



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

January 30, 1995

Memo for: Commissioner de Planque
OFFICE OF THE
COMMISSIONER
From: Eileen McKenna

SUBJECT: BRIEFING ON CORE SHROUD CRACKING

On February 1, 1995, the staff will brief the Commission on the status of activities related to BWR core shroud cracking. This is an information briefing. Please see SECY-94-276 (November 10, 1994) for background. Also, you attended a staff briefing in October on this subject, and we heard about the Oyster Creek repair during our visit.

The cracking is due to intergranular stress corrosion. This is a time-dependent degradation process, whose rate depends on factors such as materials and water chemistry. BWRs have been grouped based on expected susceptibility to core shroud cracking into three categories; inspections are needed when plants reach category B - for those most susceptible, inspections (and repairs) are being done as soon as possible. In some cases, the repairs are being implemented even though they would not be necessary right now so that the shroud areas would not need to be inspected in the future (inspections are expensive in time, rem, equipment).

Some of the issues still to be decided are:
BWR Owners Group proposed inspection guidelines of the shroud welds
What type and frequency of inspection is needed for the repairs?
What about other components that are also subject to IGSCC?

Other reactor vessel internals have been subject to IGSCC, for instance jet pump holddown beams. Note also news article about minor cracks in top guide at Oyster Creek. Plans are being developed to address other components systematically.

A number of foreign reactors have also experienced cracking - in fact the shroud problem was first detected abroad. See staff paper, and Nucleonics Week articles. Note that the Germans chose to replace the core shroud rather than perform a repair.

Another aspect to note is that for a few reactors (such as Dresden, Quad Cities), the licensee chose to submit an analysis justifying continued operation for a period of about a year until their next refueling outage (when inspections/repairs would be conducted). These analyses were reviewed by staff (SER issued).

Resolution of these issues has some generic aspects, being handled through BWR Reactor Vessel and Internals Project (BWRVIP) - formed by the BWR owner's group, and some plant-specific. It is unclear from the slides where the staff stands with respect to some of the generic aspects, such as the inspection program guidelines.

In sum, I think the purpose of the briefing is for the staff, in a public forum, to show that this issue is "under control".

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FINDING

SHROUD

- COMPREHENSIVE INSPECTION PLAN
- FOLLOWED INDUSTRY CRITERIA
- USED STATE OF ART INSPECTIONS
- ACCESS & EQUIPMENT PROBLEMS
- ALL WELDS, EXCEPT ONE (H4), MET ACCEPTANCE CRITERIA
- SIGNIFICANT CRACKING FOUND ON H4
 - BOTH ID AND OD
 - BELIEVE STRUCTURALLY ADEQUATE
 - ELECTED TO REPAIR

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A copy of this letter is being sent to the management of area newspapers, radio and television stations, and is being shared with local elected officials. Please share this information with those who report to you.

Dear Editor,

Based on some of the questions we received about a petition filed last week with the Nuclear Regulatory Commission by a local intervenor and Washington-based lawyers, it appears that the regulatory process may not be well-understood by many in the news media. While we have made an effort to be available for questions from the media, and to provide factual information about ongoing plant events, my impression is that we have not provided information to help reporters understand the regulatory process itself. We will try to do a better job of this in the future.

The petition that made news this past week was filed under Title 10, Section 2.206 of the Code of Federal Regulations. This section deals with the process under which individuals can file a request with the Nuclear Regulatory Commission asking for specific action against a licensed nuclear facility.

This section says, in part, that "Any person may file a request to institute a proceeding...to modify, suspend, or revoke a license, or for such other action as may be proper."

