

Date: August 22, 1979

Occupation: Engineer.

INTERVIEWER: When did you first hear about the Three Mile Island incident?

NARRATOR: I guess when I got up in the morning. I think it was a Thursday that was the first indication.

INT: And what did you first think when you heard about it? Did you think it was serious, or what passed through your mind? Do you remember?

NAR: Nothing in particular. It was a news story and it was a problem.

INT: Did your attitude ever change?

NAR: It changed...yes and no. It changed as the seriousness of it became apparent, but that's a difficult question really to answer in yes or no.

INT: Did you become very concerned about it? Were you very upset about it?

NAR: No. I never got to the stage of upset or fear.

INT: Did you listen to the news reports more than usual?

NAR: Oh yes. Primarily I was listening...not the first day...when it became, well the news developed I think it was Friday and the news releases were being on almost continuous, I was listening there pretty regularly to keep abreast of what was going on and what statements were being made, that sort of thing.

INT: Was there any particular media that you listened to?

NAR: Primarily WHP, the radio.

INT: Did you talk about it with your family at all?

NAR: To an extent, yes.

INT: What sort of things did you discuss?

NAR: Oh... Number one if we thought there was any real issue or anything of seriousness and danger to anyone and many comments amongst ourselves about how other people were handling the situation.

INT: What were some of those comments? How did you look at various people handling it?

NAR: I reacted extremely negatively to the press and to the coverage that they got. I felt... I felt that the danger element was never really as strong as was being said. I saw an awful lot of very, very leading questions, very pointed with no purpose, or what seemed to me no purpose, other than to either embarrass the speaker or to develop the story the way the press felt that it should be developed. I saw a lot of questions being asked of a lot of people who couldn't possibly answer. For example, asking a county supervisor if there is a danger. He doesn't know. Asking a school superintendent what our radiation level rating was. There is no way for him to know. The issue of the melt-down, it seemed like in every interview that word kept coming. Use that word, use that word, and finally someone admitted yes, there was a chance however remote it might be. Because they used that word, suddenly it mushroomed. That's the kind of, that was my primary reaction to it.

INT: Why do you think the news media was trying to blow it up?

NAR: I don't know other than it was a good story.

INT: So it was sort of keep it in the news so people kept listening?

NAR: I thought that. I also thought that possibly a lot of politicians were getting a lot of mileage or exposure, which they certainly got. I'll put it this way, I guess the fear part or what fears I had of it were not of the plant. I felt pretty confident of that and the design of the plant sufficient attention had been paid and there were sufficient safeguards and as I could assess the risks and knowing a little bit about the process-- part of my work is not directly connected with nuclear plants, but similar principles apply. I felt there were still plenty of safeguards. From everywhere that I could tell that we were, there were safeguards. I wasn't afraid for that, but I was afraid for the reaction of the people to it. The stampede out of Harrisburg.

INT: So you were worried mostly about a panic situation?

NAR: That was the part that was more upsetting.

INT: Did you see a lot of people around you panicking? Or was it more of a potential panic?

NAR: The people that we run into, I did not see too much of it. I saw some but not too much. Of course again, Carlisle is far away from Harrisburg as it is and I was over in Harrisburg one Sunday evening and there were a few people there who I thought were a little...on the panicky side. I guess I was more concerned with the dangers of evacuation than I was with the plant itself.

INT: You mentioned a little bit about local politicians, did you have any feelings about the way that people in various levels of government handled it? Like local, state, or national?

NAR: A little bit. One particular incident stands out in my mind this being rather bad and that was the issue in the West Shore School where as I recall it was an elementary school where the very young children were bused to a different school and it was announced over the radio. Parents come get your kids if you want them.

INT: Why would they be bused? Because...?

