

# ATTACHMENT L

METROPOLITAN EDISON NEWS BRIEFING

March 31, 1979

American Legion Hall, Middletown

Walter Creitz, president Met-Ed

John G. Herbein, vice president for generation Met-Ed

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Walter Creitz:

Ladies & gentlemen, I'm Walter Creitz, President of Metropolitan Edison Company.

We are here today for several reasons, one of which is to bring you up to date on what has happened at Three Mile Island since our briefing yesterday.

We welcome the NRC participation by bringing in senior staff people to work with our engineers in order to get on with the Three Mile Island #2 problem.

We particularly welcome Harold Denton whose press conference suggestion for a coordinated source of information. I think that this makes a lot of sense and I'm sure you will appreciate it too. The NRC is the regulatory body. They are the licensed source. They are the ones that grant us our license and it seems to make a lot of sense for them to be providing you with updated information regarding Three Mile Island #2. We are in close contact with them on a continuous basis and we'll be providing our information to them. Because of this, we have no further scheduled press conferences at this time. We understand that the NRC has a press conference scheduled for 12:30 at the Borough Council Chambers.

At the end of this press conference, we will distribute a statement covering what we are talking about today and in the future we will <sup>(MAKE)</sup> statements available in the Capitol News Service and as previously, our office at the Hershey News Center will continue to be open. You have their phone number. I'll repeat it, 533-7436. Periodic statements will be issued by us at that time. At this time, we would like to give you the update on Three Mile Island #2. Jack Herbein, Vice President of Generation is with us again, Jack Herbein.

Jack Herbein:

Thank you. Through the evening, we've continued to vent the pressurizer of the primary coolant system to the reactor building in order to reduce the size of the gas bubble that is contained over top of the uranium fuel in the reactor pressure vessel. Initial indications are that that has been successful. It appears that the gas bubble has been reduced in size. One of the concerns that we had during the venting is the build up of hydrogen in the reactor building. Because of this concern, we discontinued venting for approximately two and a half

hours during the evening while we analyzed a sample of the reactor building atmosphere in order to determine what the hydrogen concentration was. The results of that measurement indicate that the percentage of hydrogen concentration was at 1.7 percent. Relative to an explosive mixture, that compares to between 4 and 6 percent when you get into the explosive region. So, we, for the initial venting, don't appear to have a problem with achieving explosive mixture in the reactor building. Additionally, we've taken a reactor coolant sample and had it analyzed for ~~efficient~~ <sup>FISSION</sup> product activity which, we did find, indicating that there had been fuel failure. We did, however, find there was no uranium in the sample that was analyzed. No uranium or fuel was found in the sample of the ~~reactant~~ water that circulates through the reactor fuel. We are formalizing our organization and procedures and, of course, are interfaced with the various assistance that are coming from all parts of the country to lend us a hand with the tough job we have ahead. Presently, we are making-up to the borated water storage tank which is a supply of injection water that we used to flood the core following the trip early on Wednesday morning. <sup>H<sub>2</sub>(?)</sup> Mlaburtin is providing boric acid to replenish that tank. I understand that approximately 50,000 gallons have been added since yesterday to that tank. So, it stands ready in an emergency, if the stable condition we have now should deteriorate, <sup>ies</sup> to be injected into the reactor core to provide the core cooling necessary. With regard to the releases that are taking place from the auxiliary building, they do continue at about the same level we had yesterday. They are being very carefully monitored by our on-site and off-site teams, which have now been supplemented with additional monitors and technicians. Again, we find those levels the same as they were yesterday. We expect that those releases will continue for the next several days. We are making the effort to find and contain the source of radioactive gas leakage to the auxiliary building which in turn is being picked by the ventilation system and exhausted through the plant stack. To date, we have

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found that there may be a difficulty with the waste gas compressor or with a leak in piping system. We believe this may be a part of the reason that the gas continues to escape into the auxiliary building. This is a pretty significant effort. I think our people have done a fine job. We are getting a lot of help now. I know there has been concern about conflicting information that we may have appeared to put out in the initial phases of the incident. I'd like to clarify that. We intended to tell the press and, of course, the country, to the best of our ability, what we thought existed at the time we were reporting to you. I know that I had said previously that we thought we at this time would be on decay heat system cooling. Of course, we are not. Continuing in a stable condition while we get a better understanding of this bubble over the core. This is the first time, I guess, that anything of this magnitude has occurred. We think that it is prudent to go step by step. While certainly the picture is different today than it was two days when I reported to you.

