

Date: August 9, 1979

Occupation: County Agricultural Agent

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

NARRATOR: I'd say about 11:00 on a Wednesday... I was about to make a television program on WHEL TV, so I would say probably 11:00 that day.

INT: A television program about agricultural extension?

NAR: Yeah, right. It's a regularly scheduled program for Wednesday at noontime.

INT: Did you know that there was a reactor at Three Mile Island before the incident?

NAR: Yes.

INT: How would you know about it?

NAR: Oh, I would imagine through papers publicly mostly, as I think about it. I think reading about it.

INT: Do you know how far we are from Three Mile Island?

NAR: Oh, I think Carlisle is twenty two miles if I remember right.

INT: Did you know that before?

NAR: No, not really.

INT: When you first heard about the incident, from whom did you hear it?

NAR: I heard it down at the WHEL TV, at the station.

INT: What was the circumstances?

NAR: Well, they were quite concerned, WHEL was quite concerned that NBC had got in there before they did, and they were somewhat concerned about the National Broadcasting System sort of scooping them.

INT: Are they NBC affiliates?

NAR: Yeah, they are. They were getting pressure by NBC activity in their own backyard. So the circumstances were frustration of the people that were talking to me about it. And it was more of a frustration than it was a hug concern at the beginning at least.

INT: Did you think it was a serious matter when you first heard about it? Or what did you think about it?

NAR: Well, I guess I would think it serious by being, well you are not aware of exactly what was going on or how “serious” (quote) it was. I guess I wasn’t overly concerned.

INT: Did you try to seek out any further information? At that time or subsequently?

NAR: Well, I would imagine if I remember right, before I left I got as much information from the personnel down at the, the news people down at channel 8. And then sure I came back and read as much as I could, listened to the radio, television. Yeah, I tried.

INT: Did you ever think it was a serious situation?

NAR: Yeah I would have to admit I felt it was serious. I guess I didn’t really have a alarming factor about it but I realized it was, I thought it was serious, yes.

INT: How did that come about? When did you begin to think it was a serious problem, a serious situation?

NAR: It could have easily been Thursday or Friday, well on. Maybe Friday before. Of course we got quite a few calls then, Thursday and Friday.

INT: Here at the Agricultural extension?

NAR: And it seemed that what was happening, questions that were coming in were redirected here. So as more and more people voiced concern I guess you start thinking more about it.

INT: Was there any report or anything like that that you read or heard or anything like that that sort of triggered in your mind the fact that this might be something out of the ordinary?

NAR: Your point, when you say out of the ordinary I guess I would have to say yes but we on a exact release? Thinking back I guess just the repeated comments and, oh I guess situations on Saturday, when the word got out. If I remember right some of these places were closed, well our neighbor went to the Pizza Hut and they were met by the whole employment coming out the door.

INT: Oh really? Here in Carlisle?

NAR: Yeah. Because of, I think it was a very brief evacuation notice, the way I understood it, was given. And I’m pretty sure it was the Pizza Hut. Our neighbors went and they were not served. I guess you start thinking it is more serious than you first thought given it. Because I think there were some restaurants that actually, other than the

Pizza Hut, that actually closed. And so when something like that happens it's gotta be, I think, termed serious—out of the ordinary.

INT: Did you talk about this with your friends then and coworkers?

NAR: Oh, yes. I would say so. Coworkers mostly. At that time we really weren't visiting many friends.

INT: This would be Friday then?

NAR: Yes.

INT: You mentioned the calls that you were getting in here. What were they like? Who was calling and what was on their minds? I guess it was what, Thursday that they started calling on Friday?

NAR: I would say we got a couple calls on Thursday, maybe more on Friday as the, you know, what were the safe levels, what is the problem, what should be done? Is it safe to leave the animals out? What should we be doing with the animals, this type of thing? And is it a real problem for breeding stock, let's say.

INT: What kind of advice were you giving people at that point?

NAR: I would say at that point we were with the information, we were getting some information from the university. So we were suggesting when at all possible feed stored grains and keep your animals in and protected as much as possible. And that milk was being monitored and at that point, Friday, I don't believe there was any. At that point there hadn't even been any reports of any radioactivity in the milk at that point I don't think. Of course then later on there was a very low incidence of contamination in milk that later developed.

INT: Were all the people who called, all the people who called were farmers or what sorts of people do call, or did call?

NAR: I would say the majority, right off hand I can't believe many other people calling. I think the majority of them would be rural or farm people.

INT: You mentioned that you were getting information from the University. Could you tell me a little more about that? Are you tied, at which University and are you tied directly into them and they were giving information to you?

NAR: Okay, we are actually, this office here. The professional people in it are hired by Penn State University. I am a member of the Penn state university Staff and we have a fleet of a hundred specialists. Now many of them would be dairy specialists, dairy feeding and dairy nutrition, might be an entomologists, few entomologists, a few agronomists. So we have a direct tie to the University, Penny State University. And one

being that we are part of the Penn State Cooperative Service, being paid by the University. We have direct lines to the University and they worked quite closely I understand with the department of Agriculture in the situation. And between the two of them they were trying to monitor if the best they could and provide with the information they did know that these were the best answers at that time.

INT: So they were. When did they first contact you? Do you remember? Did you call them or did they call you?

NAR: When they did. They called us when we first were told and I really don't remember just exactly.

INT: That would probably have been Friday, or do you think it might have been Thursday?

NAR: I would suggest it was probably Friday, but I really, I would rather. I think we could check it out but I really am not that sure myself.

INT: No, I am just kind of curious how these things work because I really don't know anything about it. How did people around you react to the situation? Maybe your friends or people here in the office, people that you came in contact with professionally?

