67

The NRC has jurisdiction over all civilian (e.g., non-weapon) uses of nuclear materials in the United States. For example, the NRC regulates a research reactor operated by the Armed Forces Radiobiology Research Institute, while Congress has directed DOE to seek NRC licensing for the Next-Generation Nuclear Plant, a Generation IV project. The White House can designate specific facilities as being under the self-regulation of either the Department of Energy or the Department of Defense. DOE self-regulates a few of its own research reactors under this authority. The NRC, DOE and DOD have been discussing other small modular reactor concepts, some meeting the Generation IV definition. Both DOE and DOD have indicated they will seek NRC licensing for any small modular reactor projects at their respective facilities.

comment #69 posted on 2011-02-07 14:18:48 by Raphael

I remember seeing "The China Syndrome" as a kid and it kind of freaked me out. I have always wondered how realistic was that movie in terms of what Jack Lemmon's character was freaked out about. Forty years later and I do not recall any big snafus, which makes me wonder about the comment above regarding nuclear infrastructure as "aging". Any insights on this?

comment #74 posted on 2011-02-07 22:13:44 by Billy in response to comment #54

since you did not include my earlier post it is obvious you are censoring posts you don't like. NRC is living a culture of corruption. Jaczko must go.

comment #79 posted on 2011-02-08 15:54:16 by Moderator in response to comment #74

Posts that do not adhere to our Comment Guidelines cannot be posted. The full guidelines are available here: <http://public-blog.nrc-gateway.gov/nrc-public-blog-guidelines/> .

comment #99 posted on 2011-02-11 18:35:19 by A concerned citizen

I have been told by NRC staff that Chairman Jaczko has been directing the staff to take various policy positions in papers being sent to the Commission either for information or for a vote. Recent examples would be the paper on Yucca Mountain and the paper on Waste Confidence which is close to being delivered to the Commission. If this allegation is true, it is quite disturbing. Openness demands that the public know what the professional staff's views are before the Commission acts. If the staff's views are modified by the Chairman before policy papers are delivered, how will the public ever know the staff's real views?

comment #95 posted on 2011-02-11 15:50:37 by Moderator

I would like to know more about your review process. Many people are confused about the long periods of time that are invested in providing a report on requests. For instance is their a research team that needs to study the technology being reviewed? Is there a

consultation with the professionals about their processes? Your role is a complex one to understand so any information that can explain why some reports can take years and not just months. Moderator: This comment has been moved here from a different post.

comment #196 posted on 2011-02-24 21:25:31 by Hamilton

I think it an important step in the right direction to put up this blog site. Collaboration and Communication is essential for projects of the magnitude as energy. Energy project affect everyone and everyone should know how things are going. Thanks.

comment #85 posted on 2011-02-09 10:41:26 by Mike Mulligan in response to comment #66

Official Transcript of Proceedings NUCLEAR REGULATORY COMMISSION Title: 10 CFR 2.206 Petition Review Board RE Vermont Yankee Thursday, February 3, 2011 CHAIRMAN QUAY: At this point I would like to turn it over to Mr. Mulligan. Mr. Mulligan: Hello. I've got to get this on the record. When you first pushed the button when I came on the phone, I heard a snippet of information and the snippet of information was, "Let's have a little fun." What was that about? CHAIRMAN QUAY: That was me. I was welcoming a new Board member. She hasn't been here before and I said, "This will be fun for you." The reason I said that is it's a new experience. It's an experience which all of us need to have is interacting and learning how to interact with the public. MR. MULLIGAN: Who is this? CHAIRMAN QUAY: This is Ted Quay. MR. MULLIGAN: Okay. CHAIRMAN QUAY: Okay? MR. MULLIGAN: Thank you

comment #88 posted on 2011-02-09 11:22:20 by Moderator

As of recent, the NRC is becoming more dependant on industry's ghost stories, basically unsubstantiation stories and events dressed up as fact. They and the industry are increasingly representing a filament or fragments of the facts, partial and incomplete evidence and truth in documents and testimony. The examples I would give is the engineering, design, licensing bases and UFAR of the VY AOG piping radiological containment system. A developing problem is a factual understanding of the technical meaning of environmental LLD...the standards of how long a sample stays in a scintillation counter that gives us a LLD...what is the minimum level of detection of tritium and what constitutes a indication of a radioactive leak? Don't give me it is 2000 picocuries per liter... Vermont establishes it at 670 to 700 picocuries. Has the NRC in their deeds and actions...in their hearts... been gaming the first emergent indication of a radiological leak at the nuclear plants? We are getting a lot engineering ghost stories out of the agency recently...the facts are so thin it is like translucent ghost and just fragments of the truth floating all around us. There was a lot of ghost floating around in the part 26 commissioner meeting yesterday, did you see them...in LERs, the ROP and the inspection reports...its like Halloween all time and all year long. The NRC is just becoming a "not facts" based agency! Mike Mulligan Moderator: This comment has been moved here from a different post.

comment #104 posted on 2011-02-13 00:49:53 by Kaye Swain

Thank you for a very informative article, along with interesting comments. It is rather disconcerting to consider all these issues with old and newer reactors, particularly for those of us caring for elderly parents who live far from us but near an older reactor. One more issue for those of us in the Sandwich Generation to have to take into consideration. I appreciate this website to keep us updated and informed.

comment #270 posted on 2011-03-07 18:23:05 by AMA Nation

Its great NCR have this open forum. And it's a good way of communication with the agency through people concerns.

comment #287 posted on 2011-03-11 12:47:51 by Moderator in response to comment #286

Yes, the NRC is following the impact of the earthquake in Japan and the resulting tsunami. Please see our latest blog post outlining NRC actions. However, we cannot speak for the Japanese government on their actions nor on the specifics of their plants. Holly Harrington Blog Moderator

comment #264 posted on 2011-03-05 05:13:49 by Paul Christopher Anzalone

Howdy from Missouri! Just would like to post that NRC.GOV is my home page on my personal home computer. That's all. Sincerely, Paul Christopher Anzalone

comment #391 posted on 2011-03-16 17:49:41 by mapsurfer

OK, I wonder who's bright idea it was to build a nuclear plant on a subduction plate. Even if we survived this catastrophe, what happens down the road when this planet gets into the ring of fire? We might not have a planet left to talk about. Hillary Clinton said on CNN that we didn't have the foresight to see this catastrophe, but I disagree with that.

comment #403 posted on 2011-03-16 21:23:01 by Art

I've done several searches via your NUREG page and the ADAMS interface for NUREG 0408 and other documents applicable to the Mark I containment and Mark I containment short and long term programs from the 1970s and 1980s. Why are these not available?

comment #705 posted on 2011-04-15 10:37:37 by Moderator

This comment has been moved to this page by the moderator: Hello, Recent Congressional correspondence related to Yucca Mountain SER was made publically available through several websites. They included a letter from Chairman Jaczko as well as another letter signed by four Commissioners. Read together, it appears that the Chairman is not following the will of the Commission as a whole in sending policy views to Congress. If true, this is a major breach of existing protocol and calls into question whether the NRC has a Commission or a sole Administrator. What's really going on? Thank you. Here's a link to one of the stories. <http://www.nucleartownhall.com/blog/rebellion-at-the-nrc-jaczko-outvoted-4-1-on-release-of-safety-report/>

comment #707 posted on 2011-04-15 11:04:07 by Moderator in response to comment #403

Unfortunately, many older documents that pre-date our electronic database have not been scanned and made available online, but you can still get them. For help, contact our Public Document Room. Contact information can be found here: <http://www.nrc.gov/reading-rm/contact-pdr.html>

comment #851 posted on 2011-04-29 22:58:56 by Kyle

Reg guide 1.8 outlines the training requirements for SRO's and will be looked at on a case by case basis. If an individual without a bachelorette degree had a technical background in quality control would they be considered for the instant SRO program if they have three level III's from the American Society of Nondestructive Testing, a CWI from American Welding Society and over ten years of nuclear experience?

comment #1642 posted on 2011-07-26 13:39:26 by Moderator

As much as nuclear energy proves effective on large scale production, a simple breach could be very catastrophic, solar and wind energy is the only safe way out. Lets embrace safe green energy. festow32@gmail.com Moved to Open Forum by the moderator

comment #693 posted on 2011-04-14 10:07:43 by TrueNorthist in response to comment #391

Non sequitur. This is a typically overwrought and hysterical response. The resulting effects from the earthquake and subsequent tsunami on the power station in Fukushima will in all likelihood result in a statistically insignificant number of casualties *of any kind*. The facilities in Japan performed extremely well considering the magnitude of the event, and the operators and authorities there have responded in a most timely and effective manner. I would suggest that the preceding posters' angst would be more effectively directed at banning walking outdoors, as the risk of injury and death from that engaging in that activity is exponentially higher.

comment #829 posted on 2011-04-26 03:11:27 by bestcarins

I agree with The resulting effects from the earthquake and subsequent tsunami on the power station in Fukushima will in all likelihood result in a statistically insignificant number of casualties of any kind

comment #980 posted on 2011-05-22 14:08:25 by Nancy Allen

Nancy Allen May 22, 2011 at 1:56 pm Your comment is awaiting moderation. I want to add my concerns about the dangers of station blackout and loss of cooling accident. The disaster in Japan showed everyone that emergency safety protocols must be updated in the US. The present emergency response cannot be considered adequate to address all events that would cut power to the reactors for an extended period of time. There is a need for power generation other than just back up diesel generators and the 4-8 hour back up batteries. There should be an immediate effort by the NRC to have a power supply available for all natural catastrophic events including large magnitude earthquakes, tsunamis, tornadoes, hurricanes and more. If there is no emergency design criteria that can anticipate and fully prepare for this no new plants should be built and old ones relicensed only if they meet stringent NRC safety regulations with a back up alternative energy supply like wind, solar, geothermal and more.

comment #1021 posted on 2011-05-29 20:31:52 by wiwik

I agree with this I want to add my concerns about the dangers of station blackout and loss of cooling accident. The disaster in Japan showed everyone that emergency safety protocols must be updated in the US.

comment #1600 posted on 2011-07-22 16:40:55 by Moderator

Moved by the Moderator to Open Forum: At the heart of the problem is the fact that safety upgrades will impact the bottom lines for a significant portion of the U.S. reactor fleet. Reactor operators face significant capital expenses such as making SNF pools nuclear safety-rated, movement away from high density SNF storage, repair/replacement of degraded piping, hydrogen mitigation measures, etc.. For instance, According to EPRI, the additional per-reactor costs of placing SNF greater than five years of age into dry storage ranges between \$573 million (BWRs) to \$760 million (PWRs). Plus there is the potential for loss of revenue from the closure of aging reactors, that are no longer economical with these additional expense and/or are under siege by a growing number of states – especially BWR Mark I units, reactors in high-risk seismic areas, or those too close to major population centers (ie Indian Point). This is a big problem for those reactor owners operating in a de-regulated environment, notably Exelon with close ties to Obama, which

don't have a captive rate-base to recover these expenses

comment #1279 posted on 2011-06-25 12:24:50 by Alister Wm Macintyre in response to comment #980

I share Nancy concerns. Remember Katrina - it was 3 days before serious help could arrive, other than Coast Guard helicopters, which were kept very busy. In fact FEMA has some guidelines how many days supplies people should try to have, because of how long until National Guard can get there, so similar thinking is needed for how long a power plant may be without aid, if there is a regional disaster like Japan, causing reduced capacity to respond to individual events among the thousands, and delays to provide aid, due to damage to transportation infrastructure. There can also be disruption to telecommunications, delaying SOS getting out. In anticipation of this, critical infrastructure ought to have satellite phone available, in case cell towers and land lines go down. Regional homeland security should know what are critical infrastructure, check in with them when regional disaster, to make sure their needs not neglected. There needs to be availability of helicopters and marine landing craft for search and rescue forces along flooded areas. Fukushima plant design has spent pools above containment, and no way to vent hydrogen, leading to holes in roof, radiation escaping, problem managing radioactive water. My understanding is that US design has spent pools closer to ground level, stored longer time period. I sure hope those buildings are earthquake resistant, well protected against flood waters.

comment #1301 posted on 2011-06-27 12:42:03 by Art in response to comment #1295

You might be looking directly for this, John. <http://pbadupws.nrc.gov/docs/ML1116/ML11167A114.pdf>

comment #1298 posted on 2011-06-27 12:18:32 by Moderator in response to comment #1295

Yes, it is available through our ADAMS system. Here is the link: http://wba.nrc.gov:8080/ves/view_contents.jsp

comment #1295 posted on 2011-06-27 10:00:11 by john

Nrc, Do you have a link to a transcript of the 6-8-2011 meeting with the group Beyond Nuclear where the petition to close the GE mark 1 plants in the US was discussed? Thanks

comment #1332 posted on 2011-06-30 06:25:17 by john in response to comment #1301

Thanks Art and moderator for helping with those links. Yes that's what I was looking for Art.

