UNITED STATES NUCLEAR REGULATORY COMMISSION
REGION 1

In re: CON EDISON, INDIAN POINT

An Enforcement Conference was held before Loretta B. Devery, Registered Professional Reporter and Notary Public, at the offices of the United States Nuclear Regulatory Commission, Region 1, 475 Allendale Road, King of Prussia, Pennsylvania, on Wednesday, May 6, 1998, commencing at 12:55 P.M.

PRESENT FROM NRC:
HUBERT MILLER
CHARLES W. HEHL
WILLIAM AXELSON
LARRY NICHOLSON
JOHN ROGGE
SINGH BAJWA
ROBERT TEMPS
RICHARD BARKLEY
A. RANDOLPH BLOUGH
TRACY WALKER
J. BRADLEY FEWELL, ESQ.

PRESENT FROM LICENSEE:
PAUL KINKEL
GEORGE HUTCHERSON
VIC MULLIN
ROBERT ALLEN
CHARLES JACKSON
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ORIGINAL

MR. ROGGE: I think we're ready to recommence for the closed session of the enforcement conference. And there have been some players that have changed. Most of us know each other, but let's go back through introductions again.

I'm once again John Rogge, Branch Chief.

MR. BAJWA: Singh Bajwa, NRC.

MR. AXELSON: Bill Axelson, Deputy Regional Administrator.

MR. MILLER: Hub Miller, Regional Administrator.

MR. HEHL: Bill Hehl, Director of Division of Reactor Projects.

MR. TEMPS: Rob Temps, Senior Resident Inspector.

MR. BARKLEY: Rich Barkley, Project Manager, Branch 2.

MR. HUTCHERSON: George Hutcherson, Chief Engineer.

MR. MULLIN: Vic Mullin, Manager, ConEd.

MR. KINKEL: Paul Kinkel, VP, ConEd.

MR. SAGER: Harlan Sager, Manager of Quality Assurance Programs.

MR. JACKSON: Charlie Jackson, ConEd Manager, Nuclear Safety and Licensing.

MR. ALLEN: Bob Allen, ConEd Licensing.

MR. INZIRILLO: Frank Inzirillo, Manager of ConEd Test Performance.

MR. ROGGE: The reason we're here today is to discuss with you an issue that occurred regarding your Appendix R battery lights. This issue first came to our attention on August 18th when our NRC resident inspectors identified that two of three battery cells had low water level. They then asked for a copy basically of your August 8th monthly check and saw that it was satisfactory.

They then selected another 12 samples and identified two more deficiencies noted. Basically one cell was about 50 percent level, and the other one had two of its three cells low.

The residents inquired of you asking why there is a low level, is there a test procedure or a performance problem. You then launched an investigation to determine what had gone on. Basically our understanding is the test at that

point was determined to be done in about 15 minutes. However, reasonable estimates would indicate about one to three hours be required to do it.

Our NRC Office of Investigations conducted an investigation to determine whether deliberate wrongdoing had occurred. And they determined that deliberate falsification had occurred by a nuclear production technician. In the letter that we sent to you, we informed you of the results of this investigation in a February 25th, 1998 letter, and we asked that you would be addressing basically these four items and some more I'll go into, but the apparent falsification of the emergency lights appears to have been -- I lost my slides that I was reading. But we were concerned with the magnitude of the falsification plus the -- and a second independent check that was done on diesel generator surveillance.

Now, this individual was also helped by another individual on the first. Also the report indicates that the test had been inadequately performed on multiple previous occasions. Basically, the procedure details various steps that have to be done. Apparently, for a long period of

time, they had converted over to some short form of testing, basically using a stick and making rapid determinations.

As a result of that, there was detrimental impact on the equipment, as was identified in the field -- and I'm drawing a blank. The likely involvement of another technician beyond the individual noted in the OI synopsis.

Now, since there were two individuals, one of the individuals that was helping Mr. Vincent was the person who has like performed this procedure, but he apparently was not qualified at the time for that side of the building. So he is also implicated here, but he's not coming in directly that he was the deliberate falsifier.

I want to recap. So once again, we've come to the conclusion that there's a strong likelihood that he'd been doing this for five to six years. It goes to an informal attitude with respect to procedural adherence which developed among the nuclear production technicians which may have been tacitly fostered by your own management.

Qualifications for these individuals apparently are not maintained. That is partly why

it's very hard to tell who was qualified to do what. And that you didn't have an adequate training program for this group.

All these things were highlighted to you in the letter and basically are in essence coming out of that OI report that we need to talk about today.

So the purpose, like I mentioned in the first meeting, is once again for us to come to a common understanding of the facts, the root causes, any missed opportunities to identify, we need those explained, corrective actions, significance of the issues, and a need for lasting and effective corrective actions.

And also probably Charlie will provide the severity of the violations as you see it and the credit that you think you should deserve and any other applications under the enforcement policy.

In the letter that we sent you and the apparent violations that we need to discuss specifically are your failure to complete accurate information as required by 10 CFR 50.9 and failure to comply with the overall license condition, which basically governs the maintenance and the controls

of that NRC Appendix R fire protection regarding monthly lighting checks.

Any questions?

MR. HEHL: Let me just add that as you're aware, we're going to hold a conference with the individual involved from the standpoint of that individual's culpability in these matters, but part of what we need to determine certainly, and we normally do hold licensees accountable or responsible for the performance of the employees, and as we indicated both in the letter and in John's slides, you know, we view this as part of a broader problem which certainly we'd like to have you address as we go through.

MR. JACKSON: We've arranged this afternoon's presentation in the following order: We'll talk about the specifics of the two apparent violations of 50.9. And we notified you in accordance with 50.9 on October 8th, at the conclusion of our investigation, but we've been keeping the residents informed prior to that. We'll discuss the special investigation which was conducted by our Quality Assurance Department, go through the things they looked at and findings they

came up with.

We'll discuss specifics for the test group for the procedural adherence, supervisory oversight, and do some conclusions. But there were a couple of other other questions in the letter which we'll address regarding qualification and training of the technicians and some things that we're go to be doing.

At this point, I'd like to introduce Frank Inzirillo who will start off with the violations.

MR. INZIRILLO: Good afternoon. As has been mentioned, we're here to discuss the events which we notified you of on October 8th, 1997, which resulted in the suspension of two ConEdison employees and the subsequent termination of one of those two.

Those violations consisted of surveillance test of Appendix R emergency lights and also a weekly surveillance test on the emergency diesel generators. In the case of the emergency light test, the review of records indicated that the individuals had not spent a sufficient amount of time in the primary auxiliary building to adequately

complete the performance of the emergency light test. Those two technicians were suspended for one month each.

In the second case, one of the two technicians had failed to perform a double verification that he had signed for on a weekly inspection of the emergency diesel generators in the case of double verifying the position of the switch in the final as left position of a valve. As a result of that, that particular technician's employment was terminated.

I'd like to introduce Mr. Harlan Sager of our Quality Assurance Department, who will discuss the review he had conducted of station surveillance activities as a result of the events.

MR. SAGER: The Quality Assurance Department conducted interviews and prepared reports relating to the identification of the inaccurate record of test results. Collectively a hundred 85 surveillance tests were reviewed. No problems other than the two inaccurate records which have been identified here were uncovered as a result of that review.

