OPSMPEm Resource

From: West, Stephanie
Sent: Wednesday, July 02, 2014 9:11 AM
To: OPSMPEm Resource; OPSMNPEm Resource
Subject: Blog archive for May and June 2014
Attachments: blog-published-2014-07-01@08-39-13.pdf

OPA

NRC

Hearing Identifier: NRC_OfficialPresenceSocialMedia_Public
Email Number: 50

Mail Envelope Properties (C0A338EE37A11447B136119705BF9A3F02108CD195DB)

Subject: Blog archive for May and June 2014
Sent Date: 7/2/2014 9:10:43 AM
Received Date: 7/2/2014 9:10:47 AM
From: West, Stephanie

Created By: Stephanie.West@nrc.gov

Recipients:
"OPSMPEm Resource" <OPSMPEm.Resource@nrc.gov>
Tracking Status: None
"OPSMNPEm Resource" <OPSMNPEm.Resource@nrc.gov>
Tracking Status: None

Post Office: HQCLSTR02.nrc.gov

Files	Size	Date & Time
MESSAGE	17	7/2/2014 9:10:47 AM
blog-published-2014-07-01@08-39-13.pdf	2337312	

Options
Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:

U.S. NRC Blog

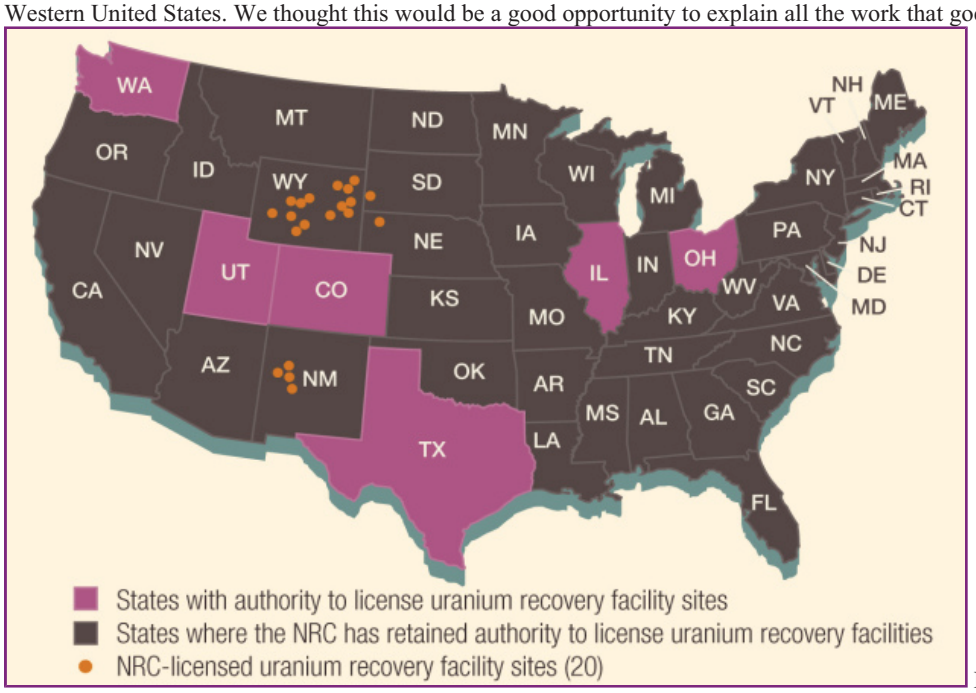
Archive file prepared by NRC

How it Works: The NRC's Process for Licensing Uranium Recovery Sites

posted on Fri, 02 May 2014 17:57:55 +0000

William Von Till
Chief, Uranium Recovery Licensing Branch

After years of thorough review, the NRC has issued a handful of licenses over the past several months for uranium recovery facilities in the Western United States. We thought this would be a good opportunity to explain all the work that goes into NRC approval of these licenses.



First some context: like all commodities, the price of uranium rises and falls based on a number of factors. About a decade ago, the price of uranium began to rise, prompting mineral companies to begin looking seriously at developing new uranium production facilities. Beginning around 2006, these companies were contacting the NRC to better understand our licensing process. Generally, our work with an applicant begins years before we ever receive an application. Any meetings we have with an applicant are open to the public, whether before or after they apply. We ask interested companies to let us know their plans ahead of time so we can budget resources to conduct our reviews. And we are available to answer questions on our regulations, the application process, environmental reviews, or whatever other issues a potential applicant or the public may want to discuss. The first step on receiving a uranium recovery facility application is for the NRC to conduct a thorough review to make sure the application addresses all aspects of our regulations and is complete. Sometimes these reviews find areas where an applicant needs to provide more information. We do not "accept" an application for technical and environmental review until we are satisfied the information we will need is there. Once the application is accepted, we invite interested parties to participate in the licensing process. We provide details on how to find the documents and offer a chance for them to ask for a hearing. We set a proposed schedule for our review. We also begin the process of reviewing the environmental impacts of the proposed facility. This extensive process involves the public as well, providing opportunities to weigh in on which environmental issues need to be addressed at any given site. The technical reviews for recently licensed facilities have taken years. For example, the Dewey Burdock facility in South Dakota received an NRC license April 8, about four and one-half years after we accepted it for review. The application for the Ross facility in Wyoming, which we licensed last week, took us about three years to review. How long our review takes depends on several things—the quality of the application, the amount of confirmatory work we need to do, and how long the applicant takes to respond to our questions, just to name a few. The environmental review proceeds in parallel but also involves a lot of work. In addition, we must consider the impacts on cultural and historic resources. These evaluations require us to consult with other federal, state and tribal officials and the public—a time-consuming but invaluable process that gives us the most complete picture possible of the impacts a facility could have. Only after these reviews are completed does the NRC issue a license. All the documents associated with our technical and environmental reviews are made available to the public through our documents database. We are pleased that two of our multi-year licensing reviews came to a close in April. We have seven additional uranium recovery applications under review and may receive as many as 11 more this year.

Comments

comment #341418 posted on 2014-05-02 22:40:55 by Christopher Paine

> "Once the application is accepted, we invite interested parties to participate in the licensing process. We provide details on how to find the documents and offer a chance for them to ask for a hearing. " This is a misleading, indeed farcical description of NRC's actual process for granting Source and Byproduct Material (SML) licenses. I invite readers to contemplate the meaning of the phrase "we invite interested parties to participate in the licensing process" – by this the writer presumably means the NRC's Notice of Hearing Availability published in the Federal Register, the only "invitation" we have ever received to "participate" in the licensing process. And then, parse the meaning of this artful phrase: "[we] offer a chance for them [the "interested parties"] to ask for a hearing." In other words, it's not really "an invitation to participate in the licensing process," but rather "a chance to ask for a hearing" to determine whether such a "chance" of participation will actually be allowed to materialize. Any ordinary citizen who has ever pursued this arduous "invitation" knows that his/her chances of actually participating in an adjudicatory hearing on the merits and demerits of a proposed SML license are next to nil. An elaborate maze of exclusionary pleading standards, unique in the annals of US administrative law, stand between the "interested parties" and their right to a hearing under the Atomic Energy Act, which (ironically) directs, "the Commission shall grant a hearing upon the request of any person whose interest may be affected by the [licensing or rulemaking] proceeding, and shall admit any such person as a party to such proceeding." 42 U.S.C. 2239. NRC's current rules governing the "admissibility" of contentions blatantly infringe this public hearing right enshrined in the AEA. Finally, even if one has the good fortune (and financial/legal resources) to penetrate the NRC's contention admissibility barrier, one is still left with the certain knowledge that irrespective of how your environmental concerns are adjudicated, the Commission believes they need not delay the granting of a license. This reality gives the lie to the author's claim, "Only after these reviews are completed does the NRC issue a license." It is an index of the NRC's contempt for public participation in the SML licensing process that it regards its licensing reviews to be "complete," and thus issues a license, when contested matters actually remain under adjudication, as they are today in both the Dewey-Burdock and Ross Project license proceedings.

comment #340979 posted on 2014-05-02 15:16:08 by CaptD

> William Von Till - It would be great to post a link for the site that is the best run and also the site that has had the most problems and/or required the most oversight by the NRC, so that readers can see what the NRC is doing to make these sites safer.

comment #341219 posted on 2014-05-02 19:32:18 by jkmhoffman2014

> Reblogged this on jkmhoffman.

comment #345071 posted on 2014-05-05 08:43:04 by Moderator in response to comment #340979

> The NRC does not rank its licensees based on their performance, though we do provide performance information to the public. See this page http://www.nrc.gov/info-finder/materials/uranium/index.html#licensed-facilities for links to summary pages for each operating uranium recovery facility. Each page has links to any NRC inspection reports and a searchable database of NRC event reports. William Von Till

---

You Can Ask the NRC to Change Its Rules

posted on Tue, 06 May 2014 15:36:16 +0000

Jennifer Borges
Regulations Specialist

One of the ways the public can take part in NRC actions involves asking the agency to issue new rules or change existing ones. The NRC's website describes this "petition for rulemaking" process in detail, including how to submit a petition and what information the NRC needs in order to consider the request.  At its most basic, a petition needs to explain the issue and why the petitioner believes action is needed. The petition should include whatever supporting information is available. One example of a successful petition involved revising NRC requirements for emergency planning at nuclear power plants. The petition led to a new rule that allows state and local governments to include stockpiles of potassium iodide for possible use in the event of an emergency at a nuclear power plant. Starting the process can be as simple as consulting with the NRC before filing a petition. We'll provide information about the process, our regulations, and what we understand about the issues you intend to raise. If a petition falls short of the legal requirements, we'll explain how to meet our criteria. The petitioner then has the chance to send us more information. When petitions meet the requirements, we enter them in our review process and announce our review in the *Federal Register*. If public comment can play a role in resolving the petition, the

Federal Register notice explains how the public can provide their views. The NRC staff then evaluates the petition and any public comments to decide whether to start our rulemaking process. We stay in contact with the petitioner with periodic updates on the status of the staff's work on the petition. If we deny a petition we announce the decision in the *Federal Register* and explain our reasons. We also respond to any public comments on the petition. If we accept a petition for consideration in our rulemaking process, the *Federal Register* notice explains how we intend to move forward. We also describe how the public can keep track of the NRC's actions on the petition. If the NRC issues a proposed or final rule related to the petition, our *Federal Register* notice on the rule will explain how we have addressed the petition's concerns. We're currently updating our rulemaking petition process with a proposed rule we issued on May 3, 2013 (78 FR 25886). The revisions would:

- Expand a petitioner's access to the NRC by allowing consultation with our staff both before and after filing a petition for rulemaking;
- Improve the content requirements for a petition for rulemaking;
- Clarify our evaluation criteria;
- Explain our internal process for receiving, closing and resolving a petition; and
- Update information for tracking the status of petitions and subsequent rulemaking actions.

The NRC's other petition process allows anyone to ask the agency to take an enforcement action against a nuclear power plant or other NRC licensee. We discussed these processes on the blog in 2011.

Comments

comment #348527 posted on 2014-05-07 10:32:13 by CaptD in response to comment #348397

> Scott - Thanks, perhaps you and/or Jennifer can now help us understand what all the listing language really means! In 2013 of the 14 petitions for Rulemaking Action how do we know how many were finally adopted? Also these charts are so verbose that I don't believe that they make much sense except to those that use them daily! I'm sure that some Rulemaking Actions extend beyond the year they were submitted, and that would be hard to quantify from the current listing! Question: Are these listed in the order they progress through the NRC system? ==> If not, why not, since it would be so much easier to follow the adoption process? ==> If so, why are the Petition for Rulemaking listed halfway down, when I would expect they would be listed first, since they would start the entire review process? Perhaps a Regulations Specialist that can works with these charts daily could provide a simplistic 10 year chart that lists the number of Rulemaking Petitions that were submitted (by the nuclear industry as compared to the public) and how many finally got accepted, which hopefully resulted in Rulemaking changes... If a Regulations Specialist at the NRC cannot do that in an hour or two then I suggest that the current accounting system needs changing, (no pun intended) because if the process is so involved that things almost never get changed, especially if those proposed changes are made by the public then that should ring alarm bells for both the Chairman and Regulators of the NRC.

comment #358078 posted on 2014-05-13 18:28:53 by stock

> Aloha NRC, If you are to regulate, you must exert authority. When Excelon was found to be $1B short in their decomm fund, you should have fined them 10% on the spot, and 10% every month on the balance under. Also, I propose a new rule for the NRC. The decomm fund needs to be more than "an account" or a promise from a parent company. Those are almost laughable.....a company going bankrupt can easily divert the money. The decomm fund needs to be in an escrow type of account, one that the NRC was review at will and get automatic reports on. Even the investments and investment changes in the excrow account would need approval by NRC. What say you? here is the story http://www.phoenixvillenews.com/general-news/20140513/de-commissioning-fund-violation-yields-little-consequences-for-exelon

comment #347241 posted on 2014-05-06 15:56:54 by CaptD in response to comment #347046

> Stock - Because the NRC has allowed the use of High burn-up fuel they cannot store it in approved png term casks because none exist... The NRC should immediately stop allowing the use of High Burn-Up fuel until caste for transportation and long term storage are tested and available! See more about High Burn-Up fuels and the problems generated by allowing its use: http://sanonofresafety.org/nuclear-waste/

comment #346970 posted on 2014-05-06 11:55:56 by CaptD

> Jennifer - I'd like to see the NRC post the number of proposed rule changes vs the number of changes actually made per year for the last 10 years, I believe those statics would help everyone understand why the NRC is in need of a major overhaul in the way it serves the public.

comment #347036 posted on 2014-05-06 12:43:17 by stock in response to comment #346970

> Excellent Idea CaptD. I like the fact that the NRC is trying to increase perception of responsiveness, although I am still concerned that with the sacking of Jackzo that regulatory ability is still limited.

comment #347046 posted on 2014-05-06 12:49:08 by stock

> Ask NRC to change its rules 1) Dry cask immediately, no later than 5 years 2) No delay on returning plants to Greenfield, no 60 year

"zone of bankruptcy" joke period. 3) Criminal charges similar to OSHA for knowingly and willingly cheating the rules, like San Onofre. 4) Ramp up money set aside for decomm, right now they ask for $105M, but each plant will be at least $500M to $1000M. Force a study this year to predict decomm cost, and require at least $500M set aside in an Escrow account. stock out

comment #351712 posted on 2014-05-09 08:28:54 by Moderator in response to comment #348397

