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324-079

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TRANSCRIPTION
PRESS CONFERENCE
GOVERNOR DICK THORNBURGH, LT. GOVERNOR WILLIAM SCRANTON, 3d
MR. HAROLD DENTON, DIRECTOR OF NUCLEAR REACTOR REGULATION
MARCH 31, 1979
11:00 P.M.

GOVERNOR THORNBURGH'S STATEMENT:

"Good evening, I have just completed a routine briefing from Mr. Denton. These briefings have been held by phone since his arrival here and he has joined us last night and this evening for a detailed review of the days events.

"There have been a number of erroneous or distorted reports during the day about occurrences or possible difficulties at the facility on three-mile-island and this briefing this evening was of particular significance in that respect.

"Mr. Denton, in our discussions assured me and will be avail to answer your questions that there is no eminent catastrophic event foreseeable at the three-mile island facility and I appeal to those who may have reacted or overreacted to reports of the contrary today, to listen carefully to his characterization of the current status of the situation. I appeal to all Pennsylvanians to display an appropriate degree of calm and resolve and patience in dealing with this situation.

"As many of you know, I visited today with Mrs. Thornburgh and Bill and Coral Scranton at the site where some of the persons who voluntarily evacuated from the area close by the site and I was impressed as I am sure all of us would have been with the calmness and the willingness to forebear and be patient. Also this evening we all have learned that President Carter will be paying a visit to the area to make a personal onsite visit and I think this is an important vote of confidence in the kind of work that is preceding there and a further refutation of the kind of alarmist reaction that has set in in some quarters.

"We are working hard to develop information systems and fact gathering devices that provide us with the basis of making responsible judgements. I am expressing my confidence in Mr. Denton as the best

(GOVERNOR'S STATEMENT CONTINUED)

possible source of information and I think it is appropriate that any questions with regard to the technical aspects of the developments at the three-mile-island facility be turned over to him and he has consented to making himself available for answering those questions.

Thank you"

Questions & Answers:

REPORTER: ----biggest problems that you have Mr. Denton, perhaps is the fact that you say one thing, the NRC in Washington says another. What are you going to do about that? Same problem you have had for four days?

DENTON: We send all our data that we get at the site to our Bethesda headquarters. I guess we will have to improve our communications in that area. It is being released down there. We see no possibility of hydrogen explosions in either the containment or in the reactor vessel in the near term. With regard to the containment, there are hydrogen recombiners which will take the hydrogen out of the containment if it builds up -- it is such a big containment there is very little likelihood there would even be any increase in the hydrogen containment in the atmosphere with regard to the hydrogen in the reactor vessel, this is just the type of thing that we also look at and analyze. The physical properties are such that the maximum concentrations of hydrogen in the containment are physically impossible to ignite so there is no danger of even flammability of the hydrogen in the near term and it is even a longer time to take action with regard to detonation and actions are being taken even right now to reduce the hydrogen bubble that is in the reactor vessel so I would just like to dispel any fear that anyone has regarding detonations in either the containment or the reactor vessel. I sometimes think that the very fact that we delve into these problems and postulate things and analyze them creates the wrong impression but it is really an attempt to identify all the possible scenarios that might lead to public health and safety problems and demonstrate through analysis that there is not a problem that is what we have done in both these areas.

REPORTER: -----policy right now of NRC with regard to some kind of mass evacuation. What is your thinking on that? When would that take place if at all?

DENTON: I don't think there is -----required based on what I -----

REPORTER: Would there be a point where it would be required? We have been hearing all day that it would be required. We have been hearing all day that if you decide to do something with that bubble you may have...

DENTON: Well, there has been confusion over to what to do with the bubble. The bubble is now being removed through a process of not of a type that the chairman discussed today that is a hydraulic. The chairman's discussion today assumed that

the bubble was, could not be eliminated through any means other than resorting to the emergency safety system, in other words, -----the plant down again, and activating the high pressure injection systems or the low pressure injection systems. What is being done today is a slow gradual release of the pressurizer into the containment of water which contains hydrogen and the slow process of slowly removing the hydrogen from the top of the reactor vessel and putting it in the containment. This has been going off and on in a test program for some day or so and indicates a downward trend and I think this approach will likely prove successful.