(Explanation and plea to the press crowd concerning orderly conductiveness of the press conference.)

Question: Mr. Herbein, could you please explain to us in simple terms, step-by-step, how you will be able to bring this plant to a cold shut-down and when you now anticipate that will occur?

Herbein:

The time duration is strictly an estimate. It could be several days or it could be longer than that. The step-by-step procedure involves a continued venting from the pressurizer out into the reactor building and of course, a continual monitoring for the hydrogen build-up in the reactor building. Then subsequent calculations to determine on a daily basis the size of the gas bubble. Once that gas bubble has been reduced in size to where it's no longer a danger of vapor binding the reactor coolant pumps when we lower pressure, or

would be stopped today, in the next 24 hours. Now you say that you expect those emissions to continue for the next several days. Why?

Herbein:

Well, I certainly, I certainly don't disagree with Mr. Denton's statements. Certainly yesterday, I had hoped that by today the gas release would be terminated. It is exceptionally difficult to look at all the possible sources of gas release to that vent to gain an understanding of the exposure involved in verifying the possible source and then once that is done, going in and taking steps to isolate it. We've got to monitor our personnel exposure-<sup>and manage</sup> key consideration.

Question:

48 hours ago, you stood over at Hershey and told us that everything was okay and that not to worry folks ..... Question is that were you, your corporation, the nuclear industry ill-repaired to handle something of this nature when the regulations don't prepare to handle something of this nature and if not, how do.....

Creitz:

I think that we're into something that is a different ballgame than we had expected. I don't think that I've seen anything that indicates that we are not prepared to handle what we've found ourselves involved in. I think the Nuclear Regulatory Commission has responded. I think that the industry has responded. Our engineers and manufacturers stand ready to assist us. And to date we have not given excessive exposure to any member of the public.

Question:

The fact that you have been able to flush out some of the bubble already does that mean to say that the bubble is down to a level of the pipes that take the coolant in and out?

Herbein:

When we initially started the flushing process to remove the bubble, it did

appear that the bubble extended from the head region to the area just above the coolant pipes. It now does appear that that bubble area has been reduced in size. I don't have an exact dimension, but it is perhaps two-thirds the size that it was yesterday and now we've got more water above the core up in the region of the (interrupted)

Question:

And the fuel is all underneath?

Heine:

That is true.

Question:

Would you rec<sup>p</sup>itulate for me how many redundancy cooling systems are built into this reactor and how many have failed or how many are still holding up?

Heine:

Well, we'll go through the number first of all and none of them, let me say, failed. There's the normal react<sup>OR</sup> coolant system with the circulating pumps which we are using now to remove the decay heat from the core. In addition to that, there are three high-pressure injection pumps. None of those have failed. They stand ready to inject water from the borated water storage tanks as I mentioned. In addition, there are two low-pressure injection pumps. They also stand ready should we depressurize the system. They are low-pressure high volume pumps. Finally, there is a static system, the core-flood tank system, which stands ready to inject<sup>water</sup> should the pressure go below 700 lbs. Now in addition, all those pumps are backed up by diesel generators to protect us from any power loss to the reactor site.

Question:

What is this continued gas venting mean to the people who are living directly in the area?

Heine:

The gas venting that is taking place in the reactor building is not being

released into the environment. The kinds of gas that we are seeing at the plant vent come from the auxiliary building complex and, we believe now, the gas vent header <sup>(?)</sup> system which actually collects radioactive gas in the support systems and compresses (interrupted)

Question:

How much radioactivity is getting out?

Herbein:

The degree of radioactivity that is being released is the same that we've seen for the last two days. The levels that we are obtaining at the site boundary are an average of continue to be 3 to 4 to 5 millirem per hour. Now we have seen occasional ~~spikes~~ spikes that are the result of the wind gusts that do go up to 14 or 15 millirems per hour a dose. Those are intermittent and they only last a matter of minutes.

Question:

Could you give us the range of options we have to get rid of that bubble and finally assess the possibility of danger .....