NAR: To return them would be putting them back in the 5 mile limit. I remember this was the Friday afternoon of it when everyone was pretty much churning around and it was one of the schools in the West Shore District, I can't remember which but it was one of the elementary schools. The school itself wasn't within 5 miles, but many of the children lived within 5 miles. I felt their action and saying we're not going to take the kids back home because it's within the area was very close to criminal. Again the risks of them going back in my mind was very small. The risk of a parent not knowing where his kid is and this sort of thing was very high when you do it in this kind of way. And I felt that if I had been in that area, I would have been very upset by that kind of action. I think at the...from what I could detect from the lower levels of government, I'm talking about county, township, this sort of level, an awful lot of people were trying to get into the act. To show what they were doing to alleviate a situation that they didn't understand. And were in many respects contributing to the problem rather than trying to solve it. I thought the state's handling of it; Thornburgh did a very reasonable job. Again, it's a very technical problem and it's very difficult to assess what you should do, but I thought he did a pretty good job of at least clamping down and getting the silence in some of the peripheral things that were going on. National level...I think the NRC did about all they could do.

INT: What did you think about the way Metropolitan Edison handled the situation?

NAR: Not a whole lot one way or the other. There's part of my background that isn't apparent here so far. I've got to explain. It may give me certain prejudices. I spent 12 years with the utility. Not an electrical utility but a gas utility. My leaving there was very pleasant and I have many friends there. There was no hard feeling one way or the other. But I know how utility management operates. At least I know how the management of that utility operated. I would trust them anywhere for safety issues are concerned. At least I knew how the management of that utility operated. I might not trust them anywhere with my wallet. This utility like I say is the natural gas industry. I know how the pipelines were designed and I know what went into the design of the pressure stations and the way they were operated and their concern for public safety and I would be very much amazed if Met Ed, at the management level, was much different. Make it a rate case and then there's a lot of room to talk one way or the other as far as what their interests are or what their objectives are, but given public safety, I couldn't see that they would be outright lying about things like that. I felt that here again a press issue and a *China Syndrome* issue all at the same time. In the movie, the corporation is portrayed with a black hat, which is very stylish to portray corporations these days anyway and you are trying to fit reality to the movie, which I think a lot of people were.

It is automatically suspect, and yet objectively looking at it, there was a number of issues. Like when it first happened, there was a three hour delay in reporting it. When it first happened, I don't think they recognized it. The implications, I don't think they recognized the seriousness of it and I don't necessarily say that's incompetence on their part or in untried areas. I can take that in very good faith. If you reported every time a pump failed at a power station to the state and set into motion some stage of preparedness, you would be prepared a quarter of the time. They do fail. Where it goes from there, that's where you get into all these things here. I felt in that issue they weren't too much to blame. In their assessment of the dangers, I thought it very interesting that on Sunday they were saying that things were under control and the whole issue of the hydrogen bubble we think is resolved and the regulatory agency says no, no, no, you are clouding this issue again. That's wrong. Things aren't under control and its getting bigger and bigger and made a big fuss about it. Then on Monday, the Nuclear Regulatory Commission said it went away and it probably went away Sunday, but they never went back and said that that was what the company was telling you. So in many instances, I felt the company got a very bad press. They are not without blame, certainly. There's many issues in confidence that can be raised on how... What I was saying was I think that my attitude toward the utility was that they were in an awkward position and again I can relate it to my experiences with the company that I worked with before. I was in Ohio working for the gas company when all the gas shortage crisis hit and again we...the number of people particularly political leaders and press taking stands. Very, very firm stands on issues that they did not understand in the slightest and then watching the company trying to somehow keep an even keel through the whole thing...what really was the truth out and at the same time get the truth out but get it out in such a way that it is credible. When everybody is shouting at you without much reason behind it, it is pretty tough to do and I think in the issue here there is such an inborn fear of radiation and of nuclear accidents and many people immediately jumped into a position, rational or not. I feared also, don't misunderstand that. But there was no room to discuss what was really going on. It was a shouting match in accessing blame and you know we are all going to die and this sort of thing. It's very difficult for a company to somehow sail through something like that. And again with my company before we ran into a lot of mistakes and they had the wrong people out there talking and they had sometimes the right people out there talking saying the wrong things, not everything they said was true. Most of what, in this other instance, what the company said was not true because the person saying it didn't know any better. One person cannot possibly know every aspect of everything the company is involved with. Again it is not malicious. I can see a lot of parallel between that and Met Ed's position and perhaps it gave me a little bit of sympathy for Met Ed. Probably wasn't deserved, I don't know. I think their...a lot of their actions have not been too cool.