Most rule changes are initiated by the NRC, not by petitions from the public. The report lists actions published during the year in the order that follows the steps of a typical rulemaking. We can consider your suggestion to list Petitions for Rulemaking first when we prepare the next report. To follow a petition or rule through the process, visiting our Petition for Rulemaking and Rulemaking Web pages at http://www.nrc.gov/reading-rm/doc-collections/rulemaking-ruleforum/petitions-by-year.html and http://www.nrc.gov/reading-rm/doc-collections/rulemaking-ruleforum/rulemaking-dockets/index.html . From these pages you can access the docket for each petition or rule activity on www.regulations.gov. The docket contains all publicly-available documents related to the rule or petition. You can subscribe to these NRC Web pages. At the bottom of either of these pages, under “Stay Connected,” click on “GovDelivery.” From here you will need to enter your e-mail address and click “Submit.” Then you will subscribe by checking the boxes next to the items for which you would like to receive updates, then clicking “Submit” again. You can also subscribe to receive alerts when changes or additions occur in a docket folder on the Federal Rulemaking Web Site, www.regulations.gov. To subscribe: Navigate to a docket folder by searching by the Docket ID; click on the “Sign up for E-mail Alerts” link; and enter your e-mail address and select how frequently you would like to receive e-mails (daily, weekly or monthly). I hope this is helpful. Jennifer Borges

comment #348145 posted on 2014-05-07 06:28:37 by Dan Williamson in response to comment #347046

Read Ms. Borges' post again, carefully. The petition process is not supplanted by a utopian screed on a blog site, no matter how repetitious.

comment #348397 posted on 2014-05-07 08:52:15 by Moderator in response to comment #346970

The NRC website includes annual summaries of all rulemaking activity going back to 1985. Here is the link: http://www.nrc.gov/reading-rm/doc-collections/rulemaking-ruleforum/published-rules-by-year.html Scott Burnell

comment #357781 posted on 2014-05-13 13:55:41 by Moderator in response to comment #355139

We’ve checked into meeting your request for the listing and, unfortunately, it cannot be “processed” through the blog, as meeting it would require extensive personnel resources. To put this request to us formally, please send an email to: NRCExecSec@nrc.gov . It will then be assigned for review and response directly back to you. Moderator

comment #355139 posted on 2014-05-11 18:27:48 by CaptD

Jennifer - How about an estimate of how long it would take a "a Regulations Specialist" to put the requested listing together; I'm sure it would be informative for everyone concerned, since the NRC is the one asking for input from the public. If the number of hours is low, then I'll be happy to ask the Office of the Chairman to request it be done. Thank you and all the Regulations Specialists for your efforts!

Fukushima Daiichi Now: Images and Perspectives

posted on Thu, 08 May 2014 13:12:54 +0000

NRC officials tour one of the damaged units at the Fukushima Daiichi plant during their trip in February.

Roger Hannah

Senior Public Affairs Officer
Region II

In February, an NRC delegation, mostly comprised of senior managers responsible for reactor oversight, travelled to Japan to see, hear about and learn from the accident there in March 2011. I was there to record the images and sounds of the trip – from the meetings to the tours of facilities, including the stricken Fukushima Daiichi plant, and the surrounding countryside. In interviews and conversations, I heard varied perspectives, but my focus was almost completely on people:

- The people whose homes and businesses and schools now sit abandoned near the plant – some knowing they may never go home again.
- The people who worked at the plant during and after the accident trying to keep the situation from being worse.
- The people who now work at the site donning protective clothing each day as they slowly tackle the mammoth cleanup.
- The people across Japan who continue to struggle with their view of nuclear power.

I wish we had been able to spend more time in the evacuated areas near the plant, but even the hours we were there carved indelible images in my memory. It's interesting how seeing areas without people made me think about the missing people even more. When it comes to nuclear safety, the most important people are those working inside or living closest to the plants. There is no stronger evidence than the images we captured during the trip. It was difficult to distill all we saw and heard into the short video we posted on the NRC YouTube channel, but I hope we were able to show the essence of the trip…and for me, it was all about people.

Comments

comment #361026 posted on 2014-05-15 15:40:09 by Fresh in response to comment #360955

> No evacuation zone for solar, and the profits to investors are much higher, and get returned much quicker. Kind of a no brainer. Sometimes you can't teach and old dog new tricks....except for present company of course, LOL

comment #361021 posted on 2014-05-15 15:36:07 by Fresh in response to comment #360778

> @woodcock Sir, your assertations are astounding There have been many tests on foods over allowable limits The ocean waters have tested at millions of times over allowable limits Much of the land has tested extremely high, far over limits at which evacuations were done at Chernobyl Not many people are buying the "global warming meme", climate change, sure, probably more to do with the sun than human activity, and the real risk is climate change and wilder weather accompanied by global cooling which will stress food systems a lot. But Sir, you really should look at the facts, as just taking a hardline approach that there are no problems at Fukushima really discredits your agenda.

comment #351821 posted on 2014-05-09 09:59:33 by joy cash

> Over 3 yrs. later, still no safer from Fukushima radiation outcomes. Still no US public announcements for safety measures regarding foods, farming & fishing. No governmental accountability for health & safety of our citizenry. How can we, collectively, be such slow learners, scrambling to save a proven dangerous & out-dated energy industry from its "death throes"?

comment #351875 posted on 2014-05-09 10:48:20 by stock in response to comment #350813

> Those placed in front of the voters, and the opinion of the voters are two different matters. I speak Japanese and I speak to the Japanese people. I ask them, do you understand how bad Fukushima is, and there are put back a bit, as their answer is we ALL know. And yet they protest with 50,000 to 100,000 people even though Japan traditionally follows the government with little objection or noise of any sort. The Japanese like clean, entire vacations are built around trips to the onsen hot springs for cleaning up and eating good clean food. Nothing is more unclean than a Radioactive meltdown. They hate it.

comment #352041 posted on 2014-05-09 13:33:21 by CaptD in response to comment #350385

> Aladar Stolmar - Salute for trying to push for improved reactor safety! Despite the name calling of some here, many readers are truly interested in reactor safety which includes calling out designs and/or operations that could lead to a nuclear incident or even a nuclear accident, especially if operators fail to implement changes because they don't feel they are necessary, which is just the attitude that resulted in Japan's Fukushima Trillion Dollar Eco-Disaster.

comment #351081 posted on 2014-05-08 22:48:10 by atomikrabbit in response to comment #350698

> Thanks for your prompt response. I was referring to the accident dose limits for whole body and thyroid delineated in 10CFR100.11, and am still curious as to whether they were exceeded at Fukushima. Of course, Dr. Jaczko made recommendations for Americans in Japan at the time that I think are now seen by many as unnecessarily conservative. Finally, I haven't visited this blog in quite a while - it seems to have become a magnet for certain radiophobic [individuals] who have decided to take up residence here. My condolances to the moderator. Some verbiage removed to adhere to the blog comment guidelines.

comment #350813 posted on 2014-05-08 18:19:57 by Daniel

To say that 'The people across Japan who continue to struggle with their view of nuclear power' is really misleading when one considers that no anti nuclear candidates has been elected since March 2011. People near the nuclear plants want their nukes back.

comment #350803 posted on 2014-05-08 18:16:58 by Daniel

Really scary. When you think that there are at least 100 or more places on this planet where radio activity is higher than Fukushima. Shame on you NRC for spreading fear.

comment #352751 posted on 2014-05-10 00:34:48 by Aladar Stolmar

Dear CaptD - the attitude can and schould be changed, the safety of nuclear reactors could be achieved. And if You look into the details of my proposal - it does not cost too much! However the face saving of NRC and IAEA must end! Japan’s Fukushima Trillion Dollar Eco-Disaster is too high a cost for that... And the USA should pinch in...

comment #350698 posted on 2014-05-08 16:45:47 by Moderator in response to comment #350356

According to our EP staff, while Part 100 does not actually apply to accident situations (it applies to applications for site approval), the radiation levels in areas around Fukushima do not exceed limits specified there. However, some areas do exceed EPA guidelines for relocation. Japanese regulations, though, are the relevant reference for current actions by the Japanese government. As for the second part of your comment, it's important to understand the NRC would review the protective action recommendations a plant would provide to the state and local officials, but we do not make our own recommendations. We are always available as a consultant, though, for those officials who have the authority determine what actions residents in the potentially affected communities should take. Thank you for taking the time to watch the video. Roger Hannah

comment #350721 posted on 2014-05-08 17:06:08 by stock in response to comment #350391

"Unproven risk" now that is funny. Did you see the video of Reactor 3 blowing skyhigh? 50 tons or more of uranium and thus plutonium were aerosolized. And Reactor 4 Building also, even though the reactor itself was emptied and they were installing the new shroud to allow the load of MOX sitting in the equipment pool at 4 to start burning MOX...that blew sky high also, with a melt out fire. That is a pretty sadistic viewpoint....let them sit in the radiation until it is "proven".

comment #350729 posted on 2014-05-08 17:08:48 by stock in response to comment #350390

I know, if it a coordinated full court press to "prove" that there wasn't and isn't any danger from Fukushima. The powers that be that control Forbes were printing that not a single death or cancer will result from Fukushima. 1.79 E20 Inventory Bq at Fukushima and not a single cancer. Hmmmmmmmmm, seems like an agenda from a struggling industry.

comment #357024 posted on 2014-05-13 02:57:55 by Aladar Stolmar

CaptD Paks II http://www.mvm.hu/en/group/mvmpaks2/Lapok/default.aspx and http://www.euronews.com/2014/01/14/nuclear-deal-between-russia-and-hungary/

comment #360778 posted on 2014-05-15 11:56:31 by G. Woodcock

This report, and some of the comments, are utter nonsense! All objective measurements and studies demonstrate conclusively that the radiation threat to the general public is nonexistent. No one in the general public has died or even gotten sick from radiation. No foods have been contaminated to the extent that they are a threat to human health. No ground has been contaminated to where it poses a threat to human health. Any assertions to the contrary are NOT supported by cold, objective facts and are merely anti-nuclear fearmongering! Nuclear energy is, in fact, the only technology that can supply the huge baseload requirements that civilization on this planet needs both now and in the future. And if it's Global Warming you are worried about, I point out that nuclear energy generation is essentially carbon-free. A new, modern-day modular design is inherently safe and stable. Let's try to get away from nuclear hysteria and stick with objective, verifiable facts. Gerald Woodcock, MBA

comment #360955 posted on 2014-05-15 14:47:41 by Public Pit Bull in response to comment #360778

Yea tell that to all the folks slammed by the Chernobyl accident. After nearly 30 years there is a 20-mile exclusion zone around Chernobyl. Nuclear weapons and nuclear plants both leave permanent scars on people and planet earth. Just not worth it!

comment #352164 posted on 2014-05-09 15:48:26 by CaptD in response to comment #350385

Aladar Stolmar - Please post a link for the expansion project you mentioned above.

comment #351251 posted on 2014-05-09 01:37:14 by Aladar Stolmar in response to comment #350344

The Unit 4 is lost, also due to the damages to the building. This colorful choice of words describes the best the actual chemical process. It is an ignition and a firestorm, not the slow exothermic Zirc-steam reaction as modeled in the computer codes of Relap and

MAAP, but the PBF SFD Scoping test was showing the real process. In TMI-2, in Chernobyl-4 and indeed now in the Fukushima Daiichi No. 1, 2 and 3 reactor cores - in all nuclear power plant severe reactor accidents ignition and firestorm hapened. Would not be the time that the NRC and IAEA also recognize this?! I also propose to design only demonstrated safe reactor systems, which means that the reactor must be placed in a containment designed for the consumption of the entire Zirconium inventory and the worst detonation of the Hydrogen produced from that (1000 kg in 10 seconds for PWR and 1800 kg in 10 sec for BWR) in the containment. Even if we prevent the ignition of the firestorm in the core. Only such a doubled safety could be considered real safe nuclear power plant design. The details for the PWR design must include a syphon-free connection of the Reactor head top to the Pressurizer steam volume from where the venting of steam, depressurization is performed, a checkvalve int he connecting to the hot leg line, and for the BWR a direct venting of the downstream steam after the ECCS turbine driven pump (RHICS) to the environment in order to utilize the available coolant reserves. In both cases the three events when the core damage prevention depressurization starts are: 1. no information about the state of the reactor, 2. failure of forced coolant circulation through the reactor core and 3. the connection through heat transfer mediums from the core to the ultimate heat sink is severed. Water reseves must be available for gravity injection for achieving the cold shutdown.

comment #351255 posted on 2014-05-09 01:42:27 by Aladar Stolmar in response to comment #350385

CaptD - There is a 2 Unit expansion project in Paks NPP with Rossatom and I will work on implementing these improvements here. It is only the US NRC, which is not listening - and did not listen in 1987 as well...

comment #352143 posted on 2014-05-09 15:27:26 by stock in response to comment #350721

Joffy, please "easily demonstrate" that uranium and plutonium were not release in any signinificant quanitities. Because the EPA air sampling data showed increases of 2600% of uranium in air. And Plutonium at 2900% to 3500% over background. over a huge air volume, those add up to massive releases. http://nukeprofessional.blogspot.com/2012/03/plutonium-admission-by-epa.html http://nukeprofessional.blogspot.com/p/uranium-aerosolized-into-atmosphere.html But I will be looking forward to your response, please avoid the ad hominem attacks and the banana equivalents, they don't fly

comment #352091 posted on 2014-05-09 14:32:22 by joffan7 in response to comment #350721

It's well established and easily demonstrated that uranium and plutonium were not released in any significant quantities. It's also extremely well-verified that the pool at unit 4 did not have a fire. What is proven about low-level radiation is that the health risks are at least an order of magnitude lower than the demonstrated risks of evacuation as practiced here. The thing that is unproven is that there is any risk at all. Note: Some content removed to adhere to comment guidelines.

comment #350178 posted on 2014-05-08 09:49:21 by Aladar Stolmar

The fact is that there is a common cause in all of the severe nuclear reactor accidents which is not acknowledged, disregarded, even covered-up by the very NRC and IAEA, suppose to be the government and inter-governmental bodies charged to prevent the disasters in nuclear power plants. When I raised as a Safety Concern the issue of the cladding -coolant interaction in 1987(!) in Westinghouse as being misrepresented in the computer codes, I've been denied even the possibility to defend myself from ridiculous accusations… Now I'm proposing a solution to prevent the ignition caused by any diverse initiating events. After Fukushima and the additional 4 (four) reactors lost for the same common cause I'm proposing the following regulation changes: What I'm stating that the ignition of firestorm in the reactor core can and should be prevented by venting of steam and rapidly depressurizing the reactor, and indeed staged all the way to the gravity flooding of the core. Which means that the non-design basis events will be prevented, the fuel will remain intact in any event. I also propose to design only demonstrated safe reactor systems, which means that the reactor must be placed in a containment designed for the consumption of the entire Zirconium inventory and the worst detonation of the Hydrogen produced from that (1000 kg in 10 seconds for PWR and 1800 kg in 10 sec for BWR) in the containment. Even if we prevent the ignition of the firestorm in the core. Only such a doubled safety could be considered real safe nuclear power plant design.