comment #1333 posted on 2011-06-30 06:32:56 by john

NRC, I have a question this event notification was from 6-8-2011. It seems to say that the Prairie Island plant's emergency generators were off line because of excessive outside heat. Am I reading this correctly? If so is this something that affects all nuclear plant backup generators or is it site specific? Thanks "BOTH EMERGENCY DIESEL GENERATORS DECLARED INOPERABLE DUE TO EXCESS OUTSIDE AMBIENT AIR TEMPERATURE "Outside ambient air temperature exceeded the maximum analytical value for operability for Unit 1 D1 and D2 Diesel Generators at 1349 CDT. The calculated limiting outside air temperature needed for equipment in the D1 and D2 rooms to meet their temperature limits is 100.5°F. Outside ambient temperature exceeded this limiting value and both Unit 1 safeguards diesel generators were declared inoperable at 1349 CDT on 6/7/2011. If outside ambient air temperature is above the maximum analytical value, components within the D1 and D2 diesel rooms may not be able to perform their required functions thus preventing them from fulfilling their safety function needed to mitigate the consequences of an accident (10 CFR 50.72 (b)(3)(v)(D)). "Unit 1 is currently in Mode 3, Hot Standby. Ambient outside air temperatures are at or near peak values for the day and expected to decrease approximately 1 to 2 degrees per hour which will restore ambient conditions to less than the maximum analytical value. "The NRC Resident Inspector has been notified." The outside air temperature has peaked at 101.4°F which is unusually high for this location and is expected to drop below the 100.5°F limit shortly. The licensee does not anticipate that this condition will be repeated again any time soon."

comment #1323 posted on 2011-06-29 08:40:40 by Dolly in response to comment #1279

Yes, well it was 3 days before serious help could arrive because FEMA prevented people (regular folk you know, not "experts") from helping their fellows. I don't think I want the National Guard "protecting" me. These so-called homeland security agencies seem good at taking tax money but not so good on the protection end. I think we need protection FROM them. What did gun confiscation during Katrina have to do with protecting people from flood waters? Let us not forget that levees (thanks to the core of engineers) are blown to flood certain areas so that other "more important" areas are more protected from damage. Who decides? And on what criteria? Who among us is less or more important? I guess that's left up to the actuaries and the insurance companies.

comment #1347 posted on 2011-07-01 11:16:51 by Moderator in response to comment #1333

The plant declared both Unit 1 diesel generators inoperable based on the licensee's engineering analysis which is not only site specific: it is specific to the type of diesel generators used for Unit 1; their location; and the amount of space and ventilation available to the diesel and associated equipment. In this case, the major concern was not so much the possibility of direct damage to the diesel itself but impact on electrical and other auxiliary equipment located in the diesel room. If, in addition to the heat produced by a running diesel the ambient temperature in the diesel room is unusually high, the auxiliary equipment adjacent to the diesel may

overheat and affect its operability. If Unit 1 diesel generators are not available, Unit 2 diesel generators which are of different design could be used to supply power to Unit 1 equipment. The NRC is still reviewing this issue for compliance with NRC regulations and design requirements.

comment #1429 posted on 2011-07-09 15:58:53 by Nathali

Thanks for the open debate

comment #1637 posted on 2011-07-26 09:43:34 by Moderator

hello this is biomonta from germany. as you know the time nuklear machines end in 2021 but other euopean countries like france buld new machines. the question is, why can't we find a worldwide solution Moved by the Moderator to Open Forum

comment #1920 posted on 2011-08-17 16:57:52 by Micheal

I guess that is why it would be a National project. We could do it. The Atlas rocket does not cost as much as the shuttle rockets. It does not have to get to the Sun to burn up its gravity would pull it in. The amount of energy we could produce would far out weigh the cost. All the jobs it would create would be enormous. I guess it is better to have something like Japans radiation rain down on us right?

comment #1569 posted on 2011-07-21 14:07:55 by aldo in response to comment #53

I agree with you Kathryn. Why government doesn't focus on research of environment friendly power resources like solar and wind systems? Nuclear reactor incidents can kill us all. Perhaps US can prevent nuclear reactor incidents what about other country with poor standard like North Korea, Iran, or Indonesia? If something happen with their reactor its hard to prevent radio active exposure event our location far away from their reactor. In this case, I believe we still have any chance to get radio active exposure.

comment #1630 posted on 2011-07-25 20:13:01 by AstroGremlin

We tolerate risk in all other technologies for generating energy. In fact we tolerate assured depletion of finite resources, loss of miners/drillers, and release of greenhouse gases. Yet nuclear energy has to prove ahead of time that it is utterly without risk. A scientific approach, were the nation to adopt it, would be to consider the risks of traditional energy production when compared with nuclear power. Unfortunately, the emotional has trumped the rational. That an aging reactor survived a direct hit by a tsunami is a triumph of engineering. If we applied the same expectations to automobile design, we would have to drive Bradley fighting vehicles (and go broke paying for them).

comment #2039 posted on 2011-08-29 08:48:44 by Moderator

This comment has been moved by the moderator: Regarding the issue of fiery steam-cladding reaction it is not clear, why it was moved out to this environment. I hope there will be a regulatory resolution, finally accepting that this process was the key process in all major reactor accidents, like the Fukushima Daiichi Units 1, 2 and 3, Chernobyl 4 and TMI2, even the Paks 2 fuel washing accident. [PDF] 2010/11/24-Comment (3) of Aladar Stolmar, on New England ... Van, Attached for docketing is a comment on PRM-50-93/50-95 from Aladar Stolmar that I received via the regulations.gov website on 11/24/10. ... pbadupws.nrc.gov/docs/ML1033/ML103340250.pdf – 2010-12-09 It is a much overdue duty of NRC and IAEA to evaluate the evidence provided by the TMI-2 accident, Chernobyl-4 accident, Paks-2 incident, and related experiments. Evaluating this evidence, one can see that the ignition of the zirconium fire in the steam occurs at a local temperature of the fuel cladding of around 1000-1200° C, [[and that a self-feeding with steam due to the precipitation of eroded fuel pellets and zirconia reaction product from the hydrogen stream into the water pool, causes intense evaporation.]] There are insignificant differences in the progression of the firestorms that occurred in the TMI-2 reactor severe accident, Paks washing vessel incident, and Chernobyl-4 reactor accident; the later defined only by the amount of zirconium available for the reaction. At the mean time, there are significant similarities in the processes leading to the ignition of the firestorm. In all three of the compared cases, it took several hours of ill-fated actions or in-actions of the operators to cause the ignition condition. Also, there are similarities in the end result of the firestorm; namely, that the extent of the fuel damage is much less than it was predicted from any other severe fuel damage causing scenarios, introduced for explanations. Therefore the fraction of released fission products is significantly less than was anticipated from the fuel melting or a so called “steamexplosion” scenario. Also, the fiery steam-zirconium reaction results in a much higher than anticipated (from any other scenarios) rate of Hydrogen production, which in turn requires a review of containment designs. [PDF] 2010/03/24-Comment (3) of Aladar Stolmar, on PRM-50-93 ... From: Aladar Stolmar [astolmar@gmail.com] Sent: Wednesday, March 24, 2010 2:59 AM To: Rulemaking Comments Subject: Docket ID NRC-2009 ... pbadupws.nrc.gov/docs/ML1008/ML100830501.pdf – 2010-11-26 Similar destruction and relocation of nuclear reactor fuel was observed in the TMI-2 and Chernobyl-4 severe reactor accidents and in the Paks-2 refueling pond reactor fuel washing accident. The similarities in these tests and accidents are the formation of gaseous (steam) bubbles in the upper regions of fuel bundles, the ignition of Zirconium in the steam and generation of Hydrogen and zirconia (ZrO2) reaction products in a very intense fire, essentially in a firestorm. Therefore, the conservative regulation shall mandate that the owners and operators of Nuclear Reactors and Reactor Fuel Handling Facilities shall demonstrate that there will be no dry-out of the fuel bundles in any circumstances. Also, in order to prevent the exposure of the public to the harmful consequences of an accident in a reactor, the housing of the reactor (containment) shall withstand the detonation of the air-Hydrogen mixture with the amount of Hydrogen calculated from the consumption of the entire inventory of Zircaloy in the reactor core or in the entire enclosed in a vessel volume,

where such bubble formation is possible. There are several reports presenting the same issue as Mark Leyse. The cladding of nuclear fuel made of Zirconium alloy ignites and burns in the steam. The same process can be recognized (and should be recognized) as the common cause of the TMI-2 and Chernobyl-4 reactor severe accidents and the Paks-2 refueling pond accident. And the regulations in 10 CFR 50 series shall mandate to deal with the real issues and real processes. [PDF] 2011/06/28 -- NRC Public Blog April 2011 through May 2011 ... comment #652 posted on 2011-04-06 07:31:03 by Aladár Stólmár comment #644 posted on 2011-04-04 20:11:31 by duxx ... <http://pbadupws.nrc.gov/docs/ML1117/ML11179A192.pdf> – 2011-06-29 As I wrote in the comment to US NRC <http://pbadupws.nrc.gov/docs/ML1033/ML103340250.pdf> : „It is a much overdue duty of NRC and IAEA to evaluate the evidence provided by the TMI-2 accident, Chernobyl-4 accident, Paks-2 incident, and related experiments. Evaluating this evidence, one can see that the ignition of the zirconium fire in the steam occurs at a local temperature of the fuel cladding of around 1000-1200°C, [[and that a self-feeding with steam due to the precipitation of eroded fuel pellets and zirconia reaction product from the hydrogen stream into the water pool, causes intense evaporation.]] There are insignificant differences in the progression of the firestorms that occurred in the TMI-2 reactor severe accident, Paks washing vessel incident, and Chernobyl-4 reactor accident; the later defined only by the amount of zirconium available for the reaction. At the mean time, there are significant similarities in the processes leading to the ignition of the firestorm. In all three of the compared cases, it took several hours of ill-fated actions or in-actions of the operators to cause the ignition condition. Also, there are similarities in the end result of the firestorm; namely, that the extent of the fuel damage is much less than it was predicted from any other severe fuel damage causing scenarios, introduced for explanations. Therefore the fraction of released fission products is significantly less than was anticipated from the fuel melting or a so called “steam explosion” scenario. Also, the fiery steam-zirconium reaction results in a much higher than anticipated (from any other scenarios) rate of Hydrogen production, which in turn requires a review of containment designs.” I hope the gentlemen will recognize the same process in the Fukushima Daiichi 1-3 reactors as the leading, key process. I hope we will have a thorough investigation of the fiery steam-zirconium reaction and there will be issued a call for shutting down the 11 still operating Chernobyl type (RBMK) reactors in Russia [PDF] 2011/04/08 -- NRC Public Blog February 2011 through March ... comment #441 posted on 2011-03-18 13:44:34 by Diesel comment #412 posted on 2011-03-17 07:06:13 by Aladár Stólmár ... pbadupws.nrc.gov/docs/ML1109/ML110980787.pdf – 2011-04-13 A few of us, nuclear engineers were, are fighting for lifetime for the consideration of real processes in the reactor severe accidents. As I formulated in a comment to US NRC: Consideration of the zirconium-steam reaction and the ignition and intense firestorm in nuclear reactor fuel rods is well overdue. Reevaluating the evidence provided by the TMI-2 reactor accident, Chernobyl-4 reactor accident, and Paks Unit 2 fuel washing incident, with consideration of this intense fiery process, will bring us closer to an ultimately safe nuclear power plant design. <http://pbadupws.nrc.gov/docs/ML1033/ML103340250.pdf> Also, I called two years ago for a review: If the hydrogen which is generated in the reactor core from the reaction of the steam (coolant) with the zirconium alloy (or other low neutron absorbing metal cladding and other fuel bundle elements) explodes inside the building surrounding the reactor, this detonation still will not cause a break of the pressure boundary of the containment. Thirty years after the TMI-2 accident and 23 years after the Chernobyl disaster, I feel obligated to formulate this guideline in order to protect the public from further irradiation from the use of nuclear power. The Chernobyl type reactors (RBMK), which are still operating, have to be shut down immediately because they do not satisfy this guideline. Other nuclear reactors operating and future designs shall be reviewed for compliance to this key requirement and the result of such review shall be defining for their future. <http://aladar-mychernobyl.blogspot.com/> Returning to the comment to US NRC <http://pbadupws.nrc.gov/docs/ML1033/ML103340250.pdf> : „It is a much overdue duty of NRC and IAEA to evaluate the evidence provided by the TMI-2 accident, Chernobyl-4 accident, Paks-2 incident, and related experiments. Evaluating this evidence, one can see that the ignition of the zirconium fire in the steam occurs at a local temperature of the fuel cladding of around 1000-1200°C, [[and that a self-feeding with steam due to the precipitation of eroded fuel pellets and zirconia reaction product from the hydrogen stream into the water pool, causes intense evaporation.]] There are insignificant differences in the progression of the firestorms that occurred in the TMI-2 reactor severe accident, Paks washing vessel incident, and Chernobyl-4 reactor accident; the later defined only by the amount of zirconium available for the reaction. At the mean time, there are significant similarities in the processes leading to the ignition of the firestorm. In all three of the compared cases, it took several hours of ill-fated actions or inactions of the operators to cause the ignition condition. Also, there are similarities in the end result of the firestorm; namely, that the extent of the fuel damage is much less than it was predicted from any other severe fuel damage causing scenarios, introduced for explanations. Therefore the fraction of released fission products is significantly less than was anticipated from the fuel melting or a so called “steam explosion” scenario. Also, the fiery steam-zirconium reaction results in a much higher than anticipated (from any other scenarios) rate of Hydrogen production, which in turn requires a review of containment designs.” I hope You will find useful this information for the background of the Fukushima Daiichi plant recent events.