INT: Did you feel that Met Ed was in control of the situation? You mentioned that they did have safeguards; do you think they had some grip on what was going on?

NAR: Yes. I felt that if Met Ed would have been pretty much left alone to solve the problem, it would have been solved. I again did not lose too much confidence in their ability to operate the plant.

M T: Do you think they are in control of the situation right now?

NAR: Depends on what you mean by situation? They are not in control because they are not the decision maker as far as any action to be taken on the plant. In that essence they are not in control. In that sense, they lost control of the plant about Saturday or so of the crisis. They were removed as a decision maker. Their people were pushing the buttons but they were being told exactly what to do. In that sense, they lost control. In the sense did they lose control of the reactor, I would say yes, it got away from them for a little while, but they got it back and they would have gotten it back. It's control of what. Do you see what I mean?

INT: I see what you mean but you don't feel that at the time like right now we need to fear another problem with radiation and another incident flaring up?

NAR: Do we need to fear it, I'd say no. Could an incident happen, yes. In what I've seen, yes. Something further could happen down there very easily in the cleanup. Again, we're dealing with probabilities. I think the chance is pretty low that anything will happen but it could and the fact that there is a concrete containment full of radioactive water and other goodies are in it and they somehow have to get rid of it. Yes, there's some danger. But I don't have any real lack of confidence in Met Ed and the NRC between them to carry that plan out.

INT: Was there anyone you found particularly reliable? Or whose word you trusted more than others?

NAR: No.

INT: Was there anyone who you particularly mistrusted? And wouldn't listen to?

NAR: No. I'd like to clarify those two answers. I listened to a lot of people make a lot of statements depending upon what they were talking about I might have discounted. There were people who I did not trust when talking about technical issues. The same people when talking about plans for evacuations and things like that I did trust because that's something they knew about. Everything that I took it was kind of filtered by an assessment of first of all, did it make sense? Did that person know anything about the issue we are talking about? Here again a reporter reading a prepared statement on what a milirim is and saying things I know to be false, which I heard. It sort of discounts the whole statement. If he is saying that this is what an official said we are going to do in an evacuation, then that's a different story.

INT: Did you make any plans different from what you ordinarily would have made?

NAR: Other than those that were imposed? No.

INT: What sort of things did not happen?

NAR: Well, I play in the Harrisburg Symphony. That Sunday night, Monday night, and Tuesday night we were to have two rehearsals and the final concert of the season. The Sunday concert was called off at the last minute too late for me to find out about it. I found out when I got to Harrisburg. They also cancelled Monday and Tuesday, so that was different so it fouled up me. I had been scheduled for a concert with the Dickinson Choir that was cancelled because they couldn't get the kids together to rehearse because school was essentially closed.

INT: Yeah, we had... I think about 1400 students left.

NAR: Those things, yes, it had a very definite impact. As far as anything else, did we pack a suitcase to leave, no. Did we... I guess I went as far to see that there was gas in the car. I don't even recall doing that. It was sort of automatic.

INT: You didn't change any of your ordinary routines or anything like that?

NAR: No. Well, one other one. It wasn't really a change. We did stay a little bit closer to home in doing our shopping, but my parents do live in Harrisburg and we were concerned that an evacuation would be ordered and what their approach would be. They were planning on coming over to stay with us if Harrisburg would have evacuated. So we were staying a little closer to home for their sake to be sure. If something would come up, they would be able to reach us. It worked out this way but it wasn't intentional that they were also kind of a clearing house for information for members of the family from other states who were getting very misleading news of what was going on. One cousin of my dad's called from Wisconsin and was very upset because my parents weren't with us and I said why would they be with us and they said it was on our news that Harrisburg had been evacuated. So that's one instance. Then you have another phone call from a very close friend in St. Louis with virtually the same story. In fact, I guess the sequence was the other way. Most people called before the Wisconsin people. But again they had been told that Harrisburg had been evacuated which again leads to my distrust of the press and the sensationalism in reporting. It is much more exciting and sell a lot more papers to say that Harrisburg had been evacuated.

INT: Did you make any plans about leaving the area after where you would go if there had been an evacuation?

NAR: No.

