Weldon Spring Site

PUBLIC FORUM

Transcribed October 7, 1987
for
M. K. Ferguson Company
Community Relations

DOCUMENT NUMBER: _____

INTRODUCTION

...here in St. Charles County. Soil Consultants serves as a consulting agency to St. Charles County. We represent you, the citizens of this county, in watching activities that happen out here and providing comments to the County on our opinions of those activities. We also serve as a liaison to answer questions that may be asked of the County, and we invite you to call us whenever you have questions outside this meeting.

Our representative is here. Dr. Leon Heath, would you please stand up, Sir. Dr. Heath fields most of those questions as opposed to myself.

The purpose of the meeting this evening is to permit you to learn and understand the nine interim response measures that DOE has proposed to conduct at Weldon Spring--this green sheet, turquoise sheet. To accomplish this objective, we have with us here this evening quite a number of experts, representing several agencies. In fact, in twenty years of my experience, I don't think I have seen so many professional people representing so many companies and viewpoints all together. They are for the most part centered in the front three or four tables. Various members will be speaking on various subjects as the evening goes on.

I would like to start at this time by introducing some public officials that we have here with us this evening; Senator Dyer, where are you? I saw you earlier. We welcome you, Sir. We have also Representative Joe Utworth, again thank you, Joe. Commissioners Jane Schmitt and Nancy Becker. Nancy where are you? Thank you. We have, I guess it would be protocol for me to make sure these stay in order and I am going to blow it; I can tell right now. A lot of names and I am not getting them in the right order, but I will go down the list. Luann Hooselidge, who is Congressional Aide to Senator Harold Volkmer; thank you. Lois Dohrn, Senator Bond's office. OK, thank you. Chairman of the Board of Trustees for Weldon Springs, Ron Griesenauer. I should have got that. Bob McDonald, who is District Administrator for Senator Danforth. Thank you, Bob. And a couple more that I noticed, Mrs. Terry Fricke, who is with the School Board, and I'd like to introduce a gentleman tonight whose facilities we are using, of course they are your facilities--Mr. Dan Brown, Principal of the high school. Thank you, Dan, we appreciate it very much.

And we really are working for air conditioning for this building. ...response from audience ... unable to discern words.

Thank you. Is there anyone else I have forgotten, or missed? If not, thank you.

Our schedule this evening, is starting about ten minutes late, but I think we will catch up. We will have opening remarks by representatives of the Environmental Protection Agency, Missouri Department of Natural Resources, and Department of Energy. Those comments are anticipated to take about twenty minutes. Following that we will have six speakers through slides and other visual aids that will explain the nine interim actions that you have on that sheet in more detail. That is expected to take about fifty minutes.

Following that there are some short concluding remarks and then we want to open it up for questions. Now those questions will really be in three forms--the first two principally are: we have some cards that we'd like to pass out, 3X5 cards, the idea is as the presentation moves on, if you have a question we invi you to write it down on the card and we'll have somebody pick that up or you may bring it up to one of these tables. There are several reasons for using the cards, if you choose to. First, you have the opportunity to summarize your question very succinctly and get the exact words you want there. Second, if we have several cards with the same question, we can ask that question once and presumably cover it. The third reason may be that you may have a question and you are anxious about stepping up to the podium for one reason or another. If you are like me, you are just a little bit gun-shy sometimes. In that situation, please use the card.

The second form of questions will simply be for those persons that would prefer to step up to the microphone. And we invite that also. At the completion of the formal meeting this evening, all of the professionals that we have here at the first five tables are here to answer your questions. As the various speakers come forward you may feel that you did not get as good an answer as you wanted or you wanted to impress something upon them. Please stay afterwards and say what you have to say, even if you've said it before. Please come back up and share it with them. I believe they are anxious to know what your thoughts are and in whatever detail you choose to provide it.

If you use the card approach, please limit your questions to one question per card and take as many cards as you like. Now, just a word of caution: I have been asked to serve as moderator tonight and the only hard part for me is that the theme of this is the nine interim response issues that we have right here. Now quite frankly I have issues that concern me with regards to the Weldon Springs cleanup that are not included on those nine items and I really want answers to those and my problem is that tonight, as the moderator, I have been asked to limit the questions to these issues. Now, because there are broader issues, there are other things of concern, it has been made clear to me that there will be future meetings along the lines that we are having here tonight, but which will cover other subject matter and presumably that subject matter which is on your mind that is not covered here this evening. There is another possibility for

asking those questions again. We've got five tables of professional people here. After the formal hearing, will you please come up and make your points with them individually. Now, if you have not had the opportunity to sign in, we invite you to do so. The principal reason is that if there is a desire for a written response to a question, or somebody in specific says I'd like to get back with you, if your name is on the registration and your address is correct, then we have that automatically and they can respond to you.