comment #1878 posted on 2011-08-12 18:10:16 by Micheal

Why can we not have a government controlled central waste disposal site from which we charge corporations for depositing nuclear waste on a one way rocket to the Sun? It would create jobs, research, in all parts of the country. Just do it.

comment #1865 posted on 2011-08-11 23:05:57 by

Why can't decay heat be harnessed and used as an energy source to safely power down/cool a nuclear reactor? I have been wondering about this since the incidents in Japan. It appeared that the Fukushima nuclear reactors survived the 5th largest recorded earthquake on earth quite well and initiated normal shutdown procedures. It was the fact that the tsunami later damaged the backup power system for cooling, which resulting in a cascade of failures and a meltdown in the reactors. I feel that nuclear energy is a clean source of power and that it can help solve our dependence on imported fossil fuels as well as provide no CO2 emissions. On the other hand, plants should be designed to withstand extreme events, even if they are of a low probability. In the Japan case, ancient stone markers warned of tsunami risk at levels above the Fukushima backup generators. As an engineer and a scientist, I hate getting information on important topics through normal news outlets that like to sensationalize and oversimplify stories. I understand that I am not a nuclear engineer so maybe this is a dumb question but I have dealt with lots of disasters including Katrina and know that failures of the power

grid over an extended period could result in the loss of backup cooling due to diesel fuel running low and such. It seems something more robust and redundant should be used. It is my understanding that the typical reactor will produce between 5-7% of its rated output in decay heat due to the radioactive decay of fission byproducts after shutting down. I understand that the amount of heat generated depends on the length of time the fuel has been in use and undergoing fission so older fuel will have a larger decay heat. I understand the heat generation drops quite rapidly as the short lived isotopes decay but that longer lived isotopes continue to decay and generate heat so that cooling is needed for a very long time (5-10 years) after the spent fuel is removed from service. I looked up the operational rating of several nuclear power plants in the U.S. and most tend to range between 1000-1200 MW of power, which is quite a large number. When one of these shuts down, decay heat should be generated in an amount around 50 MW (or more) immediately after shutdown based on the 5-7% heat of operation. 50 MW is an immense amount of power and I would think this would well exceed the rated output of even the largest (or a bank of) diesel generators. My question is why this tremendous amount of energy cannot be harnessed and used to generate power that could be used to safely shut down and cool a nuclear reactor. It seems there is plenty of heat to lead to a complete core meltdown and/or fire long after the primary fission reaction is shut down. Why can't this heat be used to generate power, whether it be electrical or mechanical, in order to run pumps and such to cool the reactor during shutdown? Why couldn't one of the steam turbines be run to generate power to run the pumps? If the main turbines are too large to run on such a reduced output, could a smaller turbine be used for backup purposes? How about running the pumps directly and mechanically without any electric generation via a turbine meant just for this purpose? I like to keep things simple as there is less to go wrong so a purely mechanical pump might be in order. How about a thermocouple system? I know that radioactive decay is used to power space probes in this manner and such but don't know how it would work on such a large application. Even if decay heat cannot produce enough power, can it not provide some power and reduce dependence of batteries or diesel? If nothing else, it could reduce the rate at which batteries or diesel are used up and buy time to solve the underlying problem. As decay heat drops, potential power generated from it also drops, but so would the cooling requirements. Pumps would not be able to be run at their maximum rating but is this a bad thing after most of the short lived isotopes have decayed? I am not an expert so maybe decay heat can remain dangerous even if it isn't enough to generate a meaningful amount of power. Is it like my electric stove. Sometimes I turn it off right before the food is done and let it cook with the residual heat. Eventually it cools off to where it can no longer cook but would still be dangerous to touch. I know this is very simple but is it a good comparison? If decay heat cannot effectively be used to shut down a nuclear reactor, why can't the reactor go down to an "idle" mode where it generates just enough power to run the emergency cooling systems? It could be run this way indefinitely and let some of the short-lived isotopes generated during full power operation decay over a period time before reducing power further or shutting down completely once enough short-lived isotopes have decayed. Why is this not done? All it takes is one unforeseen disaster to knock out external power at a nuclear plant and it seems this might be a solution or at least part of the solution to the decay heat issue. I have been reading about solar flares and their ability to fry large electrical transformers that are key to large parts of the power grid. I understand that we are entering a very active solar cycle and there is some concern one of these flares could knock out a large part of the grid for an extended period. What would happen to a nuclear plant in such a situation?

comment #1888 posted on 2011-08-14 01:00:14 by Amy Still in response to comment #1865

WASHINGTON, D.C. — August 11, 2011 — The U.S. Nuclear Regulatory Commission is legally required to slow down reactor licensing and relicensing in order to address major changes urged by the agency's own experts who have reviewed the Fukushima accident, according to 19 separate legal challenges filed today by a total of 25 public interest groups. The groups contend that under federal law, the NRC may not issue or renew a single reactor license until it has either strengthened regulations to protect the public from severe accident risks or until it has made a careful and detailed study of the environmental implications of not doing so. The groups are also pursuing a technical finding from high in the NRC that leads to upgraded safety standards. "What we've learned in the wake of Japan's nuclear disaster — and what NRC experts concluded — is that current regulations are fundamentally inadequate. They simply do not provide the level of safety required by laws including the National Environmental Policy Act and the Atomic Energy Act," said Phillip Musegaas, Hudson Program Director of Riverkeeper, Inc., which today filed a contention document related to the Indian Point reactor in New York State with the NRC. "The law requires regulators to take this information into account before issuing any licenses for reactors. Our filing today is intended to force them to do so."

comment #2076 posted on 2011-09-01 01:26:18 by Alex

I also agree, that US and other countries are using current technology, but I am not sure that we are very well protected after the Fukushima Daiichi plant recent events.

comment #1918 posted on 2011-08-17 15:40:43 by Alister Wm Macintyre in response to comment #1642

Each source of energy is limited, and many have dangerous side effects. Solar and Wind use technology whose construction is dependent on industrial commodities which the world is running out of, and of course need a volume of weather activity which is not universally available. Fossil fuels have carbon cycle implications for climate change and maybe ozone hole. Hydro-electric is great on rivers, until earthquake brings down dam, and people downstream inadequate time warning to get out of way of flood. Hydro-electric works for some coastal inlets ... get tide power coming and going, but better not mess with ocean going currents essential to other nation's climates.

comment #1919 posted on 2011-08-17 15:43:16 by Alister Wm Macintyre in response to comment #1637

We have world wide solutions through UN treaties with IAEA to develop and share best practices info on wide spectrum of nuclear power energy. Problems then are with any nations which do not choose to join the treaties.

comment #1916 posted on 2011-08-17 11:38:36 by Chris in response to comment #1878

People periodically bring up the idea of sending waste towards the sun. If you run the calculations, you will find that this method of disposal is simply not practical from a cost standpoint, unless we all want to pay a whole lot more for our electricity. First, there are the political ramifications and risks associated with a radioactive rocket that might blow up before getting out of Earth's atmosphere. Remember the Columbia disaster? Not sure anybody wants highly radioactive material raining down from the skies over land or sea. Second, the amount of energy (and hence, fuel) it would take to do this is very large. You have to realize that we are moving in orbit around the sun. That means that any rocket we shoot into space is also moving in orbit around the sun. So shooting something to the sun is not as simple as putting a rocket into space and letting gravity take over. All you succeed in doing is putting that canister of waste in orbit around the sun as well. Orbital mechanics dictates that it takes a change in kinetic energy for a body to go from one orbit to another. To change to a closer orbit around the sun requires you to speed up the spacecraft. The closer you want the craft to get to the Sun's surface, the more and more kinetic energy you have to add to get there. The fuel it would take to do this is so enormous as to make this method of disposal simply impractical.

comment #1917 posted on 2011-08-17 15:34:55 by Alister Wm Macintyre

I agree, with respect to current technology used by NASA, USAF, other nations. However, if you take a look at the mechanics of space elevators, the cost drops from current technology to microscopic cost by comparison, to get anything out of Earth gravity field. If the waste container is sent in a direction below the Earth orbit with the Sun, that means it will spiral closer and closer to the Sun, and fall into the Sun, unless it crashes into Venus or Mercury or other stuff in transit.

comment #1947 posted on 2011-08-21 15:53:13 by Steve

Yes there are better and cheaper ways to go about it. But maybe the government has some insight.

comment #1949 posted on 2011-08-21 16:31:17 by French Translation

Time and time again have we witnessed a global accident as a result of mother natures swift hand. When will we learn that if we can build it, then it can be destroyed. Nuclear included. Are we not just filling the foundations for total man made destruction of (our) planet..?

comment #1951 posted on 2011-08-22 08:08:14 by Babu Jobs

I agree, NASA, USAF, other countries are using current technology. However, if you take a look at the mechanics of lifts, the costs will fall from the current technology on the microscopic cost comparison, stems from the gravitational field of the Earth.

comment #2802 posted on 2011-10-24 12:49:14 by dave

Re blog thread on safety culture policy posted last month, to develop the new definition, in Feb 2011 NRC assembled a panel of over a dozen "experts" and held a three day conference. I was the sole member of the public on the panel and I believe the most studied and accomplished in safety culture. I have an extensive bibliography and I have written many papers on the subject including a master's thesis. I have given a number of industry presentations a couple at the request of NRC and INPO. I was the primary safety culture advisor on an EPRI sponsored MIT project. The NRC invites input from the public, but does the NRC really "listen" the public? As a "member of the public" I felt I was continually treated as a "third class citizen". INPO and NEI being first class, nuclear industry reps second class, myself third class, even though of the panel members, I was likely the most expert in the subject. The NRC however, had very small ears for what I was saying [or trying very hard to say]. The result is that the industry got the definition it wanted, not the definition needed [or accurate or proper]. The underlying dynamics may have been similar to finance industry regulation under Greenspan: the regulation the industry liked, but not the regulation needed to properly protect the interests of the public. What kind of "core values and behaviors?" the new definition does say. Safety culture is not a "collective commitment by leaders and individuals". What Schein says is: "leaders create culture". Safety culture is it is a function of [is created by, is the responsibility of] LEADERSHIP, period. This is a CENTRAL [a sine qua non] point. Without this you fail to identify leadership as responsible for safety culture, and you cannot have effective regulation or effective licensee management of safety culture. This is such an obvious oversight, the only conclusion I reach is that the leaders of industry did not want this responsibility identified. Additionally, the phrase "to emphasize safety over competing goals" says nothing. Saying "to emphasize safety over profits" is clearer, but still tells you little about safety culture. Safety culture is an attitude that manages risk. In a HRO, it is a professional leadership attitude that protects people and the environment from the risks of a hazardous process. Like the medical profession, you must invoke the term "professionalism" but leaders of industry do not want regulators ever to hold them responsible for maintaining "professional attitudes". Politically, they do not like to clearly state that operating nuclear involves managing hazards and risks, but it does. "Nuclear Organizations" are high hazard ventures, operated by HROs, and are all about managing risk. The tool used by NRC that is central for assessing safety [PRA] focuses on assessing and managing risk. All of these including the concept of maintaining stakeholder trust are central to safety culture, but absent from the definition adopted by NRC. The new NRC definition addresses none of the problems with the old INSAG definition. This is because NRC never took the time and never made an effort to clearly understand what those problems were. Here is a proper definition of HRO safety culture [such as nuclear, process etc] if NRC had a better understanding of safety culture in Feb 2010, this would have been selected as the new NRC definition: HRO Safety Culture "In a high hazard industry or venture, professional leadership attitudes that ensure hazardous processes are managed such that risk to people and the environment is maintained as low as reasonably achievable, thereby assuring stakeholder trust."

comment #2040 posted on 2011-08-29 08:50:24 by Moderator

this comment was moved by the moderator: My son is visiting Connecticut for the first time. I have just seen there are nuclear plants all around him. I cannot believe after Japans experience America still has Nuclear power plants operating. The public will have to band together to sue power companies for exposing us with poison then maybe they will shut them down. Question there are also 2 closed plants in CT are these also dangerous in other words are there still ponds that need to be kept cool??? Is so that is 4 surrounding my son at present. Thanks America!!

comment #2286 posted on 2011-09-19 21:18:39 by Mike Saunders the car insurance cheapest quote guy

The real problem here is that we have a much better alternative to these reactors (LFTR-Liquid Fluoride Thorium Reactors) and are not pursuing it as we should be. We made a bad choice 40 years ago and are paying for it now... If we don't wake up the rest of the world (Russia, China, and India) are going to pass us by. LFTR's are much safer, cheaper, can be started and stopped easily, produce 1/30th the waste and what waste they do produce is radioactive for much less time, no proliferation danger, etc. A proven technology that we chose not to develop. For more info, see <http://www.youtube.com/watch?v=WWUeBSOEnRk>.

comment #3069 posted on 2011-11-07 13:03:25 by Jake

I applaud the NRC for at least initiating this kind of an open discussion. It should however be more public, and it's too bad such discourse wasn't available during the time when all these plants were set up in the first place.

comment #2909 posted on 2011-10-28 11:18:00 by Moderator in response to comment #2887

The development of uranium-based light-water reactors in the United States was based, at least in part, on the existence of infrastructure for enriching uranium, as well as U.S. Navy experience operating uranium-based reactors. The NRC is aware of Liquid Fluoride Thorium Reactor technology and would be the agency to approve and regulate any civilian reactor design using that technology in the United States.