comment #353722 posted on 2014-05-10 14:14:04 by Richard McDonald

This video is disgusting! It was intentionally meant to present nuclear energy as dangerous and unmanageable! While the tsunami-caused disaster at F-D was a property-damage disaster, there have been no deaths due to radiation, and most people should return to their homes and businesses and resume their lives. The NRC should disband and save all of us a billion dollars a year and improve access to nuclear energy in a safer environment without the "senior staff" you show on this junket. My neutral opinion of NRC competence level just took a step (a big step) lower.

comment #350336 posted on 2014-05-08 11:45:42 by Public Pit Bull

Nuke plant accidents leave a scar on planet earth. Almost 30 years after the Chernobyl accident there is still a 20-mile exclusion zone around the plant. No other man-made disaster leaves such lasting scars. Trouble is, even though we should live without the constant threat of nuke power plant accidents, we are being forced to live with it. We are stuck with nuke power just like we are stuck with nuke weapons.

comment #350344 posted on 2014-05-08 11:49:12 by atomikrabbit

"After Fukushima and the additional 4 (four) reactors lost" - three cores were damaged, units 1-3. Unit 4 was defueled. "the ignition of firestorm in the reactor" - that's a colorful choice of words for the exothermic Zirc-steam interaction, especially for a scientist such as yourself. "can and should be prevented by venting of steam and rapidly depressurizing the reactor" - that's exactly what the Fukushima operators were ready to do, while they still had DC control power available, but were prevented from doing so in a timely manner by political interference of PM Kan and his advisors. See the narrative at hiroshimasyndrome(dot)com for details. In addition, PWRs already have the option to "feed & bleed" on loss of all feedwater, or intentional depressurization to allow low pressure coolant injection, built into their Emergency Operating Procedures, which seems to be what you are advocating.

comment #350356 posted on 2014-05-08 11:58:30 by atomikrabbit

A few questions for the author, Mr. Hannah - how much of the evacuated territory received contamination above 10CFR100 limits at the time of the releases? How much remains above those limits today? Knowing now that there were several hundred fatalities from the evacuation, but would have been none from the releases, and given the new data from the SOARCA, what would the NRC evacuation recommendations be to local authorities if a similar (incredibly unlikely) release were to be occurring today?

comment #350402 posted on 2014-05-08 12:43:46 by stock

We all need to think about the willingly and knowlingly human errors of greed and denial that led up to this greatest industrial tragedy of all time. And the fact that those human traits are never going away. maybe the only pretty safe nuclear reactor is 93 MIllion miles away, although that one could through as a huge CME that would cause 50 nuclear plants to melt down (aka Carrington Event)

comment #350394 posted on 2014-05-08 12:36:23 by CaptD

RE: "When it comes to nuclear safety, the most important people are those working inside or living closest to the plants." Fukushima proved that Nature can destroy any land based nuclear reactor, any place anytime 24/7 and yet the NRC has just recently decided that those living close to all US nuclear power plants (including those being decommissioned) don't really need detailed Evacuation plans, which points out the great void between actual reality and NRC Safety Planning.

comment #350391 posted on 2014-05-08 12:31:48 by joffan7

The video is interesting in a number of respects, although anyone looking for an update on plant status will come away disappointed. One thing I found disturbing was the attitude of the NRC representatives when exclaiming over the abandoned communities, They seemed oblivious to the fact that what they were looking at was the consequences of a **regulatory action** - a government choice to forcibly uproot thousands of people from flourishing communities on the basis of an unproven risk. The lives of those people were impacted and the social and economic value of their communities was lost with absolute certainty, and people's health suffered as a result of that regulatory decision. The balance of action based on realistic risk consequences was completely lost in the imperative to avoid this low-level radiation - and in many cases not even that, only the potential for low-level radiation. A more holistic view of the consequences of this sort of action is required, but I see nothing in the NRC that makes me think that this human-centered view has even occurred to them.

comment #350390 posted on 2014-05-08 12:31:47 by CaptD

Perhaps you can tell us all why the Japanese refuse to allow independent journalists and scientists to also tour Fukushima? The lack of independent inspections makes everything that the Japanese say about Fukushima suspect, and now that doubt also applies to the NRC and what they say about Fukushima, since the NRC has a vested interest in downplaying anything BAD about Fukushima.

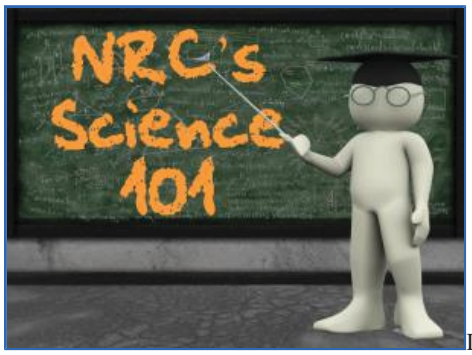
comment #350385 posted on 2014-05-08 12:26:13 by CaptD in response to comment #350178

Aladar - Your proposed change is a good step in the right direction but it probably will never happen because it would require the NRC/nuclear industry to actually accept that there may be a meltdown/melt-through in the future and that does not fit with their concept as they struggle to rebrand New Nuclear PR image as safe, plus it would make constructing reactors even more expensive, which means they would be even less competitive in todays marketplace...

NRC Science 101: What is Plutonium? UPDATED

posted on Thu, 15 May 2014 14:50:46 +0000

Maureen Conley
Public Affairs Officer



In earlier Science 101 posts, we talked about what makes up atoms, chemicals and matter. In this post, we will look at a specific chemical element -- plutonium. Plutonium is a radioactive, metallic element with the atomic number 94. It was discovered in 1940 by scientists studying the process of splitting atoms. Plutonium is created in a nuclear reactor when uranium atoms, specifically uranium-238, absorb neutrons. Nearly all plutonium is man-made. Plutonium predominantly emits alpha particles—a type of radiation that does not penetrate and has a short range. It also emits neutrons, beta particles and gamma rays. It is considered toxic, in part, because if it were to be inhaled it could deposit in lungs and eventually cause damage to the tissue. Plutonium has five "common" isotopes, Pu-238, Pu-239, Pu-240, Pu-241, and Pu-242. All of the more common isotopes of plutonium are “fissionable”—which means the atom’s nucleus can easily split apart if it is struck by a neutron. The various isotopes of plutonium have been used in a number of applications. Plutonium-239 contains the highest quantities of fissile material, and is notably one of the primary fuels used in nuclear weapons. Plutonium-238 has more benign applications and has been used to power batteries for some heart pacemakers, as well as provide a long-lived heat source to power NASA space missions. Like uranium, plutonium can also be used to fuel nuclear power plants, as is done in a few countries. Currently, the U.S. does not use plutonium fuel in its power reactors. Nuclear reactors that produce commercial power in the United States today create plutonium through the irradiation of uranium fuel. Some of the plutonium itself fissions—part of the chain reaction of splitting atoms that is the basis of nuclear power. Any plutonium that does not fission stays in the spent fuel. Spent nuclear fuel from U.S. reactors contains about one percent plutonium by weight. The different isotopes have different “half-lives” – the time it takes for one-half of a radioactive substance to decay. Pu-239 has a half-life of 24,100 years and Pu-241’s half-life is 14.4 years. Substances with shorter half-lives decay more quickly than those with longer half-lives, so they emit more energetic radioactivity. Like any radioactive isotopes, plutonium isotopes transform when they decay. They might become different plutonium isotopes or different elements, such as uranium or neptunium. Many of the "daughter products" of plutonium isotopes are themselves radioactive. Many metric tons of plutonium are currently contained in spent nuclear fuel around the world. To be usable, plutonium needs to be separated from the other products in spent fuel through a method called reprocessing. Reprocessing separates plutonium from uranium and fission products through chemical means. Once separated, plutonium oxide can be used as fuel for nuclear power reactors by mixing it with uranium oxide to produce mixed oxide or MOX fuel. The U.S. government has historically discouraged the use of this technology for national security and environmental reasons. The NRC is currently overseeing construction of a facility in South Carolina to make MOX fuel using plutonium removed from U.S. nuclear weapons declared excess to military needs, as part of a Department of Energy program to convert it into a proliferation-resistant form that would be difficult to convert again for use in nuclear weapons.

Comments

comment #362901 posted on 2014-05-16 17:45:57 by Paine, Christopher in response to comment #362682

> Where is the “revised blog” and the comments that were posted in response to the original blog? They appear to have been taken down. Why?

comment #366475 posted on 2014-05-19 13:01:21 by Garry Morgan

> Quote: "Currently, the U.S. does not use plutonium fuel in its power reactors." A true statement, tell us why please. Could it be to prevent nuclear weapons proliferation because Plutonium MOX Fuel may be utilized for nuclear weapons? After all the postings pointing out the error of your ways - are you now saying that Plutonium MOX fuel can not be utilized for nuclear weapons production? Or, is there a special NRC word definition for "easily?" I guess it depends on your meaning of "is?"

comment #360844 posted on 2014-05-15 12:55:51 by jkmhoffman2014

> Reblogged this on jkmhoffman.

comment #366347 posted on 2014-05-19 10:32:55 by Moderator in response to comment #362682

> The blog post was updated again and re-posted this morning. Moderator

comment #362085 posted on 2014-05-16 06:49:07 by Tom Clements

The claim in the last sentence that reactor-grade plutonium is not weapons-usable is incorrect and runs counter to the U.S. Government policy on the matter. This incorrect statement is a striking departure from both science and policy and must be corrected.

comment #360795 posted on 2014-05-15 12:05:58 by Fresh

Its pretty clear that MOX with it's much higher nuetron density, is more prone to the Borax test type of Moderated Prompt Criticality, a form of runaway nuetrons and thus a form of atomic explosion. The MPC takes near perfect conditions to occur with standard fuel, but will occur a lot more easily with MOX fuel. Plus if you have a reactor or equipment pool accident and you are using MOX, then the accident scenario just got 100 times worse because now Plutonium is being released. So NO GO on the MOX, Dry Cask and forget the reprocessing, which is 10 times more expensive than dry cask anyway.

comment #360726 posted on 2014-05-15 11:21:33 by Herve D

West, and more specially USA, is over afraid of Plutonium in every aspects. This is far excessive for simple reasons like these: 1- A Pu atom-bomb is larger far more difficult to detonate than the "simple" U235 bomb, it requires advanced pyrothechnics a terrorist group cannot develop. 2- Iran knows it, this is why they strive so much to enrich natural U to 93% with centrifugation, not taking the easy Pu. 3- Pu is extremely easy to manufacture with only 8000 liters of heavy water and 2tons of natural uranium. Even Saddam Hussein had enough resources to extract such a small amount of uranium, enough oil to distillate water (very expensive, but feasible for a State) then produce 3 bombs per annum with this simple device... Concerning its supposed "toxic" aspects and "infinite" radiological life, one shall just consider that it is 180,000 times more radioactive than natural Uranium available eveywhere (some shale rocks in Sweden have 3 pounds of it per cubic meter). Take 3 pounds and devide it by 180,000 and you get the same radioactive flux as 7.5mg of hevillish Plutonium. Imaging media reaction if someone detects 5mg of Plutonium per cubic meter in a large field..!! So much that 277 billion of Becquerels. A mediatic storm would be immediately triggered. This shows how stupid is our mediatic system !

comment #362681 posted on 2014-05-16 14:27:03 by Moderator in response to comment #362085

The statement you are referring to was inadvertently incorrectly worded. What was meant was when the “weapons grade” plutonium (as MOX fuel) is irradiated in a commercial nuclear reactor, the plutonium is converted into a proliferation-resistant form that can never again be readily used in nuclear weapons. The blog language has been revised. Further information regarding the plutonium disposition program can be found at DOE’s website: http://nnsa.energy.gov/aboutus/ourprograms/dnn/fmd/plutonium Maureen Conley

comment #361218 posted on 2014-05-15 18:38:31 by Garry Morgan

MOX fuel - the fuel that will cost American Tax Payers billions upon billions of dollars in continued debt while facilitating nuclear proliferation. The fuel that will make the French owned Areva say "merci beaucoup" for your tax dollars. Don't be misled by NRC Trojans bearing gifts and attempting to downplay one of the most extremely dangerous substances known to human kind that has the potential to kill millions.. Beware of False Claims About Reactor Grade Fuel, Nuclear Control Institute - ""Reactor-Grade" Plutonium Can Be Used to Make Bombs...it's a dangerous myth that reactor-grade plutonium cannot be used to make workable weapons...The ability to construct a weapon from reactor-grade plutonium was demonstrated decades ago. It is dangerous even to consider it an open question. Hans Blix, director-general of the IAEA, informed our Institute that there is "no debate" on this point in the Safeguards Department of the IAEA, and that the agency considers virtually all isotopes of plutonium, including high burn-up reactor-grade plutonium, to be usable in nuclear weapons." http://www.nci.org/i/ib32897c.htm

comment #361217 posted on 2014-05-15 18:38:10 by Christopher Paine

There are serious technical errors and omissions in this blog that deserve to be corrected. “Plutonium (Pu) emits alpha particles—a type of radiation that does not penetrate and has a short range.” Pu also emits neutrons, gamma and beta particles, and x-rays. Plutonium and its compounds are toxic and accumulate in bone marrow. The best scientific evidence is that exposure to Pu increases the risk of cancer. Other negative attributes of Pu as a nuclear fuel are the following: Pu oxide forms on the surface of plutonium exposed to air; the oxide is pyrophoric, so greater use of plutonium in the nuclear fuel cycle poses an added fire risk; Pu has a low melting point, and unlike most other substances, increases in density as it melts (+ 2.5%) , making the material more not less reactive in a nuclear accident scenario; Pu is more susceptible than enriched uranium to criticality accidents, as the amount of plutonium required for a critical mass is about one-third that of uranium-235. Here is another problem paragraph: “A commercial power reactor creates many isotopes of plutonium, including Pu-239, Pu-240, Pu-241, and Pu-242. This is known as “reactor-grade” plutonium. In contrast, “weapons-grade” plutonium is almost pure Pu-239 (more than 90 percent). This form requires a specially designed and operated reactor. Plutonium production reactors operated by the U.S. government during the Cold War have all shut down. The NRC is reviewing an application for a facility in South Carolina that could mix plutonium removed from U.S. nuclear weapons with uranium to create mixed oxide (MOX) fuel. By irradiating the MOX fuel in a commercial power reactor, the weapons-grade plutonium becomes reactor-grade and no longer useful for weapons.” In reality, the isotopic mixture of plutonium produced, and its relative attractiveness for use in weapons, is a function of the fuel’s residence time in a reactor, not the type of reactor used. Any “commercial” light water reactor anywhere in the world can be operated on a (deliberately non-economic) cycle to produce “weapons-grade” plutonium, and indeed the Atomic Energy Act (AEA) gives the President emergency standby authority to produce plutonium for the nuclear weapons program in US civil power reactors. Unlike low-enriched uranium either before or after its use in a reactor, almost all isotopic compositions of plutonium will support an explosive growth of the fission chain reaction with prompt