One more point, this meeting is being recorded for the public record. It's my understanding that there will be transcripts made of that and those will be available in the repository. I'm not sure what that means. Somebody else will explain what that means.

At this point I would like to introduce our head table. First, we have Mr. Bob Morby, Chief of the Superfund Program for Region Seven of the EPA. Second we have Rod Nelson, Project Manager for the Department of Energy; and third we have Dr. David Bedan, who is Project Coordinator for the Missouri Department of Natural Resources. Our first speaker this evening is Bob Morby.

SPEAKER: BOB MORBY

Thank you, Bill. I do appreciate it. I am Robert Morby, I'm Chief of the Superfund branch for Region Seven here in the

states of Missouri, Kansas, Nebraska and Iowa. It is my pleasure, on behalf of the Environmental Protection Agency to welcome you here to the meeting about Weldon Spring site this evening.

Our purpose in attempting to direct the comments this evening to the proposals that are before the Missouri Department of Natural Resources and the US Environmental Protection Agency is that we'd like to have benefit of those things that you would like to relate to us in regards to the actions that are being contemplated. We have had opportunity to have some initial discussion with the Department of Energy and its officials about these actions that you see on the fact sheet. We think that they do have sense and there is some appropriateness attached to them, and we want to have them discussed and to get the comments from yourselves as well. Before I introduce some of the people I brought with me, I'd like to tell you just a few things about why we are here tonight as the Environmental Protection Agency--just in the way of background.

This site has been tested by the United States Environmental Protection Agency as what we call a National Priorities List Site. That means, in everyday language, that we have attempted to give priority to this site, saying that we think it deserves the action and attention of the Agency. I think that the Department of Energy agrees and they have gone to seek the funds to work on this site to begin to do the remedies that are necessary here.

There are two individuals that I would introduce to you this evening on behalf of the Environmental Protection Agency. Mr. Dan Wall is the Regional Project Manager for the Environmental Protection Agency. He is the person who will serve on a day-to-day basis, looking at the submittals, the plans, the analytical data--those kinds of things--on behalf of the Agency. Dan is a chemical engineer and a geologist by education and has had a chance to work with the EPA in the role of a program manager for approximately two and a half to three years. So we think that he is capable and we hope that you would get to know him and his function in that role. I have asked that he would spend a minute or two and share with you from his vantage point where he believes we are, as it pertains to the Agency actions, at this site.

In addition to that I would introduce Katie Biggs. Katie Biggs formally was with the Superfund program but has recently taken a new position in the Environmental Review branch. Given that there is an environmental impact statement required at this site, we have attempted to integrate those processes as it pertains to the work that is going on at the site so that we don't end up with a duplication of effort. I have asked Katie to spend a minute or two and talk to you a little bit about where we are at on that regard.

One other individual I would quickly introduce to you is Mr Dan Shield. Dan Shield is an attorney, he is assigned to work with the program as we look at the actions pertaining to the sit

and the work that we will be doing with MD&R and the Department of Energy at that site. With that, I am going to quit and let Mr. Wall come and spend a few moments and then we will let Katie make her comments as well.

SPEAKER: DAN WALL

Hello. As Superfund Project Manager on the site, I just thought that I would offer a little perspective from the Superfund point of view. Superfund began its involvement in this site in 1984 when the site became proposed on the national priority list. I have been personally involved in it for almost two years now. Superfund law and the national contingency plan requires that certain tasks be performed and certain processes be adhered to when you are investigating a hazardous waste site. Generally speaking, on this project, prior to the design phase, we will have to have complete chemical and radiological characterization of the waste materials, complete characterization and description of ground water and surface water systems and we must develop a range of alternatives for cleaning up the site. DOE or the Department of Energy has the lead responsibility for carrying out these tasks. However, as Superfund Project Manager, it is my responsibility to coordinate technical review and provide input such that in carrying out these tasks they will meet the substance of the requirements of Superfund. For instance, we are currently working with the Department of Energy on the develop-

ment of a comprehensive site characterization plan which will meet the requirements of Superfund. However, tonight we're here to discuss nine interim actions. I have taken a look at them and agree with the Department of Energy that the nature of these actions are such that the merits of these actions can be considered independently or separately from the overall remedial action plan and that because the actions are intended to stabilize the site and mitigate contaminate migration that we should proceed with them as quickly as possible. If you have any questions on the Superfund program, or Superfund program's involvement on this site, I would be the person to contact. Thank you.