- REPORTER: Are we to take this as a disagreement with the NRC spokesman in Washington who was quoted as saying, the reactor is showing signs of developing the possibility of an explosion?
- DENTON: No, there is no disagreement. I guess it is the way things get presented. I talked to Bethesda just before coming here and talked to the chairman and there is no change in the technical facts. There is not a combustible mixture in the containment or in the reactor vessel. And there is no near term danger at all.
- REPORTER: What is the shut-test term you are talking about?
- DENTON: It is certainly days before...
- REPORTER: How many?
- DENTON: Well, I have got the staff back in Bethesda recalculating the whole thing over again and ----- have better numbers but it is certainly days before flammability limits would be reached and many more days after that before detonation limits would be reached -- all of which assume that we did nothing but sit on our hands here instead of getting the hydrogen out of the vessel.
- REPORTER: Chairman Hendrie said tonight or this afternoon in Washington, that if there is going to be a reevaluation and possibly an evacuation in a 20 mile radius, this was a greater radius than what we had heard before, when they attempt to get the gas out of the reactor? Is that so? Is it now a 20 mile radius that will be evacuated should that become necessary?
- DENTON: I can't speak of the radius but the chairman and I have had the same thoughts about what to do if the bubble is not removed through these other options that are available that there should be careful emergency planning so that when the system is switched from the way the core is being cooled down mainly through the steam generator and the normal plant condenser that this be done well coordinated with the state and at a time of day in which evacuation procedures could be put into effect just as precautionary measure. There are many options even if the bubble is not removed through the process that is ongoing now to successfully cool the core and I think you were just hearing speculation from the chairman as to what he would consider precautionary measures.
- REPORTER: Mr. Denton we're agreed that it is hypothetical and very unlikely that we get a flammable concentration inside the vessel if we did get a flammable concentration or an explodable concentration would six hundred degrees set it off.
- DENTON: I don't know that is one of the questions we are looking at. I think it is unlikely. You know as regulators we ask what if questions and I have asked the staff here and the staff in Bethesda to come up with all the what if scenarios that would lead to events that might threaten health and safety and each one they identify we send them back to analyze how likely it is and what we might do to avoid it. In the reactor

regulation business the stock and trade is to dream-up possible events leading to accidents and then make sure that steps are taken to assure they don't occur.

REPORTER: Are you in control of the valve inside of the valve now?

DENTON: The hydrogen is being vented now in the following manner: there is a line from the reactor coolant pump to the top of the pressurizer which sprays primary coolant water into the top of the pressurizer. When this water is sprayed into the pressurizer the hydrogen that is dissolved in the water evolves out into the bubble in the pressurizer which consists of steam and this hydrogen. There is a line on top of the pressurizer which vents inside the containment therefore the hydrogen steam mixture in the top of the pressurizer is released into the containment and hydrogen then has to build up again in the water in the vessel so there is an equilibrium process that transfers hydrogen from the vessel into the water into the condenser and out and it is a slow gradual process.

REPORTER: It's not building up hydrogen?

DENTON: No this process is controlled by chemical ----- and equations and will eventually lead to the movement of all the hydrogen or the vast majority of it to the pressurizer and out to the containment.

REPORTER: inaudible

DENTON: There is no increase in hydrogen in the vessel. The hydrogen that is in the vessel came in my mind and my presumption is that the hydrogen in the vessel was formed from a ---- water reaction during the early part of this accident when the core was uncovered and the temperature ----- were very high the----- went under a ----water reaction with the water in which the ----- combines with the oxygen and the water forms zirconium oxide ----- the hydrogen and the hydrogen collected in the highest part of the reactor vessel.

REPORTER: Mr. Denton in the last couple of days we have had contradictory statements between your federal agency and the company. It would seem today that the contradictory statements are coming within your own agency.

DENTON: I think the contradictions are being overplayed. That all the people making the statements are basically in full agreement. Mr. Case, Chairman Hendrie, and ourself are in constant communication all day, but somehow when we brief everyone and things close down it gets reported that we differ and yet we all see exactly the same way, so I don't quite know how to overcome this except to make one central point for all statements:

REPORTER: When I talked to you early this evening, I don't mean to be argumentative, but I ask you----- inaudible----- has something happened in the last few hours to change your mind.

DENTON: No. Nothing has happened but you have to realize your talking about complicated physical phenomenon. I'm trying to give you a laymans interpretation of the transfer of gases and the process slows down. The more hydrogen that is taken out of the system the slower will be the removal rate. But in terms of the if the bubble is reduced to an adequately small size than its impact in bringing the core to a cold shut down condition is minimal.