NAR: I would say the majority of the people seemed quite, you know, calm about it, carried out business as usual. Two instances that I am aware of one of the agency people that we work closely with did feel I think, over the weekend – Saturday- the first weekend. He actually took his wife and family and then left the area. I am quite sure. We were trying to get a little bit of help on reading the Geiger counters. That basically there were three agricultural agencies functioning from USDA, and I might add that, too. We are also a USDA part, the educational branch of the USDA in the country. There is actually three. We are the educational part; the ASCS is more or less administers funds, if you remember the old soul bank program they handled the funds or any set aside. Any payments they go through the ASCS office. And then the soul conservation service and this individual is more of the technical part, laying out strips and conservation practices and this type of thing. So it was really the Soil Conservation Service, under an old system that we used to have where we used to have an agriculture civil defense program. And they were more or less in charge, you know when nuclear fallout, shelters and this type of thing. They were the people that were supposed to be the technical people reading the Geiger counters. So it was only logical to think back and say, hey, how about reading this. He was quite anxious to leave I think so we went to the local Civil Defense people and borrowed a couple Geiger counters. I don't know if they really cal them Geiger counters, counters to measure the radioactivity. And then we had one staff member to my knowledge that, his wife was pregnant and to my knowledge they did leave. I think they left for the complete week. It would be, not a, this would be someone who was working for nutrition. It was not one of our full time ag agents.

INT: Did you finally get the Geiger counters and make readings?

NAR: Yeah, on Friday.

INT: Who was making the readings? Was it someone who had been trained to use the Geiger counters or were you just using them or?

NAR: Well we had personally, and another fellow from our office went up and was given the information. He actually made use of the machine. I did not get trained nor did I use, well I guess I did use one. But, it was only for my own. But the other fellow, we were checking out a couple breeding establishments where there was a lot of breeding stock and they were quite satisfied that the readings were very low.

INT: Did you get any reading on the Geiger counter?

NAR: No, never any more than you would get off your watch. I don't really. Or color TV, to my knowledge.

INT: Do you know what kind of a Geiger counter it was or what kind of a radiation counter it was because I know that some other organizations in town had them and got a type of counter that was really only good for counting something that would be. If it were so much radiation that it registered on the counter, you would probably be dead already anyway. So there are a couple of types. One that measures a rather large amount of radiation and another one that measures very, very tiny amounts and I was just wondering what type you had?

NAR: I think the best answer on that question would be, maybe before we are done let me get one. I think we still have one of them around.

INT: Okay, good. So I can note that.

NAR: Actually you can not that down. If we don't get it today, I can get it to you in the future.

INT: Okay. This is the kind of thing we are curious about. Just to see what types of equipment are around and what changes need to be made if they are the wrong types of Geiger counters out. So far mostly we have had the other type. The ones with massive readings on them. Let's see where was I here. When this was first coming out and while right during the crisis, were you following newspapers, radios, TV reports about the incident?

NAR: Oh, we'd say as well as possible.

INT: Were you paying more attention to these sources than usual? Did you do more television watching or radio listening or newspaper reading?

NAR: I would have to say yes.

INT: Was there any one particular source that you relied on more than others?

NAR: One thing I really appreciated I think is the National Geographic came out with a beautiful background information. IT had nothing to do with this situation, but if you recall at the very time, in come, we get in the mail, there it was. Twenty five pages of material that told what they are and how they work and I found that very helpful.

INT: Did that come after the situation had already started or did it come just a few days before?

NAR: Yes, I would say it might have come on Monday maybe. The Monday after that.

INT: Very timely.

NAR: It really was beautiful, the way it ended up in my home. Now maybe somebody else got theirs a month early or a month late, but I really was very appreciative and then you could follow it. The materials that were being used, the half life and everything. Sure I didn't understand it all but I felt I had a little better handle after reading that type of material.

INT: Was there any particular news source that you paid attention to, particularly?

NAR: Well, I guess I would be a little partial to anything that was coming out of the Department of Agriculture. To follow through as far as personally carrying out some of my responsibility.

INT: Was there anything that the Department of Agriculture was doing at that time that you were?

NAR: Well, I think the main thrust that I saw was first of all the monitoring of the milk, that they did quite regularly. And they enlarged that list of things that farmers could do, possibly after Monday (unintelligible phrase about what they did).

INT: What sorts of things would that include?

NAR: Well, there were I think encouraging farm people to not be out any more than they had to, exposure. Not have your animals exposed if possible. Use water from an underground source instead of letting them go out and swim, as we mentioned before the stored feeds and this type of thing. There were several things which were I think helpful to us was that there was a cool period kind of. Like if it happened to day we'd be sucking volumes of air into the buildings whereas this did not necessarily have to be. And animals weren't out in pasture, and I think this is one of the things which really bothered me more than anything else was the poor press, I think the dairy farmers got, because. I know locally one of our dairy farmers called up one of the mass media and said what do you mean the cows are picking this up in the grass? And the point was when he called up

there wasn't any grass out there to eat or very little. And people really didn't have their cows out to graze. And of course we have seen the pictures of the steers in front of the nuclear towers. They got, and steers don't give milk. I think it was a lot of poor press. I think people were trying to sell pictures and sell footage and be a little spectacular about it. That probably concerned us a great deal.

INT: Well what was the, how would you characterize the reactions then at the, of the farmers?

NAR: Oh, they had a great deal of concern. They were somewhat frustrated, however, one thing that we spoke of very briefly before was evacuation. I think all the farmers, the majority of them would, it would have been very, not interesting, I don't know just what it would have been. It would have been very interesting to see how many farmers would have left had they been told to. I get a feeling that many of them would have had to have been almost hauled off their farms before they would have left. They would have seen that their families had safety, but they would have had to be pretty sure that there would be an explosion. This is only my opinion. But in talking with these people the majority of them were more, I felt rather calm about it. The only thing they weren't about to do. They were not about to evacuate, and I think they were concerned about people talking about evacuation and how they would side step an evacuation. I think this causes as much grief to them as the seriousness of the problem.

INT: Why were they reacting this way? Why do you think that?

NAR: Well, I would say one of the things was. Okay, here's a fellow who had developed a hundred head of cows, the bloodlines. They weren't about to miss feedings, not milk cows. I guess there was a feeling that when they lose that, they've lost a good part of themselves. And probably the other part of the whole thing is that, whether you want to call it or not, but I don't really think they really believed there was going to be an explosion possible. I really don't know the answer to that one. Why? But I really believe in tying in with the bonifide dairy farmers who are in it to make a business and are breeding dairy cows. That it would have had to have been getting pretty serious before they would have ever left.

INT: What would an evacuation be like, or what would it have been like, had one occurred, as far as the farmers are concerned? The dairy farmers?