SPEAKER: KATIE BIGGS

The next time we have one of these meetings, we may have to make arrangements for a podium for short people as well as some of the taller people around here. Either that or get a little box for me to stand on. On behalf of EPA, the Environmental Protection Agency, I also would like to welcome you here this evening. I would like to explain my role with EPA for this particular project. As Bob Morby pointed out, I am the Branch Chief for the Environmental Review Branch. We have responsibility for reviewing the environmental impact statement that will be prepared for the project. I have also been designated as the project coordinator for the Environmental Protection Agency. And my role as the

coordinator is to assure that we have full communication and coordination within EPA. Not only within EPA, but also amongst EPA, the Department of Energy, and the Missouri Department of Natural Resources, and whatever other federal or state agencies that we feel should be included in the project to give us the kind of information and support that we need in order to insure the right answers, the right technical answers. There are actually several programs within EPA that are actively involved in the project, for example we have our Water Division, our Radiation Programs, our Hazardous Waste people, and as you can see this evening, we do have our Superfund people. That is just to name a few. We call on these people as necessary to help us with review of the work that is produced by the Department of Energy and to give us technical advice and assistance in reviewing and evaluating this work. We believe that this integrated approach gives us a thorough understanding and evaluation of the project itself and we think that this also gives us an opportunity for cooperation among the agencies to be able to resolve the technical problems that we are dealing with and to arrive at an environmentally sound solution and remedial action for the project. Thank you.

Thank you, Katie. Our next speaker is Dave Bedan with the Missouri Department of Natural Resources.

SPEAKER: DAVE BEDAN

Thank you, Bill. I am here tonight representing the Missouri Department of Natural Resources which is the primary state agency responsible for implementing the state environmental laws. Now, as the coordinator, my job is to make sure that all the different parts and programs within DNR are coordinated in their activities on this project. Also, I coordinate with the State Department of Health and the State Department of Conservation in their activities here. Missouri DNR has been concerned about the cleanup of the Weldon Springs site for many years. We are pleased that the US Department of Energy has decided to rewrite the draft environmental impact statement in order to provide better information for making decisions on the remedial project. This information gathering and decision making process will take some time, however, and we believe there are many interim actions which can be taken to reduce potential environmental and public health problems as well as enhance workers' safety. Therefore, we also support the DOE in its efforts to explore these proposed interim actions at the Weldon Springs site. We have reviewed the general concepts of the nine proposed interim response actions and we agree with them in principal. However, we have not yet reviewed the detailed plans for these interim actions in order to determine whether they comply with any applicable or relevant or appropriate state requirements. We will be reviewing them over the next few weeks and months and will take into account any concerns which are expressed here tonight. Our preliminary review of these proposed actions

indicates that some of them are probably subject to the Missouri Air Conservation Law, the Missouri Solid Waste Management Law and the Missouri Hazardous Waste Management Law. Therefore, I have invited several staff members who are responsible for administering these laws to be present here tonight and I'd like to introduce them. First, I would like to introduce Mr. Nick Nickola. Would you stand? Nick is Director of the Air Pollution Control Program. This is the program which would be relevant to any of the asbestos work. Also he has brought two staff members with him, Mr. Mike Thorp, who is head of the Enforcement Section within the Air program, and Mr. Steve Feeler, also from the Enforcement Section. Next we have Mr. Nick DePesquali, who is the Director of the Waste Management program and therefore responsible for the Missouri Solid Waste Law, the Missouri Hazardous Waste Law, and the state Superfund program. All three of those. Next, Don Maddix, who is over here on the right. Don is the Director, or the Regional Administrator for the St. Louis Regional Office which is our field office, our field inspectors. And also from the Regional office, Mr. Clyde Wiseman, who is next to Don. Carolyn DeRusse, who is the Deputy General Council, in other words--the assistant lawyer for the Department--is here. And also, I would like to introduce from the Missouri Department of Health, Dr. John Crellan, who is their Project Coordinator. Now these state personnel will be available after the meeting if you would like to come up. And for further discussion, if we do not have the right person here, let me know and we will get the

question to that person. Thank you.

Our next speaker is Mr. Rod Nelson, who is the Project Manager for the Department of Energy.

SPEAKER: ROD NELSON

Thank you, Bill. Good evening. As Bill stated, I am Rod Nelson, Project Manager for the Department of Energy at Weldon Spring. I am pleased that all of you are here this evening and want to extend my personal welcome to each of you to this public meeting on the proposed nine interim response sanctions. At our public hearing on the draft environmental impact statement of April of this year, I committed the Department of Energy to an open and positive relationship with the public on the Weldon Spring project. Specifically, I committed to continue the periodic information meetings such as the one we are having here this evening. I also promised that I and my staff would be available to the public to address concerns that they may have in this regard. At this evening's cosponsored meeting we have all the players, if you will, in attendance. Along with the DOE, who has the overall responsibility for the Weldon Spring remedial action project, we have the Environmental Protection Agency and the Missouri Departments of Natural Resources and Health. The three agencies that have the regulatory and oversight responsibility along with the DOE for the health and safety of the public. However, there is another important player and that is

you, as residents and citizens of St. Charles County. We at the DOE are interested in your comments and concerns. In order to be involved and provide informed comments, you must be knowledgeable of the project. We are committed to providing you with the information you need. I am pleased that you could all be here tonight and request that in the future meetings not only you attend, but that you ask your friends and your neighbors to also attend. All of the information that we are going to present here this evening will be placed in repositories, first at the Lindenwood College library and secondly at the Spencer Creek branch of the St. Charles County library system in St. Peters. At this time I would like to introduce Jack Hammond of the project management contractor at the site who will introduce the nine interim response actions that we are going to talk about and will also introduce the folks who are going to discuss them. Jack.