INT: Was there a, was there anyone--

NAR: Let me go back to that question a second...no, we didn't make any plans as such. Again my wife is from Pittsburgh and it would have been second nature if there had been an evacuation to head west and go out to Pittsburgh to her family. In that sense, it was a plan but it wasn't "Well now, if this happens, this is exactly what we are going to do."

INT: So it was more of an assumption?

NAR: It was an assumption without even discussing it. That's just where we would head.

INT: Was there anyone special in your life that you were watching in order to decide what to do, like anyone else's reaction in your family or anything like that?

NAR: No.

INT: Did you have any mental pictures of what was happening at Three Mile Island? Or what might happen?

NAR: I don't quite understand that question

INT: Did you do any daydreaming?

NAR: No.

INT: Did you have any images?

NAR: No.

INT: Did you think that anything that happened at Three Mile Island might have affected your health?

NAR: No.

INT: Did you have any fear of drinking the milk or eating the food?

NAR: No.

INT: Do you think any aspects of your life might have been affected or your community? This can be either aspects that things that you do or mental attitudes?

NAR: Only in very, very indirect ways. Obviously the community reacted. Obviously things are somewhat different. In the very short term affect, yes. Schedules were changed. The effects of the schedule change had effects on me. Naturally things got more compressed as the schedule got absolutely ridiculous with performing every night. Lasting effects, I can't see any. If it turns out to have had a measurable effect on the economy of the area...

INT: Do you think there may have been a lasting effect on the economy or one that you can see?

NAR: I haven't seen it. I keep hearing that everybody was afraid to visit Lancaster County, but on the other hand with the gasoline situation, there is so many things going on that it's very difficult to assess.

INT: Did you picture in your mind any effects of radiation on the life around you? Or did you think about your own death or someone else's?

NAR: No.

INT: Did the question ever come up in your mind whether or not you would survive?

NAR: No.

INT: Did you think about God at all during this incident?

NAR: That's a difficult question. If you say as related to...I suppose yes.

INT: Did you think of him as related to the incident?

NAR: Not... That's a very difficult question.

INT: For example, did you pray at all about it?

NAR: I suppose the answer is yes. See, this is difficult because I'm trying to do is say other than normal. And I would say yes, probably a little more thought of God if for no more reason than looking at nuclear power in connection with...I guess what I was saying that the whole issue of nuclear power and technology and so forth did stimulate some thinking in relation to God and man's role in the whole thing. I guess you are talking to a person who believes in pursuing things like that as well as just about any other area of technology. I'm a very firm believer that the world was put here for man to use with proper stewardship and the resources were put here were here to be used and trying to say where does this fit into God's plan for things, I don't know. But I look back and say with every form of energy, with every advance in technology, everything that man has done since he walked out of a cave there have been risks and set-backs. There have been lives lost in oil fields, coal mines, and forests chopping down trees and whatever. Is any one of those instances in God's plan, I don't understand...that's His problem. I don't know why there would be, but this did not seem to fall outside of that, so in that sense, yes.

INT: In other words, you didn't see it as some sort of warning from God. It was mankind's warning from God?

NAR: I didn't see any warning from God that this is an area that isn't for you anymore than a coal mine explodes and kills 100 men... this is the risk. I also feel that man has been put here with a creative mind and he is supposed to use that mind and using that mind involves risk to himself and to others. I don't want someone running around taking



risks and including me in risks but I see these risks in everything and I don't see this as being that much different. Perhaps in magnitude. Perhaps, it's more concentrated. To me that's what makes this different from the other risks I've mentioned. The coal mine goes; it's only the coal mine. Somehow in this one, if it happens, and we really don't know, I don't think what the consequences are. A lot of people were taking for granted that if we did not get this under control, we were going to wipe out a 100 square mile area or something and I don't think we really know that. I think that was accepted. A lot of things seem to be accepted as fact and we were moving on from there where things were accepted as truth...but we are running a risk and that risk is affecting a lot of people. But if you look at it in the terms of probability, the risk is less in terms of people. The risk that the individuals are running in the other example is much higher. But at least it is confined to them.

INT: did you have any ideas in your mind about what would happen if the worst had occurred? You said some things were assumed, but did it pass through your mind at all what may happen if this had gone on?