comment #3247 posted on 2011-11-15 13:48:53 by Moderator

The NRC logo at the top of the blog page should be clickable to the nrc.gov homepage. -Cindy Montgomery Comment moved by the moderator

comment #2887 posted on 2011-10-27 19:56:29 by Astro Gremlin in response to comment #2286

Just saw a presentation on LFTR. No sensitive intermediate elements, waste has a short half-life, no pressurized containment required, fail-safe consists of plugs that melt upon overheating and allow vessel to drain into smaller vessels, stopping the reaction. A prototype at Oak Ridge was "turned off" every night using this multi-drain system. Research needed for commercial version. AEC wasn't interested in the 1950s and 1960s. Why? No weapons grade materials are produced in a LFTR; the very characteristic that recommends it today.

comment #3817 posted on 2011-12-15 08:23:42 by Ray

It is embarrassing as an NRC employee to see the Commissioners before a Congressional committee discussing their inability to work in some semblance of tolerance, if not harmony, among themselves. The accusations against the Chairman, right or wrong, reflect poorly on all. I believe the Commission owes the NRC staff an apology for its inability to contain these internal squabbles and the need to elevate them to the public level of embarrassment. We are supposed to be a technical, not a political, agency. Yet we have politicians accusing us of acting like politicians!

comment #3886 posted on 2011-12-19 12:13:09 by Moderator

This is more than the NRC chairman's "personality." His deficiencies as a leader and manager are too severe for him to be entrusted with such an important post, let alone his extreme partisan approach to his job. The NRC should be about science, engineering, and public health not crass politics and crass managerial behavior. Gregory Jaczko is a disaster on all counts and President Obama should be asking for his resignation, too. Moved by the moderator to this topic

comment #3255 posted on 2011-11-16 09:19:35 by Nuevo Jordan Zapatos

Hey! Do you use Twitter? I'd like to follow you if that would be okay. I'm definitely enjoying your blog and look forward to new updates.

comment #3831 posted on 2011-12-15 13:56:18 by Moderator

I am unhappy to hear that four NRC Commissioners have aired to Congress specific instances of abusive conduct by NRC Chair Jaczko, directed at the Commissioners as well as toward NRC staff. ("Leader of Nuclear Agency Hears Litany of Objections" NY Times Dec 14 2011) Apparently thie rcent criticisms were preceded by an Inspector General's report, which outlined similar

misbehavior by Chariman Jazcko. I hope to see more about this posted here. Moderator Note: Comment moved from another post

comment #3892 posted on 2011-12-19 12:32:06 by David Collins in response to comment #3890

Link to probably the best nuclear safety discussion blog in the world, comprised of 6000+ mostly nuclear experts & professionals, operated / moderated by a woman who is a nuclear regulator in Romania. You can join the group and start a discussion on any nuclear safety subject, and get interesting thoughtful feedback. <http://www.linkedin.com/groups?home=&gid=2170900>

comment #3891 posted on 2011-12-19 12:20:02 by Moderator in response to comment #3890

For more information about nuclear safety in the U.S., go to our website at: www.nrc.gov .

comment #3887 posted on 2011-12-19 12:14:43 by Moderator

Why is the Project on Government Oversight, a supposedly nonpartisan watchdog, wading into a partisan controversy and stoking the flames of conflict? If abuse of authority took place by Jazcko, why is POGO whitewashing it? Moved by the moderator to this topic

comment #3890 posted on 2011-12-19 12:19:28 by Moderator

Where I can find more info about appropriate safety of nuclear power, i want it to share with my country, I am from Peru, please send me the info thank you very much Moderator Note: Comment moved from another post

comment #7162 posted on 2012-03-04 18:01:38 by Marry

The NRC and DOE spend billions of dollars studying the problem of nuclear waste disposal. Yet not a dollar has been spent investigating these various claims, which have been around for a least forty years. no nuclear

comment #5224 posted on 2012-02-10 09:04:55 by Moderator

Just got my bachelor in EE, and I would like to know much bureaucratic/politic issues typically encountered by a junior engineer. I asked because I worked part time on campus, and although I didn't deal with departmental issues directly, my boss often shared the headaches he had to deal with, usually after meetings. Moderator Note: Moved from another post.

comment #5225 posted on 2012-02-10 09:07:57 by Moderator in response to comment #5224

You might try getting some information on this topic from the Institute for Electrical and Electronics Engineers (IEEE) at: <http://www.ieee.org/index.html> or from a similar engineering organization.

comment #5232 posted on 2012-02-10 16:17:33 by Moderator

no nuclear energy! advalue.editor@gmail.com Moderator Note: Comment moved from another post.

comment #5242 posted on 2012-02-10 23:03:49 by sewa proyektor jogja

The NRC and DOE spend billions of dollars studying the problem of nuclear waste disposal. Yet not a dollar has been spent investigating these various claims, which have been around for a least forty years. no nuclear <http://www.sewaproyektor.heck.in>

comment #4140 posted on 2011-12-28 09:26:02 by Moderator in response to comment #4139

The Department of Energy is responsible for developing a strategy for dealing with high-level waste. To that end, DOE and President Obama initiated a Blue Ribbon Commission on America's Nuclear Future to "conduct a comprehensive review of policies for managing the back end of the nuclear fuel cycle and recommend a new plan." From that commission's value statement: We are investigating a wide range of issues. These include reactor and fuel cycle technologies, options for safe transport and storage of nuclear waste, options for waste disposal, and institutional arrangements for the management of used fuel and high-level wastes. We will also make recommendations regarding the handling of the nuclear waste fund. You can learn more at their web site: <http://brc.gov/>

comment #4139 posted on 2011-12-28 09:25:24 by Moderator

There are many reports on the Internet that the radioactivity in radioactive waste and spent nuclear fuel can be neutralized by various simple, safe, inexpensive processes. The NRC and DOE spend billions of dollars studying the problem of nuclear waste disposal. Yet not a dollar has been spent investigating these various claims, which have been around for a least forty years. WHAT IS YOUR EXCUSE? Moderator: Moved from another post

comment #4147 posted on 2011-12-28 17:40:44 by Mike in response to comment #4139

Atlas rockets on a one way trip to the Sun full of toxic waste creating a clean environment and millions of jobs paid for by the corporations just what is wrong with that? It can be done the question is why not?

comment #5291 posted on 2012-02-13 10:41:13 by Moderator

Can't wait until the days of nuclear fusion, as opposed to fission, reactors. Once we're able to get ITER viable for commercial usage - or rather, a reactor based on ITER's build - our worries will dwindle to nothingness. Fusions reactors wont be worried about earthquakes or most other natural disasters, with their safety assured by the benign waste products they produce. Trevor Michaels
Moderator Note: Comment moved from another post

comment #9113 posted on 2012-04-13 15:17:33 by mark

which outlined similar misbehavior by Chariman Jazcko.

comment #5911 posted on 2012-02-16 09:35:44 by Moderator

It is time to get off the imports of fossil fuels, save the hundreds of billions now paid for the imports and put them to a better use. As a side effect air pollution would be reduced. Moderator Note: Comment moved from another post

The NRC Joins YouTube

posted on Fri, 01 Jun 2012 15:01:48 +0000



The official NRC YouTube channel went live this morning at www.youtube.com/NRCgov. The first posted videos feature NRC employees talking about their personal 9/11 experiences and the effects of that day on their lives. (You can also get there by going to the agency website at <http://www.nrc.gov> and clicking on the YouTube icon.) Look for future videos that include portions of important Commission meetings and information on the history and role of the NRC. YouTube joins Twitter and this blog as social media tools we're using to communicate with the public in new and meaningful ways. We hope the videos will enhance the public's understanding of the agency and its mission, and give a face to the people who work hard to protect people and the environment. We won't be taking comments on YouTube, but have created a special location on this blog for comments on videos. Happy viewing!

Eliot Brenner
Public Affairs Director

Comments

comment #2187 posted on 2011-09-09 11:58:24 by Austin Cushing

It should be interesting to see what the NRC is up to - I look forward to future videos.

comment #2179 posted on 2011-09-08 18:43:40 by Ken @ Cure Yeast Infection

You put together a very touching video about the events on 9/11. Your presentation makes this sad event more personal for the rest of the country. Thanks.

comment #2423 posted on 2011-10-01 02:00:06 by Agent Corona

It seems that YouTube is becoming a part of just about every area of social networking, training, and education. Good to see NRC on board. Cameron Corona, California

comment #2171 posted on 2011-09-08 12:04:39 by Moderator in response to comment #2170

Thank you! It's been corrected.

comment #2170 posted on 2011-09-08 11:10:05 by Ryan

:Correction: Broken link. Change to <http://www.youtube.com/NRCgov>

comment #2243 posted on 2011-09-13 14:06:42 by buy youtube views cheap

Nice idea for NRC to post videos on Youtube. Waiting to see what NRC have in store.

comment #2341 posted on 2011-09-26 11:00:07 by YouTube Converter

What a great idea for the NRC to have a YouTube channel. Will go check it out right now!

comment #3212 posted on 2011-11-14 07:32:25 by Malik

A very nice video. Thanks for sharing this video.

comment #3874 posted on 2011-12-18 15:56:45 by Charlie Says

Great to see that the NRC is embracing social media in this way, a great way to engage. Thanks for the post! Charlie

comment #10890 posted on 2012-04-27 12:27:53 by Lotto Results

It's great to find NRC on Youtube. Thanks for the link.

Preparing the NRC for America's Nuclear Future

posted on Thu, 03 May 2012 15:09:10 +0000



Last month, the NRC's five-member Commission heard from retired General Brent Scowcroft, and others, who briefed them on what the Blue Ribbon Commission on America's Nuclear Future might mean for the agency. In January, the Blue Ribbon Commission, or BRC, co-chaired by General Scowcroft and former Representative Lee Hamilton, [issued comprehensive recommendations](#) to Energy Secretary Steven Chu on how the nation could handle nuclear waste. As requested by the President, the BRC's recommendations present a long-term strategy for managing and disposing of spent nuclear fuel and high-level radioactive wastes. Many of these proposals will require specific actions by the NRC. [At the April meeting at the NRC](#), General Scowcroft presented BRC's key recommendations, highlighting those where NRC has an important role to play. He emphasized the essential need for "clearly independent, competent regulators," recommending that existing roles of NRC and the Environmental Protection Agency be preserved and encouraging continued cooperation and coordination between the two agencies. The BRC also concluded that deep geologic disposal remains the scientifically preferred approach and recommended that EPA and NRC develop new generic standards and supporting regulations for repository disposal early in the siting process. BRC also recommended efforts to develop one or more consolidated spent fuel storage facilities. As part of the NRC staff briefing that followed the BRC's presentation, Alicia Mullins of NRC's Spent Fuel Alternative Strategy Division (SFAS) explained that NRC staff members actively engaged with the BRC throughout its deliberations. Mullins noted that NRC has experience in licensing facilities that are owned by a range of public-to-private entities, such as the new Waste Management Organization the BRC suggested to focus on storage and disposal of spent fuel and high-level waste. Such an organization would likely be a new NRC licensee and would need to establish an institutional framework to maintain safety and security throughout its operational lifetime. Dr. Brittain Hill, also from SFAS, noted that many of the BRC recommendations have direct implications for NRC. For example, NRC deferred revising generic regulations for geologic disposal when the specific regulations for a repository at Yucca Mountain were developed in the late 1990s. Having those regulations in place before selecting a repository site will help build public consensus, the BRC said. A broad range of information from Yucca Mountain and international repository programs is available to help develop a risk-informed, performance-based regulation that would be appropriately protective at any potential site. Earl Easton, of NRC's Division of Spent Fuel Storage and Transportation (SFST), discussed the BRC's recommendations on transportation and the need to begin preparations for large-scale shipping campaigns of spent fuel to either an interim storage or geologic disposal facility. NRC's primary role in these transportation planning activities has been on package certification and security arrangements for NRC-licensed shipments. According to Easton, no significant changes to NRC's regulatory programs are expected to result from BRC's recommendation to begin planning efforts for potential large shipping campaigns. For many years, NRC has actively participated in state regional groups that have been set up to accomplish successful transportation planning. Easton explained that NRC's outreach activities would naturally increase if future large-scale transportation campaigns are conducted by NRC licensees, instead of DOE. BRC also recommended that NRC reassess its plans for the Package Performance Study, a full-scale test of a cask designed to transport spent fuel. For now, Easton said, the NRC staff prefers to wait until a clear direction emerges on whether to use a standardized shipping system before it commits to a full-scale test.

Janet Kotra

Senior Program Manager

Office of Nuclear Material Safety & Safeguards

Comments

comment #10940 posted on 2012-05-03 16:05:43 by Jerrell Hughes

Good information...found you through Google.

Bring Your Children to Work Day at the NRC

posted on Mon, 07 May 2012 13:37:03 +0000



Every April, NRC employees look forward to *Bring Your Children to Work Day*! This event provides an opportunity for children to accompany their parents to work and see what they do. The event focuses on children aged 6 to 18, and gives the children a chance to be exposed to technical, professional, and administrative careers. Great efforts were taken to make this year's event a fun, engaging, and educational experience. More than 100 children participated in this memorable occasion. The day started with some radiating personalities explaining the importance of our mission, followed by "nuclear" bingo. Next the children were shown, with the assistance of a licorice stick, the meaning of "half-life". (Half-life means the lapse of time in which radioactivity decreases by half.)



power plants -- was explained and the children were shown the difference in the common types of clouds and weather experiments. Then it was on to the tours of the technical library, a hearing room, the Operations Center and "Ask a Scientist." The "Ask a Scientist" session allowed the children to share their nuclear knowledge and gave them the opportunity to ask questions while on camera. The questions will be answered by NRC employees and will be posted on the [NRC You Tube](#) channel in the near future -- so stay tuned! For more information, visit the following link: [Bring Your Children to Work Day](#).