There were, however, a number of

recommendations which were made. These reports assessed first the potential for tests to be performed where the data could be recorded without actually performing the test. So we looked at those tests which had the highest probability of that occurring. We conducted a review of all the emergency light tests from July of 1996 through September of 1997. And we looked then at ways of finding other corroborating evidence to substantiate that these tests are actually being performed in the field, and not only by this group, but we're also looking at additional groups.

Interviews were conducted by the testing -- of the testing performance manager, and also by the testing performance manager of the test supervisors, of control room operators, and of one test technician. The information obtained was used to support or refute the observations made from the reviews of these test results.

Extensive documentation was reviewed as part of this effort. This included the test procedure records themselves, the control room logs, the key control logs, the locked valve control sheets, the measuring and test equipment usage

records, and the security access records. For the review of tests which had the potential to be recorded without actually performing the test, a total of 65 test procedures were looked at other than those for emergency lights. These covered six distinct tests that did not involve interactions with other groups and thus are considered susceptible to recording data without actually having performed all the requirements of the test.

These tests were performed from December 1976 through September of 1997. It was from this review that the emergency diesel weekly test procedure, the data from this review was being looked at in which the testing performance manager identified this other example which is part of this discussion. The performance of all of the other tests was reported -- that were recorded was supported by the evidence from this review.

MR. MILLER: Let me just make sure I understand. You looked at all or some samplings of the tests that are periodic, repetitive kind of tests or tasks, surveillances, whatever you want to call it beyond what's done for these emergency lights, but short of things that are done by

multiple parties. Did you check all or just a sample?

MR. SAGER: It was a sample of those, but it was specifically those six tests which had the highest likelihood of giving an individual the opportunity to do that because they involved the least interaction with other groups. So this was not all test results. That was the first area that the reviews were conducted.

There were two other reviews that were completed.

MR. AXELSON: Did the AO logs fall into that criteria you just mentioned?

MR. SAGER: The control room logs?

MR. AXELSON: No, no, the field logs, the logs by the non-licensed operators in the field every eight hours.

MR. SAGER: No.

MR. AXELSON: Why wouldn't that meet your criteria that you just discussed?

MR. SAGER: These were the specific surveillance test procedures --

MR. AXELSON: No surveillance --

MR. SAGER: -- performed by the test

group, not by the NPOs in terms of those daily logs that we were looking at in this group.

MR. AXELSON: Why would you just kind of narrowly chop it to that area? Why wouldn't you expand it to that organization which is frequently looking at repetitive --

MR. SAGER: The focus --

MR. AXELSON: -- observations?

MR. SAGER: The focus of this particular review was on those tests for which the test technicians performed those tests, not those that are performed by the operators.

In other words, if you look at all the tests that are being done, there are different groups that perform them, okay. So this review focused on just that group.

MR. BAJWA: Did you also review the test procedures itself and their validity?

MR. SAGER: What we reviewed was the test procedures and the correlation of was the person where he had to be to record that information. The kinds of information that you're looking for in this particular review to record its validity would be, you know, what's the level of the

acid in the battery and the type of things like that.

So the only thing that they looked at was was it consistent from test to test or was there a trend, did it vary with temperatures. You'd expect it to, but it was not really easy to say was there some other data sheet which had that same value that you could compare it with.

MR. BAJWA: I understand that, but the tests itself, how did you measure the battery acid?

MR. INZIRILLO: The review showed us that there was some areas in the test that needed improvement. For instance, the test permitted for a technician to check the water level, and as long as the water level was between the minimum and the maximum mark that was set. And apparently what on some instances occurred, as long as it was barely above the minimum mark, it was left that way and then time allowed it to drift below. We were able to see that when we went back with some batteries that we had later done some maintenance on and replacements of, we saw that some were -- some batteries had an unusual usage rate because we identified them to be low, we refilled them, and

they were found low a week or so later on a reinspection.

So we identified the fact that the test allowed the technician to walk away from the battery with the water low at the minimum mark was not the best way to do that test. We changed the criteria in the test to say that the water level had to be halfway between the minimum and the maximum. And if it wasn't, then add water. So we've changed that. That is an enhancement that we wanted to make in the procedures as a result of recognizing that that was questionable.

Also, we identified that the acceptance criteria in the emergency light test did not include the inspection of the battery terminals. Although that was in the body of the test, it did not -- it was not identified as acceptance criteria. So we added that as acceptance criteria to the test. And there was a root cause analysis report separate from what Harlan had done that took a broad based look at the emergency lights. And out of there came some recommendations that would cause us to enhance the content of that test.

MR. SAGER: As a result of each of

these reviews, there were a number of recommendations as to what we needed to do to strengthen this area and this program. And I think Frank's going to cover those in much more detail. The second category was the Appendix R that we looked at.

MR. HEHL: Before we leave the testing, you mentioned a number of a hundred 80 tests in the very beginning of your discussion.

MR. SAGER: A hundred 85 surveillance tests.

MR. HEHL: There was a hundred 85 surveillance tests, that was the scope of the review?

MR. SAGER: That was the total of the three independent reviews of, which I've talked so far about the first review.

MR. HEHL: Okay. And the first review included the 65 tests, of which then a sample of six, six of the 65.

MR. SAGER: No, the first review included 65 total tests were looked at. Those were six distinct tests, the same test was performed multiple times.

MR. HEHL: I got it, okay.

MR. SAGER: But those were identified as those most likely to be performed without interaction of other groups.

MR. ROGGE: And your goal was to look for what other instances where people were not doing their --

MR. SAGER: That is correct, were there other instances which looked like people were not performing the test like they were supposed to be performed.

The second review, as I started to say, is the Appendix R test lights specifically. And this covered the period of July '96 through August of '97. These reviews established that multiple technicians did have sufficient time in the area to perform those tests. However, if they were performing it exactly like the procedure, it did raise a number of questions whether or not they were actually following exactly all the details of the procedure, and that was clear.

Then the third review what we did is we took the over 600 different distinct surveillance test procedures and we segregated those by the

different groups which performed those tests. And then from that, we categorized those as to what ways can I determine other objective evidence to support that this test is being performed or specifically identify other objective evidence that would prove it could not have been performed.

So we looked at a sample of those tests. We specifically chose 450 tests that were performed by the test technician group, and we looked at a sampling of 100 tests. Out of that group, in each of these three different categories, the total sample population was one hundred. It varied by which was in each group. And again attempted to determine were there any circumstances which the test could not have been performed, or was there enough objective evidence to be looking at the correlation between entries in the central control room logs, the key control logs, the measuring of test equipment usage, or the secure access logs that the people were where they were supposed to be and performing the steps that were required.

Again, most of these tests do not lend themselves to taking a value and comparing it to something else very easily. And again, this

evidence did not find anything which allowed us to determine that these tests were not being performed. Again, we made several recommendations as a result of that review.

MR. ROGGE: Are you saying that was a success or that it was just indeterminate?

MR. SAGER: I'm saying that it was a success. There was one test in which we could not find any way of substantiating, other than the test data, that the test was performed. So that was the synopsis of the sample that we reviewed of these particular tests related to this test group.