NAR: Well, I don't know. I heard from time to time that they were planning to move cows and this type of thing. I personally think there would have been some breeding stock that left, went to a different area, possibly before the evacuation would have been called. But I do not believe that the average rank and file cow would have ever left the barn. I can't see that many cows leaving on. Now I guess if there are some guarantees that at 6:00 tonight this thing is going to explode. Well, at 6:00 tonight, if that was given right down, you only had three hours. The only person to save would be yourself and get out. Because you could never move animals in that amount of time, I don't think. So probably, but even if you need twenty four hours, you'd have to be really in a, that core

area. And we happen to have a situation where we have very few farms in that first five mile area.

INT: Here in Cumberland County?

NAR: Right and that might have some feelings to do that, too. But we had some folks that had some plans. I know one fellow over in Dauphin County who actually had cows loaded up on his truck and one of the fellows from the extension office there. It was the day the bubble started to go down and they unloaded. They never got them off the farm, the guy drove in and said did you hear the bubble was going down, put the cows back in the barn. We had some fellows had some real good bloodlines and they were quite concerned about it and possibly they would have made sure those animals – key bloodline to animals would have been taken out. But to move 19,000 dairy cows across.

INT: Is that how many there are in Cumberland County?

NAR: I just don't think. Those would be milk cows and so if there's 19,000 milk cows there is probably 19,000 heifers and calves to back stop them. So and I don't really think that you could. I just don't visualize that many animals ever leaving. And what would you do with chickens and? One of the big things that we had really that we felt we had going was that we felt that if farmers could figure out a way to get back in we might be able to coax them to leave if we could assure them that they could come back in and care for their animals. You know, a skeleton crew come back. I'm talking about evacuation of people. And what we were trying and it really was the hardest thing that we had thing to do. And our main goal as far as I was concerned about that whole thing was to make it so if Farmer Jones left his farm and went to where he was supposed to that he could ever get back into the area. Well, I can see where the National Guards and the looting and this type of thing, you know the National Guards would be set up to keep people out. Well how do you let this guy go back? These cows have to be milked twice a day, have to be fed twice a day. How do they get back in? And I think more people were so afraid to risk the chance that they would actually stay until they really had it pretty clear in their mind that something was going to happen. Observation only. I mean no. I have talked to a number of fellows that this is what they said they would have done, and I have no reason to disagree with that philosophy.

INT: Is there any kind of an animal evacuation plan?

NAR: No, as far as I am concerned. I think there are some people that think there is. But to my knowledge other than the possibility that key animals would leave at a certain time I would no of no real. Well, I know of no huge plan of animal evacuation. I just think that either there was enough said that there were some folks that were considering and probably would have done it on their own. But once people start evacuating is not the time. You'd have. My observation, my understanding, my opinion is that animals would either have to leave at a given time before as a voluntary situation or that no animals would leave until the people were out. Now that is pretty cock eyed because



how do you get the animals out if all the people had to leave, but. I cannot see animals, trucks, and everything going out the same time people go out.

INT: Why is that? Why couldn't they go out at the same time?

NAR: Well, I think a lot of the things they would be using to haul animals would really be a, I guess what I am saying is you take a line of buses or cars are going to be much more efficient and effective going out than a number of trucks, and some of them are farm trucks. Some of them. You know, to get the most out at the same time you might be overloading to the point where it might not be safe. Using vehicles that have not been used an awful lot on high traveled roads, trucks that were used to go, or trailers that were used to being hauled at ten mile an hour, twelve mile an hour. I don't see them as being in that same strain of. Again, just an opinion. I have nothing to base this on. But I just don't see them going at the same time.

INT: What is exactly the, or more or less the role of this Office or how was it when fulfilling some kind of a role during an evacuation or expected evacuation?

NAR: I think we tried to provide them with as much information during and after as far as animal health – what can we do to protect animals? Is, would the crops be safe to use? Was there enough fallout that we can pasture in the month of May and June? How about planting and vegetable garden? That is a little bit different. That was a home owner question that would come in. You know, can we plant our gardens as usual? So we would try to think of it as an educational unit. As I mentioned before these other three units. We did meet with the ASCS Office, Soil Conservation Service and us, we met with the commissioners. And we tried, and we did. We developed a plan and this goes back to. The plan that we tried to get was some way to get farmers identified and be able to get back into the area. That was the major thrust of what we did. I must admit that about the time we were doing it things were slowing down just a little bit. In other words, I think it went on Wednesday and the following, it was really probably. Well, we met on Monday and on Tuesday we identified all the farms in, probably that was the first ten mile area in Cumberland County that we had those names banded. On Tuesday we called them all up and asked them to come to a meeting on Wednesday night.

INT: How did you get their names and addresses?

NAR: The ASCS Office has the majority of all the farms.

INT: And what was the meeting on and what was it like?

NAR: We had about eighty people there and we discussed the possibilities that if anytime these farmers would be evacuated they would have to identify with us their names and we would issue them a pass to get back in.

INT: The eighty people represented what percentage? Was that most of the farms or...?

NAR: I would say it would be most of the farms were represented in that, especially the closes, the five mile and probably the majority of the ten mile. If I remember right.

INT: What was their reaction to the proposals?

NAR: I thin there was some over tones that, well I have too big of an investment. We are not about to leave. But we did have some folks there who were more interested in their one horse and their pets which they handled the questions I was somewhat displeased about spending a great deal of time about a horse and a pet when some of the other farmers had taken time out of a busy evening program to discuss how they would handle it afterwards but that is immaterial really.

INT: Well people I guess get pretty attached to their animals?

NAR: But really they were saying, in theoretically, this is what happens so many times. People are more concerned about their backyard or their cat and dog than a farmer might be concerned about a hundred acres of corn or fifty, sixty head of dairy cattle. And I think it was really true in this situation. I don't know. I think they. I don't know whether they were being naïve, ignorant, or just had faith in Almighty God because I don't think for the average farm person was really that uptight about it. No way you can tell. I was amazed at the calmness. Oh sure there were a couple people out of that eighty that were quite concerned. But I think there was more concern about someone coming in and saying "You must leave that area" and really at that point it was never really worked out as to. They said it would be, there was some fellows that sort of suggested they weren't about to leave. And because it never happen no one knows if they would have had to leave or not. Now would the National Guard have come in and told them "You must leave!"?

INT: Did they register the n with you?