Kimberly English

Outreach & Recruitment Branch

Comments

comment #11152 posted on 2012-05-08 03:29:57 by who can do my homework

Great news for kids!) Thank's for the Gov for such ways to involve children and teach them. Our country is the best!

Higher Gas Prices May Put More NRC-licensed Well-loggers to Work

posted on Wed, 09 May 2012 13:40:48 +0000



While many may be fretting about rising gas prices, certain domestic industries are ramping up efforts to increase the supply of the nation's domestic reserves. The oil and gas industry rely on many devices containing radioactive material in order to get the job done. The well-logging industry is at the front and center of those efforts. Once a geologic deposit is identified as potentially having vast oil and/or gas reserves, these NRC licensees known as well-loggers are called upon to provide a detailed underground three-dimensional map of the deposit. In order to create these 3D maps, well-loggers use a well-logging tool that can be lowered into holes drilled up to a few thousand feet below the Earth's surface, in search of natural gas and oil reserves trapped below the land and water. How does it work? The device houses thimble-sized sealed radioactive sources and detectors to determine what is underneath the ground. Depending on the element, the radioactive material emits gamma rays or neutrons into the rock or sediment below and then the radiation reflects off the rocks or water or oil or gas like ping pong balls. As that radiation bounces back, the detector calculates density and porosity. The engineers use these measurements to identify the depth and width of the land beneath that will provide the optimal locations for oil and gas extraction. The oil and gas that they pull from these sites can then be used in the petroleum industry and in energy production, just to name a few. The technology has been used as far back as the late 1930s. The earth and soil never becomes radioactive and does not remain radioactive after the sealed radioactive source is removed. There are multiple safety barriers to ensure the source sealed inside the well-logging tool is not

compromised. NRC materials inspectors regularly inspect licensees to ensure they are safely storing and using nuclear materials in this way.

Jason Razo

Region IV

Comments

comment #11813 posted on 2012-05-09 17:38:19 by Filtre apa

an interesting article. good work !

DATELINE: Madrid

posted on Mon, 14 May 2012 17:20:22 +0000



[caption id="attachment_2652" align="alignright" width="300"]

speaks during the international conference.[/caption] In the nuclear business the axiom is that an accident anywhere is an accident everywhere. In the time that has passed since the Fukushima Dai-ichi Nuclear Power Plant was overwhelmed by an earthquake and tsunami the nuclear community has seen again that nuclear communication is global as well. Last week, 170 national nuclear regulators, national nuclear communications executives, reporters from around the world, representatives of non-governmental organizations (NGOs) and others gathered in Madrid to discuss nuclear crisis communication – how to accomplish it in an era of instant communication and how to ensure that regulators attain and retain trust among the publics to whom they communicate. The first-of-a-kind session was organized by the Paris-based Nuclear Energy Agency (NEA) of the Organization for Economic Cooperation and Development (a post World War II reconstruction agency), and sponsored by the Spanish nuclear regulator, Consejo de Seguridad Nuclear. What gave weight to the meeting was the heavy presence of top national regulatory leaders. They came from the United States, France, England, Switzerland, India, Japan, Spain, Korea, Hungary, Russia, Austria, China, NEA, OECD and the U.N.'s International Atomic Energy Agency. It was preceded and followed by meetings of a group of nuclear communicators from a variety of governments constituting the Working Group on Public Communication under the umbrella of the NEA's Committee on Nuclear Regulatory Activities. And the starting point for discussions was the WGPC's [Roadmap for Crisis Communications](#). For the United State's part, NRC Chairman Gregory Jaczko moderated a panel on lessons learned from past crises. Panelists included the regulatory chiefs from India and Ireland, a top communications executive from the Spanish CSN, and a senior Japanese official who discussed their Fukushima Dai-ichi communications experience. Summing up the session, Jaczko said that timeliness of communication is an element in effective crisis communication, that how an agency communicates can affect trust and credibility, and that it is important to quickly communicate what information is available, even if it is incomplete, because as more details become available communications can be made more precise. As the NRC's Director of Public Affairs, I made a presentation on the use of social media in crisis communications, making the point that in an era of tweets, governments must adapt to the new social media tools to keep the public informed. I described how useful the NRC's blog was during the Fukushima plant accident and catalogued the use of social media among other nations. The two days of sessions were webcast. Chairman Jaczko's [opening remarks](#) are available on our YouTube channel. [Archived webcasts of the entire program](#) are also available. can be found here. This was the start of a long-overdue dialogue on global nuclear communications in general and crisis communications in particular, and kudos to the NEA for organizing the sessions and the CSN for hosting in Madrid, one of the world's beautiful cities. Next stop – Vienna, Austria, in June when the IAEA convenes an International Experts Meeting where the United States will have the opportunity to brief the IAEA member nations on the NRC's approach to communicating with the public. Communication is now clearly both instant and global, and a regulator's comments anywhere can reach everywhere.

Eliot Brenner

Director, Office of Public Affairs

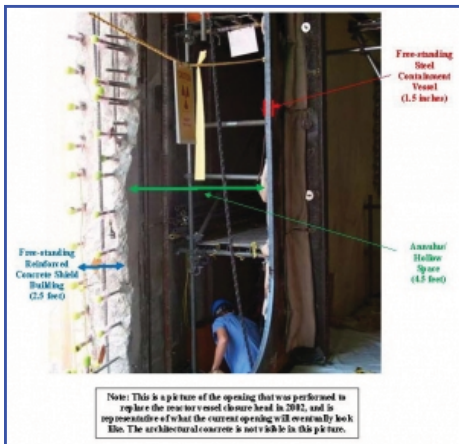
Comments

comment #12451 posted on 2012-06-05 13:08:41 by Amy

I am Glad Spanish Government decided to take advantage of social media sites such as twitter and facebook. It is proven to help to keep people involved in their government issues and in turn can only strenthen community morale. This is a good step forward for spain!

NRC's Report on the Davis-Besse Shield Building Safety Demonstrates an Intrusive and In-Depth Review

posted on Wed, 16 May 2012 14:50:17 +0000



The NRC recently issued a report that documents how we reached the conclusion the cracks discovered in the Davis-Besse shield building do not compromise its ability to perform its safety function. We've previously written about the NRC's exhaustive efforts to ensure the cracks found in the shield building around the Davis-Besse nuclear power plant's containment structure are not compromising current safety. This report clearly demonstrates the questioning attitude and the safety focus of our inspectors as they monitored FirstEnergy's activities to analyze the shield building cracks and to conduct painstaking reviews of the company's operability analysis. Upon the discovery of the cracks, we formed a special technical review team consisting of NRC Region III inspectors and headquarters specialists. This team was tasked with ensuring a thorough and rigorous review, and they rose to the challenge. First, the NRC inspectors monitored FirstEnergy's testing of the shield building cracks; they verified the quality of the tests; and made sure that the extent of the testing was sufficient to evaluate the extent of the cracking in the structure. As a result of the questions raised by our team, the company performed additional tests so there was enough data to reach a valid conclusion. Then, the NRC inspectors spent a number of weeks reviewing and questioning FirstEnergy's analysis of shield building safety. They continued to challenge the company's calculations, engineering assumptions and conclusions. Some members of the NRC's team made multiple trips to Davis-Besse to make sure their questions and concerns were effectively addressed in face-to-face meetings with the site's engineers and consultants. Two revisions of FirstEnergy's operability evaluation were needed before our technical team was satisfied that it was thorough enough to show that the shield building was safe for continued operation. Our work continues with the review of FirstEnergy's root cause report and proposed long-term corrective actions. We plan to finish the review, issue the inspection report and schedule a public meeting during the summer. The NRC's [operability report](#) can be accessed on the NRC website. Background information on the discovery of the shield building cracks in October 2011 and the NRC's response to the issue can be found in the following blog posts: [There Are No Cracks in Davis-Besse's Containment – October 24, 2011](#) [How did the NRC decide the shield building at Davis-Besse is safe? –December 12, 2011](#) [Openness, transparency and Davis-Besse – January 10, 2012](#) [NRC Will Make Sure FirstEnergy Got It Right: What Caused the Cracks in the Davis-Besse Nuclear Plant's Shield Building? – March 27, 2012](#)

Viktoria Mitlyng
Public Affairs Officer
Region III

Comments

comment #12703 posted on 2012-06-28 07:10:01 by Advance Technology Tools

NRC's Report on the Davis-Besse Shield is explaining very well on this page, I like it while reading, thanks!

Revisiting the Changes to NRC's Emergency Preparedness Regulations

posted on Fri, 18 May 2012 16:29:49 +0000



"Keyhole" evacuation diagram

[caption id="attachment_2674" align="alignright" width="262"]
 [caption] Lately, there has been some media interest in our updated emergency preparedness regulation, finalized last year. We welcome this interest and the opportunity to explain our most recent changes. The NRC, working closely with Federal Emergency Management Agency (FEMA), started the process to revise the EP rule after a top-to-bottom review in 2005 noted areas for improvement. The rulemaking also formalized security orders U.S. plants put in place after the events of 9/11. The NRC discussed the proposed changes at public conferences in 2007 and 2008, and the agency issued draft rule language in early 2008. Additional public meetings on the draft language in 2008 were followed by a proposed rule published in the Federal Register for public comment in May 2009. The NRC took public input on the proposed rule for five months, holding a dozen public meetings and gathering several hundred comments. The NRC greatly appreciated and benefited from the feedback we received. Staff from the NRC and FEMA [briefed the Commission on Dec. 8, 2009](#), and [May 3, 2011](#), both of which involved a panel of external stakeholders, regarding the proposed rule. The Commission approved the [final rule](#) on Aug. 30, 2011, and we issued a [press release](#) at that time. The release noted aspects of the rule, including new requirements for back-up means of alerting the public and for updating evacuation time estimates when population changes warrant. The NRC held additional public meetings around the country after the rule was published; more than 550 people participated. Under the new rule, plants are still required to hold an NRC-graded exercise every two years, but the new rule requires the plants to have an eight-year planning cycle during which they had to insert new scenarios that, among other things, adds a level of uncertainty to the exercises. The NRC learned an important lesson in its EP review – plant personnel and state and local officials had become so used to scenarios requiring evacuation they made decisions about evacuations long before available information would support their actions. The new EP rule addresses that by requiring some exercise scenarios to damage a plant without releasing radioactive material – this will force exercise participants to more carefully consider their decisions instead of assuming evacuations were the best option. The new rule also requires that an exercise scenario must include one that has a security component in addition to a safety issue. (These EP exercises based on a security scenario are not to be confused with the ongoing security-based [force-on-force drills](#) the NRC also requires at every plant.) Another change in the rule involves a revision to evacuation procedures. Extensive research shows health risks from an accident would be greatest within two miles of a plant, so guidance for the new rule focuses on that close-in population. Getting the “two-mile” people relocated first keeps evacuation routes potentially less clogged. [Other research](#), announced earlier this year, provides additional insight into how successful EP procedures, combined with the expected timing of a reactor accident, can keep the public safe. The NRC continues to examine [EP issues](#) in light of last year’s accident at Fukushima Dai-ichi. The agency has asked U.S. nuclear power plants to analyze their staffing needs for events involving multiple reactors at a given site. The NRC is also in the early stages of rulemaking to integrate and strengthen several categories of nuclear plant emergency procedures. The agency also continues to examine information from Fukushima to see what else can be learned regarding the size of evacuation planning zones and the use of potassium iodide.

Scott Burnell

Public Affairs Officer

Comments

comment #12289 posted on 2012-05-19 11:54:34 by Ann Harris

Does this new ruling remove the 10 mile emergency sirens? @ plants where the 2 mile limit exists, how will the NRC, utility, FEMA, etc., respond to those with disabilities, elderly--without care givers present? How will schools be treated differently for evacuation? With Japan's disaster in the world's sights, how do these agencies justify the decision when Japan/TEPCO And how will those living outside the 2 mile area be covered? Will this action remove the need for Price Anderson? How will those living outside the area be compensated? Who will save money?

comment #12315 posted on 2012-05-22 13:53:53 by Moderator in response to comment #12289

Moderator Response: The new ruling does not remove emergency sirens. There is no two- mile limit at U.S. nuclear plants. Emergency planning is in force for the 10-mile emergency planning zone (EPZs), and every nuclear power plant’s emergency preparedness plan includes procedures for evacuating people who cannot evacuate themselves. The new rule makes no changes to how localities will deal with schools during an evacuation nor have any impact on the Price-Anderson Act, which continues to provide coverage for damages as a result of a nuclear power plant accident. The U.S. emergency response program is quite different from the Japanese program. However, emergency preparedness and the EPZs are area being looked at by the agency's Japan Lessons Learned Directorate, along with many other areas brought up by the Fukushima nuclear disaster. FEMA distributes federal money to disaster victims who qualify in a federally declared disaster. The new EP rule makes no changes to that.

comment #12343 posted on 2012-05-24 13:59:53 by Charles Letherwood in response to comment #12315

I disagree with you that Price-Anderson "continues to provide coverage for damages". It doesn't now and never has. It caps liability, it does not provide coverage. P-A caps industry liability at \$12.6 billion, but the tag for Chernobyl was \$350 billion and Fukushima is \$250 billion and rising. A rule that provides "coverage" for less than 5% of liability is not designed to protect the people who will be irradiated after an accident, but the people who will profit before.

comment #12294 posted on 2012-05-20 23:51:55 by Marielaina Perrone DDS

Glad to see us making progress towards modernizing our preparedness.