Herbein:

I'm not really prepared to go through a technical dissertation. I can say that the most effective and the best way to vent it, we believe as .....believe, is the method we are using, <sup>specific</sup> degasification by the pressurizer vent system into the reactor building. We believe that that is the best of the options available.

Question:

When you were building this system's plant, designing them and everything, did you ever have any kind of ~~scenarios~~ scenarios or any kind of rehearsals or any thing in your mind that what is actually taking place might happen? Or is this a whole new ballgame?

Herbein:

Certainly the procedures to initiate the core cooling systems which I have just

described, have been in existence for some time and have been thoroughly rehearsed and our understood by all the operators. Perhaps the single thing that we may not have anticipated is the buildup of the gas bubble over the uranium fuel.

Question:

In the days right before the first accident on Wednesday, were you aware of any type of problems in Unit 2?

Herbein:

When you talk about problems, I'm not sure what you mean. We were aware of the need for some corrective maintenance on plant components but, that always exists. The Nuclear Regulatory Commission had identified some improvements that were required for our protection system, but they also had done that on a number of other reactors in the U.S. today. There were not unusual problems at Unit 1 that we had identified?

Question:

How many people are inside the building? Are they all your people? and what are they doing? Just watching dials or what?

Herbein:

The people in the building are not all Metropolitan Edison people. We've got senior consultants. We've got Nuclear Regulatory Commission people that are present. They are reviewing the operating procedures before they are actually executed and in addition providing advice and <sup>c</sup> ~~con~~<sup>sel</sup> for each step that we take. Finally, we are looking at the back-up procedures that we would intend to follow if we lost the reactor coolant pump which is currently removing heat from the core.

Question:

About how many people would that involve?

Herbein:

I would say in the control room complex, approximately 30 to 35.

Question:

I just want to ask you to clarify something. As to where the hydrogen was that exploded? Was it in the bubble? Was it in the other building? Was it in the container? And what are the probabilities of it happening again?

Herbein:

The hydrogen that exploded, we believe, was outside the container. It was in the reactor building. We are not certain it was an explosion. There is a possibility that there was one. That hydrogen, we feel, was emitted from the radiolytic decomposition of water in the presence of gamma rays.

Question:

Is it possible that the plant is so damaged that they'd never be able to start up again? And where.....Unit I and 2 fuel generators?

Herbein:

The plant is damaged. The core is certainly severely damaged. I don't personally believe that the plant is damaged <sup>to the point</sup> that it can't start up again. Obviously, we have a big job ahead of us to decontaminate and restore the ~~coolant~~ <sup>coolant</sup>. With regard to the replacement energy, we do belong to the Pennsylvania, Jersey, Maryland Power Pool and naturally the power to our customers will be provided by the member utilities.

Question:

Last night, Mr. Denton said that it would days before anything would be done to the plant to affect the bubble. This morning, you say that <sup>overnight</sup> the bubble has reduced in size. Would you explain those differences?

Herbein:

I guess I should qualify my statements. Initial calculations appear to us to

have reduced the size of the bubble. We have not conferred with the Nuclear Regulatory Commission to have a reverification of our calculations.

Question:

But, something deliberately was done overnight to physically reduce the size of the bubble?

Harbein:

And we did that with the full knowledge and concurrence of the Nuclear Regulatory Commission.

Question:

Did this happen last night after Mr. Denton held the news conference?

Harbein:

I'm really not aware.

Question:

Have any workers been exposed to excessive levels of radiation?

Harbein:

Yes, we've had to date 4 overexposures and I'd like to put that into perspective. The allowable limit in a quarter is 3 rem<sup>S</sup>. We've actually given three of the workers between 3.0 and 3.5 rem<sup>S</sup>. I think the fourth worker received in the neighborhood of 4 rem<sup>S</sup>. So, we had exceeded the quarterly exposure limit for the employees. However, the annual exposure limit of 5 rem has not been exceeded for anyone to date to the best of my knowledge.

Question:

It sounds like you have initiated a procedure that <sup>(you think)</sup> will get rid of the hydrogen bubble. Is that correct?

Harbein:

That is correct.