In addition, we put together a plan to periodically review other groups besides the test technician groups to assure that they're performing these tests as we expect them to. We looked at the work order history, we also looked at the open item reports to see if there was a correlation between the actual writing, the corrective maintenance work orders, where discrepancies were found in the test or nonconformance reports. And those supported this also.

In addition, we looked at all of the work orders for corrective maintenance that were

written on all the emergency lights that are in the operating equipment database, and that covered the years 1988 through 1997. For 1988 through 1996, there's a fairly consistent number of these that are identified each year. However, as a result of a number of changes that were made to the test, which Frank talked about earlier and we'll talk about more, and after the increased emphasis on recording the information so that we have a better record of it, in the last quarter of '97, the number of those work orders did increase. But as far as the past history before this event, we saw it was relatively consistent in terms of the identification of problems with these lights from '88 through '96.

Frank also mentioned that there was a root cause investigation that was performed by the fire protection system engineer. And a number of recommendations were also made from that review. So I would like to turn it back over to Frank who will address the continuing efforts and the recommendations of how we're handling those.

MR. INZIRILLO: That root cause evaluation that Harlan mentioned did go on to conclude that there were no increased events of

inoperability of emergency lights as a result of the fact that he had mentioned the increased work orders. Most of those led -- were the result of the fact that the acceptance criteria was changed to include the terminal battery terminal inspections. And those started to show up then as questionable and work orders were written for those, but none of them adversely impacted the operability of the lights as had been determined by that evaluator.

MR. ROGGE: I thought you were always required to look at the terminal.

MR. INZIRILLO: The procedure had a terminal inspection and also steps for cleaning the terminals if anything was found on them, but it did not include them in the acceptance criteria. So if any discoloration was identified on terminals, that was not a test failure. The procedure was changed to include that as acceptance criteria as a result of some reviews of requirements of the test as well as reviews with the Appendix R system engineer for what should be a required acceptance criteria in the test.

MR. ROGGE: When you looked at the work orders before and after, did you see the same

character of type of deficiencies being identified, or were they consistent with what you find with just the stick test, that they battery drops out and you do major maintenance?

MR. SAGER: After we changed the procedures, we saw a lot more work orders being written for erosion of battery terminals at low level than we saw exactly --

MS. WALKER: When actually were the procedures changed?

MR. INZIRILLO: The number of the procedure?

MS. WALKER: When were the procedures changed?

MR. SAGER: The procedure revised for the acceptance criteria?

MR. INZIRILLO: November time frame.

MS. WALKER: November '97, so it was after.

MR. INZIRILLO: After this event, that's correct. It was after this event.

MR. HEHL: Are you going to go through the root causes that you identified? These appear to be the corrective actions.

MR. INZIRILLO: Yes, we'll discuss what we found in the performance of those two investigations. Also some reference has been made to the stick test. And just if I could address that, what we had found is that there were some inconsistencies in the way this test was performed among the technicians. Two of the test technicians, the ones that we're discussing today, had gotten -- developed a practice of using an extension device, a stick, to reach those lights that were not easily reached without some other assistance.

In doing so, they were capable of inspecting those aspects of the lights that needed to be inspected from the position they were at. The one thing they could not do, obviously if they couldn't reach it, is open up the case and inspect the terminals. We had done some field checks to verify whether or not it was physically capable to go around and inspect the lights in the PAB and check those attributes absent the terminal inspection, given the period of time that they were in there, without trying to speed race around the primary auxiliary building. And it was capable to

get around.

As a matter of fact, one person, I did it personally, could go around to each light, check all the attributes, within that time period. Now, I don't want to give anybody the indication that I'm suggesting that is adequate, but we're trying to determine, based on the interviews that we had with the technicians is what they were saying feasible, was there any level of credibility in the statements that they had made to us, even though in the end there was no doubt that the performance was inadequate.

So we attempted to at least validate some aspect of that by going around to the lights.

MR. TEMPS: Can you reconcile for me, we know that this informality of using the stick for the elevated lights came into use. And there is a block for each battery in the PTM 21 I think it is that says that they've checked the battery terminal -- terminals. Now, you've concluded that as far as you can tell, August 8th is the only date that this individual falsified records. But if you've got this practice of using the pole for the remotes and you go to the procedures and they've

signed for checking the battery terminal connections for looseness, isn't that evidence that -- I mean that's what we're saying, when we look at our review, isn't that evidence that it goes beyond just that one day or August 8th? Pretty strong evidence I think.

MR. INZIRILLO: Based on the interviews that we had conducted, the one test technician, Jerry Stipik, had said that he did everything he was supposed to do. That that was basically his statement based on the interviews. The other technician that was assisting him that day, who was Robert Vincent, had at first stated that he didn't necessarily recall all the events of that day, but said that if he was only in there for 15 minutes, obviously he couldn't do everything that the procedure required.

Later, additional questioning of Mr. Vincent caused him to make the statement that it was his opinion or impression that if the lights were working adequately, then the terminals must have been okay. That was a statement he had made. And he admitted to the fact that the inspection of the terminals was not something he had done routinely.

Mr. Stipik never admitted to the fact that there was any aspect of the conduct of the test that he had done incorrectly. Those were the facts of the interviews that I conducted. And the other two test technicians that performed these tests both stated that they did inspect the terminals in some cases by opening the covers and in other cases by using a flashlight. And on some of the cases there's a little hole on the side or you can look through the back and you are capable of looking at the terminals without opening the casing. So the interviews came to that determination.

And we were able, obviously what we did conclude as a result of that August 8th inspection was that clearly terminal inspections did not occur on that day. When we went back and we looked at a full year's worth of tests, both in the emergency light test and the other test that was in question, the diesel test, we did not see any repeat of the behaviors of that day based strictly on looking at security logs and timing. We didn't see any other times when we looked at the emergency diesel test that someone failed to go in during the times that the diesel test was being performed.

We didn't see any other instances of 15-minute inspections, and that's what we asked -- we had done that. I looked at them personally, I asked my test supervisor to look at them personally. I asked QA to do an independent investigation to ensure that in fact what we found was not something that we were missing along the line.

When we went back and looked at this day, there was something about this day that was different than any other time that those tests had been performed.

MR. TEMPS: I would argue that if the test was done correctly, based on when you looked at the records, that there was sufficient time to do the tests, then why would you even need the stick method if the test was being done correctly, if they were getting up on a ladder?

MR. INZIRILLO: There were some examples. On one occasion I had run -- while in the field, I had stopped to talk to some technicians who were doing an emergency light test at one time and they were waiting for maintenance to come up with an up-up, which is a portable device to lift them up into the air to get to the light. So what they had

done in that particular -- in that particular case was that they had gone ahead with those portions of the test that they could do as far as the visual inspection, the water level, the energizing the light, and that would be the only time that at least those technicians had, other than the two we're talking about here, had used a stick was to check the energization of the light, to do all of that, and then had moved on waiting for maintenance to come with the up-up so they could get back to those lights and do the terminal inspection.