NAR: It passed a little bit through. Again, it was this might happen or perhaps the whole area could become radioactive or what, but it was such a... it really didn't stay in my mind very long, okay, for two reasons. One, there was so much uncertainty that it was so big and mind boggling that it was difficult to contemplate, and the other thing was that I really didn't think we were that close to any risk of that. What kept going through my mind is that we have taken a few steps down the path the end of which could be disastrous and I can't even define disastrous in that context, but I didn't think we were too far down that path. At least that was how it kept coming to me. I would listen to the radio and I would get what seemed to be factual statements from the NRC or whoever of what they really thought was going on down there and I related that back to what I knew of plants and so forth and it didn't seem all that scary or it didn't seem like they were that far out of control, I should say. If the instrumentation goes which does have a probability, is there a safeguard for that? Things at that level. I guess I couldn't bring myself to worrying about the ultimate when I thought there were so many steps we were going to go through before we got to that level.

INT: So you took things more one at a time rather than jumping to conclusions?

NAR: I tried to.

INT: Okay, we'll jump back a little now. Did you attend a religious service at all during Three Mile Island?

NAR: Yeah.

INT: Do you remember if Three Mile Island was mentioned at all during the service?

NAR: It was.

INT: Do you remember in what way? Was it a prayer or was it mentioned during the actual sermon?

NAR: I know it was mentioned in the prayer. And I'm just trying to recall... Oh yeah, as I recall, it worked into the sermon very strongly.

INT: Did you feel any better when it was mentioned? Did it affect your attitude at all?

NAR: I don't think it affected it much one way or the other. Again, talking about me and the way my attitudes are formed. They are not usually formed from other people's opinions of situations. They are usually formed from my assessment of the situation. I guess I'm too conceited. That's...in that sense as I recall it was reassuring to hear what he had to say about it but the reassurance as I remember it was agreeing with attitudes that I had. If it had been different, if what he had been saying would have been different from my attitudes, would it had changed my attitude and the answer is I don't really know. I kind of doubt it on that issue, but it might have. I don't know.

INT: Do you remember if the attendance at church was dramatically different from what it normally was if there were more people or fewer people?

NAR: As I recall it was about the same.

INT: Do you have any opinion on religious institutions or persons should take a stand on an issue like nuclear power? Either pro or con?

NAR: I think that it's within their providence to do so. I think it's within their area to take stands on certain aspects of it. If they again, I'm sure you sense that I'm ...I won't say that I'm 100% for nuclear power, and go and do what you want to do, that's not it, but I'm very much in favor of development of it done properly. If I hear a church group get up and say nuclear power is all bad, stop right now, I'd say I don't want to hear that and the reason other than the fact that (unintelligible). I guess their kind of getting out of their territory because they're making a technical assessment...when they say that. If what they are saying is that we must proceed cautiously here and relating it to their concept of God's gift of the world and man's utilization of it and how in their scheme of things it fits together, that's great. To fly out and say one way or the other on a technical issue I think is getting a little...

INT: But it sort of goes back to before; you were saying the media and people asking questions about things that they don't know that much about.

NAR: Right. Trying...

INT: More stay within your field and be cautious if you step out of it?

NAR: Right. I guess the whole thing really boils down to a lot of people and this is a democracy and the people should make the decision, but the people have to make these

decisions based on knowledge and based on intellect and understanding of the issue and not emotional. And it's very easy particularly with something like nuclear power for people to say it's wrong. Some people say it's all right, but they aren't going to be the people to listen to. It's not a popular issue. You can prey on this fear that we all have. None of us want to die. None of us want to get sick. We are scared to death of those things, and to prey on that and say if we develop nuclear power, we are going to die. Which affects a lot of people who are sick. I think that is irresponsible. I think that is trying to foresee issues and trying to force a decision to be made in the way that you feel but not for the right reasons. Maybe the final assessment with the technology we have today, they just try to argue issues. Maybe the answer is to go back to the technology of the nuclear submarine and take a whole bunch of little power plants and stack them up against one another. Its proven technology you know, they often know what they're doing and they are easily controlled and there is so little radioactive material involved. There's so many good things about them. Maybe approach technologically, maybe fission reactors are just inherently bad and fusion reactors are the right way to go, if we can overcome some of the technical problems there. I don't know but I think we should decide on those kinds of grounds and not flat out fear the unknown. I guess that's my philosophy. In that sense, if the churches are contributing or if the press is contributing to making the decision in an intelligent manner, they're doing a good job, but if they are standing up and inflaming people to "it's right or it's wrong" because of strictly emotional issues, then I say no, they are not doing enough.