NAR: We had all the names at that time, but it was sort of left that it would have to go to. There would be an alert and I must say that things really started improving quite quickly to the point that we really didn't go too much farther than that. I think we could have. What I said earlier. Maybe it sounds like I contradict myself. As fair I know that night we did not make any plans of moving animals, that is what I am saying. Evacuation of animals to my knowledge was not part of the plan. But to get the farmers back in was. And I am sure you have seen them and probably they are a dime a dozen, but there were quite a few of these type of gadgets were developed.

INT: The Office of Emergency Preparedness, and it is a little yellow card with A. What's the little hold through it? To put on an aerial or something?

NAR: Either that or around their necks or something. I don't know. But in other words a farmer would have been able, through our office, to get one of those to travel back in. And see that was our concern that the system, the system knew that that card meant something. I mean you can say anything you want, well the county agents said I could go

back in. Well that is nebulous. You have to have something that the National Guard or the guy with the gun will recognize to let a guy back in. And that was really the biggest thrust of the agriculture program was if they did leave how could they get back in and maintain, if it was safe for them to come back in I thin there would have been things that, had it continued and probably in the near. Maybe in the next few years will be developed as an agricultural plan, is how do you notify those folks? I think our systems telephone is not efficient in panic, I guess. I say at such and such a day we want a time. We want to notify these farmers. The telephone would not be a way to notify those farmers that they have to leave. There would have to be some other kind of system developed that, okay, you are at the tenth hour, now you must leave. And I think this was some of the things that they were asking for, where as that zero hour or two hours before that zero hour you have got to get out of there no ifs ands and buts. And this is how you get back in when it is safe enough to go back in. I know that here was some talk that we would try to follow up working with the Civil Defense and trying to make some plans for the future. But to my knowledge those meetings have not been called. I would imagine that we'll get much better farm participation if we can get it into September, October. Right in the middle of the summer is a very poor time. And I visualize a plan that would have farmers being quite a part of developing the basic plan. You know, get five or six farmer to vocalize how they feel about it and try to work a plan that would be workable. I do not feel I don't think you can work it with a group of two, three hundred people – but I think if you get some spokesman for the agricultural community along with the Civil Defense, I think we can get some people and I think we will.

INT: How do you think the media handled the problem during the crisis, during the situation?

NAR: Well, I think I was quite disappointed nationally. I think they did a fairly good job locally. I mean I really think they tried the best they could.

INT: What was the different between what was going on locally and what was going on nationally?

NAR: Well, the only thing I can base my opinion is, of course my mother and my father live in the area, we talked earlier about their concerns in California and their relatives living here and what they were saying they were hearing is not really. You know there was not a complete evacuation of Cumberland County and that is what they were hearing in California. So whatever they said must have been misinterpreted or they said the wrong thing. So I think that would be an example of some of the things. Somewhere along the line we really did not get across to our neighbors as far as liking milk. We knew of instances where people in Maryland were saying absolutely no milk from Three Mile Island is in our milk! Even in the State College area we were hearing this. Now this is anti-promotion, let's put it that way. So these things hurt. I only knew of one, it is hearsay but I only heard of one load of eggs that was rejected from the area. I think in a New York Market. However I think in and around Lancaster there were a number of farm products that were turned down. Eggs and they did not accept some hogs and beef

cattle from the area. So there was a lot of negative feelings I think developed. Now the press can't take all that blame though. But I think they can take part of it.

INT: Do you have any figures on the economic impact during a thing like that or Cumberland County?

NAR: We did try hard to develop from this and we had a farmer, John Cope, present some feelings in somewhat of an impact statement at the Embers. But as far as, in other words see I worked with John Cope. John presented the agriculture. They wanted an agriculturalist to present the information so. And if you remember right, their sales happened to be down quite a little bit. But before the week was over they had sort of picked it up and what, I think they were only down ten, fifteen percent for the whole week. Even during that first week of it. I think we have a hard time really coming up with dollars and cents.

INT: Is it that hard it is hard to see the impact or that there just isn't that much of an impact?

NAR: Well, Cumberland County dairy farmers sell their milk through a federal order system and if the supply is down, the price goes up. If the demand is down, the price goes down. And it is a situation where it is a pooling process, so all the milk in Baltimore and Philadelphia market come in as order 4. So if there was milk consumption that slipped, more milk went to manufacture products. It was the pooling process of all this milk was to the point where you can't really pinpoint this particular milk market because it has this whole vast area of Philadelphia and Baltimore and Washington is all order 4. And even some of order 2 which is the New York milk market. So the farmers really are being paid in maybe it would be just a half a percent, when yeah. Harrisburg itself could have been down ten percent, but for the whole market full it could be down a half a percent. You could never get it that minute, and I don't know. We have yet to come up with it cost X million dollars. I think probably more frustration.

INT: Have the farmers complained about it at all? Have they said they have run into any problems of this type?

NAR: Well, I think those farmers in the Lancaster County area that maybe had loads of hogs or loads of eggs and that type of thing turned down would have a different feeling. But to my knowledge the one load of eggs a group had turned down, I think they went to another location and sold it under other normal situations. So I do not think that you can really come up with a dollar figure, to my knowledge.

INT: How do you think the government handled the situation?

NAR: (pause) You're thinking of the situation at TMI and the situation of being prepared for an emergency...

[Continues on tape 2]

NAR: ...I think that, not knowing all the facts but, it seems like they should have been able to do a little better job than they did. Ah, of course I'm sure everybody was quite concerned about it, but that first couple of days it seemed like no one was in control and when this is the first one I guess you can't expect everyone.... One part of government that I really, again this is going to very slanted towards agriculture, but I was very disappointed in DER, which is part of government, came out, the Department of Environmental Protection, came across no radioactivity had been found in milk as of now, we expect it to show up within a couple of days. That was on Wednesday night, spokesman fro DER. My point is this, I thin he should have stopped when he said we did not find any. I don't think he had any business saying we expect it to show up in the next couple of days. To me that's undue harassment of the dairy industry. I just can't believe why a departmental function would come out and start saying we believe it will come out two or three days from now. Let it be announced when it comes out, but to say we didn't find any, you know it was not solicited, they did not ask well do you think it will be, it was part of his prepared speech. I thought it was quite unfair to start adlibbing things that might happen. But you know, who am I to complain, it's easy I think for the American people to say well the government should have done this and this. Does seem to me though, after the fact you look back, it seems like there were some short cuts taken, I guess the governmental agencies are the only ones that you can blame cause they're the ones that should have been doing some more checking, more thorough checking. If what you read sounds like there were quite a few goofs, and so who do you blame but the government agencies that should have been right. To answer your question, I guess yes, there's something wrong, but they're humans I guess and probably a little more careful in the future you hope.