MR. MILLER: Do you have some records, whatever you call this portable scaffold being brought out to these locations even on a sample basis, this is what they said and --

MR. SAGER: I attempted to do that correlation on some of them that I looked at, and I could not produce the actual issuance of this tool to them.

MR. INZIRILLO: It doesn't get issued, the maintenance provides it on request.

MR. SAGER: Right. And so they provide generally a person who operates it. So I can't correlate that that person did in fact operate it

that day for that test. Or also there were two other things that caused a problem here. One was that these tests were frequently being done over a span of several days. And secondly, that every individual who may have done some portion of the test was not signing for each of those tests that they did. Only one individual signed.

So as a result of that, when you started looking at who all were the individuals who did this test, what you had is one person said I completed the test, but more than one person may have actually checked some of these aspects of it. So it was, when you added all that together and their times, that there was sufficient time for them to have done all of the activities. We could not determine looking back that they did in fact do everything, but there was sufficient access for that.

MS. WALKER: I have two questions. One, when you say, you know, multiple individuals, does the actual test have individuals sign-offs for each light?

MR. INZIRILLO: No, it does not.

MS. WALKER: So you can't tell like

this person did five, you can't recreate that?

MR. INZIRILLO: That's correct.

MS. WALKER: What did you determine was sufficient time to do the test?

MR. INZIRILLO: I had an individual go out and came back and said that three minutes per light would be adequate to take -- to get to the light and do all the different pieces of the test as identified.

MR. BAJWA: The two interviews determined whether only people who did those tests, that they understood what they're expected to do, expectations were well-known to them?

MR. INZIRILLO: Yes.

MR. HEHL: Well that gets to the root cause I guess.

MR. INZIRILLO: I think in the case of -- in the case of Mr. Stipik, there's some things that remain undetermined. What he actually did that day and what was on his mind, I can't speak to. I can speak to the answers to the questions that he provided us when we interviewed him. He did not admit outwardly that he had misperformed that test.

In the case of Mr. Vincent and the

results of his interviews, they varied a little bit as far as the answers go, but in essence he did at one point in time admit to the fact that if that's the amount of time he was in the building, he can't see how he did the test adequately, but he didn't have adequate recollection of what occurred that day and what exactly he did.

He was not the primary signer of the test. He was assisting Mr. Stipik that day who had responsibility for the test that day. The emergency -- the emergency diesel double verification issue was on the same day, by that same individual. And again, in the interviews with him, he does -- he doesn't speak English clearly, he speaks a little bit of a broken English, difficult at times to understand exactly what he was saying. So at times I would repeat back to him what I thought he might have said to ensure that I had a clear understanding of the intent of his statements. But at no time did he admit to misperformance on either one of those two tests.

The evidence on the emergency diesel generator double verification event was pretty straightforward. He had to enter that building to

do those double verifications. He in fact had signed for them, no one had been in the building during the period of time at which the double verifications were to have been performed. That was pretty clear and open and shut as far as that goes. We went back and looked, as I said before, previous years of those and found no similar instances either of him or anyone else where someone failed to enter an area where they had signed for something.

MR. MILLER: Okay.

MR. INZIRILLO: So in looking at the emergency light tests and identifying the inconsistencies, we improved the procedure. We made it clear to the technicians what the expectations were, including the fact that inspecting the terminals through access ports or with a flashlight in addition was not acceptable, that the terminal inspection was asked to be done, that you open up the battery case and you do that inspection.

We further enhanced that procedure to state where now we use a DVM as opposed to even looking at the indicating meter on the face of the battery pack. So that there's a need to open that up and actually hook up a meter to identify the

voltage on the light subsequent to the energization.

The other issue that we identified was the 60 to 90 seconds on the light. The test says to energize the light for approximately 60 to 90 seconds and then take the voltage reading. What we determined from our interviews is that, one, that no one was timing that 60 to 90 seconds. What they were doing was a subjective assessment. What would happen is you would push the test button on the light, the light would come on, the voltage indicator fields would come down to a new value and it would stay there and pretty much regardless of how much -- how long you held it.

I checked with the system engineer on the system to determine if that was the typical response of that type of battery, and in fact it was. The drop in voltage you're going to see you're going to see right away and any further degradation would occur over a much longer period of time. What they had been doing or what they got themselves to believe was that that's the voltage that we want on this test. So they push the button, they watch the voltage come down, they looked at it as long as it was steady, they recorded that value. So there was

no physical start and stopwatch 60 seconds later record the value. So there was a lack of appreciation of that 60 to 90 seconds.

Whether it was technically required to hold it there that long or not is somewhat irrelevant. The procedure calls for it, they're required to do it. So we discussed a number of those issues with the tests with the expectation of the wording of the test. Regardless of what they may learn about how the equipment operates over doing it for such a period of time, that's not the expectation. The expectation is you do what's in the test. If you have a question about it or you have a better way to do it, then please provide that so that we can make improvements as the case may be.

So we addressed a number of those issues. As I said, we addressed it in the test and with discussions with the technicians and what the expectations are.

And in the area of expectations for job performance and especially procedural adherence, those issues have been communicated to the technicians on numerous occasions during various group meetings and breakfast meetings, we would have

discussions on the importance of their job performance, specifically procedural adherence.

In addition, there had been discussions about the importance of an individual signature and what that meant when you sign a document, and also recognition of the fact that because of the nature of the tests that they would do that they were relied upon to perform these tests without a continuous supervisory oversight when they were doing these tests or inspections in the field.

MS. WALKER: Frank, these discussions that you're talking about, was that since this event?

MR. INZIRILLO: No, it was prior to the event, prior to these events, there had been numerous discussions about procedural adherence and what the expectation was of that.

MR. MILLER: What are you trying to say in that second bullet there?

MR. INZIRILLO: The fact that they were being relied upon to perform their job without someone standing over them continuously and that there was an expectation of their job performance that it was done properly, and that because of the

nature of it and because of the numerous inspections and because they tend to span the plant, you can't have a supervisor following them around everywhere they go.

MR. MILLER: I understand that now that's what you tell them, but what's your own take on it? You're saying that you told people ahead of time, you say you reinforced that this is your job, your job is to follow the procedures, is this -- do you have any other conclusion to draw looking back on this?

MR. HEHL: That's where we get to root causes from your two bullets up there. You can -- I guess you can imply that one of the root causes was a miscommunication of procedure adherence requirements, you know, in the first one and perhaps signature on the second one. I guess I'm interested in what explicitly were the results of your root cause analysis and how do those correlate to those that you describe?

MR. INZIRILLO: Although we communicated the expectations, we did not take advantage of the opportunity for adequate management and supervisory oversight.

MR. MILLER: That's the point.

MR. INZIRILLO: Communication is only part of how you accomplish or get that result. First you tell them and then you've got to go make sure that they're doing it and hold them accountable for what they're doing.

MR. HEHL: So lack of supervisory oversight was one of the root causes?

MR. INZIRILLO: That's correct.

MR. AXELSON: How was this event communicated to the staff, this particular event communicated, the expectations, prior to this event?

MR. INZIRILLO: Discussions with the members of the --

MR. AXELSON: What's happened since this event, how has this been communicated to the staff?

MR. INZIRILLO: We've had additional discussions about procedural compliance. And I'm going to go on and discuss a little bit more of that.

