

Kim, James

From: Michael Mulligan [steamshovel2002@yahoo.com]
Sent: Thursday, November 08, 2012 3:57 PM
To: Kim, James
Subject: Re: Peach Bottom 2 and 3- 2.206 Petition on SRV

To the PRB board...

The NRC in the new VY IR 2012004 characterizes the buna material as unapproved material.

How come either PB or VY hasn't done a extent of cause/condition investigation with this low temperature unapproved material...how come the NRC hasn't forced their hand? Do we have other bad material in containment...

"Entergy modified the actuator system in 2008. However, in consultation with the manufacturer, Entergy incorrectly concluded that the changes to the actuators were "like for like" replacement of components. Entergy failed to determine that the seal material for the actuator stem nut had been changed from Silicon to Buna-N. This change resulted in the temperature rating of the seal dropping from 400 degrees Fahrenheit (F) to 225 degrees F. During the 2009 refueling outage, Entergy found nitrogen to be leaking from the actuators and determined the actuator stem nut seals were degraded.

However, Entergy's evaluation of the seal incorrectly concluded that the seal material was defective and a new Buna-N seal was installed. Entergy performed a subsequent evaluation of the seal material and determined that the material was Buna-N, not defective, and the failure of the material was due to exceeding the thermal rating (225degrees F) of Buna-N." So PB 3 has incorrect material in their actuator. The VY NRC says the normal operating temperatures caused the degradation of the unapproved material, it failed as expected because the material wasn't designed for normal operating temperatures of the containment, which is totally contrary to what the PB PRB's explained to me.

Honestly, did a engineer research this below... can you get your upper limit temperatures straight or correct (225/250). All it would have taken is make a phone call to Peach Bottom. Hint, one came for a research on the internet on general buna-a and the other actually was pulled out of a nuclear engineering department document and actual vendor specs. I worry about the NRC being accurate about anything...

The new VY inspection report: "This change resulted in the temperature rating of the seal dropping from 400 degrees Fahrenheit (F) to 225 degrees F."

The Peach Bottom PRB response to me: The typical service temperature range for Buna-N material is -40F to +250F.

Kind of sad the PRB falsifying PRB documents...how comes the error always goes on the industry's side. The NRC was negligent with providing safety information to me and it was inaccurate...their research vetting was poor. Do you think the board would ever tolerate a 25 degree inaccuracy on

the other side saying the buna-n material was only good to 200 degrees. You would have caught that and research that repeatedly to make sure.

"In addition, the mechanical overpressure function of the SRV would not be impacted by even a complete failure of the ADS pneumatic thread seals. The mechanical overpressure function actuates the SRV based on a setpoint of reactor pressure."

This is like being in a desert with the perspective of how a operator would see a SRV failure to operate remotely. What is in the procedures about this and how do they train you on the simulator? Would you at this point call the SRV inoperable, would you fear the failure of the automatic operation of the SRV is right around the corner? Would you call the whole valve inoperable for the EOPs, but behind the containment the automatic function was never threatened?

I hate the Soarca on this because they never consider the actuator as a failure mechanism...how the operator would perceive the loss of remote operation and they don't force training and procedure with how Soarca accepts a loss of SRV remote control room operation.

It would totally be irresponsible for a operating crew in such a serious conditions as to use the automatic function of a SRV valve. You never depend on a machine or component to operate in such a risky venture as this. An automatic operation of a SRV without warning has the likely result of tripping HPCI or RCIC, let alone creating another scram at a inopportune time and additional trips of cooling components. There is so much consequences with depending on the random operation of a SRV...you got to have a trained person on operating the switch and communicating to the rest of the crew its operation.

So its an acceptable NRC practice to lose the remote operation of the SRV...how does a plant warn, procedural precautions, a containment temperature precaution explaining at this temperatures you need to expect to lose the capability to remotely operate the SRV. After this point does the EOP explain how to bring a plant under control with the remote operation of a SRV? I hate when the NRC abandons the control room operators with no procedures or training, on a acceptable secret lost of safety equipment.