INT: Did you feel you had certain responsibilities during the incident? Any special responsibilities toward your family or your community or your job?

NAR: Toward my job, no. Toward my family, yes in the sense of being sure that they were all right and be sure that if that area was evacuated my parents were here and people from outside the area who were concerned about my parents could get a hold of me. In that sense a responsibility. In the community, only what I feel is spreading the word to keep calm anybody who would look to me for any insight into it- don't panic. That sort of thing. That's all.

INT: So is that the way you felt it was best to behave during the situation? More of calm...

NAR: Calm and not reassuring as it developed, reassuring because I wasn't sure I fit was dangerous. If it had been more dangerous then not so reassuring but stay calm, not panic, not jumping on the turnpike and driving as fast and as far as I can.

INT: Was it difficult to behave that way?

NAR: No.

INT: At the time, did this event bring to mind any past experiences or past events?

NAR: As I mentioned before, the parallels of working for a utility in a crisis, not of this kind of safety crisis but when you are talking about a gas crisis where things are not handled right and people do not have anything to heat their homes with, there can be deaths from that too. So, you know, the parallels between that situation, yes.

INT: Did you think of anything in history? Any historical events?

NAR: No. I could sit down and think of something later, but during the time, no.

INT: That's more what we are interested in. Was this incident more or less frightening than like a flood or a hurricane? Or even a war?

NAR: Less.

INT: Why would that be?

NAR: Again, my assessment of the danger involved plus... in a flood and a hurricane the danger seems more tangible. I felt that in this issue the danger at worst barring that we all whatever was exposure to very low levels of radiation. Granted there is uncertainty of what that means but it is so very intangible that to answer that in terms of later instances when there was testimony of the number of additional cancer deaths are attributable to it and (unintelligible) either 1 or 10. That's the range of the debate. To those 10 people it is important. When you are talking about a normal number of 250,000, I believe and for anybody to say to those people it's important without telling them how you can possibly identify them is just impossible. This is the kind of fear that I can't spend my time worrying about. If you are telling me that there is a 50-50 chance as a result of the exposure that some cancers might develop, that's different, but when it's in an expectancy of 300,000 and we are debating whether it added 10 or it added 1 to that and you know. How are you going to measure? How are you going to measure 10,000? Are you going to say that if we find that there really were 360,000 is that statically different than 350,000? I don't think it is. I think there is enough scatter. If you go to places like some of these places in the western states where they are finding dumps. Three to four times that significant. That's something to worry about. So again, I guess that's off the track but that is why I did not and I still do not worry about this instance.

INT: Cause it's so slight in its probability?

NAR: The probabilities are so low and if it...and if something did happen because of it you would never know anyway. If a person came down with cancer next year, how do you know? Again, let me amplify that, being a more terrifying experience that I can think of being in Ohio and watching the tornadoes come through. Things like the Zienna Tornado. It was '73 or so and realizing that that was only about 100 miles away. And sitting in Columbus and watching one week of Tornados cross the river about two miles north of where we live and take out a golf course shack and the next week about two miles south of where we live and there was damage to a motel, and we were saying when is the third one going to come? And I got to confess, in those cases, I was very scared.

INT: Did you think about any of those during Three Mile Island? When people were starting to panic?

NAR: Yeah, as a matter of fact I did and I kept thinking of it and saying, wait a minute. I was thinking of it in comparison. Hey those times I was scared, I'm not scared of this.

INT: So it was something more tangible that you could see the...

NAR: You can see it and you can hear the sirens and walk down and see some of the blackest skies you have ever seen. Perhaps in the distance you can see a little funnel. Perhaps its ignorance and being fully aware of all the consequences. It's too big that I can't even contemplate it but the probability is still so low. Again, I think we tend to inflate the chances of a wrong thing happening. If there is a tornado going to come through Columbus I know it's going to come right down my street. It's comforting to think the ones we get only gut about a 50 or 100 yard swatch maybe and that's reassuring, but still...you know when you see it that they are touching down somewhere and something around here is getting hurt. And that makes... to me, it makes it a little scarier.