INT: How do you feel about the industry? Like Met Ed? And the way they handled the situation?

NAR: You have to basically say on hearsay information you're led to believe that there are many places that Met Ed and the people that built it took some unnecessary short cuts. But I think that could easily be the American public and the way things are being done today. It back fired in that industry. But I'm not so sure when I drive my car and see other things happening that that isn't just the way we do many other parts of business society today. I mean trying to be fair about it, yes I think you can very easily slap them on their fingers but I'm concerned that many other industries function in the same way. Just doing what they think they aren't going to get caught not doing. To single them out as the only people being bad guys, I think is somewhat a hypocritical maybe.

INT: Is there anybody that you found particularly reliable or whose word you trusted more than anyone else's?

NAR: Right or wrong I think had, I think like lots of people, I think Denton came through rather strong as an individual who you could trust, more so than any other images that sort of came to mind. Of course wherever possible I also felt that the Secretary of Agriculture and the University would be quite objective about the thing.

INT: Was there anyone that you particularly mistrusted or whose word you found unreliable?

NAR: Well I must admit I thin Met Ed you thought maybe they'd be trying to save their face, but not necessarily a huge doubt.

INT: Well do you think that those in charge were in control of the situation?

NAR: At the time I guess they might have been a little more in charge than they turned out to be, as you hear things, maybe the governor didn't know exactly all of the situation, it wasn't a unanimous decision to do certain things so I think at the time I relied on their good faith in the most part since then I. There are some things that make you question a little bit. If you waited till you were 100% sure they might never have said anything yet, so there's got to be some risk in things like that, you've got to respect them more for saying okay this is the way we see it. Okay Governor Thornburgh felt that something should be done as far as getting the pregnant women out. The decision on the facts that he knew then, yeah I thin he did the best he knew how.

INT: Do you thin they are in control now? Those who are in charge?

NAR: I don't really understand the question, you mean the folks whatever the governor would say or the NCR?

INT: I'm thinking more of TMI itself, do you think that those, do you think the people who are in charge of TMI are in control of the situation at that time? And do you think they are in control now?

NAR: I guess I would say, I guess I doubt whether they were really in control at the time. I don't think that they, I don't think there were people making some of the decisions weren't really that sure of what was happening. Now the second part of the question, are they in control now? You're asking do I think that they know what the outcome is going to be. I guess I'm fouled up a little bit on the question.

INT: Do you think that they know what they are doing?

NAR: What they are doing with the water, the contamination...

INT: Technically.

NAR: ...whether they be able to a point where it's no problem at al?. I would think that it's one of those things being that this is the first one and they don't know how far it is. There is some risk you know maybe they're only 90% sure. So I can't say that they are 100% in control, I'd have some questions about that. I don't think anyone is.

INT: What worries you the most, what did worry you the most at the time, about the TMI situation?

NAR: I think probably knowing what really was going to happen, so it does explode what does that mean, how big an area would, so they have a meltdown, what does that contaminate. I think that if you knew exactly what would have happened, I think it would have been easy to cope with than not knowing. I guess I felt concerned, you'd feel like a heel saying do this, this and this. I guess I feel a responsibility with the people who ask me question that I give information to and not being able to know exactly what was going to happen. If you knew well that on April 6, May 7 whatever day it is, it's going to do this, it's going to do this it's going to contaminate this you could work on it. But if the winds blow the other way or it's blowing our way. So many different things could have happened, no one ever said for sure it could have been a meltdown it could have been an explosion. I think the frustration was really in not knowing what would happen and how to help prepare people, would have been my personal concern.

INT: Well during the time did you make any plans different from any plans that you would have ordinarily would have made?

NAR: Other than to take care of meetings with people, in trying to become more acquainted with, or make plans for these meetings. Monday we met with the other Ag agencies, Tuesday we spent a half day looking up these people. If it would not have happened we would not have done that. Wednesday evening I had another meeting that night and I attended that meeting half the time and then went back to the meeting in which Don Overdorf who you have already interviewed, was really more or less in charge that evening.

INT: What were those two different meetings?

NAR: I had a meeting in Operation Heartbeat, which is a meeting on CPR. It was a meeting that was scheduled a monthly, first Wednesday meeting, I went in the last time. Because the meeting was here so I had to open up the building but then I attended the other meeting.

INT: The other meeting was about what?

NAR: The one was about when the 80 farmers got together.

INT: I thought you said Monday?

NAR: No that would have been Wednesday. That would mean if I remember right, the bubble was coming down at that time.

INT: Was your CPR meeting, was that attended by as many people as you expected, there wasn't any drop off?

NAR: I don't know. It hasn't been huge, about 15 people going each time.

INT: Those 15 people showed up?

NAR: Yeah.

INT: Were they in any state of agitation at that time?

NAR: We had a couple folk from Shippensburg that were concerned about minute, any minute levels of, I guess it goes back to the point what is safe? There are some theories that say zero is the only thing that's safe, anything else above zero, anything that's measurable is working against you, I think a couple of these people had that feeling.

INT: They felt that way because they were coming closer from Shippensburg to Carlisle?

NAR: No, I think it was more or less a matter of discussion. I don't know whether that had anything to do with coming closer I think they were individuals who were much more prone and concerned than most people than I had been dealing with.

INT: Were they older or younger?

NAR: They were 50-60.

INT: What about in your own personal life, did you change any of your routines that way?

NAR: Yes, sir.

INT: Did you ever think about leaving?

NAR: Not really.

INT: Why didn't you think about leaving the area?

NAR: I guess it'd probably be two reasons: one is that I guess I felt that there was somewhat of a responsibility to ride it out, to be in a position to help farmers. I guess I didn't feel the need to, I guess if we would have been directed to an evacuation. I guess what I said is I have a faith in the authority when the time come and I was no longer needed here I probably would have left. I had made no plans. There were no bags packed. I really don't believe I did anything as far as gas either. Maybe I stopped in a little more often but the last couple of years. I used to bet the kind of guy who left the tank get to empty and fill it up when I had to. But I think since 74. It gets about half empty I fill it up whether I need it or not. And of course recently I haven't changed my mind on that either. We really didn't change our lifestyle here in anyway except to take care of our telephone calls. We had probably more over the weekend.