REPORTER: How long will that be Mr. Denton?

DENTON: Well, there is no way to measure the hydrogen bubble directly. It is an inferred measurement from other plant ----- there is no meter that says how big it is or what is in it. So we have assumed that it is all hydrogen we have assumed that all of the oxygen being generated by radioanalysis is going into it and we are inferring the dimensions of the bubble from other measurements. We have asked the company to make measurements that give you this -----on a frequent basis, every two hours or so throughout the night and maybe tomorrow morning I will have some better statistical evidence on what is happening to the size of the bubble. It is going down. I'm sure it is being effective. The rate at which is going has opened some question because of scatter in the data and any one point can't be taken as an accurate indication.

REPORTER: Has Hendrie come down to Harrisburg?

DENTON: Well at the rate we are moving to Harrisburg it might be be the thing it might be the simpler thing to do.

REPORTER: Mr. Denton is there only one bubble or is there more than one?

DENTON: There is a bubble maintained in the pressurizer and there is also this hydrogen bubble in the uppermost part of the reactor vessel and I'm concerned about the part of the bubble that is in the uppermost part of the reactor vessel.

REPORTER: inaudible

DENTON: Only if the efforts that are now underway prove unsuccessful will we have turn to another option. And these other options I think are ones that I have described for which are----- of the normal emergency core cooling systems. The high pressure and low pressure systems.

REPORTER: Mr. Denton did I understand you to say that although it is unlikely, your not sure whether that hydrogen will ignite at 600 degrees. Did I understand you correctly.

DENTON: There is no potential in the near term for either flammability or detonation and I have a staff continuing to look at the question on how much time to detonation and whether or not the temperatures in the core are even likely to I will get better data on that tomorrow.

REPORTER: Let me follow up, if you're not sure at what level you're not sure then how much time you have.

DENTON: Well, I'm sure that in the near term there is no hazard of flammability and that is days and I've got even more days than that before I even reach the detonation limit and I hope that in that time period that we have found other ways to get the hydrogen out of the vessel rather than just sit here and watch it accumulate while we can't.

REPORTER: inaudible

DENTON: No. This is a small one inch line that has no connection with the pressurize and relief valve.

REPORTER: Governor Thornburgh what is your current recommendation to pregnant women and pre-school age children -- does

REPORTER CONTINUED -- do your comments of yesterday hold?
that they should remain out of this area?

GOVERNOR: Based on the briefing this evening, we are continuing our suggestion to those particularly susceptible to the minimal, releases of radiation at the site to remain out of the area. We will constantly reassess that recommendation based on any change in the facts that we receive tomorrow or thereafter.

REPORTERS: Where there any unusual incidents today, were there any unusual emissions or anything?

DENTON: The emission rates are continuing pretty much like yesterday there is a continuous let down flow and this is resulting in the releases of the amounts xenon and krypton that I have described before. The high priority item is putting in place this system which will allow the plant to pump these gases back into the containment.

REPORTER: Was there any unusual emissions today?

DENTON: Well, there were the continual lifting of the relief valves in these gas systems which are over full and that is what has contributed all the time, the past couple days. More or less a continuous release of gases.

REPORTER: How dangerous are things today - less dangerous than yesterday.

DENTON: In my mind they're the same. The core is a little bit cooler overall today because it is one day later than yesterday. But there is nothing about the hydrogen question that has raised any increase danger in the near term.

REPORTER: Are you saying there is no possibility of explosion?

DENTON: That is right. There is no physical possibility of it.

REPORTER: Mr. Denton, there is a tremendous amount of material coming into the plant flat bed trucks, giant tanks, monitoring equipment. could you just in lay-terms basically explain what is all this equipment going in there.

DENTON: One significant development today was a considerable beefing up of the capabilities to respond to contingencies. The President has made available considerable resources of the government to provide for contingencies plans. For example, the plant received today from the federal government about a quarter of a million dollars worth of lead bricks. These are some of the trucks being in lead for shielding. We're bringing in two mechanical robots, not because there's any planned use, but just to have them for a contingency backup. We've contacted the Navy and there's a possibility we'll be bringing in 4 21 megawatt diesel generators, just in case there's a loss of off-site power at the site between now and the time of cold shut down. We, we're attempting to get to the site all the equipment that might be needed in the event of any foreseeable contingency. The licensee is also doing the same kind of thing and is bringing in tankage and a capability to store both radioactive gases and liquids in the event it becomes necessary.

