

Date: Mon Jul 24, 2000 3:21 PM
Subject: Re: Question?

Wayne,

When Caius, Emmett and I went up to the site on March 9th and 10th, they presented us with their findings so far and their immediate plans. At that time, they still did not acknowledge a noise problem in the low row U-bends and were prepared to finish their inspections using the standard midrange frequency probe. They were so proud to state that they would plug all the row 2 tubes. This is the same attitude they applied to inspection findings in 1997 - just plug the tubes and move on.

After Caius presented his recommendations (which he sent to you via an email just a little bit ago) on 3/10 to ConEd ConEd stated that they would consider his recommendations. By the way, it took Caius say about 5 nanoseconds to recognize the noise problem.

Over the following days and weeks, ConEd implemented some of our recommendations, but piece meal, and they kept coming to the conclusion that a high frequency probe inspection of all the low row tubes wasn't needed. For example, they went back and rereviewed the 400 kHz data. Then they they applied the high frequency probe but only in tubes in which flaws were already detected. They kept stating that the information they had to date did not justify using this probe in all the low row tubes. They kept saying that the high frequency probe wasn't qualified and thus it shouldn't be used. At this point, NRC stepped in and strongly suggested that they consider how they could possibly justify any reasonable length of operating time without using an improved inspection technique that was applied to all the low row tubes. ConEd considered this and then finally agreed to use the high frequency probe in all the row 2 and row 3 tubes (and some row 4 tubes with bad data). This is near the end of March by now.

Although Caius noted in his email to you Wayne that the result was excellent, we still have difficulties quantifying the amount of improvement one gains using the high frequency probe versus the midrange frequency probe, especially in terms of POD and sizing capabilities.

Wayne, this is based on my memory of the situation. I wasn't very good about taking a lot of detailed notes.

OK to release

Stephanie

>>> Wayne Schmidt 07/24 9:37 AM >>>

Hello all I hope everyone is relaxed following the weekend and ready for another fine week dealing with Con Ed!!

As I was ruminating about several thing Con Ed said on Thursday I went back to take look at the enhanced training that Westinghouse provided on noise in 2000.

This training was prepared in a handout form, dated March 20, 2000. In the handout they say under BACKGROUND

" Review of the data using the setup from the 1997 outage showed no detectable degradation. This setup, however, had the 20% ID EDM notch set to be horizontal. A new set was made setting the 20 % ID signal to be at about 10 degrees (no 40 % notch was available on that standard) and the data showed some characteristics which, based on current understanding may show possible precursor signals, but the data were somewhat misaligned - most likely due to probe whipping (Figure 2-1).

During the course of the subsequent inspection of low row U-bends, three other indications were

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T/9

Continued review of the U-bend +Pt data, including a U-bend +Pt data analysis and LIPD team review of a number of suggestions which were reviewed in the larger context of the data, and incorporated into the training as appropriate. As these various reviews occurred over a period of time, during which the inspection was ongoing, it was decided that the U-bend +Pt data would be reanalyzed with all lessons learned incorporated"

There never was any change to the Data analysis guidelines to address noise either before, during or after the inspection.

The first question - is Westinghouse overstating their action taken to improve the signal to noise problems - it certainly was not taken prior to the outage?

Second - how much of an effect did you all have in identifying the poor signal issue - this is very important - since at the exit Con Ed and Westinghouse took all the credit and to an outside person it may appear that they did this before the outage even began - which is a mis-perception.

CC:

Ex. 6
"tees@[REDACTED] David Lew
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