SPEAKER: JACK HAMMOND

Thank you, Rod. I am Jack Hammond, the Deputy Manager for M.K. Ferguson at the site. We are the project management contractor selected by DOE to help manage and conduct the work out there. As was stated earlier, we are here tonight to talk about nine proposed interim response actions, each of which were selected because they are required under all actional alternatives and they do not bias the ultimate selection of the remedial alternative for the site. They're intended to reduce the risk to

personnel on site as well as off site and to minimize the risk for off site releases prior to conducting of major remedial activities at a later date. We are looking at other interim remedial activities and an additional list of these will be assembled in the next few months and presented in a meeting such as this. But tonight we are limiting the discussion to those nine interim remedial actions that are on the list that was handed out to you.

I brought with me tonight a few of the people that are going to be working on the site itself to manage and perform the work, and they also constitute a group of people to help answer any questions that you may have. The first two activities that we have are the electric power line and pole removal and removal of overhead piping and asbestos on the site. Tony Steward, the Operations Manager, will be presenting those two activities. The next two--PCB transformer removal and removal of containerized chemicals--will be presented by Keith Nowadly, our Environmental Protection Manager. Next will be the ash pond isolation dike and debris consolidation presented by Ed Hopson, one of our site engineers. Steve Green, our Manager of Radiological Protection, will be covering the army vicinity properties. And Darla Lewis, our Engineering Manager, will be covering Building 401, the steam plant, and Building 409, the administration building, which we're proposing to dismantle in the near future. With that, I'd like to present Tony.

SPEAKER: TONY STEWARD

Can you folks hear me back there all right? Thank you. Thank you, Jack. I'd like to talk this evening about two of those remedial actions which the DOE proposes to undertake at the Weldon Springs site. The first of these is to remove the electrical power lines and the poles that exist at the site that fed electricity to the old chemical plant and also those communication lines associated with that work. The purpose is to remove the deteriorated utility poles and overhead lines. A number of the poles are deteriorated and are falling and pose a hazard to on-site workers.

One of the reasons that we wish to conduct this activity is to improve safety conditions at the site. Over the course of the past couple of years we've had a number of poles fall. We'd also like, as part of this activity, to clear the area for any future demolition activities. I think I'd better stand on this side. The scope then is to remove all the deenergized exterior timber poles. During the course of that work we will be surveying, doing radiological surveys of the polesu and lines as they are being removed. We will then classify them as contaminated or uncontaminated. We plan to dispose of the noncontaminated poles and lines off site. We plan to store any contaminated materials that we find on site.

Some of you folks are familiar with the layout of the Weldon

Springs site and will be seeing this same slide or similar slide in the presentations which will follow mine, but this basically outlines the Weldon Springs site. The area in this section is primarily the chemical plant area. Back over here, of course, we see the raffinate pits, one, two, three and four, and other areas of the site. The power lines and poles are primarily in the area of the chemical plant.

Well, what have we done so far? We have done some preliminary surveys of the power lines and the poles, about 20% of them as a matter of fact have been checked for radiological contamination. Those poles that have been checked are in the area that are most likely to be contaminated. By that I mean right in the chemical plant itself. Some of the perimeter poles also were checked. The results that we have seen so far in this statistical analysis show that the poles are well within the guidelines for release for unrestricted use. I remind you though of what you saw on the last slide. While we remove these poles, we will indeed be checking them to make sure that they are not contaminated. If they are, we will be storing them on site. We'd like to show a few slides to illustrate the kind of problems that we've been talking about here. This particular shot is taken near the entrance to the chemical plant portion of the site. And I think you can see this pole is leaning pretty severely, and the reason that it is leaning that way is because it is rotted near the base. We have temporarily tied it back, but this is typical of many of the poles that we see on the site. This is another,

showing disconnected lines and the strain that is put on that pole because those lines have been disconnected. The reason that you see this is that a pole has fallen between this pole and ... I think I have a slide showing that. Here indeed. This pole fell sometime this springtime during one of the wind storms that we had. I think this shot also was shown, or a similar one, was in the local papers. Another of the kinds of deterioration that we see in the poles, just rotting and also woodpecker damage, splitting, poles have been there for some time and they are in pretty bad shape.

