Dear Mr. Rouse,

I am responding on behalf of the Commission to the matters raised in your e-mails below. With respect to the third-party report on overpressure protection prepared in response to concerns raised by Dr. Nijhawan, it is now available on our website. As you are aware, the CNSC considers the concerns expressed on overpressure protection as having been resolved completely and we are not planning to undertake any further action in this regard. It is our view that the discussion around ASME codes has been totally resolved by having ASME itself provide us with definitive independent interpretations. The interpretations received are fully aligned with CNSC staff and industry interpretation.

Regarding your questions around the Passive Autolytic Hydrogen Recombiners (PARS) for hydrogen management, there are two separate aspects. The first is the functioning of the PARS itself. While there has not been to our knowledge any demonstrated issue associated with deuterium versus hydrogen in the PARS, we are of the view that it would be at most a minimal concern given that the scenario where the PARS is needed assumes a severe accident where the heavy water coolant has been lost and is being replaced with emergency cooling water (which is light water). Regarding your request that a third party assessment be conducted regarding this aspect, the CNSC will look further into this even though there already has been extensive testing of the PARS performance and that CNSC staff assessments to date are in line with international reviews and decisions. The second issue is whether there are sufficient PARS units and whether they are properly located at a given site. This requires a site-specific engineering assessment. Please note that each site has submitted such an assessment to the CNSC and that the CNSC has reviewed them. There is no requirement for an independent third party review in regard to this aspect, and we do not plan to require one.

Regards,

Marc Leblanc

Commission Secretary, Commission Secretariat
Dear Commissioners,

I became aware, after I sent the below email, that the CNSC had contracted a third party review and the CNSC now considers this matter closed. I take issue to this matter being closed.

I have attached the third party review, and Dr. Nijhawan's rebuttal of comments from the public meeting, which raises many concerns with CNSC and Licencee engineering judgments presented to you the commission members at this public meeting.

My first complaint is that the CNSC did not inform the public of the decision for this review or of its existence. It is not posted on the CNSC website or any mention of this review within the public domain in which these concerns surfaced.

The scope of this review is does NOT address the root concerns brought up by Dr. Nijhawan which was the relief capacity of the primary heat transport system and the adequacy of PARS to prevent a hydrogen explosion similar to the Fukushima accident. Instead the CNSC have wasted the Canadian taxpayers money on a third party review that has little to no bearing on Dr.
Nijhawan's concerns, and on the closure of these Fukushima Action Items.

It is quite clear from the Scope section of the third party review that his concerns are not addressed:

"This evaluation did not consider the points made in the documents with reference to the options used in the design of the overpressure protection system, the accuracy and completeness of the calculations and tests and whether or not the existing systems are adequate. Nor was any attempt made to verify the accuracy of statements made about tests, calculations presented, comments by other parties or description of the actual function and relationship of systems. This background was not readily available for the scope of this report."

The scope of this review is similar to having a summary to a targeted non technical audience, on a technical issue, peer reviewed for only spelling mistakes and grammar.

I would like to reiterate that the Canadian Public and other regulators with Candu reactors need to have these issues independently reviewed and the scope of this review needs to address Dr. Nijhawan's concerns with the closure of these action items.

I consider this matter not closed and ask you the commissioners to please not consider
it closed either. It is my opinion this review is merely a whitewash of these very serious lesson learned from the Fukushima Accident.

Regards

Chris Rouse
Subject: Request For Third Party Review
Date: Wed, 9 Apr 2014 23:16:46 +0000

Dear Commissioners

In the meeting minutes from the August 21 and August 22 2013 public meeting it states:

"The Commission will strongly consider a third-party review of the submissions from CNSC staff and the intervenor."

This was in regards to Sunil Nijhawan's submission. As you are well aware his qualifications are on these matters are impeccable.

Although I have never worked on a nuclear reactor, I have worked on many boiler safety systems in my 17 year career and know the importance of proper pressure relief. As such, I too am very concerned about the inadequacy of the pressure relief on the primary heat transport system which could lead to a containment bypass with unacceptable consequences to the public. I agree with Sunil that nothing should ever burst due to overpressure.

Mr Nijhawan also explained to me that the Passive Autolytic Hydrogen Recombiners (PARS) installed to prevent a hydrogen explosion similar to Fukushima are not only under sized as detailed in his intervention, but that they are qualified for hydrogen gas and not deuterium gas. Due to the heavy water in a Candu, deuterium gas will be produced in an accident not hydrogen and it is equally explosive as hydrogen. It is my understanding that it may be more dangerous having the current configuration of PARS than none at all, and that the PARS are only about half as effective on deuterium gas as hydrogen.

It is also my understanding that other regulators such as South Korea are waiting to see what actions the CNSC are going to take about these issues, as the CNSC is the regulator from the country in which the Candu reactor was designed. Not only do you owe it to the Canadian Public, but you also have a responsibility to the other countries with Candu reactors to have these issues independently peer reviewed.
I sincerely ask that the commission grant this third party review.

Best Regards

Chris Rouse

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