neutrons alone. The only isotopic mix of plutonium which cannot realistically be used for nuclear weapons is nearly pure Pu-238, which generates so much heat that the weapon would not be stable. (International rules require equal levels of safeguards for all grades of plutonium except plutonium containing more than 80 percent Pu-238, which need not be safeguarded.) The fact that the even-numbered isotopes Pu-240 and Pu-242 fission only at higher neutron energies, well above the thermal neutron spectrum used in most civil power reactors, is likely the origin of a mistaken notion, prevalent among supporters of "closing" the civil nuclear fuel cycle, that Pu-240—a supposedly useless "non-fissile" isotope that builds up steadily with fuel exposure in a thermal reactor—can serve to "denature" the explosive properties of the plutonium produced in spent fuel, often referred to as "reactor-grade" plutonium. In reality, for neutron energies above about 0.7 million electron volts (MeV), the fission "cross-section" of Pu-240 is smaller than that of Pu-239, the preferred plutonium isotope for making nuclear explosives, but larger than Uranium-235, the other preferred nuclear weapons material. As a consequence, i.e. the "bare critical mass" of Pu-240 – i.e. the minimum amount needed as metal at normal density to support a self-sustaining chain reaction with fast neutrons, before the addition of neutron reflectors and compression by high explosives – is 23 percent less than needed for a bare critical mass of weapon-grade uranium. Hence for all fuel burnup levels and at any time following discharge from a reactor, the critical mass of "reactor-grade plutonium" metal will be intermediate between Pu-239 and Pu-240, with the latter being more reactive than weapons-grade uranium. While nuclear explosives made of reactor-grade plutonium will not provide the same predictability of yield and long-shelf life of weapons fabricated from phase-stabilized "weapon-grade" plutonium metal, these attributes may not matter to terrorists or sub-national organizations bent on quick assembly of a nuclear explosive device. Finally, what makes plutonium in irradiated MOX fuel relatively unusable in weapons is not the isotopic "grade" of the plutonium but rather the fact that it is encased as a mixed oxide within sealed zircaloy fuel tubes containing a matrix of uranium, other actinides, and high-emitting fission products that makes the fuel bundles "self-protecting" for a considerable period, thus requiring remote shearing of the fuel elements and aqueous- or electro-chemical separation to extract the plutonium, a complex and costly endeavor. Ironically, however, the MOX fuel facility the NRC contemplates licensing itself relies upon a feedstock stream of 100% plutonium oxide that will support an explosive fast-neutron chain reaction if certain assembly parameters are met. The blog's implication that licensing this MOX facility would reduce the risk of proliferation is misplaced. Christopher Paine, Senior Nuclear Policy Analyst, Natural Resources Defense Council (NRDC)

comment #362682 posted on 2014-05-16 14:28:08 by Moderator in response to comment #361217

The purpose of blog was to provide a basic discussion of the various isotopes of plutonium and the differences between "reactor grade" and "weapons grade" plutonium. Additionally, the Department of Energy is responsible for plutonium disposition to meet the U.S.-Russia Plutonium Management and Disposition Agreement, which entered into force on July 13, 2011, and committed each country to dispose of at least 34 metric tons of weapon-grade plutonium withdrawn from their respective nuclear weapon programs. The U.S. NRC was granted regulatory and licensing authority over the Mox Fuel Fabrication Facility under the Strom Thurmond National Defense Authorization Act for Fiscal Year 1999. Comments related to plutonium disposition strategies should be addressed to DOE. For clarity, the blog has been revised. Maureen Conley

comment #360959 posted on 2014-05-15 14:49:47 by Fresh in response to comment #360726

Well considering that 350 micrograms into the lung is a pretty certain death sentence, then 5 mg per M3 would be massive, further considering the average human breathes 80 M3 per day. That would be a massive concentration and extremely dangerous. You heard of the Beagle testing in which 255 out of 255 Beagles were killed by inhaled plutonium, usually the lung cancers killed them before the liver cancers did, although the liver cancers were also present, and bone tumors. Is this called being "over afraid"?

comment #362698 posted on 2014-05-16 14:46:02 by Fresh in response to comment #361217

Great Comment Chris! Thanks for the education.

comment #366869 posted on 2014-05-19 20:06:18 by Nikohl Vandel

Reblogged this on Niki.V.all.ways.My.way. and commented: not soooooo smart for being soooooo smart.

comment #366867 posted on 2014-05-19 20:05:16 by Nikohl Vandel

and, unfortunately we don't know how to manage it yet. #safetyfirst, #CleanUpAfterYourself, #RealNuclearWasteconfidence before we can continue with uncontainment of the waste we already have.

Agency Posts Second Addendum to 2010 Open Government Plan

posted on Tue, 13 May 2014 17:40:27 +0000

Stu Reiter
Co-Chair Open Government Advisory Group

The NRC posted the second addendum to its Open Government plan today. The 2014 – 2015 addendum re-caps activities we've done so far and outlines activities we're planning through 2015. The addendum includes such topics as our use of Web streaming and conferencing technologies to increase opportunities for public participation in meetings and our new Web-based-system to share public meeting

information and provide us feedback. 

The first Open Government plan was published in April 2010. The 2010 plan was written in response to President Obama's January 2009 Memorandum on Transparency and Open Government, and the subsequent guidance issued by the Office of Management and Budget. The guidance required each agency's plan to be updated every two years. In April 2012, our first addendum to our 2010 Open Government plan was published. What else does the second addendum include? Among the topics:

- Our continued use of social media to promote a sense of common community, provide a unique venue for dialogue, and enhance the use of plain language in explanations of NRC activities.
- Improving access to documents open for public comment by redesigning our "Documents for Comment" Web pages to provide a one−stop location for all rulemakings and other documents open for comment.
- Improving the timeliness of access to information by strengthening our Freedom of Information Act program. (Our efforts here have been recognized as "Best Practices" in a Center for Effective Government report.)

The 2014 – 2015 addendum also describes our programs to further collaborate with our state and tribal government and international regulatory partners. We hope you will take this opportunity to review the plan.

Comments

comment #358156 posted on 2014-05-13 19:52:00 by Engineer-Poet

> When will the NRC submit a budget request for the remaining work required to open Yucca Mountain?

comment #358988 posted on 2014-05-14 09:37:21 by Moderator in response to comment #358156

> The Commission has said they would consider requesting additional funds as part of the regular annual budget process. For more information on the budget, go here: http://www.nrc.gov/about-nrc/plans-performance.html Moderator

comment #357796 posted on 2014-05-13 14:08:38 by Public Pit Bull

> Obama Openness is an oxymoron. I believe our federal agencies make a sincere effort to be open and transparent. Obama's White House is anything but. The WH is closed and opaque!

Southern California Fire Puts Spotlight on NRC Regs

posted on Tue, 20 May 2014 14:28:45 +0000

Victor Dricks
Senior Public Affairs Officer
Region IV

A wildfire broke out on the Camp Pendleton Marine Base north of San Diego last Wednesday. The smoke could be seen by staff at the San Onofre Nuclear Generating Station and a handful of non-essential plant workers were sent home as a precaution. [caption

id="attachment_5405" align="alignright" width="300"] Firefighters from Camp Pendleton, in California, work to douse a wildfire.[/caption] Members of the plant's fire department responded to the event and sprayed water on vegetation at the plant's South Yard to retard the fire's progress. San Onofre also dispatched some of its personnel to Camp Pendleton to assist base personnel with firefighting efforts on the ground, while helicopters from the Marine base dropped buckets of water on the fire. The blaze, which was sparked by an accident on Interstate 5, was brought under control in a few hours and never got closer than a half-mile from the owner-controlled area of the plant. The San Onofre nuclear plant is shut down and preparing to decommission, and remained stable throughout the event. An NRC inspector onsite verified plant conditions and monitored the licensee's response to the fire from the plant's control room, relaying information to the NRC's Region IV office in Arlington, Texas. Because the fire never reached the site or disrupted offsite power to the plant, no emergency declaration was necessary. But the fire – and the start of the fire season in the West – does highlight NRC regulations related to natural disasters. As a part of their emergency preparedness plans, nuclear power plants are required by the NRC to be able to respond to a variety of natural disasters – hurricanes, tornadoes, tsunamis, earthquakes

and fires -- which can disrupt offsite power needed for vital plant equipment, interfere with access to the site and cause damage to equipment and threaten the safety of personnel. NRC requires that all nuclear plants have personnel who have been specially trained and are qualified to respond to fires. Some plants, like Diablo Canyon, maintain on-site fire departments. Others, like San Onofre, have arrangements with off-site fire departments or organizations like Camp Pendleton to supplement their initial response. NRC inspects these response plans to ensure their adequacy and effectiveness. On Wednesday, we saw those plans put into action. It might not be the last time this year. The need for vigilance will continue in the months ahead for plants located in areas where a prolonged drought is raising concerns about the upcoming summer wildfire season.

Comments

comment #369507 posted on 2014-05-21 15:58:47 by Moderator in response to comment #367927

> Each unit at SONGS had two emergency diesel generators when the plant was operating. After it shut down, they retained one functional diesel per unit. The two remaining diesels are tested monthly and under load periodically. Unit 2 diesel was last tested under load on March 3. The Unit 3 diesel was last tested under load on April 23. Victor Dricks

comment #367740 posted on 2014-05-20 11:13:44 by CaptD

> Never mentioned in the above is how often the backup generators are tested under load and were they all tested that day and if no why not? This is important because having plan is a great until something causes the plan to fail because something UNPLANNED occurs. Wildfires and Floods pose the greatest challenge to NPP since there is little to prevent them for occurring since they can happen because of Nature, Man or both! The NRC Chairman would be wise to pick a NPP at random and have them simulate a surprise Beyond Basis Event along with a 2 week loss of "wide spread" external power due to Nature, similar to what happened at Fukushima, in order to test the NRC emurgency plans.

comment #367927 posted on 2014-05-20 13:40:54 by Moderator in response to comment #367740

> Diesel generators are tested at all nuclear plants once each month. The San Onofre site maintains one emergency diesel generator in each unit to supply AC power to safety-related systems in the event of a loss of off-site power. The fire at San Onofre last week did not result in a loss of off-site power. The emergency diesels were not tested the day of the fire. But had a loss of off-site power occurred, they would have been available to perform their safety function. Victor Dricks

comment #368450 posted on 2014-05-20 23:21:23 by Fresh in response to comment #367927

> Victor, were they tested under the loads they need to carry? In fact, working in many high level military plants, even the specs required test under load, and under actual load they carried, rarely did that happen. Were they tested under the loads they need to carry?

Throw Back Thursday -- Name the Commissioner

posted on Thu, 22 May 2014 13:51:30 +0000

 This photo of a briefing of the U.S. Nuclear Regulatory Commission was taken on April 4, 1979, following the Three Mile Island accident. It was a challenging time for the NRC. Can you identify the individual facing the camera?

Comments

comment #370600 posted on 2014-05-22 10:17:32 by Nielsen, Brent

> Was it Joseph Hendrie? Brent Nielsen

comment #370597 posted on 2014-05-22 10:14:28 by Moderator

> Yes! Dr. Joseph M. Hendrie was sworn in as Chairman of the NRC on August 9, 1977. He was named to a four-year term on the Commission and designated as its Chairman by President Carter. His full bio is here: http://www.nrc.gov/about-nrc/organization/commission/former-commissioners/hendrie-chairman.html

comment #370839 posted on 2014-05-22 13:48:43 by Blair Spitzberg

> Could it be Harold Denton on the right facing Hendrie?

comment #370917 posted on 2014-05-22 14:56:39 by Hinson, Charles

> Chairman Hendrie, of course

comment #370627 posted on 2014-05-22 10:49:14 by Moderator

> Anyone want to venture a guess at the identities of the two NRC officials (backs to the camera) who were doing the briefing?

comment #370677 posted on 2014-05-22 11:33:47 by Public Pit Bull

> Don't know the names but I do know that the industry's defense in depth philosophy saved the day during the TMI accident. Half the reactor core melted. 20 tons of molten fuel drained to the bottom of the reactor vessel. But no China Syndrome! That reactor vessel held up. Also the containment structure around the Nuclear Steam Supply System allowed very little of the radioactivity to be released to the environment. If Chernobyl would have had a containment structure that accident would have been much less severe. Plus the industry and the NRC learned much from the accident and shared that knowledge worldwide. Nuclear power is much safer today than at any time in our history.

comment #370592 posted on 2014-05-22 10:06:57 by Crescenzo, Frank J

> Joe Hendrie

comment #370589 posted on 2014-05-22 10:04:38 by adrossin

Dr. Joe Hendrie

comment #370587 posted on 2014-05-22 10:01:17 by Thomas Essig

The gentleman facing the camera is former Chairman, Joseph Hendrie.

comment #370873 posted on 2014-05-22 14:18:30 by Guillermo Alcocer

Nuclear industrie and nuclear regulatory bodies are learning constantly from these events. Sharing of operational experience is fundamental to achieve proper safety levels.

comment #371047 posted on 2014-05-22 16:34:07 by sgburns05 in response to comment #370839

No - Harold was not "follicle-ly challenged"

comment #371048 posted on 2014-05-22 16:35:32 by sgburns05 in response to comment #371036

Looks more like Roger Mattson to me on the right. Ed Case was taller than Darrell Eisenhut.

comment #371043 posted on 2014-05-22 16:30:38 by in response to comment #370839

Not Denton. Harold was not "follicly challenged"

comment #371036 posted on 2014-05-22 16:26:16 by Moderator in response to comment #370627

We believe those doing the briefing (with backs to the camera) were: Darrell Eisenhut, deputy of the Division of Operating Reactors, left, and Ed Case, deputy director of the Office of Nuclear Reactor Regulation.