~~Question:~~

Question:

You have ruled out then for the moment possible other ways to do it. Mr. Denton was talking last night about increasing the pressure that will collapse the bubble and he talked about blowdowns to get rid of the bubble, but you have decided (interrupted by Herbein)

Herbein:

I think you may be describing some of the back-up procedures that we've jointly discussed between NRC and Met-Ed that have to do with action that would be taken in the event that the primary circulating pump was taken out of service.

Question:

Physically, how are you getting the bubble out? Are you decreasing the pressure to let it go down the cooling pipes?

Herbein:

Actually, we are degassing the bubble by spraying water into the pressurizer. The gas then comes out a solution in the top of the pressurizer and from there through an open<sup>vent</sup> the gas then travels into the reactor building.

Question:

Could you just clarify simply whether you are saying that the possibility of a meltdown is decreasing and is the possibility of an explosion increasing?

Herbein:

Well, I think as we continue on here, that the possibility of a meltdown is decreasing. We are getting a better understanding of the physical parameters that we've had, a better understanding of the equipment operability, and the procedures being required to take the plant to the cold shut-down conditions. From that standpoint, I think the meltdown possibility is certainly being minimized as we go along. With regard as to the possibility of hydrogen explosion, as I indicated, the threshold there is 4 percent

concentration in the reactor building. We are monitoring that. Naturally, as hydrogen is released to the building and we get closer to the 4 percent the possibility of an explosion increases. But to insure that we are prepared for that, we've been running our hydrogen recombiner which is a device that will be connected to the reactor building atmosphere and in turn would recombine the hydrogen and oxygen into the water form and in so doing, reduces the percent of hydrogen in the reactor building.

Question:

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Herbein:

There is not meltdown in progress. Secondly, the rods that ~~is~~ shut the fission process down, were inserted immediately Wednesday morning when we suffered the loss of the feed pump that led us ultimately into the condition we are in now.

Question:

But, they said a quarter of those were damaged.....

Herbein:

I think the percentage of damage that you are talking about has to do with the number of fuel assemblies in the reactor. This is where the heat is actually produced and that is different from the devices used to shut the heat process off. There is a possibility that we have got a very large percentage of the fuel assembly in a damaged condition. I can't speak to the accuracy at this point of the 15 or 20 percent. We won't know that for a number of days.

Question:

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Herbein:

There is a valve on top of the container. The access to that valve presently would be a problem. There is no remote control on that.

Question:

Mr. Lenton said last night that the NRC has not decided which is the best option to take to go to the full shut-down and that they are going to wait a couple of days to study that and will confer with you, but they will make the final decision. Have you made a decision as to <sup>the</sup> convention to go to this shut-down yet? Or are you concentrating solely on this hydrogen and will decide that later?

Answer:

Well, the degasification in coping with the hydrogen problem is initial first step which is critical to getting us ready for the number of options that may exist to go to the cold shut-down conditions. I think we are getting full concurrence and at least we are openly ~~discussing~~ <sup>discussing</sup> and ideas with the NRC and we'll continue to do that.

Question:

But there is no final decision on how it will be done?

Answer:

No final decision on the method or procedure that will be used to depressurize the system, shut off the reactor coolant pump and then shift over to the decay heat mode of cooling. We have a standard procedure that will be available. I think that will have to be reviewed and perhaps modified in view of some of the conditions that exist. The point being that a loss of the reactor coolant pump would be a problem in the event that the low pressure cooling system didn't work. So, we will probably want to run the reactor coolant pump and the decay heat pump in parallel for some period of time before we shift down to the decay heat pump.

Question:

Have you identified exactly what is in that bubble comparing <sup>in terms of</sup> proportions of isotopes? Also, do you know what other decay products may have gotten into the

primary or secondary?

Herbein:

We have an understanding, at this point, of the isotopes that are present. I know that there are isotopes of iodine and <sup>(137)</sup>cesium. I can't quote the concentration in the reactor coolant. We did, a day ago, take some reactor coolant system samples. It was 100 r, on contact, it was only 100 milliliters, so you know we've got quite a bit of fission product activity in the water system. We are not completely familiar with the contents of that gas bubble, but from everything we see, we believe that the principle content is xenon 133...  
(Cannot hear this section of the tape due to rustling of mike and two men talking closer to mike than Mr. Herbein is.)

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