You know a soarca blackout, these poor guys are trying to deal with this terribly complex accident in the control room. So you are in the deep shit, you are standing there operating the SRVs manually, and then one doesn't open on your command. Then the next one over fails to operate. You have no idea what is going on in containment. What do you do when all of the SRVs don't operate manually because the SRV seals burn up. Does your cognition break down on the complexity of the accident...then you make a big mistake in a panic. Do you based on absolutely no information on trying to troubleshoot what caused the SRVs to not operate remotely manually...do you get it wrong and do the wrong thing. There is no warning light that pops up on the annunciator panel warning the actuator is dead because of a seal failure, but the automatic function is still good.

I mean, this is how the culture tries to so called save the industry...but screws the poor guys up in the control room during a terrible accident. I swear to god, you all answer to those lonely poor guys in the control room to not screw them when we are most at risk...

The PRB's tack with me with the Nov 6 response is the buna material is a approved and acceptable materialwhile the VY NRC inspectors and Entergy says it is bad and it was wrong to put in the buna material. This is the approved material in PB 3 now amd PB2 before they put in new stuff. How come there is so much daylight between the PRB's explanation to me and the NRC Vermont Yankee inspector in his new inspection report? I wished I could get some written explanation to me on the docket explaining how this actuator seal problem of mine positively influenced the NRC and the utility seeing how two NRC official has repeated this same story to me?

Bottom line the bureaucracy's safety processes failed miserably...I don't think you could catch the next one. I think you all operate the power plant through the rear view mirror.

Could these last two e-mails be placed on the docket?

thanks,

mike

From: "Kim, James" <James.Kim@nrc.gov>
To: Michael Mulligan <steamshovel2002@yahoo.com>
Sent: Thursday, November 8, 2012 7:33 AM
Subject: RE: Peach Bottom 2 and 3- 2.206 Petition on SRV

Mr. Mulligan,

Please let me know whether you would like to address the PRB to provide any additional explanation or support for your petition before the PRB makes an initial recommendation.

Thanks,
James Kim

From: Kim, James
Sent: Tuesday, November 06, 2012 3:17 PM
To: 'Michael Mulligan'
Subject: Peach Bottom 2 and 3- 2.206 Petition on SRV

Mr. Mulligan,

Your petition dated October 13, 2012, was assigned to the Office of Nuclear Reactor Regulation (NRR) for review. My name is James Kim, the NRR project manager in the Division of Operating Reactor Licensing (DORL) and I have been assigned as a petition manager.

The NRR Petition Review Board (PRB) met on November 1, 2012, to consider your request for emergency shutdown of Peach Bottom Unit 2 and 3 based on 50.73(a)(2)(v)(D) for an event or condition that would prevent the fulfillment of a safety function. The PRB denied the request for immediate action because there was no immediate safety concern to plant, or to the health and safety of the public.

The typical service temperature range for Buna-N material is -40F to +250F. Prolonged exposure to higher temperatures could cause permanent hardening of the seal with resultant leakage. The normal operating environment for the Peach Bottom seals is well within the typical service temperature range. While the seals may experience temperature excursions higher than 250F in some post-accident scenarios, these excursions are not prolonged and would not contribute significantly to hardening. Further, the condition of the seals is monitored through routine surveillance leakage testing and the seals are replaced at a frequency specified to offset any age or temperature degradation that may be occurring.

In addition, the mechanical overpressure function of the SRV would not be impacted by even a complete failure of the ADS pneumatic thread seals. The mechanical overpressure function actuates the SRV based on a setpoint of reactor pressure. The pilot stage, or first stage, initiates the mechanical actuation of the 3-stage SRV. Essentially, when reactor pressure overcomes spring pressure, the SRV will mechanically actuate. The ADS function is pneumatically operated, and is physically separate from the mechanical setpoint. The pneumatic operator actuation is based on an electronic signal to a solenoid valve. The electronic signal can come from a remote manual control switch, or from an electronic ECCS actuation signal. Therefore, reactor vessel overpressure protection would remain intact.

In accordance with the 10 CFR 2.206 process, the Petition Review Board (PRB) is offering you an opportunity to address the PRB to provide any additional explanation or support for the petition before the PRB makes an initial recommendation. Please let me know whether you would like to address the PRB.

Thanks

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