Even the Best Guidance Can Be Updated

posted on Tue, 27 May 2014 15:27:57 +0000

Don Tailleart
Regulatory Improvements Team Leader
Office of Nuclear Security and Incident Response

Well-written documents can stand the test of time – just look at the Declaration of Independence. The NRC and FEMA aimed for durability 30 years ago as we responded to the Three Mile Island accident. We co-wrote criteria for nuclear power plants to prepare and evaluate emergency response plans and preparedness programs. That guidance document has been the go-to standard for plant staff, and emergency preparedness managers at the state, local and tribal level. The NRC and FEMA realized, however, that when a document starts showing its age it's time for a revision. That's why a joint NRC/FEMA team is revising NUREG-0654/FEMA-REP-1. This is an update rather than a complete rewrite. Our aim is to make the guidance more user-friendly by restructuring and streamlining it with a focus on evaluation criteria. Evaluation criteria, by the way, are the parts of emergency plans and preparedness programs that directly respond to NRC or FEMA requirements. Both agencies use evaluation criteria when reviewing emergency plans to make sure the preparedness programs are acceptable. Before starting on the revision, the NRC and FEMA took suggestions from the public and interested groups. Our writing teams used that information to refocus preliminary evaluation criteria language on capabilities and overall program elements. We've moved more detailed information on evaluation criteria implementation to a new NRC emergency preparedness guidance document and to the FEMA Radiological Emergency Preparedness Program Manual. These changes reduced the number of criteria from 381 to about 190. Both the NRC and FEMA believe the updated criteria will provide an appropriate basis for U.S. nuclear power plants and state/local/tribal governments to develop radiological emergency plans and improve emergency preparedness. Our writers have also been updating and adding several topics to the document's introduction. The updated intro will address the document's purpose, scope, and background, as well as the basis for developing emergency plans. New introduction topics include how the document will be used and how the document relates to regulations and other guidance documents. It also includes information on the alternative approaches used to meet NRC and FEMA requirements. We expect to have the revised preliminary draft ready by the end of May. We'll make the document available for public review and discussion, including holding another public meeting/webinar in late June at NRC headquarters. We expect to have a formal public comment period on the draft document starting in October 2014.

Comments

comment #376848 posted on 2014-05-27 12:33:12 by Fresh

The Declaration of Independence is not a good example. it was a "temporary use" document, and is NOT a part of our current legal system. However, referencing the Constitution would be more appropriate.

comment #376830 posted on 2014-05-27 12:18:26 by CaptD

One area that needs major improvement is the Like-For-Like replacement criteria, since SCE made a mockery of the NRC by

claiming that they were doing a Like-For-Like RSG replacement when in fact they were making major design changes that resulting in their 4 new RSG failing soon after installation, a situation that place all of southern California at risk of a nuclear incident and/or nuclear accident! Here is a industry document that describes most of the changes that they made while bragging that it was done as "Improving Like-For-Like": https://s3.amazonaws.com/s3.documentcloud.org/documents/347889/col-nrc-tech-paper.pdf BTW: Nobody can claim the article is bias since it was published by Nuclear Engineering International...

comment #376833 posted on 2014-05-27 12:20:55 by Dan Hudson

You mention in your post "Before starting on the revision, the NRC and FEMA took suggestions from the public and interested groups." Are there any meeting summaries for those discussions that are publicly available? I think it would be great to see what these groups thought were important criteria for EP programs.

comment #376812 posted on 2014-05-27 11:53:27 by Public Pit Bull

If a plant, that is in the backyard of New York City, can be allowed to operate then the NRC really does not have an effective emergency preparedness document for nuclear plants in this country. The point is Indian Point should be decommissioned. That the NRC is considering license extension for this plant means the NRC is beholden to the industry and is not placing public safety first.

comment #376925 posted on 2014-05-27 13:53:02 by Moderator in response to comment #376833

The summary of meetings in August and September 2012 is available through the NRC's electronic document database, ADAMS: http://adamswebsearch2.nrc.gov/webSearch2/main.jsp?AccessionNumber=ML12270A295 ADAMS also has additional information from the 2012 meetings: http://adamswebsearch2.nrc.gov/webSearch2/main.jsp?AccessionNumber=ML12185A180 The summary of a 3-day meeting at the end of October 2013 is also available in ADAMS: http://adamswebsearch2.nrc.gov/webSearch2/main.jsp?AccessionNumber=ML13323B313 Moderator

comment #377269 posted on 2014-05-27 22:15:44 by PJ in response to comment #376812

Dear Public Pit Bull, Please support your statement with why the Indian Point Plant should be decommissioned and how the NRC is not placing public safety first. Blank statements like this are useless in any debate.

comment #376888 posted on 2014-05-27 13:12:59 by Fresh in response to comment #376830

I know, I can't believe how badly the NRC was disrespected. I am also amazed that charges have not been filed against the spin doctor liars from the plant operators. The equipment supplier should also be implicated.

comment #377983 posted on 2014-05-28 15:38:56 by Dan Hudson in response to comment #376925

Thank you for providing this information!

comment #377722 posted on 2014-05-28 10:50:46 by Public Pit Bull in response to comment #377269

Thanks for asking PJ. No nuclear plant should be located anywhere near a major metropolitan area. When millions of people live within the 50-mile emergency planning zone around a nuke plant, how can you possibly ensure their protection in the event of a Chernobyl or Fukushima-type accident?! It is just plain foolishness and playing loose with public safety. Even today a 20-mile radius exclusion zone exists for the area around Chernobyl. A similar Indian Point nuclear plant disaster would require the evacuation of NYC! There is not a more tempting terrorist target than Indian Point. Such a disaster would make 9/11 pale in comparison. In addition did you know PJ that Indian Point is the most susceptible plant in the country to damage from an earthquake. The NRC is well aware of all this and is still not putting public safety first. You talk of blank statements and yet do not recognize that we are playing Russian roulette with 5 bullets in the pistol.

Exchanging Information on the Nuclear Fuel Cycle

posted on Thu, 29 May 2014 13:32:06 +0000

Maria Guardiola
Chemical Engineer
Division of Fuel Cycle Safety and Safeguards

If you follow the NRC closely, you've probably heard about our annual Regulatory Information Conference, which brings together a couple thousand people from around the world to discuss a wide range of topics related to the NRC's work. This type of conference is an invaluable forum for the NRC and a variety of stakeholders—licensees, the public, other government officials—to discuss emerging issues, policy initiatives and nuclear safety. In a couple weeks we'll hold a similar but much smaller and more focused conference. The Fuel Cycle Information Exchange will be held June 10-11 at our Rockville, Md., headquarters. It allows the NRC to talk to and hear from industry, the public and government officials about issues related to the nuclear fuel cycle. By that we mean facilities that process uranium ore, meaning they convert it into a form that can be enriched (concentrated), enrich the uranium and fabricate it into nuclear fuel. The ability to exchange information with stakeholders is so important to the work the NRC does. We value input from all our stakeholders, even from our critics. This format allows open dialogue and a free exchange of views that strengthens the safety basis for our decisions and fosters a greater awareness of important regulatory issues. Much like the RIC, the fuel cycle conference is heavy on technical details but also features higher level policy talks from senior-level NRC managers. This year's program includes remarks from Chairman Allison Macfarlane, chief executive Mark Satorius, and his deputy for materials, Mike Weber. Here are just some of the items on the agenda:

- NRC's Yucca Mountain activities
- Analyzing chemical hazards
- Radiation protection standards
- Decommissioning planning
- Nonproliferation and security
- Considering spent fuel storage when designing nuclear fuel

Participants are also invited to tour the NRC's Emergency Operations Center, where managers and staff would converge to monitor a licensee's response to an emergency. Join us if you can, or tune into our webcast of the executive remarks. If it doesn't fit into your plans, though, you can rest assured we will use this conference to talk through important issues that will help us to keep you safe. You can find more information here.

Comments

comment #379066 posted on 2014-05-29 19:53:14 by CaptD

> Maria I hope that the NRC will not only live stream this conference but also allow those that cannot attend to ask questions via the web and thereby take part, instead of making this just another Industry Only event.

comment #378731 posted on 2014-05-29 11:25:23 by Richard McPherson

> Maria, it's interesting to observe the NRC and DOE since both were created. In 1988 living in Hong Kong, I was asked to represent the United States at the IAEA on "Nuclear Fuel Cycle Facilties, the Environment and Public Opinion". I did for four years. Knowing all the numbers, it's sad what poliics have done to allow the NRC and DOE to spend (squandered) billions of ratepayers and taxpayers dollars. This is my 50th year in nuclear power, after spending the first 20 years in the Navy. No matter how hard a responsible person can try, there is no excuse for the NRC and DOE to not have Yucca Mountain open for its highest and best use, regional dry cask storage facilities, and a MOX and othe back enfpd of the fuel cycle operating for America's national security. Richard Mc Pherson

comment #385129 posted on 2014-06-05 14:32:01 by Moderator in response to comment #379066

> We will be webcasting the executive remarks the morning of June 10 and the Chairman's speech the afternoon of June 11. Anyone interested in monitoring the whole meeting is invited to phone into our listen-only bridge line (see information below). Comments/questions can be submitted to FCIX_Registration.Resouce@nrc.gov. Bridge line June 10: 1-888-988-9429 passcode 61757# Bridge line June 11: 1-888-988-9429 passcode 33422# Maria Guardiola

---

Keeping a Finger on the Pulse of Dam Safety

posted on Tue, 03 Jun 2014 13:53:29 +0000

Ken Karwoski
Dam Safety Officer

While the NRC's authority is limited to nuclear power plants and other civilian uses of nuclear material, dams play a role in what we regulate. Hydroelectric dams, for example, have supplied backup power for at least one reactor. A few reactors are downstream from various kinds of dams, so keeping the dams safe also helps keep the reactors safe. We do our part in all this by participating in the Interagency Committee on Dam Safety. The federal government founded the committee in 1980 to help create and maintain effective programs, policies, and guidelines to enhance dam safety and security. FEMA chairs the committee. The NRC has lots of company on the committee. Other members include:

- Army Corps of Engineers
- Agricultural Research Service
- Natural Resources Conservation Service
- Forest Service
- Department of Energy
- Bureau of Indian Affairs
- Bureau of Land Management
- Bureau of Reclamation
- Fish and Wildlife Service
- National Park Service
- Federal Energy Regulatory Commission
- Tennessee Valley Authority

We meet formally at least once every three months to discuss dam safety issues, but committee members work together on issues whenever necessary. For example, the NRC works regularly with FERC to inspect safety-related water retention ponds at a handful of reactor sites and evaporation ponds at two uranium mills. Other interactions included sharing operating experience and research results. A typical committee meeting involves members providing updates on major dam safety topics, such as proposed changes to federal guidelines or new training. The other members, including the NRC, provide advice and feedback that reflects each organization's perspective. The NRC worked with other committee members related to the flooding hazard re-evaluations all U.S. nuclear power plants have been working on since March 2012, as directed by the NRC following the accident at Fukushima. We asked committee members to review parts of the re-evaluation guidance related to dam failures. The NRC incorporated the committee's input into the final guidance to nuclear plants. We'll continue to discuss the flooding re-evaluation process, including the results where appropriate, as part of the dam safety committee's ongoing work.

Comments

comment #391207 posted on 2014-06-11 21:29:57 by Public Pit Bull in response to comment #384477

> The Corps is dam good but keeping critical safety information from the public is just not right. The NRC and the Corps think we cannot handle the truth. A dam failure is a catastrophic event and not releasing info on just how bad it would be for those folks downstream, not just nuke plants, is just, well, it's just criminal! What other secrets are you keeping from us?!

comment #384477 posted on 2014-06-04 22:08:34 by Pat

> Thank you NRC for being on top of this critical issue!

comment #383831 posted on 2014-06-04 06:10:27 by Ruth Hall

> NRC doing a great job inded. But need to take some more precautions about Dam safety. Thanks.

comment #384027 posted on 2014-06-04 11:39:27 by Public Pit Bull

> It is a "dam" shame that the NRC is withholding dam failure results This article says the NRC "asked committee members to review parts of the re-evaluation guidance related to dam failures." The NRC will "continue to discuss the flooding re-evaluation process, including the results where appropriate, as part of the dam safety committee's ongoing work." The NRC shares "results where appropriate". The sad thing is they do not share results with the public. The NRC has held several closed meetings with two nuclear plant licensees. These nuclear plants are located downstream from earthen dams on the Missouri River. During these meetings the NRC discussed the results of dam failure analysis on these plants. It is quite obvious that the flooding predicted from dam failure would be catastrophic or the results would be made public. Years ago the NRC calculated that a 46-foot wall of water would engulf

the entire Missouri River basin in the event of dam failure. Yet the NRC has refused to share this information with those folks who do have a definite need to know. These would include State, county, and local emergency response organizations all along the Missouri River. It is time for the NRC to put public safety first and release this “damming” information to the public.

comment #383293 posted on 2014-06-03 14:27:37 by CaptD

The NRC needs to push for "civilians" to be added to the ICoDS, since then all would have to be far more responsive to the public... Dams and levee's offer one of the biggest threats to NPP's and must be protected from both man and/or Nature.

comment #390883 posted on 2014-06-11 12:57:04 by jomynn

Army Corps of Engineers is number 1.

Improving NRC’s Internal Processes

posted on Wed, 04 Jun 2014 20:34:07 +0000

Dave Solorio
Branch Chief
Concerns Resolution Branch

The most effective organizations are constantly evaluating how well their processes work and looking for ways to improve them. The NRC uses many different tools to measure its organizational effectiveness. When we identify improvements that can be made, we try to find the best way to put those changes in place -- and then we measure their effectiveness. In 2006, recognizing the need for standardization to replace procedures that varied by office, the NRC created an agency-wide “non-concurrence” process. The process encourages employees to bring different views to management related to policy papers, technical and administrative determinations, and other agency actions. And to do it as the supporting draft documents make their way through the management approval chain. The process is meant to promote the airing of views before final management decisions are made—in an effort to empower everyone involved and reach better decisions. The NRC is fortunate to have so many talented, dedicated professionals--who may not always agree--and we appreciate their willingness to speak up. We encourage critical thinking and a questioning attitude not just among our licensees, but throughout our agency. As a safety regulator, the NRC recognizes the importance of an open, collaborative work environment, where people can raise concerns and differing views without fear of reprisal. Having an environment where people feel comfortable making varied views known supports our safety mission and makes for better decision-making. My office recently evaluated the effectiveness of our non-concurrence process and used the results to revise the procedure for professional disagreements on draft documents. We feel confident these revisions will improve the process and allow the NRC to make the best possible decisions. Our assessment provided encouraging feedback, but also identified areas where we have more work to do. On the positive side, we are encouraged NRC employees see the process as a way to be heard, understood and responded to. It’s also gratifying to see that most employees are aware of the process and would be willing to use it. On the other hand, some users of the process felt they faced negative consequences, or that their views were not reflected in final decisions. In many respects, the negative feedback was the most useful because it helps us target the areas where further improvement is needed. For one thing, we are looking at ways to provide better training and clarify through that training and the revised procedure what is expected of supervisors who receive differing views, such as providing positive feedback for raising concerns. We are also working to make information on non-concurrence experiences (both positive and negative) more widely available.