REPORTER: Who will eventually pay for all of this?

DENTON: I don't know.

REPORTER: Inaudible

REPORTER: Inaudible

DENTON: No, I don't.

REPORTER: How would those lead bricks be used?

DENTON: They'll be used to provide shielding around the hottest spots in the plant now.

REPORTER: -----danger we still face. I mean there's no danger right now, you're saying. What potential dangers lie ahead?

DENTON: We've gotten into this before. What if, if everything fails. What danger lies ahead. I think the reason we're here and we have all this equipment is to take those actions as soon as we can to get the reactor below the temperature of boiling water, get it down to 170° in a cold status. And that's the whole focus of the efforts in the plant

REPORTER: But can you tell us if all that work doesn't succeed. Just so we don't misunderstand each other, what can happen?

DENTON: If all systems eventually fail and you lose all the water in the core, you have a core melt-down.

REPORTER: To your knowledge of this hydrogen reduction process how long should it take to reduce this bubble to manageable size? Is it possible to say?

DENTON: The s-----and the data on reducing the bubble size you may recall that this morning there was some controversy over how much the bubble had diminished. The very , if you take the very highest data point for bubble size and you take one of the lower points for bubble size, you get one number. If you look -----of the average -----you get another number I guess we estimate that the bubble is down 10% or 15% over the past 24 hours or so. But, during this time this process I'm describing was not in operationfull time. I've asked the -----to

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DENTON: (con't.) keep this venting of the pressurizer going all night and it's going right now and to continue to make periodic measurements throughout the night as -----, I think sometime tomorrow, I'll be able to give you a much better feel for what's really changed.

REPORTER: inaudible.

DENTON: No, being an indirect measurement, there's a lot of scatter in the data and in order to get an accurate measurement you have to make a big change in pressure, so as 50 lbs.

REPORTER: Gov. Thornburgh, have you received any figures on an approximate number of people who have left this area and number two, how many people are being cared for in public shelters?

GOVERNOR: No.

REPORTER: We asked you this question yesterday and you didn't know governor, I'm wondering why you don't have these figures available?

GOVERNOR: Well the figures with respect to individuals who are being cared for are approximately 145 at Hershey and 26 at York, I don't want to be held to the exact number of figures. The number of people who have left the area is a little hard to come by. I don't know how on earth you would ever find out other than by taking a . . .

REPORTER: As we drive down through Middletown and the river communities there those of us not being familiar with the area, we are told that it appears that a significant number of the population has left, would you agree to that?

GOVERNOR: I don't know, I think what we're concerned about is the management of the public health and safety problems that may be created for those people who are in the area. The statistics for those who may have left are somewhat secondary. I have heard that a number of people have voluntarily left the area for one reason or another, but our principle concern is the health of the people who are in the area now and our plans for any possible need to evacuate are made with those people in mind.

REPORTER: Can you give us some idea what those plans are?

GOVERNOR: Well, the plans obviously call for an orderly removal from the area of people who might be in some jeopardy so far as their health and safety go. The plans are set forth in considerable detail with the appropriate county officials for the mustering of vehicles, the opening of transportation routes, the providing of shelter, food, medical care at alternative sites, particular emphasis on any need to move people that might be already injured in some way. The plans are being constantly reviewed by our emergency management people, and the federal people who are on hand particular members of my staff who have been working around the clock to insure that any gaps in the system are made up and that we're operational in the event that a contingency occurs. But I think again that it is important to emphasize that we have no present plans to carry out any evacuation based on the situation as Mr. Denton informed me of this evening.

REPORTER: Governor do you expect state government operations to be normal on Monday for most people.

GOVERNOR: I don't know. Certainly I am going to come to work on Monday.

REPORTER: Governor how many people in Middletown have taken children out but they have come back because they are worried about looting in their houses and they are wondering why the National Guard is not there protecting their homes now.

GOVERNOR: To my knowledge there has been no single incident reported to any of our emergency management people. Local police will remain, our state police is at the ready if there is any needs that arise but I don't know of any looting.

REPORTER: Governor is there any measurable radioactive iodine getting...

DENTON: With all the samples that have been taken there is no indication of any radio— in the environment other than these noble gases. There was one original sample that showed iodine. There has not been any samples since that time that show that any fission product other than noble gases.

REPORTER: Mr. Denton, do you have a current report on the radiation level inside the containment vessel.

DENTON: No I don't.

CRITCHLOW: Thank you very much.

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