INT: From your family?

NAR: No, no from farm people that might be questioning something.

INT: At what point would you have left?

NAR: I think I probably had two problems. First I think I would have been directed to, Carlisle's going to evacuate and the other thing would be weighing as to how, whether being here would be any help to people. I don't believe I would have left before we were directed to. They'd say well, okay we're going to evacuate Carlisle, how I might fit into the Civil Defense System, working for being a spokesman for Agriculture and getting back to people, getting them signed up. If I had no responsibility, I'd probably leave when the evacuation would have been called.

INT: How do you think an evacuation would have worked? Proceeded?

NAR: Evacuation of what a five mile area, ten mile area a whole schmear.

INT: Any of that, say Carlisle since we are in Carlisle.

NAR: Well if Carlisle would have left that means you have to draw a circle 20 miles around Three Mile Island and when all those folks left, I would say there would probably be quite a bit of frustration and chaos. I really don't feel that people. I think people had other places to go. I think the system calls for either movement with the group to a certain group and I just have a lot of questions. If whether people would have respected the authorities to move where they were supposed to move and in the way that maybe they had to move. In other words, everybody would have wanted to take their car, I don't know some of those folks would have had to move by bus and public transportation. So I guess I have some reservations, how orderly it would have been. I'd say there would be more people driving their cars going places they were not supposed.

INT: Did that prospect upset you at all, and the idea that you would have waited for the evacuation call, did it upset you at all that you would soon have these frustrations?

NAR: This might show my being naïve about the whole thing, I guess I never really felt there was going to be an evacuation. So, I guess I didn't cross that bridge. I wouldn't say this, that I wouldn't have suggested that my wife leave somewhat earlier than myself. I could very easily see when things started moving in that direction, I could very easily see my wife leave, taking a car and leave.

INT: What would you have taken with you, had you gone?

NAR: I think if possible I would have taken my car.

INT: Anything else or is that about it?

NAR: Never gave it any thought. Thinking right now, I'd have probably loaded my car up. If it sounded like it was going to be that serious. Really never gave that too much thought.

INT: Was there anybody in your life that you were watching in order to help you decide what to do?

NAR: I would think that my wife and I would have been, other than that, no.

INT: Did you have any kinds of mental pictures of what was happening at TMI or what might happen?

NAR: The only problem with saying yes to that question is the next question will be what where they.

INT: Yeah.

NAR: Oh, I guess sure I visualized some things and have since but of course I've heard some figures since have made some mind drawings that have made it somewhat more real and that I'll try to think back what I really saw. I don't think I really had it that far off. I really think that National Geographic discussion helped me feel more comfortable about trying to put it all together in my mind, not saying that it wouldn't blow up, they didn't say that. Trying to picture that and that sort of thing.

INT: Did you have any kinds of imaginings about it, any sort of day dreams about it? What was going on or what it looked like or what might have happened, perhaps what the scene might have been like had the worst occurred?

NAR: Oh I think I could visualize one time just the top of the thing just blowing up. But I don't see anything. I guess I was never pinned into what the end result was. They indicate that this would be considerably different than the regular nuclear explosion where you'd have so much dirt and debris and dust and all this type of thing. It was my understanding it would be more of a what pieces were there plus steam, it would be a different type of explosion. The nuclear bomb that we think of the big cloud. It's been suggested that it wouldn't be that way.

INT: Did you think that anything that happened at TMI might have affected your health?

NAR: Probably lost a little sleep.

INT: Did you lose some sleep?

NAR: Not worrying about it but every night meeting that you go to or anything that you go to is that much less sleep you get. No, I sure didn't lay awake nights thinking about it, I'll tell you that much.

INT: Did you have your radio on all night or anything like that?

NAR: No, but I usually tried to get the 11:00 news. I usually listen to the 11:00 news and weather anyway.

INT: Do you think that anything that happened at TMI might have some affect on your health in the future?

NAR: I don't believe so.

INT: So you are not nervous at all about anything that might happen in 10 or 30 years?

NAR: As far as what has happened absolutely no. Now I think I must be truthful that by it happening by this thing happening, it brings to mind that type of thing, once they get going again could happen again, could be a problem. But as far as what I have been exposed to, I do not feel that I'm exposed to anything that's going to show up between now and 20 years from now. The idea is as long as it's over there, there could always be the possibility of the same type of thing, which might happen go ahead and happen. I'm not ruling that out as far as the exposure I've had I don't look forward to any problems.

INT: Did you notice any other aspects of your life that might have been affected by something like that or any aspects of life of your community around you that might have been affected by this?

NAR: Personally, no, as far as the community, maybe but I'm not aware of it, I guess.

INT: Do you picture in your mind any affects of radiation on life around you?

NAR: From this or radiation? Do I ever get a picture of radiation?

INT: Do you ever get a picture of radiation?

NAR: One of the things we have is a fall out manual and this type of thing from nuclear. Yes, I wouldn't say that those types of pictures have not come to mind but I guess not that readily, everyday or anything like that, I guess when you talk about it you talk about radiation and someone will ask you how it affects animals, we really don't know this exactly, this material would have affected animals. It would be a little different it would be more of a gas from what I understand from the particles which we picked up from nuclear blasts in the past or in test spots. So yes those types of pictures would come to mind, I couldn't deny them.

INT: How about from the TMI incident?

NAR: Well I guess there is some correlation between what I know of as movies and things I've seen as far as, about 10 years ago we had quite, we made fall out shelters and that sort of thing. I associate the two together.

INT: What happened years ago?

NAR: We as an organization we had a correspondence course developed but it was a time, maybe it was 15 years ago, there was a time when fall out shelters seemed to be the thing. There was support for development of fall out shelters and what you could expect be put (?) on the windows of the barn pile dirt on it. Sort of as emergency preparedness thing.

INT: Did you ever think of your own death through this situation?

NAR: I don't believe so.

INT: Did you always think you would survive?

NAR: I believe. I can't really recall back, thinking I might not be around in the morning, other than I guess there's just as much driving down the road as far as I'm concerned and a car accident could just wipe you out. No, I didn't believe I'd die.

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

NAR: I would think from time to time. You know you sort of have faith in it whether you should. You know, how man is screwing things up over here and say that God is going to make it right, but I would say I did, sure.