Comments

comment #385980 posted on 2014-06-06 13:16:33 by Garry Morgan

It seems there is reported trouble regarding the non-concurrence process. Trouble that equates to retaliation of NRC staff who did not concur with status quo approvals. You say on one hand you are making improvements, then we read in the press that retaliation is being taken against NRC employees who do not concur with the status quo. What is going on?? Here is what is stated along with the

reference, which is repeated in numerous U.S. publications: 1) "Seventy-five percent of Nuclear Regulatory Commission employees who participated in an internal survey said they received poor performance reviews after registering formal objections to agency decisions...many of those surveyed about their own experience submitting formal objections through the program believed there had been negative consequences to doing so." 2) "...three quarters of survey participants who reported poor performance reviews after raising objections, 63 percent felt they were excluded from work activities and 25 percent thought they were passed over for promotions..." 3) "25 percent said they were verbally abused by their supervisors or colleagues after submitting a formal objection, and only 32 percent said their views were fully considered before a decision was made." http://www.nationaljournal.com/global-security-newswire/staffers-at-nuclear-regulatory-commission-report-backlash-after-dissent-20140605 What does this mean? It would seem the NRC is not practicing effective management, communications and management practices which facilitate organizational effectiveness as our civilian nuclear industry regulator. . What say you NRC?

comment #391958 posted on 2014-06-12 16:40:45 by Moderator

We are aware of very few governmental organizations that have a process such as the NRC's non-concurrence program. The NRC began this program to give employees an additional avenue for expressing a different view so we get the benefit of more perspectives. Based on experience to date, we have more work to do and based on the report we are now making changes. Feedback from survey participants shows 77% believe their views were heard by management and roughly 80% would both use the process again and recommend it to others. Other feedback, as referenced in comments below, suggested we could do more to enhance the process for participants. As noted, actions are underway to do just that. We value the input and appreciate the feedback because it helps us target our efforts moving forward. It is our hope that we will successfully address concerns with the changes we are making to the process. We will continue to assess how well these changes work, and make adjustments as necessary. Our goal is to have a process where critical thinking truly is valued. Dave Solorio

comment #391214 posted on 2014-06-11 21:42:44 by Public Pit Bull

Many excellent comments! All DPOs should be made part of the public docket. When talented professional NRC staffers take issue with NRC actions or policy the public should be informed. This would really put legs under the NRC Commissioner's words about wanting "regulatory transparency". Also it would ensure that valid safety concerns are always given proper management attention.

comment #384376 posted on 2014-06-04 19:02:46 by billpks

From page 7: (Note) "1 Out of 39 surveys issued to submitters, 24 responded (62 percent response rate); out of 62 surveys issued to participants, 17 responded (27 percent response rate)." And in Section C on that same page: "In addition, the majority of submitters believed that the rationale for the outcome was not clearly documented and that they experienced negative consequences as a result of submitting a non-concurrence." Now these two pieces of information would leave me as an assessor reaching for my shovel to dig deeper. I could point to other worrisome disparities like this; along with there being no actual response from those whose "leadership commitment" needs to be more in evidence, a member of the public might conclude this assessment will prove of dubious value.

comment #392567 posted on 2014-06-13 09:29:39 by Garry Morgan

Is the NRC correcting the deficiencies which have been noted? Or, are you going to continue with the "song and dance routine" that everything is lovely and the employees are going to be continuously discriminated against and harassed by negative management actions if they do not concur? How much input does the NEI have in advising NRC management of NRC employee non-concurring actions?

comment #384926 posted on 2014-06-05 10:02:07 by billpks

Perhaps what bothers me reading this report is the sense I get of over-confidence in the power of form to pass for substance. It is one form of regulatory capture when a single external entity like a very rich firm, government ministry, or powerful "anti" group can put their finger on the regulatory balance beam so as to unduly influence decisions in their own favor. But there can be a second form of capture, the one where the regulatory staff becomes persuaded they are the final authority on every aspect of their own performance. One example mechanism is the Normalization of Deviance as described by Vaughan about NASA in the Challenger Launch Decision. Might that be in evidence here? Challenger was lost because NASA's Non-Concurrence Process - for agreement on launch readiness - drifted into failure; one burnt o-ring rationalized away at a time over a period of several years. If half the people who used this NRC non-concurrence process report a chilling experience, and 75% of those who managed response to a formal NC Report don't respond to the survey then its time to question your assessment design. I'm not seeing evidence of that pivot. At the end of the day there are still judgment and experience-based decisions which must be made by responsible managers even when a consensus of staff views is lacking - some rate of non-concurrence is to be expected. I know of no formula for judging what is a "healthful" rate; I doubt that surveys over a large population of non-users tells you much. In any elaborate assessment like this one I've learned to give at least half of the risk insight weight to the first finding. In this case that finding is that leadership commitment is wanting of improvement. After reading the full report I ask myself: did the assessors dive deeply into this issue? My conclusion would have to be: No they did not. One of the problems with organization culture management by surveys is when the surveys are used to assess heterogeneous mixtures. It appears that is what is happening here. Stop light coding is another occasion for misrepresenting or unwittingly "burying the lead." As a person in regulatory agency leadership I would be unhappy with this report on several different levels. I hope some such unhappiness exists within NRC.

comment #384286 posted on 2014-06-04 17:06:42 by Nikohl Vandel

Reblogged this on Niki.V.all.ways.My.way. and commented: oh, really?!!! how are they going to improve that whole process where they have to stand up and tell the stupid politicians what they REALLY need to do to this industry in order to protect all of humanity?!!! #TogetherWeRise Come On NRC, I'll try to help you find your voice!

comment #384295 posted on 2014-06-04 17:19:11 by Nikohl Vandel

=) wow, that pdf is very impressive. i appreciate the step by step guide for how people should just be empowered to say waht they need to say in an environment empowered to listen without prejudice to stay on teh mission of the NRC. =) i wouldn't want to have anyone's job in particular there, but I really hope that if there is someone in their position that is failing to do the job necessary to really do what it takes to achieve #RealNuclearWasteConfidence, someone would let everyone else know what we need to change because Fukushima is still not contained, so if it happens here, we will have the same tragedy, let alone the impact on our coastal eco (ecology and economic) systems and the NRC hasn't made that a priority for our Congress to focus on yet. Thank you for all your efforts.

comment #385883 posted on 2014-06-06 10:37:51 by Anonymous

I've submitted both a non-concurrence and a DPO. In both cases, I felt that the agency did not address the technical issues raised, but rather created a bureaucratic smoke screen to avoid having to admit that a mistake had been disposition the issue. When asked about the non-concurrence and a DPO processes, I responded that I felt these processes provided an illusion that the agency valued critical thinking. But the underlying purpose appeared to be to provide an alternative to discussing controversial issues outside of the agency. While ties to my alternative position were subtle, I also felt considerable pressure to go along and support the agency position.

comment #392899 posted on 2014-06-13 16:56:17 by Moderator in response to comment #391214

The NRC supports openness and transparency. Once a Differing Professional Opinion is considered closed, a summary of the case is posted in the Weekly Information Report available on the NRC public website. If the submitter would like the closed DPO background records made public, a releaseability review is performed. Before detailed records are released a number of considerations, such as security sensitivity, must be weighed. Dave Solorio

comment #392902 posted on 2014-06-13 16:59:58 by billpks in response to comment #391958

Mr Solorio, Thank you for the update in response to comments since your initial post. Today I have revisited an article you may be familiar with about the important of leadership accepting and providing for management of conflict in complex organizations - http://hbr.org/2005/03/want-collaboration-accept-and-actively-manage-conflict/ar/1 - crafted for a business setting, I suggest it has its pertinent aspects nonetheless. I have no doubt that given the diversity of circumstances NRC Staff must address, and with allowance for the necessarily large fraction of critique inevitable in correspondence with licensees, the effort to strike a balance regarding the role of dissenting feedback from subordinate staff presents a predicament - a condition which must be continually navigated because there can be no engineered or strictly auditable solution. In the Policy section of MD 10.158, item B this statement appears: "The free and open exchange of views or ideas conducted in a non-threatening environment provides the ideal forum where concerns and alternative views can be considered and addressed in an efficient and timely manner that improves decisionmaking and supports the agency's safety and security mission." The statement appears to be explanatory in nature; it lacks the earlier policy imperatives "support" and "strives." And yet I suggest that from my perspective of stakeholder in the NRC's safety and security mission, the attribute with the highest policy objective status would be this: It is the Policy of the NRC to encourage "concerns and alternative views (which) can be considered and addressed in an efficient and timely manner that improves decisionmaking" There can be no ideal measure upon an Objective which is subject to many variable influence factors. But if the investment is going to be made in having this process and promoting its use, and particularly in training regarding its use, then people deserve to see the process framed as being of central, not incidental value to the enterprise. The confidence people throughout the enterprise place in the availability of this option being warmly accepted by management is not something an audit type assessment can establish. Having taken that position of positive value added - in all circumstances, Staff can provide for the measures of effectiveness on this Return on Objective type investment. Such will not be scalar metric quantities, and they must inform the prime objective better than degree of potential satisfaction assessed by survey. Rather some effort is needed to figure out Figure of Merit type measures (e.g. NCP's per correspondence type, or department; exemplary case studies ethnographically elaborated can be helpful as well). It may be the judgment of leadership that the uncertainties of establishing such measures outweigh their benefit - at which point the MD should be dramatically simplified or eliminated. There can be no middle ground as regards openness to disagreement; nor absence of respect, within those holding disagreeing opinions, that in the end others above them in the Line are responsible to make decisions.

comment #384330 posted on 2014-06-04 18:00:28 by CaptD

To: Dave Solorio Branch Chief, Concerns Resolution Branch Let me say that as someone that has submitted a huge number of technical documents that specifically outlined how Region IV allowed SCE to create a Like-For-Like RSG debacle (at San Onofre Nuclear Power Plant) that has created a multi-billion dollar early decommissioning "problem" that the Utility is now asking the ratepayers to pay for, I feel from the feedback received, the NRC could have cared less! http://www.scpr.org/news/2014/05/06/43954/public-workshop-on-san-onofre-nuclear-waste-storag/ My suggestion to you is to give everyone that could possibly approve a Like-For-Like replacement a pop quiz essay question asking them to explain what is Fluid

Elastic Instability is and what causes it. I know you will be amazed at the responses you receive. I think this could save the American public (and the NRC) from at least one Fukushima type incident, since San Onofre clearly put 5+ million people in Southern California at risk and nobody in Region IV or the Utility even got spanked....

Throw Back Thursday – The Cyclotron

posted on Thu, 12 Jun 2014 13:30:27 +0000

The 60-inch cyclotron (circa August 1938) was an enormous machine for its day. It used a magnet weighing 220 tons (shown here). Dr. Ernest Lawrence would later build a 184-inch cyclotron and go on to win the Nobel Prize in what year? Extra points if you can name the man at the top with a pipe in his mouth.

Comments

comment #391935 posted on 2014-06-12 16:01:05 by Moderator

Anyone able to identify any of the other people in this photo?

comment #392353 posted on 2014-06-13 03:47:08 by Marcus Eriksson

It's Oppi! You can tell from his vivid eyes.

comment #391862 posted on 2014-06-12 13:54:22 by Rich

Ernest Lawrence?

comment #392588 posted on 2014-06-13 10:05:29 by

Robert Oppenheimer is seated at the top with his signature pipe. Earnest Lawrence won the Nobel Prize in Physics in 1939, for "for the invention and development of the cyclotron and for results obtained with it, especially with regard to artificial radioactive elements," according to http://www.nobelprize.org.

comment #391732 posted on 2014-06-12 11:36:42 by Moderator

The correct answers: 1939 and Robert Openheimer.

comment #391713 posted on 2014-06-12 10:58:01 by

The ownerof Perro Caliente in NM

comment #391673 posted on 2014-06-12 09:56:58 by Steven Hutchins

Dr. Ernest Lawrence won the Nobel Prize for Physics in 1939. Extra Credit Question: Is it J. Robert Oppenheimer?

comment #391662 posted on 2014-06-12 09:43:57 by Will Rogers

Nobel Prize in physics in 1939 I think the gentleman with the pipe is Robert Oppenheimer

comment #391663 posted on 2014-06-12 09:44:30 by Fresh

Ah yes, those were meaty days of breaking new ground, new science, accelerating particles. A real team effort. Its exciting just reviewing it. But in retrospect, many would not be so excited to see the radiations and bomb destruction that their efforts led to.

comment #391658 posted on 2014-06-12 09:36:31 by Mahmoud

It is Julius Robert Oppenheimer

comment #393569 posted on 2014-06-14 09:10:13 by Joe

The fellow with the pipe looks like Robert Oppenheimer to me. Joe Gilliland Sent from my iPad >

comment #392348 posted on 2014-06-13 03:45:30 by

It's Oppi! You can tell from his eyes!

comment #392904 posted on 2014-06-13 17:04:10 by billpks

I just want to know which one was the QA Manager!!! ;)

Q&A With the NRC's Chief Information Officer

posted on Tue, 17 Jun 2014 14:08:52 +0000

Darren Ash recently received the Executive Leadership Award in Information Resources Management from the Association for Federal Information Resources Management (a non-profit organization with a goal of improving the management of information, and related systems and resources, within the federal government). [caption id="attachment_5461" align="alignright" width="300"]

Darren Ash[/caption] **Q. In a nutshell, what does your job at the NRC entail?** My job responsibilities are diverse, to say the least. My job ranges from running our data center, overseeing the development of new technology systems, internal cybersecurity efforts, staffing and leadership development, contracting, to maintaining our facilities…and this is just a subset! I also wear other "hats" besides Chief Information Officer. I also serve as the NRC's Chief Freedom of Information Act Officer and Senior Agency Official for Open Government. What I have come to appreciate are the interdependencies among the different topics, and the importance of collaboration, coordination, and communication – between offices within the NRC and external to the agency as well. **Q. How does information management help the NRC achieve its safety and security mission?** I believe we're an agency of "knowledge workers" comprised of an incredibly talented, diverse workforce. Our staff's work, whether it is inspecting, incident response, licensing, finance, or human resource management, is dependent upon having the right information at the right time, in the office or remotely. This means staff needs modern information systems and tools. We already have some important mobile tools in place to support our staff, and based on feedback and a recent pilot, we'll be expanding and improving mobile capabilities in late summer. **Q. What is the biggest challenge for the NRC in terms of technology/IT/information management?** There are two challenges that immediately come to mind. The first is expanding our capabilities to best support mobility. This includes improving tools for our staff, but more importantly, improving how the public interacts with us in an ever-increasingly mobile world. The second is simply keeping up with changes in technology. Technology is advancing and evolving rapidly, and organizations – both public sector and private sector – are challenged to keep up. One approach we are

taking is to focus on information contained in our systems. This will allow us to design or modernize our systems the right way, so that as technology changes we're able to adapt more easily. **Q. What do you think is the most important IT service the NRC offers to the public?** I believe it is access to information about the NRC and what we do as a regulator. We've been listening to feedback, and are committed to making improvements, whether it is an improved search capability, doing a better job at making sure content is current, or simply ensuring that important issues are easy to find. I realize people want access to inspection reports, policy issues, research, and licensing and enforcement actions. As we say in our Open Government section of our website, we see "nuclear regulation as the public's business." That means we strive to have the technology in place to allow the public to access information and be able to participate meaningfully in what we do.