MR. AXELSON: Okay.

MR. INZIRILLO: On the management level, we're continuing to work at improving the

oversight of the surveillance testing process, including field walking of procedure in the field to ensure the adequacy of the direction of the procedures. So that they are doable without question.

Field observations of technicians, attendance at technician training sessions so that discussions of any questions in the content of the procedures or what's expected of the technician in performing the procedures is clearly put forth at the training sessions.

Interviews with the technicians to ensure that there's a clear understanding of the expectations. After this event, each technician was interviewed to not only understand how they may have been involved in an event of this nature, but also to make sure that they clearly understood what was expected of them.

MR. AXELSON: You mentioned attendance at training sessions. Who attended?

MR. INZIRILLO: Me. I went, I attended training sessions.

MR. AXELSON: Do first line supervisors attend training sessions?

MR. INZIRILLO: Yes. What we did was, and something that we're going to discuss later on about training, in order to enhance the training of technicians, we had temporarily suspended their performance of surveillance tests, the ones that remained.

We embarked on a focused training program to cover a number of issues that we felt were germane to the surveillance testing process. Myself and the test supervisors were present at those sessions. They gave the opportunity to have a number of open discussions about what's expected for procedural compliance, what do you do when we have a procedure that may lack some detail but anticipate some level of knowledge on the part of the individual, how do you proceed if you had -- if you have a question about what a procedure step requires. A number of issues, you know, we were able to discuss is that it was clearly understood on the part of the technicians that if they get to any step in the procedure where it is not clear as to what to do or they have any question about what to do, they're to stop, they're to immediately inform their supervisor. Their supervisor can either give

some direction, if he has the ability to do that, or get a hold of me or request a temporary procedure change or whatever it is to resolve the issue. But their first direction is to stop. And we've seen examples of that since the time that we've enhanced their understanding that they will stop and ask questions.

We've made changes to procedures based on their questioning attitude, that has been evident to us. We've conducted some independent checks of security records since this time to give us additional assurance that the message is clearly there as to what our expectation of their performance is. I meet daily with the test supervisor to review issues of pre-job planning, schedule adherence, pre-job briefs, procedural technical issues, anything that may be coming up over the course of the day as to why or why not a particular surveillance test has proceeded on as we anticipated or why they had to stop or what kind of changes may need to be made.

We're getting to the point now where those changes are being requested before the test is scheduled because we're doing -- we're becoming

better at reviewing tests well enough ahead of time, both the test supervisor as well as the technicians, taking a look at things ahead of time so that we're better prepared to go do the test when the time comes.

MR. HEHL: I guess dropping back then, am I to understand that one of the causes for these performance issues coming out of your evaluations were the inadequacy of communications as far as expectations and standards?

MR. INZIRILLO: Correct.

MR. HEHL: Another potential root cause or cause was training and procedures, training of the individuals as to how to conduct these activities and the quality of the procedures.

MR. INZIRILLO: In looking at the training issue, we do not see that to be a cause of this event. The training issue is something that, as a result of reviewing this event, we've identified to be an area that we can enhance, and we're doing that.

MR. HEHL: But you don't see that as a cause for these performance issues?

MR. INZIRILLO: No.

MR. HEHL: Procedure inadequacy, is that a cause?

MR. INZIRILLO: In this particular --

MR. HEHL: Not implementation of the procedures, adequacy of the procedures.

MR. INZIRILLO: No.

MR. HEHL: And then certainly implementation of the procedure, which goes along with the communications of expectations.

MR. INZIRILLO: Correct.

MR. HEHL: And then oversight of field observations.

MR. INZIRILLO: Right.

MR. HEHL: So those are kind of root causes for what you said.

MR. INZIRILLO: As I said before, the thing that's unique about this particular event, obviously in looking at this event, it opened our eyes to other issues that we need to address, but --

MR. HEHL: That's what we want you to do.

MR. INZIRILLO: And we did that, and that was good. I mean if anything, if we would even suggest that anything comes out of an event of such

of this nature is that it causes us to look at other things and improvements in other areas that maybe we wouldn't have otherwise looked at.

But again, there was something unique about this event that on that day, something happened that was different that we did not see examples of on any other day or any other test that we looked at. So when we try to look at root cause, it sometimes gets a little difficult to figure out what happened with those tests on that day.

Now, if you want to look at those other things in the broader view that we looked at and the other things that we identified, definitely there are areas where we need to make improvements and we're going to make improvements. That's why I find -- I'm not -- I can't one hundred percent say that if all of those things had been in place that event would have occurred on that day, and that's the one thing that leaves me somewhat wanting as far as really being able to understand that one day.

MR. HEHL: We're certainly not arguing that the individual or individuals involved here certainly have performance issues. That's a given. I think that certainly is clear from our

investigative activities also.

The thing that we have to kind of deal with also in addition to dealing with the individuals' performance, which puts you in violation of regulatory requirements, we also have to understand, you know, what is your culpability as a licensee in charge of providing oversight, providing communications of expectations with regard to their performance.

And, you know, I think what I'm hearing is that certainly these individuals had to perform these acts and did them incorrectly and perhaps with some intent. But I guess in your reviews, you found there were certainly some things that perhaps contributed from the environment and the standards that were set at the station in this area.

MR. INZIRILLO: That's correct.

MR. JACKSON: You keep asking root cause of the event. I don't think ConEdison is saying that we know the root cause of the event. There are certainly performance issues which Frank has been talking about.

MR. HEHL: Right.

MR. JACKSON: Why an individual --

MR. HEHL: I'm not trying to get you, Charlie, to say what was in this guy's head, why he --

MR. JACKSON: We don't know. We don't have a root cause.

MR. HEHL: Why he took a shortcut, but the question is -- and it goes with your corrective action -- the question is do you recognize, you know, that there are other issues involved here and have you taken action to fix those other issues?

MR. JACKSON: Certainly we're going to be discussing that, but I didn't want you to be under the impression that ConEdison has come up with a reason why this occurred on this date. Certainly ConEdison does not condone such conduct, whether it's at Indian Point or anywhere else in the company, and we take strong action for such kind of behavior.

But in this case, we just don't know why it happened. Perhaps in your investigation, you know, you had some additional information from the individual. We just don't know why. But we certainly are moving on the other issue.

MR. HEHL: Right now I guess the

question came up earlier that you're going to address that this is still focused on corrective actions that focused in the performance group. And I guess are you looking more broadly than that from the standpoint of other types of surveillance activities associated with operator rounds and other things? Is there any insights here that are moving you into looking at some of those other areas?

MR. SAGER: We did one audit of the surveillances that were performed by operators, that was done in January and February time frame this year. And from that audit, there was one observation, but there were no findings associated with those.

However, I will also say that those were primarily surveillance tests that involved operation of major equipment. And so there's lots of interaction with groups so they're not susceptible to people being --

MR. INZIRILLO: Operations has a practice where they routinely review security records to ensure that operators are getting around the plant. We are adapting the same practice to make sure that the area of test technician work

where they're doing things that doesn't involve turning on and off major pieces of equipment that we're also assuring that they're accessing those areas that we would expect them to access for inspection.