~~The key point is the phrase "any person." This means that anybody who wants to take the time to write the NRC can file such a petition. There is no requirement that the person making the request have any connection with the nuclear facility or provide any specific evidence in the filing, and the practice of the NRC is to investigate all petitions and to provide a written response to the issues raised.~~

~~Petitioners such as those who filed the petition this past week know this regulation very well, and they know that each petition is reviewed by the NRC. While the Section 2.206 process provides an important means by which any member of the public may bring a potential safety concern to the attention of the NRC, because the process is informal and open to everyone, petitioners have on occasion used the petition process primarily to gain publicity for their positions, regardless of the actual merit of their case.~~

~~The Section 2.206 process was not intended to be the primary means by which the NRC is made aware of potential safety issues. There are many other more effective mechanisms and processes available for identifying and resolving safety issues at a nuclear facility and for bringing them to the NRC's attention. Therefore, it is not surprising that in most instances Section 2.206 petitions are found to be without merit and denied by the NRC. I believe this fact is evidence that the principal ways of raising safety concerns are functioning effectively.~~

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The fact is that at Brunswick we encourage our employees to come forward with any safety concern either through lines of management, or confidentially through a program we call our "Quality Check" program. Also, employees are encouraged to communicate, if they wish, through direct conversation with the NRC, which has three full-time inspectors on site. I have attached a message on this subject sent earlier this year to all employees at Brunswick.

Further, there are elaborate protections against retaliation for employees who raise safety concerns at nuclear facilities. You should know that retaliation against a person who raises safety concerns is a violation of federal law. Under NRC rules, any nuclear plant worker who wishes to raise an issue in confidence with the NRC can do so, and can receive a guarantee of confidentiality from the agency. This information is in NRC Form 3. This is a federal form that is prominently displayed at every nuclear plant in this country, including the Brunswick Plant. I have enclosed a reduced size copy of the poster for your information.

The fact is that in the nuclear energy business, the avenues to raise safety concerns are very easy to use, because we want to know, and the NRC wants to know, if there are potential safety issues at nuclear facilities. For this reason, allegations are investigated by the NRC, and by us, if we are aware of the allegation. Allegations are investigated regardless of whether they are made verbally or in writing, or contained in a formal petition.

As issues arise, I expect that your reporters will be aggressive in gathering information, and that they will ask us tough questions about how we do business. That is the role of a free press in a free country. If we don't respond and answer your questions fully and in a timely manner, let me know. I will see that we do better.

I also trust that your reporters will ask the same kind of hard questions of those who make allegations against us. Just as you ask us for facts to support our position, I trust that you will ask our critics to support their position with facts, not vague allegations that something bad happened some time in the past.

I do want to comment on the petition alleging that CP&L knew of the shroud crack issue long before it was reported to regulators. As you may know, neither I nor any of my senior managers were at this station in 1984, when this "coverup" is alleged to have begun. However, nuclear plants are required by federal law to keep extensive records of inspections, engineering analyses, and other plant activities. We have reviewed these records, and we have interviewed people who were here at the time. We have found no evidence or apparent discrepancies that would support this allegation.

As we said in our statement last Thursday, intergranular stress corrosion in stainless steel has been an industry issue for a number of years. We have a regular in-service inspection program designed to identify stress corrosion cracking before it becomes a safety concern, and we have replaced a number of components in the reactor system over the past several years because of stress corrosion.

The nuclear industry program is similar to that in the aircraft industry, where components of airplanes are regularly checked for stress cracking, and replaced as necessary.

Because stress corrosion cracking is an industry issue, we have a number of reports dealing with inspections of various parts of the reactor system. Some of these go back to the late seventies. However, none of the records I have had reviewed show that we identified the cracks in the shroud before this summer. I can find no evidence that would point to any kind of coverup. If anyone can show me information that leads to another conclusion, I will pursue it to the fullest extent, because I will not tolerate any kind of coverup, deceit, or lies in the conduct of our business.

We are a part of the community. Our 1100 employees live here and contribute to the betterment of the region. When you have questions about our plant, give us a call. We are happy to talk with you and your reporters, and to show you our plant and how we do business. Finally, when we don't do as well as we could at providing you information, let me know, and tell me how we can do a better job of providing the information you need to cover Brunswick-related issues factually and fairly.

Sincerely,

Roy A. Anderson

Enclosures

Text of letter from Roy Anderson in May 3, 1993 Monday Memo. Monday Memo is weekly publication distributed to all employees.

May 3, 1993

Volume 12, Number 18

To All Brunswick Nuclear Plant Employees:

It's been a busy and exciting week, with all the activities around startup, but we're on our way back to operation. Reaching this point is a credit to your hard work. I am proud of what you have accomplished, and I want to again thank each of you for your effort.