I'd like to talk next about the second remedial action that we would like to undertake for similar reasons as we did the first power lines and poles. This is overhead piping and asbestos removal. There are a number of outside overhead lines and pipes present on thesite. They carried instrument air, they carried compressed air, and they carried steam. They pose a hazard because they are covered with asbestos which is in a deteriorated condition. We want to remove that outside overhead piping, the ducting associated with it, and insulation and supports. The reason: to remove a potential threat to health and safety of on site workers and in addition, as with the power lines and poles, to help clear that area for any future demolition work.

Now what is involved? There are about some thirty-three thousand lineal feet of pipes. That is a lot of pipe. About 13,000 feet of that pipe is covered with asbestos or asbestos in

a deteriorated condition. There are also some ... when I say asbestos again you see the acronym ACM. When you see that on one of these slides that means that is asbestos. There are about 500 structural supports involved in this project as well. How will we do it? Basically, we want to wrap the pipe lines that are covered with asbestos in a polyethylene; dismantle that asbestos insulated pipe. We also have some asbestos insulation from steam plant flue ducting which is in a deteriorated state as well. Again we will do a radiological survey of this material; classify it; dispose of the uncontaminated materials off site. I point out that asbestos will be disposed of in a state licensed landfill facility. Any contaminated materials will be stored on site. We will then clean up any asbestos contaminated soil that may have fallen from these pipelines.

Briefly, the areas again that we are talking about on a similar slide, mostly confined to the chemical plant section of the site. I put this slide up because it shows what are the applicable codes and regulations that this work will be conducted under. Occupational Safety and Health Act, NESHAP, National Environmental Standards for Hazardous and Pollutants, and other applicable state regulations. There have been many state regulations put into effect, too, to cover and protect the citizens.

Characterization. What have we done? We have sampled and tested the insulation on the piping for asbestos content. Those samples were sent out and analyzed at a laboratory, so we know which of the lines have asbestos contamination. We, at the sam

time, did a radiological survey of those samples before we sent them out for analysis. I would like to show you some slides depicting those lines. Again, I think you can see here, this is one of the steam lines and you can see the deteriorated condition of that line. Most of this asbestos on this stretch has long since fallen to the ground and it is subject to blowing around the site when there are high winds. And potentially subject to blowing off site. Again, a little closer shot of the extent of the deterioration of asbestos. You see a little bit here. Most of these elbows are covered with asbestos, but they're in pretty bad shape. This valve here, shows covered with asbestos, much of it is gone from here on out. It is broken off and fallen to the ground. This looks pretty sad down here, too. And here is an example of some that has fallen to the ground in the vicinity of those shots that you saw there previous to that one.

I would like to introduce Keith Nowadly, who will talk about the next two interim actions that we would like to take, those being containerized chemical removal and also transformers and PCB removers.

SPEAKER: KEITH NOWADLY

I think in order to give you an appreciation for one of the interim responses that we propose, I would like to show you a couple of slides first. This is a typical transformer that we have on site. There are basically two types of transformers,

there is a fluid cooled transformer, and there is an air-cooled transformer. This happens to be a fluid cooled transformer and contains about 400 gallons of fluid. Given the vintage of transformer on site there was a propensity for these transformers to have PCBs. Transformers in the 50s and 60s contained PCB fluid. That was just a good fluid to use. It had a lot of good chemical properties. Next slide. This particular transformer you can see has been marked that it contains PCBs in the late 60s and early 70s. PCBs were further analyzed by the Centers for Disease Control and certain branches of EPA and determined that there is a potential toxicity problem. Next slide. What we did is we inventoried every transformer on site, both outside buildings and inside buildings. What you see here is a crew taking a sample of the fluid from a valve at the low part of the transformer. We also did radiological screenings, both of the fluid coming out of the transformer as well as the carcass or the shell of the transformer.

So what is the purpose of the PCB transformer removal? Well, obviously, these transformers are no longer used. They don't serve any electrical purpose for our activities on site. Second of all, since they do contain PCB fluid, there is a potential, since these units are 25 years old, that they could, in fact, leak.

What is the scope of this proposed action? First of all the units would be drained of the fluid.. Secondly, those units that are above EPA threshold would also be flushed. After the PCB

fluid is emptied, we would fill the transformers up with kerosene; allow the kerosene to stay in the transformer for 18 hours or more; and then we would also drain that flush solvent. The PCB oils and the flush solvent would be taken to an EPA approved incinerator for destruction. Those units that meet the threshold which happens to be 50 parts per million PCBs in the electric fluid, would also be taken to an EPA approved landfill for disposal. Not to be redundant, but here's the same figure, trying to show you the approximate location of the transformers. It turns out that all the transformers that are air cooled are inside the buildings. So all the units that we are talking about here tonight are all outside and have been exposed to the environment for some time.