INT: Did you pray?

NAR: In my way, yes.

INT: What did you pray about or for?

NAR: I think I prayed that the people who were making decisions were making the right ones, whether that would be Governor Thornburgh as he manipulates people or people who were manipulating valves. You know, I thought that this was.

INT: Well how do you think God figured in all of this? Do you think He was actively involved in?

NAR: I don't think He did it to punish anybody or anything like this. I guess I never tried to sort it out and I guess I really don't know that answer.

INT: Did any kinds of Biblical stories or events or anything like that cross your mind during the situation?

NAR: I don't think so.

INT: You didn't have any ideas or think about Satan or The Last Judgment or the end of the world? Nothing like that? Did you attend any kind of a religious service during the crisis?

NAR: Sunday morning church, that is about all it would be. I don't know how long a crisis lasts but sure, but sure I would have went that Sunday and the following Sunday. We go, I would say quite regularly.

INT: Where was it that?

NAR: Usually at the 8:30 church at Allison, on the Dickinson College campus.

INT: Were there, was there a different kind of crowd there? Were there more people or fewer people than normal?

NAR: I go to the 8:30 service and to my knowledge there was no real change. Now whether if at the later service there would have been more I don't know.

INT: Did anybody there talk about TMI?

NAR: I wouldn't be surprised that it was possibly in the prayer? But I would not want to be positive either way. It was not that much a part of it that made an impression on it.

INT: So in other words attending the service didn't changed your thoughts or your feelings on the problem in any way? Does your own faith say anything about the rightness or wrongness to use and control the atom?

NAR: I guess not.

INT: Well do you think that religious persons or religious institutions should make any kind of a public stand either for or against any kind of human use and development of atomic power? Do you think as an institution, as a religious institution? Or as a religious person they should comment? Do you think that they should make any kind of a public stand, position?

NAR: I guess I have no feelings that would say if some group, religious group would like to do this. That it is up to them. Methodist church, which I belong to, has to issue a paper and a stand on it, to me I would say I don't believe it is necessary. But if any group does and even if the Methodist church wanted to, I guess I'd have some concern if the Methodist church would come out against it. But if any other group, you know that (unintelligible phrase). I think that they have the freedom to do something. And the only reason I question it is whether really it is immoral and that is why I would question whether the Methodists should come out against it.

INT: Did you feel that you had any kinds of certain responsibilities during this incident? Responsibilities to your family, responsibilities to your job, or to the community?

NAR: Yeah, I think so. I think I mentioned it a little bit before that I think I have a responsibility to my wife, you know being able to feel free to leave if she felt – which at no time did she feel that she should that I know of. But I did feel that I had some responsibility as far as my job to the agricultural community that, to provide them with as much information as we could get our fingers on to make them aware of what ought to be done.

INT: Well, did you feel any kinds of conflicts at all between these responsibilities and anything else?

NAR: The only conflict that I had was trying to get information, good information get passed on to the farm people. Now that didn't answer your question. You are talking about the conflict between my personal feeling and my job. And I don't feel that I had them, but I did have conflicts in trying to get good saleable material, and it is something that would fly in my own mind. Like, to me moving all those animals was not a solution.

INT: Do you have any ideas about how it is best to behave in a situation like this? Any kinds of moral or ethical or religious ideas?

NAR: It is easier to say you ought to remain calm and collected to be able to make good sound decision, but that's about as close as I could come to any suggestion now whether that is realistic that I might have to pass on. I'm not so sure that is realistic to say that everybody ought to, you can say it, but whether it is realistic that they would.

INT: Well do you think there was anything that made it difficult for people to behave this way or was there anything that made it difficult for you to behave this way?

NAR: Well.

INT: During this particular.

NAR: I think the confusion that was presented by spokesmen, the federal government, the state government, and Met Ed, sure would have made some. In other words had we continued on the way the first day went and the second day until Denton came down there, I think we could have had a heck of a worse situation. It would have been better had someone been prepared from day one.

INT: Well did this event bring to your mind any kinds of past experiences or past events? Did it make you think this is just like – something?

NAR: No.

INT: Anything in your own past for instance. Was it similar to any kind of crisis or situation in your own past, or anything in history that you could think of?

NAR: No, I don't think so.

INT: Do you think that this kind of an incident was any more or less frightening than having something like a flood or hurricane or war or something?

NAR: Yes, I think it is somewhat more frustrating in as much as you would base, okay. If it is a flood this is what happened when Agnes, this is what happened when Louse went through, this is what happened when Hazel went through. Even a fire, this is what you could, you could humanly project some of these things I guess I have to question that I had a hard time figuring to what do you base this on. What are the parameters? What is the worst that could happen? If it is a little explosion, what IS a little explosion? Is it two miles, one mile, does the thing just blow up? Contaminate (unintelligible)? Does it blow up and does everything from Chambersburg glow? I don't know. But a flood you generally know this is what is going to happen. Now it could happen more and more really, or degrees of it, I guess. But even the flooding is somewhat more gradual. You can see this happening and know when it gets to here I'm leaving, but it could have been a very snap decision. We're getting out of here. We didn't know what to expect.

INT: Did any TV shows or movies or anything like that come to your mind? Remind you of anything?

NAR: Since then there was one that showed. I can't even tell you what it was but I saw one with the tie ups of evacuation. Where people where all screwed p. People going the wrong way, you know. It wasn't about a Three Mile Island incident, but they were evacuating cities and stuff.

INT: Was that on television?

NAR: I can't tell you what program it was, but I must say it came back to me, I bet Three Mile Island would look like that. And it wasn't really functioning too great.

INT: Was that just recently on or?

NAR: Within the last couple of months, yeah. Within the last month.

INT: Well how about any books or stories or anything like that?

NAR: Not really.

INT: Did you find yourself at that time singing any songs, humming anything?

NAR: No, I can't say.

INT: Because some people for instance saw a movie called "On the Beach" which talked about a nuclear disaster, atomic war and the survivors found themselves. I guess the only people who were surviving at that time, were in Australia and a cloud of radiation was

coming at them and they were all singing “Waltzing Matilda.” And in some parts of Carlisle people were sort of whistling “Waltzing Matilda” because it brought that back to their mind, but nothing like that?

NAR: Nope.