Statement of NRC Chairman Gregory B. Jaczko

posted on Mon, 21 May 2012 15:08:51 +0000

After nearly eight years on the Commission, I am announcing my resignation as Chairman of the U.S. Nuclear Regulatory Commission, effective upon the confirmation of my successor. My responsibility and commitment to safety will continue to be my paramount priority after I leave the Commission and until my successor is confirmed. After an incredibly productive three years as Chairman, I have decided this is the appropriate time to continue my efforts to ensure public safety in a different forum. This is the right time to pass along the public safety torch to a new chairman who will keep a strong focus on carrying out the vital mission of the Nuclear Regulatory Commission. During this last year alone, the agency has responded with an impressive focus on safety under my leadership to a number of diverse challenges including the accident at the Fukushima Da-ichi reactors in Japan, and a number of severe incidents at reactors in the United States ranging from flooding, an earthquake and tornados to damaged plant structures and steam generator problems. In addition to this vigilant oversight, together we identified and began to implement lessons learned from Fukushima and completed our rigorous safety reviews for the first new reactor licenses in 30 years. Throughout my time on the Commission as both Chairman and Commissioner, the agency finalized regulations to ensure new reactors are designed to withstand an aircraft impact, completed the development and implementation of a safety culture policy statement, enhanced our focus on openness and transparency, and enhanced awareness of and worked to resolve some of the most long-standing generic issues facing the nuclear industry, including sump strainer issues and fire protection. Beyond the power reactor work, substantial progress was made in establishing a more transparent and effective oversight program for fuel cycle facilities. In addition, radioactive sources of concern are now fully protected with our new security regulations and source tracking system. We stand as a stronger and more decisive regulator now because of these years of efforts. I am truly humbled by the agency's success. Serving the American people as the Chairman of the U.S. Nuclear Regulatory Commission has been an honor and privilege. The mission of this agency – protecting people and the environment, and providing for the common defense and security – could not be more clear, or more critical. Our collective focus on that mission was, I believe, one of the primary reasons the Nuclear Regulatory Commission was one of the best places to work in the federal government throughout my tenure. The highly talented and dedicated professional staff, including dozens who have served on my personal staff over the years, have been instrumental in fulfilling the agency's mission. I will always be grateful for the opportunity of having served alongside the staff for all of these years, and for all that we accomplished together. I am looking forward to bringing all I have learned from my work and focus on safety at this agency with me as I move forward. Note: Transcript of later press conference [0524nrc1652](#)

Comments

comment #12297 posted on 2012-05-21 11:19:03 by

Very sad day for the future generations.

comment #12298 posted on 2012-05-21 11:35:20 by Richard McPherson

Gregory Jackzo will be remembered as the person who cost 313 milion Americans their freedom pursuing energy and economic security by sustainable nuclear power doing Reid, Markey, Boxer, Feinstein, Pelosi, Obama and others bidding to shut down Yucca Mountain. I have been in nuclear power since 1963.

comment #12299 posted on 2012-05-21 13:03:30 by Jeff

Only the self-serving, arrogant Jaczko could use the phrase, "After an incredibly productive three years as Chairman..." when in fact his term has been very destructive. His unilateral action stopped Yucca Mountain, the nuclear industry's solution to the issue permanent nuclear waste disposal. Additionally, his chairmanship has been destructive to the safety-conscious work environment (SCWE) within the NRC. Nonetheless, after meeting the man, and observing him in several public meetings, I could have predicted the narcissism in his resignation letter. I'm sure I'm not the only one.

comment #12302 posted on 2012-05-21 14:57:45 by Clay Turnbull

I'm disappointed to lose a Commissioner willing to vote against industry when they fight increased safety margins at commercial nuclear power stations. It's a dark day to lose Chairman Jaczko.

comment #12304 posted on 2012-05-21 18:40:57 by Joseph Parzych

I am sure the Nuclear Energy industry will be sad to see such a wonderful lobbier leaving his bully pulpet. Heaping praise on himself begs the question; who does he think he's fooling for one second, except his friends in the nuclear industry?

comment #12305 posted on 2012-05-21 18:42:02 by Thomas P. Gwynn

Is there anyone at the agency who is not glad to see the Chairman resign?

comment #12320 posted on 2012-05-23 10:22:53 by John Loggia

This plus the dissenting letter from Region IV leaves the NRC with a huge credibility issue. Are we safe yet? New safety measures beg the question: Was the NRC, adamant that safety measures have been adequate all along, wrong. If so, how do we know that the current measures will protect us in the future?

comment #12317 posted on 2012-05-23 00:31:25 by LRW

It is too bad Chairman Jackzo felt he could not truly advance the cause of safety within the context of the only agency mandated to protect us from the serious homeland threat posed by our very own nuclear fleet. An overhaul of the NRC is sorely needed and badly overdue. U.S. nuclear policy overall is antiquated, just like so many old dinosaur reactors being pushed to the brink nationwide. If the NRC's real mandate was public safety, these old reactors would already be shuttered just like the communities around them want. The world is waking up to the false promises made by the 'cult of the atom.' The Economist magazine March 2012 cover trumpeted: "Nuclear Power: The Dream that Failed." Outgoing Exelon Chairman and CEO John Rowe told Forbes in April: "There is no future for nuclear in the US." It is time to end the federal coddling of big nuclear and leave Cold War thinking behind. I hope Jackzo finds a perch and a pulpit to help the US modernize our nuclear energy policy and avoid future catastrophes such as the economic devastation, the long-term public health menace and severe environmental contamination threatening Japan and us all.

comment #12340 posted on 2012-05-24 11:42:42 by Dave

I wish Chairman Jazcko the best in his future endeavors. While I don't always agree with his positions, I admire his strong and passionate feelings and his willingness stand for what he believes in. The NRC does an outstanding job overall in ensuring safety of the public. I know of no other private or government organization that is as thorough, focuses on facts and promotes excellence. I'm confident a new Commissioner will be found with the right knowledge and expertise to help lead the agency in the future.

NRC Gets Recognitions

posted on Wed, 23 May 2012 14:08:34 +0000



Recently the NRC received recognition in two areas and we are very proud of the achievement! First, the NRC was recently ranked #10 in the 21st Annual "Top 20 Government Agencies" in Woman Engineer Magazine. The readers of Woman Engineer magazine selected the top agencies in the country for which they would most like to work or whom they believe would provide a positive working environment for women engineers. This list is the result of an annual reader survey mailed to randomly selected readers of Woman Engineer magazine. Second, the NRC was honored as a 2012 Secretary of Defense Employer Support Freedom Award Semi-Finalist in the Public Sector category. The Freedom Award is the highest recognition given to employers by the Department of Defense (DOD) for exceptional support of their Guard and Reserve employees. Nominations are from Guard and Reserve members or family members acting on their behalf. In 2012 there were 133 semi-finalists nationwide out of an impressive pool of 3,236. We are proud of this recognition and wanted to share it with you!

Kim English

Outreach & Recruitment Branch

Comments

comment #12341 posted on 2012-05-24 11:46:29 by Dave

Great job! Sounds like teh NRC is a very diverse team and they also are willing to support the defense of our country. Great job! I wish other government agencies would take note and exemplify what the NRC has done.

NRC Office of Investigations Issues Its Annual Report

posted on Fri, 25 May 2012 14:10:11 +0000



The Office of Investigations, an independent investigative office within the NRC, has recently put out its latest [annual report](#). The report includes information on significant investigations in FY 2011, including: • [FitzPatrick Nuclear Power Plant](#) – A former radiation protection technician was found to have prepared, signed and submitted records to the NRC that falsely documented NRC-required tests that were not conducted. • [St. Lucie Nuclear Power Plant](#) – Two radiation protection technicians were found to have falsified health physics surveys and one of the two was found to have bypassed the radiation reader station at the entrance to the radiation-controlled area of the plant. • [Paducah Gaseous Diffusion Plant](#) – A former operator was found to have violated radiation protection procedures and technical safety requirements by not adhering to radiation protection procedures when moving a contaminated object within the plant. • [Arkansas Nuclear One Nuclear Power Plant](#) – A security officer was found to have falsified NRC-required security logs and did not perform required security checks. The Office of Investigations develops policy, procedures, and quality control standards for investigations of licensees, applicants, their contractors or vendors. It conducts investigations of all allegations of wrongdoing by other than NRC employees and contractors, and makes referrals of substantiated criminal cases to the Department of Justice. The investigations are conducted by special agents who are specially trained, with extensive background and experience in federal criminal investigations. They are assisted by a highly experienced cadre of professional support staff.

Brian Sentz

Office of Investigations

Comments

comment #12584 posted on 2012-06-18 08:19:54 by dangerous writing

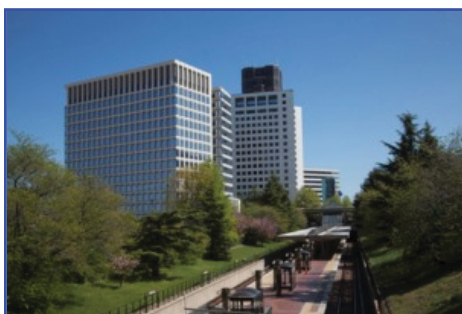
Somebody gonna get fired... Good luck in your investigation guys. I believe in you.

comment #12435 posted on 2012-06-04 20:27:04 by cheaptablets

I can't believe falsified security logs and didn't perform the necessary security checks... Thank you very much for posting this, made a great read :) I love the scandals!

Three White Flint North Project in the Home Stretch for NRC

posted on Tue, 29 May 2012 14:14:13 +0000



For the NRC headquarters staff separated from the White Flint Complex, in Rockville Md., this year marks an exciting transition as the newly constructed 14-story office building across the street takes shape. Occupancy of Three White Flint North (3WFN) means the agency's headquarters staff will once again be consolidated in adjacent buildings -- an important component of safety, according to post-Three Mile Island accident findings. Depicted here, looking south across the White Flint Metro station platform, is left to right, 3WFN, 1WFN, and 2WFN. Groundbreaking ceremonies for the 360,000 square-foot building plus four below-ground parking levels were held in a tent at the 3WFN site on July 6, 2010. Move-in is expected to start at the end of this year and be completed during the first quarter of 2013. The new building is owned by LCOR, Inc., and is leased to the federal government for a 15-year term. The NRC will be the building's sole tenant. The new building will provide an additional 1,300 workstations to the headquarters complex allowing the consolidation of headquarters staff and the further "un-crowding" of 1WFN and 2WFN. It also will provide a conference center for public meetings, a full service cafeteria, a larger Professional Development (training) Center, an updated Incident Response Center, and a newly expanded Headquarters Data Center. An interesting quality of 3WFN is that it is a "green building" project registered under the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) program. "Green building" refers to the design, construction, and operation of buildings in an environmentally friendly way. Some examples of green features for 3WFN's LEED Silver certification are: • Interior design concepts, recycled materials, more efficient lighting, heating and air conditioning,

and environmental control systems that conserve energy and optimize building performance; • Water saving high efficiency faucets, toilets, and urinals; • Its location within ½ mile of mass transit (it's actually less than 50 yards from the White Flint Metro station entrance and next door to the Metro parking garage); and • A “green roof” and high reflectance roofing insulation.

Veronika Medina

Communications and Document Specialist

Comments

comment #12377 posted on 2012-05-30 20:56:11 by Marielaina Perrone DDS

Great news. Glad to see forward progress. Great green building there.

comment #12436 posted on 2012-06-04 22:15:42 by Amy

Great to see the commitment to a greener tomorrow while maintaining a modern design. We hope to see more new buildings implementing this forward thinking in the future.

In Nuclear Power Plants – Behavior Is Under Observation

posted on Wed, 30 May 2012 17:24:12 +0000



The NRC requires that all nuclear power plants follow strict access authorization regulations that are intended to make sure only trusted individuals have the OK to be in the most sensitive areas of the plant. These access authorization regulations require fingerprint checks, drug and alcohol screening, psychological testing and other hurdles when employees are first hired, and must be periodically updated if the individuals are to continue to have access to these areas. But even once a worker has been granted so-called unescorted access, they are still subject to a “behavioral observation program.” In other words, the NRC requires that every plant have a program in which all employees and supervisors are trained in detecting problems such as drug or alcohol abuse or other impairments of employees. As part of the program, all employees are required to report to their supervisors any suspicious behavior they see among their coworkers. Suspicious behavior could be a worker observed in an area of the plant where they don’t have authorization to be, or if a worker made threatening statements about harming people or plant equipment. The NRC regulations even require workers to report on themselves or “self-disclose” if they, for whatever reason, believe they are no longer mentally and physically fit to safely perform their duties. An example of this is an employee undergoing marital problems that are causing them stress that interferes with their duties. Such an employee may be referred to an Employee Assistance Program or their assigned duties may be changed until the person is deemed fit for duty. If a determination is made to deny the person unescorted access for any reason, their name and that fact is entered into an information sharing database that NRC requires all U.S. nuclear power plants to use. Should that person attempt to enter (or get a job at) another nuclear plant, the information about their access status would be available for review by the plant they were attempting to access. Ultimately, a determination that an employee is not trustworthy or reliable – based on behavior observation or self reporting -- has serious implications for that person maintaining their access authorization but such determinations are necessary to keep nuclear power plants operating safely in their communities.