MR. HEHL: That's something that was in place and ongoing?

MR. INZIRILLO: In the case of operations, yes. What the frequency of that is, I'm not sure, but I know they do it routinely.

MR. TEMPS: It's in the OADs.

MR. HEHL: It's probably a reaction to the Salem issues in the early '90s.

MR. TEMPS: Exactly.

MR. INZIRILLO: In addition, as far as in the area of supervisory oversight, the test supervisor is routinely coached as to his expectations of his performance. He completed just recently a two-day training course that he was sent on on error reduction. And this particular training course focused on the importance of field observations in reducing personnel errors.

In addition, he has been provided with clear direction for improvements in the areas I

discussed earlier, pre-job briefings, pre-planning of jobs, control of work, and has also been directed to, as I stated, to review security records on a periodic basis to ensure technicians are where they're supposed to be as expected.

The effort has resulted in an increased attention to detail on the part of the test technicians, as has been indicated by the questioning attitude, and has resulted in a number of procedural improvements in that time period. Also, there's been an obvious increase in the number of open item reports written by the test supervisor, which is indicative of his increased field performance or observations.

In summary, following our identification of the events associated with the 50.9 violation, we conducted an exhaustive investigation. The instances were isolated to the ones identified and our notification of corrective actions were instituted which involved the disciplining of the individuals involved. And also we reinforced management expectations to the staff as a result of this event.

As you had requested and as we kind of

discussed here a little bit already, you asked us to also look at the training issue and the issue of training and qualifications. We did identify as part of our review that the training program for the test technicians was an area where we can make improvements.

The test technicians are generally recruited from the nuclear plant operator staff. That position has an extensive formal training program which was taken credit for in their training. The program which existed for the test technicians requires improvement, and we are embarking on improving that.

MR. AXELSON: What technicians are you talking about here?

MR. INZIRILLO: These are test technicians. We have a group outside of operations that performs technical spec surveillance tests.

MR. AXELSON: It would be all INC technicians?

MR. INZIRILLO: No, these are not INC, they're a testing group. They typically do mechanical type of surveillance such as valve strokes, INST tests, readiness tests, HVAC testing,

that type of thing.

MR. AXELSON: The investigation then seems to have narrowly focused, correct me if I'm wrong, it seems that it's this group that needed to be fixed, the investigation has been isolated just to this one group and the corrective action is isolated to that group. Is that kind of what you're saying? I mean why are you -- what makes you think you don't have a problem outside of this group when it comes to procedure adherence and supervisory oversight, meeting standards and expectations, chemistry technicians, HP technicians, all the other technicians?

MR. INZIRILLO: As Harlan had stated earlier, there were some looks at other departments.

MR. AXELSON: I know he mentioned some of that, but how did you conclude that it seems -- you used the word "isolated."

MR. INZIRILLO: The isolated meant that event which appeared to be an intentional failure to perform the procedures on that day as was directed. So from when I look at it from at least my perspective in looking at the performance of those test technicians to ensure that they're doing

what I'm expecting of them, I see that event with all the data that I gathered as an isolated event on that particular day. I couldn't even demonstrate that they had performed the same misoperations on other days. So that level where the amount of time and the failure to enter the --

MR. SAGER: One of the things which I'm sure you're aware of too is when we go watch somebody do something, you see very close tolerances to adherence, the fact that you're observing it. It's not necessarily being done exactly the same way it gets done every time. So what we're trying to do is identify ways in which we can not be there but still provide other evidence of doing that.

Similar to what we did with the test technicians, we'll be looking at the other groups in INC that perform some of these tests. And as part of our ongoing efforts in what we're trying to figure out how do we fold that into some of our reviews. But again, it's not real clearcut how you do that at this point other than the kind of things that we've identified now to try to cross reference and validate that people are where they're supposed to be, that they had the kind of equipment they

needed to use, that they wrote the kind of identification problems you would expect them to write when they see that.

MR. INZIRILLO: There's -- we obviously, as I'm sure the record shows, have had other examples of procedural compliance issues at the station which have been dealt with in the various organizations. Operations has instances, INC has had some instances where we're making efforts to improve training, to improve procedures, to improve communication of expectations on all of those areas.

In this particular case I guess, and I don't mean to give the wrong impression here, I guess I am focusing on that aspect of procedural compliance that affected the test organization and how we can feel confident that that was not -- that we've identified adequately those conditions that we need to improve on. My intention is not to suggest that everywhere else doesn't require any looking or is pristine and this is the only area in the entire plant that we have anything to worry about it.

Even in the training area, we took a broad scope look at other positions in the station

that may have need for improvement in their training programs also. We didn't just look at, okay, here we identified the fact that we have a group of technicians whose training program needs enhancement, we asked for a root cause report to take a look at training across the station and for any other positions that may need improvements in their training program.

MR. HEHL: I don't want to get too far off the track because I think we do have other forums, and we've discussed a lot of these broad issues and we've got meetings scheduled coming up to discuss some of these broader human performance issues and what you plan to do in a broader scope and scale there.

So yeah, I mean I think it's a good point. I'm glad you clarified that although your presentation appears to be focused in this area, you recognize that there are broader issues, but we also I think recognize that.

MR. ROGGE: Frank, I've got a question. Do you think the technicians actually did anything or not that day? Other than just filling out the form.

MR. SAGER: For this particular test that we're talking about?

MR. ROGGE: Right.

MR. SAGER: In looking at how these tests are done, you see a pattern develop.

MR. ROGGE: On that day, did they or did not do it?

MR. INZIRILLO: Obviously, on the diesel generator test, I know for a fact that nothing was done. That on the emergency light test, based on the discussions I had with Mr. Vincent, one of the technicians, it appeared to me that they did do a cursory review of the emergency lights on that day, definitely inadequate, definitely well below expectations. But it was not -- and again, this is just purely opinion now -- it was not a punch into the building and just fill out the paper and leave, that there was an attempt, and it appeared like it was a somewhat of a rushed attempt that they were going to do the test.

MR. ROGGE: The actual physical conditions found with the battery water level, do you think it was reasonable that they would not have

found that?

MR. INZIRILLO: If they conducted the test in the inadequate way that I believe they did, I can see where you could, if you look at one of those batteries, you really have to look close to see the water level. And if you walk by it too fast, you may not be able to adequately ascertain the water level or cause yourself to believe that it was acceptable. Again, I'm not trying to make excuses for their performance.

MR. ROGGE: I want to leave with one more question, making those conditions and going back to the prior test, were you able to conclude that the prior test was done correctly or does the phenomenon you're seeing indicate that that test also wasn't performed correctly? Did you go to that extent? Did you get engineering involved to see how far back this condition could exist within a reasonable time and not have been detected? How many other opportunities is what I'm getting at.

MR. SAGER: We looked at that, but I can't answer specifically to what degree we were able to ascertain that the level change, for example, could have only existed this long.

MR. KINKEL: It could have occurred earlier, but we have no way of demonstrating either way.

MR. ROGGE: There's a reasonable calculation back.

MR. KINKEL: But we also have batteries that use a lot of water because they're in warmer areas and that's somewhat ambient.