The restart and power ascension plan is very disciplined and designed to take us to full power over the next several weeks. It is very important to "Team Brunswick" that you know where we are in the startup and what the next step is, so that we are ready for it. Please make a point of asking and finding out where we are; our reputation is riding on it.

One event last week disturbs me: the so-called "National Whistleblower Center" letter that surfaced in the media. A special interest group called the "National Whistleblower Center" made an allegation to the NRC for a "former worker" at the plant the day after we received permission to startup the plant. Their letter as presented was a broad-brush attack, I believe, aimed at delaying or preventing our plant's return to service.

Some of the descriptive words they used are: "a corporate breakdown," "defective," "open to terrorist attack," "failure to train thousands," "failure to implement."

An example of one of the so-called issues raised by this group had to do with one of our improvement initiatives involving preventive maintenance. This is a known improvement initiative that everyone in the industry has a program for, and it does not affect the safety of the station.

They took the information out of context, and failed to recognize that this improvement program is only a small part of the PEOPLE, the PROCESSES, and the EQUIPMENT that make up our plant's CHECKS AND BALANCES to ensure SAFE, RELIABLE, ECONOMIC, and ENVIRONMENTALLY SOUND operation. I believe we have the right checks and balances in place today. I also believe our improvement program will make it easier for us to meet our goal of safe, reliable, economic and environmentally sound operation. Making it easier to do business is an economic issue, not a safety issue. The other issues that they brought up were characterized in a similar manner.

On a broader scale, the whistleblower syndrome bothers me because the questions raised attack the integrity of the station, and the station is WE THE PEOPLE WHO WORK HERE. The tactic of broad-brush statements is not designed to fix problems, but rather to make headlines. Improvements are not made by headlines, but rather by each of us, every day, doing our best. I believe these special interest groups' aim is not safe nuclear electric generation, but rather personal gain and the elimination of nuclear electric generation. Such broad brush statements are an attack on our integrity, and I take that very seriously.

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I want everyone at this station to know that if you have a safety concern there are ways that it should be raised, where you can get an answer, and where legitimate safety concerns can be addressed. This can even be done anonymously if you wish, through the Quality Check program.

I also want everyone on this site to know that I take seriously every safety concern raised by an employee. And, I want to assure you there is no place on this site for harassment or intimidation of any individual.

If you have a safety concern, you should raise it through either your management or through the Quality Check program, or if you feel necessary, through the NRC. These are constructive ways to deal with legitimate safety concerns. Getting all the facts out on the table, every day, is not an easy task. It requires trust and mutual respect.

Because our futures are tied together by where we live, and where we work, we must reach understanding if we are to be successful. I believe we can reach mutual understanding of any concern if we work at it.

Now for some good news! Have you ever heard the old saying "imitation is the sincerest form of flattery?" If it is true, and I believe it is, then we should be flattered by a visit we hosted last week from a group representing the Tennessee Valley Authority's Sequoia Nuclear Station. Their plant is shut down, and Brunswick Plant was recommended as a model of the right way to get a plant ready to start up!

We have shown that we can put together an improvement plan and carry it out to the point of starting up our reactor and that fact is being recognized in the industry. I believe that says more than any words about what we have accomplished! I for one think it feels good to be used as a good example of something. I hope you do too.

Finally, I've attached a couple of items for your information. The first is a note Skip Orsler (the Executive Vice President of Nuclear Generation and my new boss) sent to the rest of the Nuclear Generation Group about our restart. He included last week's Monday Memo, but since you received it last week, I'm just attaching his note.

I agree with Skip. Restart of this unit is something everyone in the Nuclear Generation Group can be proud of. The second attachment shows some of that pride and sense of teamwork. It's a letter from Harris Plant. Four pages of signatures are attached to the original letter--another 265 in addition to the ones on the first page. Thank you for all of the hard work that led us to this point.

Now, on with the safe, deliberate power ascension of Unit 2 and completion of the overhaul and refueling of Unit 1

With Highest Regards,

Roy A. Anderson