Characterization activities. As I said, we sampled every transformer. We basically came up with a range. Some transformers contained very high levels--greater than 500 parts per million, some contained intermediate levels. Fourteen of the transformers contained other dielectric fluids, not PCBs but other fluids. And again we have 31 air cooled transformers, and we also performed radiological screening of both the oils and the exterior shell and we did not see any uranium activity.

The next interim activity that I'd like to talk about is containerized chemicals. What do I mean? Containerized chemicals at this site span the limit. We have anything from small bottles in the infirmary We have little cans of Mercurochrome and bottles of rubbing alcohol. to the maintenance shop where,

and this isn't my garage, we have one gallon cans of paint, five gallon cans of paint, a lot of tires, oils, greases, again, the same type material; but we also have 55 gallon drums. Again here we have...these were all lubricants. This is part of the maintenance shop. These are all some type of lubricant or greasing oils. But we also cover such things as tanks. This happens to be a diesel fuel tank that was used for storage. What is the purpose for this interim action? Well obviously these chemicals are not being used. They have been exposed to rain water; they are in glass containers which are subject to breaking; they are in steel drums which are subject to corrosion. We are trying to prevent or minimize leakage and exposure of both on-site workers and as remedial actions progress other contractors who may come on site.

How do we envision this project? Well, first of all, since the containers are scattered throughout the chemical plant in buildings and outside, we would like to consolidate all the materials. Some of the materials may have to be stabilized first. What I mean is that if you have an old corroded and rusted drum, you just can't go over and pick it up because it is likely to just fall apart. So for a lot of the materials, we are going to have to stabilize them first--help them into different containers that we don't have to worry about. Secondly, all those materials will be taken into one area where they will be characterized--where we will try to segregate like materials together. All paint waste together, paint solvents, acid, etc.

so they are all in compatible groups. And that is what we would like to take those materials and decide which of the like materials could be bulked together. Place all the paints together, so that we can select reasonable and cost-effective disposal solutions. Once we have done all that (and we will also do a radiological screening so we can separate out any of those materials that represent a radiologic hazard and they also might represent a hazard material by EPA's definition of what makes a material hazardous) we will segregate out radiologic waste and store those on site. Those materials which are solid waste or hazardous waste will be disposed of off site to EPA approved facilities. Those would include both hazardous waste facilities and ordinary sanitary landfills--if, in fact, they are not hazardous.

What have we found through our inventories? We performed this inventory three or four months ago and what we found is that we had basically 4,000 individual containers. Included in that number are about 250 car batteries, but since the acid in the batteries constitutes a hazard we'd like to remove those as well. Included in that number is also about 300 fire extinguishers, some of which were pressurized CO2 containers and they are no longer usable. We'd like to get them removed so that as remedial activities progress on the site, these materials do not get in the way. We were able to group of the 4,000 materials, there are about 300 different or unique types of containers, many of which are labeled, many of which are also labeled and empty. Part of

this program is to identify these materials; confirm that what is on the label of the little bottle or the 5 gallon bucket is in fact what is inside. To check out the radiologic element of each of these containers so that we can improve our ability to dispose of them in a proper manner.

Next I'd like to introduce Ed Hopson who is going to talk about the ash pond diversion.

SPEAKER: ED HOPSON

I'd actually like to start out with a debris consolidation rather than ash pond if that is fine. Can't hear me? ... There you can hear me. The proposed actions that I am going to talk about are a little simpler than what we have just heard. In fact, the debris consolidation is primarily a housekeeping tool. You saw in the slides that Keith presented that there is a lot of junk ... mike adjustment ... The purpose of the debris consolidation is to consolidate debris that is randomly scattered completely across the site--the equipment that has been left in various locations. There are pipe racks full of pipe. There are steel drums, stainless steel drums, some of them 10-12 feet in diameter laying around the site. There is a locomotive. There are drinking fountains lying in certain areas and it is very unsightly and creates a problem for workers in any of the remedial actions we are going to follow. We wish to clear this area to permit improved grounds keeping. We have to mow the lawn and keep trac

of what is being done and we do not want the lawn to get up to where we cannot find the buildings. We are clearing the area for future demolition and construction activities. We have to work around these buildings, demolishing these buildings. We have to be able to get to them. Also, before we do any of this, we are going to be doing a lot of radiological surveying and this requires that we get close to the areas of concern also and close to the buildings. So we are going to improve the conditions for such surveys.

Scope is fairly simple. We are going to collect all the debris and as we collect it we will radiologically survey it, but we are also going to store it in another area of the site under controlled conditions so that we have, instead of randomly scattered material, a controlled area. We can then, at that point, either take the material off site if it's noncontaminated, or leave it on site if there's related radiological contamination. The debris is situated throughout the area. The biggest portion of it is, of course, around the chemical plant itself but it also extends to the south and out around the raffinate pits and up into the ash pond area also. We feel we can consolidate it down to less than an acre. Muted response from audience. Microphone adjustment .