MR. SAGER: What we saw when we looked at this is you see a pattern develop because people have to go in and out of the areas, and if you look at each of the tests that we did for Emergency Route Two or Appendix R and one for non-Appendix R, you see a time of going into that room and spending time and coming out to the security access. When I looked at that pattern, it looked like the pattern of what Mr. Stipik did on August 8th followed the test for the PTM test, not the Appendix R. I didn't have a chance to talk with him, I don't know what he was doing. But it doesn't appear to be the same pattern for doing the 49 A or B lights in Appendix R on that day at all that you see that the other technicians or even he did on the previous days.

MR. MILLER: I'm not sure I understand

what you're saying, because I think John started off summarizing the OI conclusions, which among other things included the statement that a number of emergency light tests performed over the previous so many years were not conducted according to the procedural requirements. Now did I hear you say that there was circumstantial evidence that confirms that or the opposite, when you say that there wasn't a pattern?

MR. SAGER: What I'm saying is on the 8th, the pattern of performing the test that they signed for was not there. What the pattern exhibited is a different test, which is also the emergency light test.

MR. MILLER: Different than the one that they're supposed to do?

MR. SAGER: Different from the one that they were supposed to do.

MR. MILLER: You have a statement that says your investigation did not reveal other instances of apparent violations. So you've got two conclusions that come up, two investigations coming up with what appear to be, at least on the surface, with two different conclusions. And I'm just

wondering what your basis was here.

MR. SAGER: What I'm saying is if you look at what rooms you have to go to, how long you roughly spend in those rooms as the pattern if you do test A, you see one pattern; when you do test B, you see a different pattern; when you do test C, you see still a third pattern. And so if you look at among different operators, the duration and the pattern, you see it's fairly consistent for these tests. It's not identical durations because what happens is frequently that he might be in a room doing other things as well, okay. But you do see the general pattern develop.

The pattern of what buildings and rooms they went into and how they came out did not follow what you would have expected for the PTM 49 test that they were doing -- the Appendix R on that date, it followed a different test which they were not doing.

MR. MILLER: How come on previous occasions --

MR. SAGER: On previous occasion, every time I looked at it, it followed that pattern. What I did see when you have multiple operators, you

sometimes found one operator did these rooms and a different operator did the other rooms.

MR. INZIRILLO: It's clear that two things definitely were not being done in clearly compliance with the procedural requirement. One was the 60 to 90-second holding of the light. That was admitted to, because I guess there was an understanding, as had been explained, that what they were looking for was that lower stable voltage reading.

Secondly, that there was a failure to conduct the battery terminal inspections at a minimum as admitted to on the part of Mr. Vincent because he stated that it was his belief that as long as the battery was functioning, or the light was functioning properly, the terminals were intact and acceptable.

Mr. Stipik's interview did not indicate again from his discussions, except obviously the results of the test on that day bear themselves out, that he had conducted the test as written in the procedure. I can only conclude that his performance on the test on previous occasions might have also -- might have also have been inadequate in the area of

terminal inspections. I don't have a fact to show me that and in fact, when we go back and we look at other performance of the test, the timing is adequate based on the three-minute per light rule that would have been able to do all that. So I can -- I can give an opinion, I can't give a fact that would clearly state what would have occurred except for what occurred that day. That I could factually state that it's evident what was not done.

And we did go back and look at it for a year's worth of emergency light tests to see if there was any other similar instances, you know, very quick period of time in an area, we looked at all the emergency light tests, and didn't have evidence of that.

MR. ROGGE: What evidence did you have on how widespread using the stick to do the test was? Did everybody do that, did nobody do that?

MR. INZIRILLO: Two technicians said that they did not use the stick except in the instance of what I suggested where they were going around and then waiting for the maintenance to bring the up-up so they can go up and do the inspections

that they would use it for that benefit. And the other two technicians, Mr. Vincent admitted to the use of it, and as I recall from the statements from Mr. Stipik, he never denied using it. It was -- his statement was somewhat confusing on whether he did or did not use it, but he never denied it. Unless you interviewed him, I guess I can't give you a clear appreciation for trying to understand the answers to the questions, but he was difficult to understand.

As I had mentioned earlier, as we looked at the adequacy of the training and the fact that we wanted to make some improvements, we did temporarily relieve the technicians from the performance of their surveillance duties so that we could conduct a focused training program which provided them with continuing training in the areas of pump and valve theory, the fire protection program requirements, the in-service testing program requirements, technical specifications, design, and licensing basis procedural adherence. They received a one-day training program in error reduction training, and that's just to mention a few of the areas where we provided them with focused training.

In addition, they were to complete certain required reading for station procedures that identified the requirements for such things as procedural adherence. Each went through a personal interview with myself where we discussed standards and expectations and their accountability in meeting those expectations. And subsequent to that, they were put back on for performance of surveillance tests.

The test technicians are currently enrolled now in the nuclear plant operator training program. Although the NPO training program is and will continue to be a key prerequisite for entry level test technicians, we are under the development of a new test program which will provide both initial and continuing training that will be more focused on what we feel are requirements for tests.

MR. HEHL: When is that going to be in place?

MR. INZIRILLO: By the end of this month.

MS. WALKER: You said that the technicians are generally recruited from the NPO ranks. Was that the case for Stipik and Vincent?

MR. INZIRILLO: Stipik was, Mr. Vincent was not. He came over from the performance group and currently, as a result of looking at our training program, and we have suspended him for performing any further surveillance tests, he is strictly now associated with performance of thermography, for example, he has been trained specifically for the area of thermography, and we use him for that area.

MR. ROGGE: The INPO runs a training program, which you have one, it seems that this group did not fall into that training program. Now, you're implementing training, is that going to be an INPO training program?

MR. INZIRILLO: Yes, sir. As I mentioned earlier, we did take a broad look to make sure that this type of situation didn't exist elsewhere, and there were no other examples identified.

MR. AXELSON: You mentioned quickly the 60 to 90-second test, and I think you mentioned that you're not even sure that that was a necessary test. Was it necessary to do the 60 to 90 or was it not?

MR. INZIRILLO: In discussion with the

system engineer, the performance of the battery would be such that once you push the button in, voltage would drop off to some new level. And before it would decay off from that point, it would stay at that level more a period of time longer than 90 seconds.

But my purpose for bringing that up is that our expectation is not that the technician make an assessment as to whether or not that 60 to 90 seconds is what should be there or not. That's what the procedure says, and that's what's required.

MR. AXELSON: And I understand that, but what did your investigation -- is it necessary -- was it a necessary test for 60 to 90 seconds to pass the surveillance?

MR. INZIRILLO: Currently, we've left it that way. I want to get something from the manufacturer, but we have not changed that. So as far as I'm concerned, it's necessary.

MR. MILLER: Okay, let's go on.

MR. INZIRILLO: Unless there are any other questions.

MR. JACKSON: That concludes the licensing summary.

On the two issues that were raised, John, on the violations, basically one was 50.9, we provided you notification in accordance with 50.9 on October 8th, the day after we concluded our investigation, and then we promptly notified Agency representatives when we found the second event. But we had investigated and we had -- the investigator I believe was onsite or we phoned him, and I think Rob, you were notified also of the second event that we found on that date.