Mark Resner

Access Authorization Program Coordinator

Comments

Animated Timeline Details the NRC Response to the Fukushima Accident

posted on Mon, 04 Jun 2012 14:55:08 +0000



The NRC has developed an [animated timeline](#) to walk you through the major events in our response to the Japanese earthquake and tsunami of March 2011, and the resulting accident at the Fukushima Dai-ichi nuclear power plant. You can also click on specific events in the timeline to get more information on our activities related to Fukushima. The timeline is part of our redesign for the part of the NRC website devoted to the events in Japan. The timeline lists our efforts to first monitor facilities on the U.S. West Coast and then expand our actions by supporting the U.S. aid effort in Japan. As 2011 continued (and turned into 2012), we took additional actions to ensure U.S. nuclear power plants remained safe and that the agency learned the appropriate lessons from Fukushima Dai-ichi. We'll

continue to update the timeline and the website as we complete additional actions.

Scott Burnell

Public Affairs Officer

Comments

comment #12585 posted on 2012-06-18 08:26:23 by economic essay

Hi there. Who made this timeline?

comment #12615 posted on 2012-06-20 10:33:34 by Moderator in response to comment #12585

We developed this "in house."

comment #12546 posted on 2012-06-16 01:42:14 by Tarun

Wow. Crazy to think this way only one year ago. Nice graphic.

comment #12483 posted on 2012-06-10 07:15:15 by Alex

This is a timeline of the continuing Fukushima Nuclear Crisis. This part covers some history and a day-by-day account of the first 2 months of the crisis, pasting together all of the disparate sources. The editor believes that the crisis is not going to kill millions of people, but it is affecting most Japanese as even Tokyo is getting alarming if not yet definitely harmful levels of radioactive contamination, and hundreds of thousands have evacuated and lost their jobs and homes even if the official number of deaths attributed to radiation is zero, and the worst possible extrapolation including deceptive "acute leukemia" diagnoses and suicides is not worse than the small hundreds compared to the tens of thousands who drowned in the tsunami.

Monitoring Labor Negotiations Is Part of the Regulator's Job

posted on Wed, 06 Jun 2012 15:07:21 +0000



The NRC's [Region I Office](#) has been monitoring contract negotiations for some unionized workers at the [Pilgrim nuclear power plant](#). The Plymouth, Mass., plant is operated by Entergy Nuclear Operations. The United Workers Union of America Local 369 represents members of the maintenance, radiation protection, chemistry, and operations organizations. The two sides have been unable to reach a contract agreement and Entergy is using replacement workers to staff union positions throughout the plant. This isn't the first contract negotiations the region, or agency, has tracked. Most have settled before contract expiration, but workers at [Nine Mile Point](#) in Scrba, N.Y., took to the picket lines last summer for several week. And, unionized workers at [Oyster Creek](#) in Forked River, N.J. struck for nearly three months in 2003. While job actions don't happen that frequently, the NRC is prepared when they do. In advance of the contract expiration, the company that operates the plant develops a contingency plan to allow it to continue operating in the event of a strike. The NRC Resident

Inspectors assigned to the site review the plans and discuss the actions being taken to prepare for a strike, should it occur. The NRC doesn't involve itself in contract negotiations. We ensure that the minimum requirements of the facility's license and technical specifications are maintained at all times. We also review the qualifications of replacement workers to ensure the continued safe operation of the facility. During the final hours of a contract, the two NRC Resident Inspectors at the site are supplemented by additional inspectors from the Regional Office. Should there be a strike, we have round-the-clock control room coverage by NRC inspectors for the first 48 hours and continued additional site coverage for at least the first two weeks. Until a settlement is reached, we'll ensure the plant continues to be operated safely.

Diane Screnci

Senior Public Affairs Officer, Region I

Comments

comment #12659 posted on 2012-06-25 01:04:35 by rp 1 in response to comment #12533

Chem Tech you have a valid point and the same has happened for the Rp Tech replacements. We (Entery RP Techs) were all in training for 6 months or more before being E-Plan qualified and being put on back shifts. We participate in practice and graded emergency drills. The replacements have not done drills in this plant or other plants. They do refuel outage support with in -house techs leading them.

comment #12533 posted on 2012-06-15 09:06:57 by chemistry tech

Dane, It is good to know that the NRC is doing their job. Keep them honest. I also respect that you must remain neutral during this. A lot of the local residents have concerns about people running the place that are not familiar with it. I have concerns too. I went through a rigorous qualification process to learn how to perform my job that took well over a year. I observed some of the replacement workers getting trained and qualified in one or two evenings. One of them is my supervisor who came from another plant recently. He still knows less about the place and a lot of the equipment than I do. If something were to happen, (and in all cases) I

would hope that they were adequately staffed with competent people.

The Challenge of Decommissioning a One-of-a-Kind Reactor

posted on Fri, 08 Jun 2012 13:45:42 +0000



[caption id="attachment_2761" align="alignright" width="300"] The spent fuel cask will be moved from the dome-shaped reactor building using a heavy-duty overhead crane. A special "crawler" vehicle (not pictured) will move the fuel cask to a secure storage pad.[/caption] Early nuclear power plants in the United States were custom designs, but the [LaCrosse Boiling Water Reactor](#) in Wisconsin was truly unique in both its design and construction. That uniqueness has carried over into the work to decommission and dismantle the plant. Owned by the Dairyland Power Cooperative, the facility on the Mississippi River near Genoa, Wisconsin, is very small -- producing just 50 megawatts of electricity -- compared to 1,000 or more megawatts from later reactor designs. It was one of several demonstration reactors funded, in part, by the Atomic Energy Commission, the predecessor to the NRC. The plant was completed in 1967 and operated until April 1987. It was the only reactor built by Allis Chalmers, a company best known until the mid-1980s for its tractors and farm equipment. In the 25 years since the plant was shut down, the NRC has monitored and inspected activities at the plant to assure continued protection of public safety and the environment. NRC requirements have also remained in place to maintain security at the facility. Since shutdown, the plant has been maintained in a safe and secure condition until the plant can be fully decommissioned. In 2007 the 310-ton reactor vessel was removed from the plant and shipped to South Carolina for permanent disposal. Spent fuel from the reactor's 20 years of operation has been safely housed in the plant's spent fuel storage pool. The Dairyland Power Cooperative has been developing plans over the past several years to transfer that fuel into five concrete and steel storage casks for interim storage on a specially constructed concrete pad at the site. Similar dry cask storage systems are in use at about 65 sites across the country. Moving that fuel, however, has posed special challenges for this unique facility. The pool holding the spent fuel is too small to accommodate the cask used to load and transfer the spent fuel. Faced with the lack of space in the spent fuel pool itself, LaCrosse engineers devised a unique solution of converting the structure that formerly housed the reactor into a cask loading pool. The former reactor structure, which adjoins the spent fuel storage pool, will be filled with water for the cask loading. Once the cask is loaded, the loading pool will be drained and a gateway opened. A heavy-load overhead crane will move the cask outside the loading area. Throughout the process, NRC engineers and inspectors have evaluated each step, including review of the construction of the storage pad and modifications to form the cask loading pool. All activities are assessed to assure that the unique concepts can be safely implemented for workers, the public, and the environment. Before actually loading and moving the spent fuel, plant personnel are performing "dry runs" without actually loading the fuel assemblies to assure that the cask loading and transport equipment and procedures are ready for safe movement of the fuel. NRC inspectors have been on site to inspect these "dry run" activities. The actual fuel movements will begin later this summer and NRC inspectors will be on hand to inspect the loading and movement of at least the first of the five casks.

*Christine Lipa, Chief
Materials Control, ISFSI and Decommissioning Branch
Region III*

Comments

comment #12480 posted on 2012-06-09 18:48:09 by Will Davis

Allis-Chalmers completed two other power reactors in the United States. The Elk River plant was begun by ACF Industries, but Allis-Chalmers purchased ACF's nuclear business prior to completion of the plant. Also, the Pathfinder plant was entirely an Allis-Chalmers effort and was one of only two BWR plants built to explore integral (in-core) nuclear superheating in the USA. Other than this nitpick, this is a very interesting article and I enjoyed it. The picture is especially unusual. Thank you for this article!

comment #12473 posted on 2012-06-08 21:49:17 by Burkey Devitt

This is great, so why don't ya'll keep a better eye on what's going on at San Onofre?

comment #12502 posted on 2012-06-12 11:11:55 by Moderator in response to comment #12473

For more information about what the NRC is doing regarding the steam generator tube issue at the San Onofre nuclear power plant, check out these blog posts: <http://public-blog.nrc-gateway.gov/2012/04/10/taking-a-close-look-at-songs/> and <http://public-blog.nrc-gateway.gov/2012/03/16/steam-generator-tube-failures-understanding-the-situation/>. For more information on the upcoming public

meeting on the issue, go here: <http://pbadupws.nrc.gov/docs/ML1216/ML12160A589.pdf>

The Saga of the Californium Flux Multiplier

posted on Tue, 12 Jun 2012 15:24:36 +0000



Kodak is one of the nation's iconic brands, forever associated with camera equipment, photographic film, and related materials and services. The idea of capturing a "Kodak moment" is a familiar one to many Americans, especially those of a certain age. Based in Rochester, N.Y., and known more formally as the Eastman Kodak Co., its origins date to 1889, when George Eastman founded the firm. In recent years, Kodak has sought to keep pace with changing consumer demand by transforming itself into a digitally oriented company and, as part of this shift, has made a number of changes. It was against this backdrop that the Rochester Democrat and Chronicle newspaper reported in early May that Kodak had, for more than three decades, operated a small nuclear research reactor, unbeknownst to the public. More about that last part in a moment. But one element of the story that needs clarifying is that the device – known by the elegant name of Californium Flux Multiplier – was a "reactor." In the truest sense of the word, it did not qualify as one. While the Kodak device, which was decommissioned and

removed in 2007, made use of plates containing highly enriched uranium, it was incapable of sustaining the fissioning, or splitting, of atoms. In nuclear power reactors, atoms are fissioned to release large amounts of heat that can then be tapped to produce power for the grid. This unique piece of equipment was used to conduct chemical and radiological analyses on manufacturing processes. It also was used to investigate new chemicals and explore new technologies that might be of interest to any of the company's various operating divisions. Enriched uranium contained in the Californium Flux Multiplier was in the form of fuel plates clad in aluminum alloy. The plates formed a sub-critical (or below the point of fissioning) assembly that surrounded a Cf-252 (Cf stands for Californium) source. The U-235 (U stands for uranium) fuel was able to multiply the neutrons coming from the Cf-252 source, which fissions spontaneously. The device was designed to remain always sub-critical, but it nevertheless yielded sufficient neutrons for neutron activation analysis. After the Californium Flux Multiplier was shut down, all of the fuel plates were removed from the facility and transferred back to the U.S. Department of Energy in late November 2007. So even though media outlets might use the shorthand reference of "reactor" to refer to the device, in this case a reactor by any other name is not a reactor. The Democrat and Chronicle reported that it learned of the device from a Kodak employee and emphasized the lack of public awareness regarding it over its many years of operation. But a lack of awareness should not be confused with an effort to keep information about the Californium Flux Multiplier under wraps. Indeed, a [quick check](#) of the NRC's web site yields [numerous documents](#) regarding the device. One area of exception would be details related to security, including shipments of the special nuclear materials used in the device. There are thousands of NRC-licensed devices containing nuclear materials in use across the U.S. Some, it could be said, are easier to picture than others.

Neil Sheehan

Public Affairs Officer, Region I

Comments

comment #12518 posted on 2012-06-14 14:41:15 by cybernuke

Personally used a similar configuration at Hanford for over a decade. It's never been a reactor in the common sense. It was a very effective way of providing a very stable and sufficient source of neutrons for analytical measurements and research. Too bad the minimal amount of enriched 235U causes such a buzz. Certain US Senators have even destroyed the efficient use of 235U for medical isotope production.

Potassium Iodine – A protective measure not a magic pill

posted on Fri, 15 Jun 2012 13:41:28 +0000

One of the protective measures that communities around nuclear power plants might use in the case of a radiological emergency is potassium iodine. But potassium iodine, often just called by its chemical symbol, KI, can be confusing for the public -- exactly what does it do and when should it be taken? So here are some facts about KI:

- It is not an "anti radiation" pill. Potassium iodide is a salt, similar to table salt. It is routinely added to table salt to make it "iodized." Potassium iodide, if taken within the appropriate time and at the appropriate dosage prevents the thyroid gland from taking in radioactive iodine. This can help to reduce the risk from thyroid disease, including cancer as a result of a severe reactor accident. KI doesn't protect the thyroid gland from any other radioactive element nor does it protect the thyroid or the whole body from external exposure to radiation. Its use is very limited.
- KI comes as a tablet, either in 65 mg or 130 mg strengths. The usual dose for a child is 65 mg, however, it is very important that the FDA dosing guidelines be followed for small children as too much stable iodine can also be harmful to them. The tablet can be [easily crushed and mixed with liquid](#) to make it easier to swallow.
- It is important that KI not be taken unless directed by appropriate state or local authorities during the emergency and then, it should be taken in accordance with those directions.
- KI is NOT the same thing as table salt, and table salt should never be ingested as a substitute.
- The NRC provides KI – free of charge -- to states that have requested it for their population within the 10-mile emergency planning zone of a nuclear power plant. Some states have distributed KI to residents of a plant's emergency planning zone. In other states, KI is stockpiled and would be distributed if and when it is necessary.