I think every body can see the map anyway, right? You can now hear me. The areas that are of concern are primarily the chemical plant but then also we have the various areas to the south of the site, the raffinate pit areas. We also have some up

around the ash pond. Essentially we have looked over the area and we've been doing the characterization. The chemical characterization will eliminate any of the problems that some of the debris that Keith mentioned was out in the area so that this will be taken care of under his contract and the remainder nonchemically contaminated will be taken care of under a separate contract. We have scanned most of the major items and much of this is noncontaminated, but we will be monitoring it again as we collect.

Now I would like to get to ash pond diversion dike. We have one discharge from the site that is the highest levels of uranium that come off the site. It is just downstream from the ash pond. We feel that the contamination is coming from the pond itself, so we have decided that we would like and are requesting that we can put in a system of a dike that will divert water around ash pond and also impound water for future treatment and for erosion control. This is a simple project. We're talking about probably a 500 foot dike, 10 feet at maximum and roughly less than 10,000 cubic yards of material has to be moved to create it. There would be a ditch about 1,000 feet long and the discharge would be at the same area that we now discharge from the site into Busch Wildlife.

The ash pond is in the northeast section of the site. Northwest section of the site. The ... we have the main dike and then the diversion ditch is leading off to the northwest. Just south of the, or just to the north, right in this area, we have

found a dump that was not recorded anywhere when we came on the site and we found that it was an open-faced dump roughly 10 feet on the face. We have surveyed it, radiologically, and we are fairly certain that this is where the high levels of uranium are coming from. You will notice it is downstream from the system so we are going to bypass from that area. We have characterized and what we have found in our characterization is that the water measurements that we have made, right about where we're going to put the dike, have uranium levels of somewhere around 400 picouries per liter. What we have coming out of ash pond is 3,000 to 4,000 picouries per liter. So we are proposing that the ash dike be put in with a diversion ditch and this expenditure will essentially reduce the uranium coming off the site by 10% in this one location.

I would now like to introduce Steve Green, who will talk on the vicinity property.

SPEAKER: STEVE GREEN

Can everybody hear me? OK I'm going to talk about the proposed interim remedial action to take place on the Army Reserve Training Center Vicinity Property #7. I'm going to mention some general characteristics of about three other contaminated properties on the Army Reserve and, but I want to make clear that this first interim remedial action that we propose to perform on the Army properties will involve only the removal of contamination

from what is known as Army Vicinity Property #7. The purpose is very simply to excavate contaminated material from the Army Reserve property: to remove a source of contamination from their property. The reason why we want to remove the contamination from Property #7 first is to allow the Army to go ahead with their proposed construction plans on their site. This slide here, shows the general location of the vicinity properties with respect to the Weldon Springs site. Here is Property #7, then these are the other properties in here and this is the raffinate pit area, up here. The distance from here to there is about a quarter of a mile. This gives a better, a blowup of the vicinity properties that we're going to work on first as part of this interim remedial action that we are proposing, located right here. That is Property 7, but the other properties that are over there that have radiologically contamination are Properties 1, 2 and 3.

OK, so what is the scope of this work? Well, first of all we're going to excavate the contaminated material from these sites. The second step then, at Property #7 and you'll see from my next slide that Property #7 is a very small property, the excavated material we will put into 55 gallon drums. It will probably take about one or two drums. We'll bring that back to the Weldon Springs site for interim storage.

The next phase will be to verify by means of taking soil samples and other radiological measurements that these properties have been cleaned up. Following that, a independent contractor

will actually certify, by taking additional measurements, that we have actually removed the contamination from these properties. Following that we'll bring in clean back fill material, regrade the areas and then reseed. We have measured the radiological characteristics on these properties and my final slide here summarizes the total amount of contamination on these properties. The primary radio nuclei that is the contaminate and the average level of contamination. You can see down at the bottom... End of tape

We have less than one cubic yard of contaminated soil. In contrast, Property #1 has almost 1200 cubic yards of contaminated soil. So with that I will introduce Darle Lewis who will talk about dismantling Buildings 401 and 409.

SPEAKER: DARLE LEWIS

I want to apologize. As a lifelong engineer it is very frustrating to me that the slides are not working properly and I swore that when I got up here I would adjust this machine so that the whole slide or viewgraph was on the screen. Unfortunately, they taped everything to the floor and it would be a major operation, so we will struggle along.