We do not -- we recognize on the broader issues that there are performance problems. We do not believe, however, that those were specific root causes for the actual violation. We do not know, as I said before, motivation or specific reason why an individual falsified a record, particularly the second event, we just don't know. But it occurred, and our investigation we believe concluded that it did indeed occur.

Regarding prior compliance with the licensed condition on Appendix R, although there were performance problems in performing the testing fully in accordance with the procedure that we had issued, there was a considerable history of

maintenance activity on the lights. We went back, I believe we said 1988, and looked. We had them average approximately 30 work orders.

MR. SAGER: 39 work orders per year.

MR. JACKSON: So that there was maintenance activity taking place, there was testing activity. There was the potential for that testing activity to be fully in accordance with our expectations. And although we don't have specific instances of that, we do have records from our investigation that testing and maintenance was occurring for the emergency lights for the Appendix R. Those are the two issues.

We have discussed the broader issues of the areas for improvement that have come out of various investigations, and we have taken or are in the process of taking the corrective actions in those areas.

MR. MILLER: I'd like to make some comments here. And first of all, I mean it's good that you had enough of a review here that you were able to find this other instance, you know, of the diesel generator. But just looking at what you prepared here to present, I'm disappointed, because

it appears to me like you are focused too much here on the isolated, too much on you told everybody what's expected.

I guess I would disagree with what's written here on your conclusion page. I would question, just by looking not just at this event but the other instances, that we too often have found, not you, where people are not doing the complete job, are not following procedure the way they should be following procedures, the laxness, the informality, the I'm smarter than the procedure, I know better than the procedure, the procedure is wrong, I know it's wrong.

There's a pattern that's just too strong to conclude that you've adequately communicated what your standards and expectations are with respect to adherence to procedures and strictly following the program. And I think also that it seemed to be more in the give and take and in the questioning that the other very fundamental thing came out which is, you know, getting the feedback. It's one thing to be communicating the standard, but it's a second thing to go find out if the standard is being heard and understood, which

gets you to this question of oversight, which gets you to the question of involvement.

You know, there are very many mechanisms are out there, and most of all line management being involved in the field, but also QA and the other techniques that you have. But I think that the emphasis on this one day, on one day, he did one thing but we told him, we adequately communicated what our standards are, I think that's not right.

You know, I'm just telling you what I feel from not looking just at this, but also the other things that are out there in the way of a record on performance at Indian Point over the last several years. I think it's important for you to recognize that and to face up to it, because I think if you don't, you're not going to be successful.

It's an issue of standards, standards and oversight. Real pure and simple. And I don't know that you have adequately communicated them. I don't know. And again, it bothers me a little bit that it took the give and the take to have you tell us that you recognize that oversight is a piece of it. I'm just giving you my reaction.

MR. JACKSON: Clearly our intent, as you said, was we presented information regarding the specific events and items. It was not our intent to come down and discuss the broader standards and procedural issues which we are addressing at the station.

MR. MILLER: I've held back here a little bit trying to see how it came out. I think that's a mistake. I think you've got to look at this as part of the broader issue at Indian Point. I think if you do continue to piecemeal these things, I think you're going to be missing the boat.

MR. AXELSON: Do you see this as part of the broader issue?

MR. KINKEL: There's no question it's part of the broader issue.

MR. MILLER: It's part of the broader problem. I'll tell you, it's a slippery slope to be on, because your folks can most of the time rightfully argue that the procedure was flawed in some way. Like when we reestablish RHR, I think it was RHR, and you're supposed to set the flow in this range. Well, we know the engineers have said don't do it in that range because that is the kiss of

death because they'll be right some large number of times, but they'll be wrong some number of times and then you're really in trouble. And it's an insidious thing too, because the number of times that they're right just reinforces this sense of invincibility and this sense that I don't have to follow the procedures and then these machines are too complicated to run just all from up here. That's why you have procedures.

And there's a lot out there that's counterintuitive. And so this business of following procedures is there because the industry and we've learned the hard way, if you don't do it that way, you're just setting yourself up for a big problem at some point. So this is the issue at Indian Point. And this is why I guess I'm concerned to hear this, I think it is vital that you see it as part of the bigger problem. Otherwise you're going to continue to undershoot on the fix. I'm just giving you a general reaction to this thing.

MR. HEHL: Just, you know, and going along with this, I mean a lot of the -- you know, speaking in a broader sense, a lot of the things that we've got to work through as far as a licensing

regulator is essentially reestablishing the confidence that you're pursuing these broader issues. And I'll tell you every interaction we have is an opportunity to either reinforce that you've got the message that you're moving in the right direction or it's an opportunity to raise questions again on whether or not you've focused in a very small isolated place.

And so, you know, I would just certainly suggest that you take that consideration in all future interactions with us as, yes, you've got to answer the specific questions, but please take the opportunity to go further than that and communicate to us your sense of where this fits with regard to the broader issues involved.

MR. MILLER: This conference is in some respects more important than the one this morning. The one this morning we've already been down that path 10 times before so we're settling up kind of an enforcement space at the beginning of that meeting. But this meeting has to do with what I think is the more important issue of Indian Point 2, and that has to do with standards with respect to human performance, I mean the more tractable thing.

Equipment problems are harder to spot but easier to fix.

These are things that if you can never, ever feel, especially when you've had lax standards for a long time, that you can tell somebody one time and you solve your problems. This is the one that's going to take you a much longer time to fix. You've got to be looking at this broader issue. Use it as an opportunity to recalibrate the whole station and err on the side of over rather than underplaying the issue when it comes to this whole business of human performance standards. Because there are still people at the station who believe that the issues really are some problem management has, some problem that the maintenance people have, some problem that the engineers have, where it's really it's an issue of standards.

And human performance is the issue in this one and too many of the other instances over the past year. So it's important we communicate. And I'm communicating, I'm telling you what our reaction is to this. Do you agree, Paul?

MR. KINKEL: We heard you. We agree.

MR. JACKSON: We were here about a

month or two ago and we were talking about the general overall performance issues. And I think the standards, communicating the standards reinforcing was the theme that at least we saw in each of the areas that we're working on. It wasn't limited to just one group or one part of the operation, but it was across the board.

MR. MILLER: But you see why I'm reacting to this?

MR. JACKSON: I see exactly. We put this together to answer the mail specifically on the one issue and --

MR. MILLER: I think you've got a credibility problem essentially, but I'm more worried about your getting the station on the right course. That's the most important thing. I'm worried about what you're doing with your employees, that's what I'm worried about. I'm worried about what you're doing to establish the right standard there. The ISA said it's a leadership issue, that's what this really is.

Do we have anymore from our side? I think we have what we need. Appreciate it. We'll be back in touch. We'll see you on site in a week

and a half, on the 18th. Thank you for coming down.

(Proceedings closed.)

CERTIFICATION

I, Loretta B. Devery, do hereby certify that the testimony and proceedings in the foregoing matter, taken on May 6, 1998, are contained fully and accurately in the stenographic notes taken by me and that it is a true and correct transcript of the same.

Loretta B. Devery

LORETTA B. DEVERY, RPR

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LORETTA B DEVERY Notary Public
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My Commission Expires August 13 2001

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