INT: Oh sure. I've never really seen them, but I remember my mother talking about them. And having to run down to the cellar.

NAR: But then again there is a lot of interesting parallels. A number of years ago, there weren't nearly the number of tornados. Well, that's not true either. Everybody is so conscious of them now that a lot of things are reported that weren't reported before and again the warning systems being the way they are...I can remember one instance when I was playing golf and some pretty bad thunderstorms came by and it turns out that there were some tornadoes associated with them and it tore up a residential area just south of Columbus and they had a siren going and a siren going...and when I got home the siren was still going and it was a bright sunny day. The front had passed but there was still danger at the extreme eastern edge of the county. Again we overreact, but the only way we can set these things off is to do it on a county-wide basis, so you get immune. You stand there and hear the thing and you say oh, that siren again and you are back to going out and looking in the backyard and trying to guess if there is any danger because of the overreaction. I think there is some parallel here.

INT: It would be interesting to see if did happen again how people would react.

NAR: Well, I think if...I think it would be very interesting to see what would happen again if every incident that occurred would be reported and reported publicly because I think people would be very blasé about the whole thing. There are a number of incidents. Pumps do fail. All kinds of pumps fail and you have to go through an awful lot of things in the sequence to get to where we were and we still had a lot of things to go through to get to disaster but every time you start down that path and alarm people you (unintelligible).

INT: Did you think of any TV shows or movies?

NAR: Other than the obvious? No.

INT: You had mentioned the *China Syndrome* before. Did I ask you if you had seen that?

NAR: No, I haven't as a matter of fact. It was hard not to think of that since half the press stories seemed to follow the form of hey, *China Syndrome* said this, this, and this and look what's happening and you couldn't avoid this.

INT: Do you have any desire to see it?

NAR: Not particularly. I'm not much of a movie goer or fan.

INT: Too expensive. (chuckles)

NAR: It's too much hassle.

INT: Did you think of any books or stories?

NAR: Oh... The Bible.

INT: Do you remember anything that ran through your mind?

NAR: Oh, thinking back through some of the things in *Revelations*, regarding future events. The prophecies of *Revelations*.

INT: Would that be the last judgment?

NAR: Yes. Or the steps leading to it.

INT: Do you think this may be a sign of the last judgment coming?

NAR: To me, no. I...to answer that question, it's not near serious enough. At least to me. This incident, not the last judgment.

INT: Was your sleep disturbed at any time by the incident?

NAR: No.

INT: Was your sleep routine altered, like did you sleep more heavily perhaps?

NAR: No.

INT: Did you have any dreams about it?

NAR: No.

INT: Did you hear any jokes about radiation or Three Mile Island? Even if you don't remember them...

NAR: I vaguely remember that there were some but I don't remember what they were.

INT: Do you remember anything that they were dealt with?

NAR: It's just a vague recollection. One of the fellows I work with will have a joke for every occasion and I can't imagine that he missed out on that one. But most of them I forget very quickly and I vaguely recall some comments that were made.

INT: Do you remember if you passed any jokes on?

NAR: It would have been amazing if I would. For some reason they don't stick in my mind. I have a really funny memory. I can remember some things and not others and jokes and stories just don't fit.

INT: I've got that problem. Like I'll start telling a joke and get halfway through it and then realize that I don't know the punch line.

NAR: And then after a while, you just forget the whole approach.

INT: Yeah. (chuckles) Do you remember if you have ever heard joking from other crises? Like were there any tornado jokes?

NAR: Yeah, again this is kind of a...seems to me in just about in any crisis I've ever seen there have been jokes and I don't recall them. Seemed always that somewhere along the way going through a thought like hey there's a joke about everything isn't there?

INT: Do you have any idea as to why?

NAR: Oh, I'd say it is probably a human defense mechanism. If you can laugh about it possibly it doesn't seem as awesome.

INT: Is there anything you would like to add?

NAR: Not really.