Comments

comment #395997 posted on 2014-06-17 15:13:16 by Moderator in response to comment #395897

> Our blog is published via a widely-used third party site, WordPress. As we state in our disclaimer, moderation and posting of comments will generally occur only during NRC regular business hours, Monday through Friday. That policy reflects the fact that our professional public affairs staff manages the blog, among many competing priorities. Darren Ash

comment #396038 posted on 2014-06-17 16:12:16 by Moderator in response to comment #395895

> We are always looking for ways to improve our communications and appreciate your feedback. The NRC is fairly unique among federal agencies in the amount of information that is made available to the public. We recognize there are challenges in using ADAMS, which is why we created a users group that focuses on how to improve the ADAMS user experience. Anyone interested in joining may do so, more information can be found at http://www.nrc.gov/reading-rm/adams/users-group.html. And anyone having trouble locating what they need on ADAMS can always contact our public document room at 1-800-397-4209. That line is staffed by professional librarians who are very knowledgeable and adept at navigating ADAMS. The Chairman has tasked the staff with looking at how we can improve NRC meetings, and an initiative to do that will be starting soon. Using participation technologies such as webinars will certainly be looked at as part of that initiative. Darren Ash

comment #395895 posted on 2014-06-17 12:36:22 by CaptD

> RE: "I believe it is access to information about the NRC and what we do as a regulator." Darren Ash, you have lots of "arch up" cork to do because unless one is very familiar with the ADAMS system it is almost impossible to navigate! I challenge you to ask a cross section of your fellow NRC workers to find the last San Onofre Region IV AIT Report and the public responses submitted about it, and time them doing it. I predict that most will be unable to find anything except generic info in less than 10 minutes. I also suggest that you ask several non NRC people to do the same thing and then compare the results with the first group. FYI Just trying to get connected to an NRC webinar and getting in line to speak is a huge challenge, which is unacceptable in this day and age. I have been on the phone waiting to speak during a number of webinars only to hear the moderator say, "There are no more callers waiting to speak" so please have some of your staff look into these issues... Thanks

comment #395897 posted on 2014-06-17 12:41:28 by CaptD

> Darren Ash One more suggestion, please install a far better BLOG software package so that readers can better communicate with each other and the NRC, this one is very poor, as is the time required for "moderation" which reduces the very dialogue that this Blog is designed to facilitate!

comment #396150 posted on 2014-06-17 20:14:04 by CaptD in response to comment #396038

> Darren Ash Salute for your reply and the help phone number, hopefully it will be posted on every search page, since its use will give you a good feedback method to gauge changes... Suggest you add a few non-NRC types to the "how to improve the NRC meetings" I'm sure that it will not only only speed things up, but also help everyone to Think Above The Box...

OIG Report Generally Positive on NRC's FOIA Process But Suggests Some Improvements

posted on Thu, 19 Jun 2014 12:30:50 +0000

Stephen Dingbaum
Assistant Inspector General for Audits

The Office of the Inspector General's most recent report – Audit of NRC's Freedom of Information Act Process – is now available to the public. This audit looked at whether the NRC complies with current laws, and how efficiently it does its work, when processing Freedom of Information Act requests. The Freedom of Information Act gives any person the right to request records kept by the federal government. The OIG said the NRC generally follows federal rules and meets timeliness requirements in responding to these requests. But the audit found the NRC could improve through enhanced training, better use of technology, and better adherence with review and approval regulations. The agency would also benefit from establishing controls to ensure more consistency in and better tracking of management reviews. The report makes nine specific recommendations to improve the NRC's process. NRC management stated their general agreement with the findings and recommendations.

Comments

comment #397753 posted on 2014-06-19 13:45:22 by Dan Cronin

> "The OIG said the NRC generally follows federal rules and meets timeliness requirements in responding to these requests." This summary statement (above) is not supported by the OIG report itself which states: "NRC has encountered high FOIA processing costs and has not been meeting the statutory 30-day limit to process complex FOIA requests. As mentioned earlier in the report, approximately 74 percent of NRC's FOIA requests are considered by the agency to be complex."

comment #397736 posted on 2014-06-19 13:23:18 by CaptD

> RE: "The OIG said the NRC generally follows federal rules and meets timeliness requirements in responding to these requests." Perhaps you can share with us what happens when the NRC does not follow the RULES, are employees disciplined and/or fired and if either has actually happened please tell us how many have times this has happened in the past 5 years. This is important because it reflects upon NRC Management, who are getting paid huge salaries to make sure that NRC rules are being followed!

comment #397733 posted on 2014-06-19 13:15:26 by CaptD

> This is VERY surprising since the NRC has refused to provide Senator Boxer and many others with San Onofre documentation that will implicate not only SCE and MHI but also NRC Region IV in what many refer to as a coverup, concerning the 50.59 Replacement Steam Generator (RSG) debacle which put southern Californians at risk of a nuclear incident or worse!. http://www.scpr.org/news/2013/06/12/37678/a-david-vs-goliath-tale-of-how-a-small-environment

comment #399769 posted on 2014-06-21 15:06:04 by CaptD in response to comment #398649

> Please explain how "the OIG found no instances of waste, fraud or mismanagement during the audit" while at the same time they found that the "NRC generally follows federal rules"... I bet Senator Boxer would disagree, since she has asked for documents from the NRC about its investigation into San Onofre's Replacement Steam Generator multiple billion dollar debacle and has been stonewalled by the NRC and she has the authority to have access to them...

comment #398649 posted on 2014-06-20 10:46:37 by Moderator in response to comment #397736

> OIG found no instances of waste, fraud or mismanagement during the audit; consequently, we cannot respond to this question. Steve Dingbaum

---

River Levels on the Rise – The NRC At The Ready

posted on Thu, 19 Jun 2014 20:50:00 +0000

Lara Uselding
Public Affairs Officer
Region IV

NEW UPDATE: Currently, river levels are at 1000 feet 6 inches with levels not expected to increase more than a few inches over the next 24 hours. OPPD is returning the plant to full power. NRC inspectors provided around the clock coverage through last weekend and the agency will continue closely monitoring plant operations and river conditions. UPDATE: Fort Calhoun began decreasing power at midnight, and is currently holding at a reduced power level. The river level is now predicted to crest at 1,002.4 feet on Saturday, which is lower than previously predicted. For comparison, the 2011 flood peaked at about 1,007 feet. Three people from Region IV will begin around the clock coverage today in support of the resident inspectors. Three years ago this month marks the anniversary of the record Missouri river floods. Now, due to heavy rains, the NRC is once again watching rising Missouri River levels impacting Nebraska's Fort Calhoun nuclear power plant, north of Omaha. Cooper Nuclear Station in Brownville is not anticipating a major impact this weekend. Fort Calhoun's procedure requires them to declare a Notice of Unusual Event and be shut down by the time river levels at the site reach 1,004 feet mean sea level. Thursday afternoon, river levels were at 998 and rising. Normally, river levels at the site range from 980 to 990 feet mean sea level. Over the past week, NRC's Region IV in Arlington, Texas, has been engaged in routine calls with the United States Army Corps of Engineers, National Weather Service, Federal Emergency Management Agency, National Oceanic and Atmospheric Administration, states, and local response organizations to understand changes in the predicted river levels and assess potential impacts on the plants. Simultaneously, the NRC has been overseeing actions that Omaha Public Power District (Fort Calhoun) and Nebraska Public Power District (Cooper) are taking to protect the plant against impending flood waters. At this time, river levels at Cooper are not projected to be high enough to require a plant shutdown. OPPD's actions involve the use of sand bags, flood doors, and readying mobile pumps as river levels are projected to rise. They have also ordered equipment to protect certain buildings on site. NRC resident inspectors, who live in the area and work at the plant, have been monitoring the flood preparations. The NRC is sending more staff to the plant to support the resident inspectors and provide around the clock coverage. During the 2011 flood, river levels at Fort Calhoun reached about 1007 feet and the plant remained in a safe shutdown condition. The plant restarted late last year only after extensive flooding improvements and other safety upgrades mandated by the NRC. Fort Calhoun remains under increased NRC regulatory oversight. Region IV will continue monitoring the situation for both plants over the weekend.

Comments

comment #398944 posted on 2014-06-20 17:12:00 by Public Pit Bull

> Gosh, I will be able to sleep tonight knowing that there will be not one, not two, but three additional NRC folks at Fort Calhoun Station soon. This plant is perfectly able to handle the situation without any "help" from the NRC. Just more NRC folks getting in the way of qualified plant operators trying to do their job. Just another self-serving piece of NRC propaganda unleashed by its PR department.

comment #398915 posted on 2014-06-20 16:21:53 by Public Pit Bull in response to comment #398834

> You are spot on! The nuke plants would be the least of our worries if dams on the Missouri river failed. These dams are relatively unprotected from terrorism. The nuclear plants themselves are hardened sites by comparison. The NRC is working to help ensure these plants would survive such a casualty. However, data on the consequences of dam failure flooding is not being released to the public. Why are nuke plants being given this data and not other groups with a profound need to know so that they can protect public health and safety? These groups include FEMA, state, county, and local emergency responders for starters. If just how bad this flooding would be was common knowledge then folks would insist that appropriate action was taken. These actions might include greatly enhancing security at these vulnerable dams; maintaining or upgrading the physical condition of these aging dams; and making sure emergency flooding plans were adequate to help cope with such a catastrophe. This is an urgent matter of national security. Cloaking this matter in secrecy may result in it not getting the attention it really deserves.

comment #398834 posted on 2014-06-20 14:27:26 by Anonymous in response to comment #398701

> Yes that certainly would be a catastrophe. Surely thousands would be killed by the flooding that would ensue. However, the casualties, if any, stemming from any nuclear accident would pale in comparison.

comment #398806 posted on 2014-06-20 14:00:49 by Anonymous

> Forecasts from NWS have revised the predicted crest to about 3 feet lower than the above prediction.

comment #398653 posted on 2014-06-20 10:49:42 by Public Pit Bull in response to comment #398636

> This link should be helpful Don. http://m.sfgate.com/business/energy/article/Study-of-Nebraska-nuclear-flood-risks-narrowed-5555593.php

comment #398701 posted on 2014-06-20 11:50:33 by Public Pit Bull

> Sorry to hear this. Now would be a terrible time for one or more upstream earthen dams to fail. The failure of any one of the upstream dams on the Missouri River would result in a cascade dam failure of all those dams downstream. Not only would Fort Calhoun & Cooper Stations be affected but it would be the worst man-made disaster in US history. Makes these dams a prime terrorist target.

comment #397889 posted on 2014-06-19 16:55:46 by CaptD

Flooding is one thing but dam/levy failures present a entirely different "threat" to NPP because Fukushima proved Nature can destroy any land based nuclear reactor, any place anytime 24/7...

comment #397949 posted on 2014-06-19 18:45:51 by Public Pit Bull

The NRC and the Corps have information on just how bad the flooding would be if an upstream dam or two would fail. Trouble is they are not sharing that info with the public. Several years ago the NRC calculated that a 46-foot wall of water would surge down the Missouri River basin if a dam failed.

comment #399885 posted on 2014-06-21 18:27:29 by Public Pit Bull

How many NRC folks does it really take to make a nuclear plant safe? I feel much safer now that not one, not two, but three additional NRC folks are at the Fort Calhoun Nuclear Station. These are in addition to the two resident NRC inspectors assigned full-time to the plant. This will now allow the NRC to have a representative at the site 24/7. Yes I feel better but isn't this really blatant window-dressing by the Commission? If more NRC folks at the site make things safer we should have over 40 inspectors at each site. There are around 100 nuclear power reactors and over 4200 NRC employees. The simple truth is that the number of NRC employees we really need at each site is zero. Each nuclear plant can handle things just fine. All NRC inspectors do is get in the way of qualified plant operators doing their job. The only time the NRC ever acts it is to come down on a plant after they screw up. They then do an awesome job of dog-piling on the rabbit.

comment #398582 posted on 2014-06-20 09:12:58 by Dan Williamson

"Several years ago the NRC calculated that a 46-foot wall of water would surge down the Missouri River basin if a dam failed." And you can provide the ADAMS accession number for said document? (love the inflated monikers on this blog)

comment #398636 posted on 2014-06-20 10:27:10 by Public Pit Bull in response to comment #398582

Unfortunately I cannot Don. The NRC struck the 46-foot number from the public docket. So much for regulatory openness and transparency. Perhaps the NRC moderator can give us the link to the censured document.

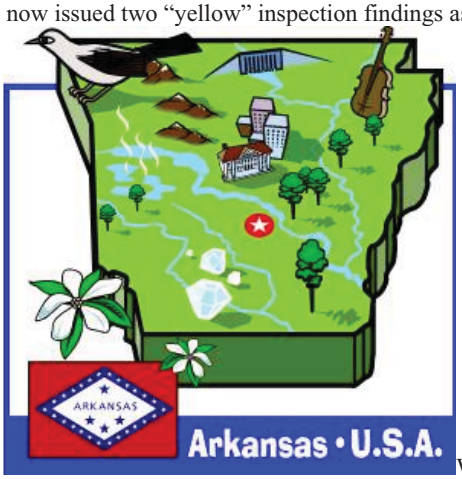
comment #399925 posted on 2014-06-21 19:38:59 by Ari Wahyudi

Flooding is the last thing you will ever want there. I wish everything will be fine.

The NRC Makes a Determination After Last Year's Crane Collapse

posted on Tue, 24 Jun 2014 14:44:29 +0000

Victor Dricks
Senior Public Affairs Officer
Region IV

Last year, the Arkansas Nuclear One facility experienced a tragic incident when a crane collapsed. One person was killed, eight were injured and important plant equipment was damaged. The NRC has now issued two "yellow" inspection findings as a result. The "yellow" means we found substantial safety significance related to the incident. 