- In the event of a serious nuclear incident, KI could be used in addition to evacuation or sheltering in place in accordance with directions from responsible state/local officials. For more information, see [Consideration of Potassium Iodide in Emergency Planning](#).

The [FDA's Frequently Asked Questions on KI](#) is a very good resource if you want more information.

Patricia Milligan

Senior Level Advisor

Comments

comment #12539 posted on 2012-06-15 14:23:20 by Margaret Harding

As I've stated publicly, many times: "Friends don't let Friends take KI." Only take such medication at the direction of medical or emergency personnel.

Radioactive Rumor Mill Doesn't Help Anyone

posted on Tue, 19 Jun 2012 13:18:43 +0000



Last week, the NRC's Region III Office in Chicago spent the better part of a day dispelling rumors of a nuclear emergency on the border of Indiana and Michigan after two non-governmental radiation monitoring networks allegedly showed extremely high radiation readings. Before the readings were verified as anything beyond equipment malfunction – which is exactly what they were – social media and the rumor mill kicked into gear. A YouTube video about the “radiation spike” was posted early in the morning and spread like wildfire. In the blink of an eye media outlets were inundated with panicked calls from the public who had seen the YouTube video. Calls from the media and the public poured into the NRC, state officials and to the nearest nuclear power plants -- Palisades and D.C. Cook. We did our due diligence –we checked with the power plants, which were operating normally with no unusual radiation release, and we checked with the state officials in Indiana and Michigan. And we also reported the calls to the U.S. Environmental Protection Agency and the U.S. Department of Homeland Security. Eventually, the radiation network reporting the spike, organized and maintained by local citizens, informed the public that they had experienced an equipment malfunction and made a reporting mistake due to “out-of-control readings on the GeigerGraph screen.” Fortunately, the incident was not real and the rumor mill in this instance was short lived. Though a week later we are still receiving calls from the public and media outlets who had not heard it was a false rumor. It's important to remember that local and state agencies and the federal government are the best, most accurate source of verified, credible emergency information. As we've seen before, unofficial social media can get information wrong.

Prema Chandrathil

Public Affairs Officer, Region III

Comments

comment #12598 posted on 2012-06-19 09:44:08 by Bwr engineer

I really appreciate the NRC responding to these issues and providing notice on the blog. Between this and the most recent post on KI, these are great pieces of information to get out and help fight the spread of incorrect information and speculation.

comment #12599 posted on 2012-06-19 09:44:30 by Dan Yurman

The NRC tars with a wide brush here saying "unofficial social media often gets information wrong." When it comes to radiation readings from un-calibrated instruments, that might be the case, but to say ALL social media is often wrong is also wrong. Social media includes blogs, Twitter feeds, Facebook postings, YouTube videos, etc. There is a lot of useful information out there about nuclear energy and often it is right. For instance, during the Fukushima crisis, many people turned to social media outlets operated by the Nuclear Energy Institute, the American Nuclear Society, and the World Nuclear Association. Were they "wrong" to work to make sense out of conflicting mainstream news media coverage of events unfolding in Japan? The NRC's closing judgmental statement needs to be reconsidered in light of reality and not promoted in the context of a single incident.

comment #12600 posted on 2012-06-19 10:40:46 by James Greenidge

I'd like to know how TWO wrong readings got public before they were verified. The leakers ought be hung out to dry -- not to sound harsh. It's one step forward three steps back effort for nuclear energy to be tolerated if not trusted by the public, and this "scare" did its share of winding the clock back on nuclear P.R. and undermining grass-roots nuclear advocacy campaigns by stroking old raw jitters. It's bad enough you've a nearly science-illiterate news media out there that is philosophically anti-nuke who'll turn a molehill

of pint of irradiated water spilled deep a plant into a meltdown mountain, but you have anti-nuclear Pied Pipers out there using these incidents as FUD ammo to boot. We need a helluva lot of more public nuclear education as well as a spontaneous pre-media clearinghouse with pronto PSAs for incidences as these. If they can afford alert horns around nuke plants (that aren't around gas and chemical facilities!) then they can well afford implementing these measures! James Greenidge Queens NY

comment #12601 posted on 2012-06-19 11:00:36 by asparaguscutter

Could there be a precursor, inherent distrust of NRC?

comment #12602 posted on 2012-06-19 11:54:08 by Moderator in response to comment #12599

Many of the social media reports that came out following the incidents in Japan in March 2011 were incorrect, and created unnecessary public anxiety. That is not to say that ALL the social media that was disseminated contained incorrect or unverified information. In that light, we've edited the last sentence of this post!

NRC Creates a Vendor Inspection Center of Expertise

posted on Thu, 21 Jun 2012 13:20:03 +0000



Many people familiar with the nuclear industry know the NRC inspects the facilities of the licensees it regulates. But what may be less well known is that the agency also inspects companies that provide safety-related components and services for these licensees. The vendor inspection program at the NRC got its start in the 1970s under the Atomic Energy Commission and continued in the Office of Nuclear Reactor Regulation (NRR) until very recently. The vendor inspection program in NRR primarily performed inspections of vendors that provide safety-related parts and services to the operating reactor fleet. While NRR did perform some routine inspections, many of their inspections were in response to operating experience, reports of defects and noncompliance made in accordance with [10 CFR Part 21](#), and allegations. In late 2006, the NRC created the Office of New Reactors (NRO) and a second vendor inspection program to perform routine inspections of vendors that provide safety-related parts and services for new reactors. This is where I've worked as a vendor inspector for the past several

years. While the two programs worked closely together, they had separate inspection programs, inspection manuals and inspection procedures. They also spent a lot of time ensuring that the enforcement actions and inspection efforts were consistent between the two programs. So this year, the NRC decided to develop a [Vendor Inspection Center of Expertise](#) (COE) to increase cooperation between the two offices and streamline activities. The Vendor Inspection COE, now located in NRO, is responsible for performing reactive inspections in response to operating experience, reports of defects and noncompliance made in accordance with 10 CFR Part 21, and allegations. In addition, it conducts inspections to verify the effective implementation of vendor quality assurance programs to assure the quality of materials, equipment, and services supplied to the commercial nuclear power reactor industry. By combining the two vendor inspection programs into one center, the agency can reduce duplicate guidance and the level of resources needed to ensure consistent enforcement actions and inspection effort. The center also will provide a better environment for knowledge management for the vendor inspection staff, and provide the junior staff better accessibility to senior staff for mentoring and on-the-job training.

Samantha Crane

*Mechanical Vendor Inspection Branch
Office of New Reactors*

Comments

comment #12640 posted on 2012-06-23 22:34:16 by flyingcuttlefish

Comments turned off in the "open Forum" thread for any particular reason?

comment #12674 posted on 2012-06-26 00:26:58 by flyingcuttlefish in response to comment #12664

great!

comment #12664 posted on 2012-06-25 10:02:31 by Moderator in response to comment #12640

The date has been adjusted and the Open Forum is back open!

New YouTube Video Shows NRC's Hurricane Preparedness

posted on Mon, 25 Jun 2012 13:56:41 +0000



With hurricane season in the Atlantic beginning this month, the NRC staff has already prepared to take action to ensure NRC-licensed nuclear plants and other facilities remain safe -- even during damaging hurricane-force winds and storm surges. Although nuclear plants are built to withstand the expected storms in their area, the NRC is ready for any storm that might threaten those plants during hurricane season. From monitoring tropical storms

and hurricanes as they develop to checking a plant's preparations to sending additional inspectors, the NRC's hurricane preparedness plans and response actions are the subject of new [NRC video](#). We hope you'll take a few minutes to watch it.

Roger Hannah

Senior Public Affairs Officer, Region II

Comments

comment #12676 posted on 2012-06-26 08:54:54 by Moderator in response to comment #12669

It should be public now.

comment #12669 posted on 2012-06-25 15:13:03 by Patrick O'Dowd (@patrickodowd)

The video appears to be set to private on Youtube

Dateline Vienna, Austria

posted on Wed, 27 Jun 2012 13:25:16 +0000



In the aftermath of the Fukushima Dai-ichi Nuclear Power Plant tragedy, there has been an increased focus on the issue of communicating nuclear issues during a crisis. There is an axiom that an accident at a nuclear plant anywhere is an accident everywhere. The parallel is that in today's communications environment -- where a tweet can ricochet around the globe with lightning speed - a communication anywhere can be a communication everywhere. In May, nuclear regulators, communicators, reporters and non-governmental organizations gathered in Madrid to discuss communications topics under the auspices of the Organization for Economic Cooperation and Development's [Nuclear Energy Agency](#). Last week, the United Nation's [International Atomic Energy Agency](#) had a meeting in Vienna, Austria, to further the discussion among global nuclear regulators and communicators. The NRC was again asked to make a presentation. Jack Ramsey of our Office of International Programs talked about how the NRC communicates with international regulators and how we respond to domestic incidents. While I, as the agency's director of the Office of Public Affairs, focused on three core points related to overall public and media communications. First, that it is important always, and particularly so in times of crisis, to communicate early, often and clearly. It is likewise important not to wait until every facet of an accident is clear, because rapid communication is essential to building trust. Communicating often ensures that important information is made available quickly. And clear communication is essential to ensure that what you are saying is understood at a time when it is hard for people to focus. These are basic principles of crisis communication. And we try to communicate early, often and clearly on a daily basis here. Second, for nuclear communicators it is also important to make sure that crisis communication is practiced in drills. We are fortunate at the NRC that the agency participates regularly -- both in our regions and at headquarters -- in drills that test decision making and communications. And third, with rapid changes in the way we communicate, it is important for all nuclear communicators to begin incorporating so-called social media into their programs. The NRC had only recently started this blog when Fukushima occurred. This vehicle became a fast and flexible tool for us to address many topics. Today, the NRC uses this blog, Twitter, Flickr, and [YouTube](#) as communications channels to supplement the basic press releases and statements, and other materials that we make available to the public and the media. It was encouraging that after the conference a number of representatives of both developed and developing nations wanted our guidance and help on social media and other communications. We think that means we're doing something right.

Eliot Brenner

Director, Office of Public Affairs

Comments

comment #12694 posted on 2012-06-27 13:10:51 by asparaguscutter

Communication is existant among animals: content of the communication renders the communication effective. The international nuclear organization stipulates content as timely fact worthy of transmission by first resonders from whence trust and respect are derived

Appointment of NRC Commissioners – How Does it Work?

posted on Fri, 29 Jun 2012 13:56:41 +0000



Last month, President Obama [nominated Dr. Allison Macfarlane](#) to be an NRC Commissioner and indicated that if she is confirmed he will designate her as the next NRC Chairman. He also [re-nominated Kristine Svinicki](#) to serve another five-year term as an NRC Commissioner. The NRC was established by the Energy Reorganization Act of 1974. Section 201 of that Act specifies that the Commission shall be composed of five members, each of whom shall be a United States citizen. The President designates one of the Commissioners as Chairman to serve in that position at the pleasure of the President. No more than three Commissioners can be members of the same political party. The law establishes a structure where the Commissioners serve staggered terms, with the term of one Commissioner expiring each year on June 30th. Under the U.S. Constitution, the appointment process begins when the President selects an individual to serve as a member of the Commission and submits the nomination to the United States Senate for its advice and consent. After the Senate receives the President's nomination, the [Senate Committee on Environment and Public Works](#) (the NRC's Senate oversight committee) holds [confirmation hearings](#) and votes on whether to send the nomination to the full Senate for its consideration. Then a majority of the Senate must vote to confirm the nominee. The confirmation hearing for Dr. Macfarlane and Commissioner Svinicki was held on June 13th. The Senate Environment and Public Works Committee approved the nominations last Thursday. Once the Senate has approved a nominee, the President must sign the appointment commission and only then can a Commissioner be sworn into office. At that point, the Commissioner will begin NRC service. Section 201 of the Energy Reorganization Act provides that Commissioners must not engage in any outside business, vocation, or employment, so they must terminate any outside work before joining the Commission.

*Sean Croston
NRC Attorney*

Comments

We're Open for Business -- Mostly

posted on Sun, 01 Jul 2012 22:24:46 +0000

Despite the storms that caused havoc in the Washington, D.C., area over the weekend, most of the NRC in the area will be open for business on Monday. However, for those of you doing business with the Office of Nuclear Material Safety and Safeguards in the Executive Boulevard Building, because of a continued power outage at that facility the NMSS office will be closed. Employees have been given excused leave. Under guidance from the [Office of Personnel Management](#), employees at other area NRC facilities will be working under an unscheduled leave or unscheduled telework policy, like other federal facilities in the area. The agency will continue to monitor the status of the power outage. Employees can get information about agency status through the Verizon Notification System or by calling 1-888-415-4NRC (4672)

*Eliot Brenner
Director, Office of Public Affairs*

Comments