INT: Came into your mind? Did you have any day dreams that you can remember? We were talking about that a little bit before, but anything?

NAR: Not really.

INT: Or any sleeping dreams?

NAR: No.

INT: Did you find that your sleep patterns were at all changed, upset or anything?

NAR: No.

INT: During the crisis. What happened to people around you during the incident? Do you think this thing sort of changed them in any way? Any lasting way?

NAR: I don't believe so.

INT: Did it change you in any lasting way?

NAR: Oh, I must have. I guess the main thrust is that I think you become a little bit more humble about the whole thing that I think man to a certain extent maybe is getting into an unknown situation where they don't have all the answers. They may be able to get someone to the moon but they sure haven't figured this one out a hundred percent yet. I think man in general has to become a little more humble, a little more humility about themselves.

INT: What do you mean? I don't exactly understand what you mean by the word humble?

NAR: Well, I think a lot of times we think we got the world by the tale and we have all the answers. And I think we found ourselves in a situation where we have just a lot of places where there weren't answers. And we weren't able to come up with everything. And today I guess I still question. I really do not give all the credit to the staff of Three Mile Island for getting us out of that mess. I don't think they had everything down that you push this button, this button, this button and it goes away. We know that. And we know that there was a lot of ifs still in that system. They didn't have everything down. So to me, I'm saying that I don't think. In general I think we must look at it and say that man doesn't have all the answers, yet. Maybe they. But I still think they have to get a little more humble about the whole thing. I think sometimes we get pretty cocky. Well



we can do this, we can send people to the moon, we can do this. And I think that we have a challenge here that yes it didn't explode but I'm not so sure that everybody that is involved knows why it didn't explode. Maybe the capability wasn't even there to explode. I don't know. But I tell you they sure let a lot of people think it might. And I don't think that everything reacted just like well if I do this, this, and this it will go away. Because they did some of this, this and this and it was still there.

INT: Did you hear any jokes during that time? About Three Mile Island?

NAR: Yeah, Johnny Carson sort of hit one every night. I'm not sure I remember them now. People from the Harrisburg area that were outside going to other places I think found more of a possibility of dropping them. I know I was over at, up in Blair County and there was a fellow who was from Harrisburg and he was making a couple of jokes. He was from the Harrisburg area. Most of the people were not from the Harrisburg area and so he dropped them.

INT: Do you think that people from the Harrisburg area didn't tell as many jokes as people from outside the area?

NAR: Well, this happened to be a guy that was from the Harrisburg area that was up there telling (end of tape side B). Yeah, I think they told jokes. And most of them laughed that I know of. I don't think people got uptight because someone was joking about it. You know, like it is no laughing matter. I'm sure there was some people that would, but they people that I seemed to have associated with didn't seem to be to, they laughed too. But I am sure that there are some people that would not laugh about it.

INT: Why do you think people reacted that way?

NAR: Well, I think some people were a lot more. There were some people a lot more concerned, I'm sure than others and some just did not think it was very funny.

INT: Why do people joke about a situation like this?

NAR: Well, I think that most people, to keep their sanity sort of joke about some things that are wrong, that aren't going the way they want them to happen. I think it is a release to a certain extent for some stress possibility. And most people appreciate a good joke or two, I think.

INT: Can you remember any of the jokes that were passed around here in the office? This is my thing. I really enjoy finding out what sorts of jokes people are telling and why. Getting different versions of them.

NAR: Well, you said around the office. I'm not so sure there was a whole lot passed around at the office. But I do remember that most evenings, that Carson did have something about the Three Mile Island, and they escape me right now. But I remember quite often.

INT: Did people repeat them here in the office, then? Did you repeat them?

NAR: Oh, I think the fellow who you have already interviewed. If I repeated them, probably repeated them to him. We eat lunch together a lot, so I wouldn't, to deny that I didn't repeat them. But I can't remember. You know, I have repeated other types of jokes that he has told so I would assume that if we were eating lunch and the occasion arise that I probably would have related some of them.

INT: Did you ever get any of the Xeroxed memos or anything like that coming in?

NAR: The only one that, it's not what you are suggesting exactly. I did get reports that there were signs in the Three Mile Island or in the State College that they were not using any milk from that area and we. That was part of our system. To have a Dairy Digest that comes out monthly and in that it is saying well we sort of expect our neighbors to saying don't use Penns, or use our milk instead. But you hardly felt that people in Pennsylvania would be advocating in bringing it up. Now that's not. It is black and white, it is not a joke, but it is, it was a report of that. No, I can't think of any really. A lot of times like OSHA has a safety horse or something like that which makes fun of OSHA. Now, no I don't remember seeing (OSHA) say T shirts and crap like that.

INT: Not even the. There are little Xeroxed pieces of paper and stuff people are writing on. Phony memos and things like this. Like who is the boss at, and nuclear week that starts with a Friday and ends with a Monday. Things like that that are just making fun of day to day occurrences. And I know that there were a couple passing around, like one with an ad, buy a beautiful island in the Susquehanna River. It is only about Three Miles Long and has it's own electrical generators. One operating, the other needs a little work. Things like this?

NAR: No, we didn't hear about and discuss that. You know, you can buy a little box of air from Three Mile Island or something like that. I think this was discussed, but I didn't see any of them.

INT: Let's see, just about as a last question that I have here is have you changed or developed any kind of an opinion about nuclear energy since this incident?

NAR: Oh, I guess I was, never rally gave it too much thought whether we should have it or not beforehand. I think I fall on the side that possibly we need it, but I sure hope that we can develop some safeguards that things like this would not happen in the future. Especially if my, what I hear is correct that there were many short cuts made in the system when they developed it and a lot of poor management and follow through operating it. I would hope that we could have learned something from this experience and that we can develop some safety precaution, we can develop some procedures for which we can make sure people are following what has to be done and do the right thing without a bunch of short cuts and then I might be all wrong, but it seems to me that there would be a number of little things, major things maybe that were short cuts. Things that

were fallacies, that were corrected, were not followed through, were not done properly, that screwed up the system. And it would seem to me that the least we can do is develop some ways that hopefully we can get some integrity into the people that's building them and manage them to make sure what's happening. I think that these types of plants are here to stay, hopefully we can make them considerably safer.

INT: Is there anything else that you want to say about all of this?

NAR: I'm sure glad it didn't blow up (laughs).