Workers were moving a massive component out of the plant's turbine building when the incident occurred. Unit 1 was in a refueling outage at the time, with all of the fuel still in the reactor vessel. At the time, Entergy Operations declared a Notice of Unusual Event, the lowest of four emergency classifications used by the NRC, because the crane collapse caused a small explosion inside electrical cabinets. The damaged equipment caused a loss of off-site power. The NRC's senior resident inspector had driven to the plant to personally survey the damage and monitor the licensee's response from the plant's control room. Here's why NRC decided the incident had substantial safety significance even though both plants were safely shut down and there was no radiological release or danger to the public: Emergency diesel generators were relied upon for six days to supply

power to heat removal systems. The falling turbine component damaged electrical cables needed to route power from an alternate AC power source to key plant systems at both units. This condition increased risk to the plant because alternate means of providing electrical power to key safety-related systems was not available using installed plant equipment in the event the diesels failed. Unit 2, which was operating at full power, automatically shut down when a reactor coolant pump tripped due to vibrations caused when the heavy component fell and hit the turbine building floor. Unit 2 never completely lost offsite power, and there was a way to provide it with emergency power using the diesel generators. The NRC conducted an Augmented Team Inspection. We prepared a detailed chronology of the event, evaluated the licensee actions in response, and assessed what may have contributed to the incident. (Worker safety issues are the responsibility of the Occupational Safety and Health Administration, which conducted an independent inspection of the incident.) The NRC determined that the lifting assembly collapse was a result of the licensee's failure to adequately review the assembly design and to do an appropriate load test. We held a public meeting in Russellville, Ark., on May 9, 2013, to discuss the team's initial findings. From its follow-up inspections, the NRC issued a preliminary red finding to Unit 1 and a preliminary yellow finding to Unit 2. These are documented in a March 24 inspection **report**. NRC held a regulatory conference with Entergy officials on May 1, and after considering information provided by the licensee determined that "yellow" findings were appropriate to characterize the risk significance of the event for both Unit 1 and 2. The NRC will determine the right level of agency oversight for the facility and notify Entergy officials of the decision in a separate letter.

Comments

comment #402186 posted on 2014-06-24 15:17:22 by CaptD in response to comment #402150

> By the NRC only looking at nuclear safety (which should include loss of life if related to operating a NPP, the NRC is just making it easier for Utilities to slide between their various regulators, a situation that does affect nuclear safety for all those living close to NPP's.

comment #402200 posted on 2014-06-24 15:47:25 by dick0645@yahoo.com in response to comment #402150

> Thanks for the prompt response and perspective you provided Mr. Dricks. However, there does seem be a lack of red, yellow, or white findings. The vast bulk of findings are green or No Findings. And there are violations of NRC requirements that are not even written up in inspection reports. There are also Non- cited Violations. The system has way too many layers where stuff can be buried. I think people can relate quite well to green, yellow, and red. The vast bulk of NRC violations fall into the Green category. To the layman this sounds OK when in fact it is not OK but a violation of NRC requirements. Green should be used only when no violations of requirements are identified.

comment #402150 posted on 2014-06-24 13:52:49 by Moderator in response to comment #402105

> NRC issues inspection findings based on their risk significance and effect on nuclear safety. In this case, it was determined "yellow" findings for Units 1 and 2 were appropriate to characterize the risk significance of the effects of the incident on the plant. Worker safety issues are the responsibility of the Occupational Safety and Health Administration, which conducted an independent investigation of the crane collapse and levied fines totaling $175,000 against Entergy Operations, a crane company and other firms in September 2013. Victor Dricks

comment #402105 posted on 2014-06-24 11:52:55 by CaptD

> Victor Dricks One key question is what will it take for the NRC, and especially NRC Region IV to issue RED "findings" since the above failures led to a death and multiple injuries, all because the Operator tried to cut corners? The NRC should immediately issue RED "findings" upon a death or radioactive leak to the atmosphere!

comment #402090 posted on 2014-06-24 11:25:01 by Public Pit Bull

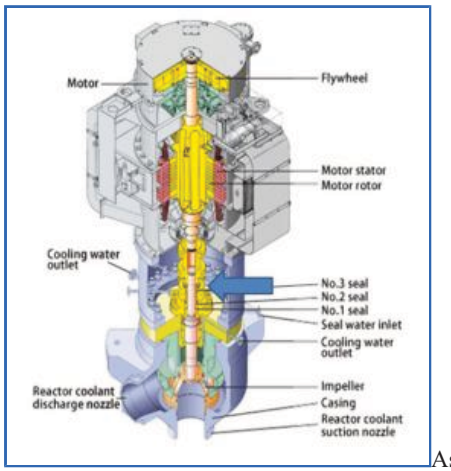
> Here we are a year later and the focus of the utility seems to be on debating the safety significance of this tragic accident. You would think the proper focus would be on preventing such an accident in the future and sharing that information with the industry.

Failed Bolts Bedevil a Nuclear Plant

posted on Thu, 26 Jun 2014 15:03:42 +0000

Neil Sheehan
Public Affairs Officer
Region I

Truly novel issues are, generally speaking, few and far between at U.S. nuclear power plants. Whether it's a specific type of pipe that springs a leak or an electrical relay that goes on the fritz, chances are good that the problem has been experienced before somewhere across the nation's fleet of commercial power reactors during the many decades they have been in operation. An issue that has drawn attention at the Salem Unit 2 nuclear power plant, a pressurized-water reactor in southern New Jersey, has to do with the failure of small bolts contained in four reactor coolant pumps. The bolts, measuring 1 inch in diameter and 4 inches in length, are used to secure a turning vane inside the pumps. These pumps stand about 30 feet tall and provide forced flow of coolant, or water, through the reactor to transport heat from the fuel to the steam generators. The steam generators, in turn, make use of that heat by converting it to steam. The steam is then piped to the turbine

to spin it and generate electricity. 

As can be seen in the graphic, water is drawn upward through the suction nozzle at the bottom of the pump via an impeller. The turning vane directly above the impeller then redirects the water toward an opening on the side, from which it flows into the reactor vessel. When a refueling and maintenance outage began at the plant this spring and evaluation and maintenance work got under way, a number of turning vane boltheads were found in piping associated with one of the reactor coolant pumps and in the reactor vessel. (Similar discovery of these boltheads, albeit just a handful of them, had been observed in two prior outages.) Subsequent reviews, which have now included the examination of all of the pumps, have identified dozens of failed or sheared turning vane bolts in all of them. Each pump has 20 such bolts. (The arrow shows the approximate location of the bolts.) A majority of the failed boltheads, though separated from the bolt shanks, remained in place thanks to mechanical restraints or tack welds. While this is not a significant safety concern in terms of potentially causing a reactor core damage accident, there are several related operational issues. For one, the boltheads are considered foreign material that could have an adverse impact on reactor coolant system performance if they were to impact key components inside the system. For another, the turning vane could conceivably drop down and come into contact with the impeller and impede or halt its functioning. The cause of the bolts' failure remains under review, but one possibility is stress-corrosion cracking. Indeed, the NRC issued Information Notices to the industry in the 1990s regarding this phenomenon. A 1994 Information Notice put out by the agency was designed to make the industry aware of stress-corrosion cracking that caused turning vane cap screws to fail at the Millstone Unit 3 nuclear power plant. Also, a 1990 Information Notice discussed the failure of turning vane bolts at a foreign reactor. In a 1995 Information Notice, the NRC made plant owners aware of the loss of integrity for bolt-locking devices in the turning vanes of reactor coolant pumps at the Seabrook nuclear power plant but for a different reason: flow-induced vibrations. PSEG, the owner and operator of the Salem and Hope Creek plants, will have to not only repair the Salem Unit 2 pumps but evaluate what went wrong. For now, the plant remains out of service while this work is taking place. NRC inspectors and specialists will closely follow these activities. One area for consideration will be whether the problem could have been avoided based on previously available information.

Comments

comment #403863 posted on 2014-06-26 13:04:07 by CaptD

> Great blog article, which points out how small parts can affect reactor safety, if they fail at the wrong time. Not mentioned in this article is what the effect would have been if this reactor had suffered a large earthquake while at full power and most if not all the bolts failed t the same time! I am glad that the reactor is not in operation and urge those looking into this failure to closely examine the radius where the bolt head meets the bolt, since that area is usually a very high stressed, especially if it is rough (on a microscopic level) from machining during manufacturing. I hope that the operator will be required to much more frequent inspections of all of these bolts, in order to assess the lifespan of any new bolts and/or bolt materials they finally decide to replace the old bolts with.

comment #405778 posted on 2014-06-28 13:03:52 by Public Pit Bull in response to comment #404906

> NRC Reg Guide 1.133 (Loose-Part Detection Program for the Primary System) states... "The presence of a loose (i.e., disengaged and drifting) part in the primary coolant system can be indicative of degraded reactor safety resulting from failure or weakening of a safety-related component. A loose part, whether it be from a failed or weakened component or from an item inadvertently left in the primary system during construction, refueling, or maintenance procedures, can contribute to component damage and material wear by frequent impacting with other parts in the system. A loose part can pose a serious threat of partial flow blockage with attendant departure from nucleate boiling (DNB) which in turn could result in failure of fuel cladding. In addition, a loose part increases the potential for control-rod jamming and for accumulation of increased levels of radioactive crud in the primary system." Does not sound like the NRC or the licensee took prompt action considering the potential safety significance of this problem.

comment #405769 posted on 2014-06-28 12:52:50 by Public Pit Bull in response to comment #404906

> Are you saying that even these small boltheads will be stopped by the flow holes in the core support plate? Or are you saying that if they do get through they are small enough not to damage fuel or to cause localized overheating due to flow channel blockage? Also would you address the status of the loose parts monitoring system at Salem? Why didn't this system detect these loose parts and alert plant operators?

comment #403903 posted on 2014-06-26 14:16:43 by steamshovel2002 in response to comment #403820

I bet you Salem was operating outside the pump design and plant licensing like Palisades…this is cavitation and NPSH related?

comment #403901 posted on 2014-06-26 14:13:49 by Public Pit Bull

Why wasn't this problem wrestled to the ground when it was first discovered a couple of outages ago? Foreign material of any kind in the reactor coolant system is a big problem especially of this magnitude. Foreign material can block nuclear fuel cooling channels and actually cause fuel damage due to impingement.

comment #403910 posted on 2014-06-26 14:34:05 by steamshovel2002

Call me crazy, I don't think the NRC used the right reactor coolant pump picture. They got up the one without the diffuser?

comment #404906 posted on 2014-06-27 15:22:23 by Moderator in response to comment #403901

The NRC staff is continuing to assess the performance of plant personnel during previous refueling and maintenance outages as they relate to the failed bolting issue. Results of those reviews will be included in an upcoming inspection report for the Salem plant. The broken boltheads involved are small and analysis shows they would not adversely impact the operability of the plant's Reactor Coolant System. Regarding the possible blocking of the fuel cooling channels, the core plate inside the reactor would prevent that from occurring. Neil Sheehan

comment #404905 posted on 2014-06-27 15:21:47 by Moderator in response to comment #403910

We used a graphic that was similar to the Salem Unit 2 Reactor Coolant Pump because it had a better cut-away view. The arrow correctly points to the location of the bolts. The turning vane is the green component located between the bolts and the impeller. It is a large (greater than 17,000 pounds), one-piece stainless steel device used to optimize flow from the vertical outlet of the impeller to the horizontal outlet of the pump. Neil Sheehan

comment #403835 posted on 2014-06-26 12:11:10 by Dr. A.David Rossin

Bolt problems have bee found over the years. It was the Reactor Owners Groups and EPRI who presented the early experience and data to AEC and NRC and also INPO which helped inform the licensees. NRC confirmed and approved the findings and solutions proposed and implemented by the licensees.

comment #403833 posted on 2014-06-26 12:10:47 by Montgomery, Jeff

Thanks for pointing this out. Had heard that PSEG might have encountered broken bolts on "several" previous refueling turnarounds, and replaced those broken, but not all of them. Anything come up to date that suggests the problem was seen more than once or twice before? Any summary of what the NRC is going to require of the owner in addition to prior to restart, or does it remain an issue where they can repair and restart without explicit NRC assessment and approval?

comment #403820 posted on 2014-06-26 11:49:19 by Mike Mulligan

My blog: http://steamshovel2002.blogspot.com/ Well, another question, why didn't the NRC have the skills and education to figure out the importance of this emergent new information and use their influence to head off a worsening situation? I do get it with the NRC and these utilities with their nothing-ever-matters philosophies and every egregious and unprofessional behavior is always safe. Why can't the agency use their influence and power to head off events like this for the good of the nation and the rate payers? Why is their so much unnecessary secrecy with RCP? I request all plants with identical and similar pumps to be immediately shutdown for inspection… What is the worst sin in this deal, this has been a cover-up! Events like this aren't reportable with the RCP and recirc pumps and disclosed to the public. Why are problems like this so secret? All broken parts like this and inappropriate maintenance issues should be in a LER and discussed thoroughly in a inspection report. This doesn't happen now and you know it! The Palisades PCP broken impeller pieces and blades flung all around in the coolant for over decades is an example of this also. By the way, we are wondering if the broken blades in Palisades and the shutdown for the seal job ongoing now are related? What pump is the seal job? Is the seal job the same pump who was found with two huge missing impeller blade pieces this last outage?

comment #407613 posted on 2014-06-30 14:48:36 by Moderator in response to comment #404906

As discussed in this blog post, the bolting in question is limited to a reactor coolant pump (RCP) design used at only three plants: Salem Unit 2 and Surry 1 & 2. The findings at Salem were quickly shared with Dominion, the owner-operator for Surry, and NRC Region II inspectors to evaluate their significance. The findings to date from the internal inspections of the four RCPs at Salem have not suggested that the failed bolting will cause a significant safety issue. The RCP issue at Salem Unit 2 will be discussed in the next NRC quarterly inspection report, which is scheduled to be publicly issued in early August. The issue was first identified in the middle of the current inspection period, which is why you have not seen information published to date. We intend to share information in this matter openly with the public, just as we would any other potential nuclear safety issue, as more details and analysis becomes available and our technical staff in Region I and NRC Headquarters evaluates this information thoroughly. With regard to formally

reporting this matter to the NRC, to date the condition does not rise to the level necessitating a report under any specific requirements of 10 CFR 50.72. However, PSEG made a voluntary report of this event (see Event Notification 50176 on our website) on June 6, 2014. We would note that our inspectors observed the starting of two of the four RCPs in early May. The pumps started properly with no signs of vibration outside of expected values. Analysis of the corrosion of the bolt heads and shanks suggest that this condition existed for some time with no detrimental impact on the RCPs. We continue to evaluate this issue, and are assessing the Surry units for the potential impact on that plant's RCPs. Your comments also referenced impeller cracking and vessel foreign material exclusion at the Palisades nuclear power plant and questioned whether the recent maintenance outage there was related to it. However, the piece of primary coolant pump impeller stuck in the Palisades reactor vessel is from the "C" pump and it broke off of the impeller in October 2011. There was no measurable impact to plant operation. The plant's owner-operator installed a new seal package and impeller during a refueling and maintenance outage in early 2014. But after plant startup from the outage, part of the new seal package started to degrade. After monitoring the degradation, the company decided to shut down the plant to replace the seal, which was done last week. The cause of the prematurely degraded seal package is under evaluation. Neil Sheehan