I am going to discuss with you a couple of items, a couple of buildings that we would propose to dismantle and clean up at

the Weldon Springs site. First of these is Building 401 which was the steam plant. Our purpose for proposing this action is primarily to get rid of this building. It has a lot of asbestos in it. It is not substantially contaminated with anything else. It is in the way. You have seen some of the other asbestos and it probably contains, oh I would guess, probably about 30 or 40 percent of the asbestos on the site--in this one building. We would like to get that under control and put it into a position where it is no longer a problem. What we propose to do is simply to remove the loose material from inside the building and then (conversely to what we talked about where we said we would wrap the pipes on the exterior piping with asbestos, or with polyethylene or a plastic material and take them down with the asbestos on them) we would propose to remove the asbestos from this piping inside this building. It is all over the place in there. In fact it is interesting that there are a few unopened bags of asbestos cement still sitting in there. Because there is a lot of asbestos in there, we propose to take the asbestos off of the pipes and the machinery and so on. We dispose of the asbestos that we removed in a licensed off-site, hazardous waste facility where it is acceptable to the state and their agencies. We would then dismantle the equipment which is no longer contaminated and transport it off-site for disposal and then we would dismantle the building and remove it to an off site location.

Would you like to show them a couple pictures of that

building? You can see this is the duct work. On some of it you can see where the asbestos has fallen off. This is on the outside of the building. We do not have any particular pictures on the inside of the building. The asbestos inside the building is in pretty good shape. It is just all over the pipes and everything. I believe there is one more slide that shows you the building. Again you can see this is the old steam generator plant.

Building 401, which is the steam generator plant, is located right back here. This is the main gate up here. The other building I will be talking about is Building 409 which is the administration building up here in the front. This one to the back. As you drive down the road, you can probably see the stacks from this building that are no longer in use.

A little bit of information about this particular building. It contains about 17,000 square feet of floor space in about six floors with the various levels of mezzanines. They are not nice like a hotel: they are not all flat. But it is about that much space, and it is very highly contaminated with asbestos. We have surveyed the building and in general there is no radiological contamination on that building. About 15% of the roof of this building contains uranium just above release limits--just barely above the amount that is allowable for release. We propose to collect that little bit of roofing, store it on site in a storage facility, dismantle the rest of the building and ship it off site.

The next item that I want to discuss with you is Building 409. Building 409 was the administration building at the site when they were operating. This building is deteriorated. It has lots of birds in it; it has moss growing in it; water in there; the roof leaks. It is just in a deteriorated shape. It is not contaminated. We would like to dismantle this building and remove it from the site.

What we propose to do is to remove the loose equipment such as desks, file cabinets, etc., that is inside the building. Remove the asbestos, and there is a small amount of asbestos on some of the air conditioning ductwork and things of this sort. It is up within the system and we will be removing that along with the dismantling of the building. We would remove all the internal equipment and walls and transport that to off-site disposal and then we would dismantle the exterior of the building from the superstructure down to the concrete; take that to an off-site disposal area. Again, I will just quickly show you. As I mentioned, it is the front building up here that is shaded which you can see there, and it was used for administration during the operation.

What do we know about this building? We know that it is about 38,000 square feet of floor space in two floors. It is a two story building. It has minor asbestos contamination on some of the air conditioning ductwork and some of those things and that it has no known radiological or chemical contamination. We surveyed a lot of it and found nothing of any particular

problems.

That concludes the nine projects that we propose to discuss with you and it now goes back to Mr. Bill, is that correct, Bill?

We have just a few summary remarks by Bob Morby, please. Thank you Bob.

SPEAKER: BOB MORBY

You have heard a lot here this evening in the way of the proposals that are being put before the Department of Natural Resources in the state of Missouri as well as the Environmental Protection Agency. I do not think we are under any pretense that this quick review is all that is needed for you, as the citizens in this community, to have your chance to understand what is going on. In that regard we have asked, and the Department of Energy has agreed that this information, in the written form, would be put in repositories located at the Environmental Protection Agency, at the offices of the Missouri Department of Natural Resources in Jefferson City as well as at the site. And then the two repositories off site, that being the Lindenwood College Library in St. Charles and the Spencer Creek Branch Library located in St. Peters, Missouri, as well. In telling you about that and in letting you be aware, it would be our hope that you would take the time to acquaint yourself with the written proposals. We would expect that these would be in those

repositories on this coming Friday. We would expect that there would be the first increment of four of those and then with the submission of the other five, there would be a notice provided to you directly so you would be aware that all of the packages were there and available. Our intent, I believe I speak for the Missouri Department of Natural Resources as well as for the Environmental Protection Agency, is to then be in receipt of your comments and attempt to incorporate those into our decision making as it pertains to the approval or disapproval of these proposals as submitted to the agencies. In addition to that, I think if you have comments or omissions that should be brought to our attention, we would be happy to be in receipt of those. We are here this evening to attempt to discuss those as well. It would also be our intention to have a commentary that would run for a period of 21 days and then attempt to get into our decision making to set forth on the actions of whether or not these proposals would go forth.

With that, I am going to turn it back to Bill and let's get into the questions.

SPEAKER: BILL GREEN

I want to offer a slight alternative. You have now been sitting about an hour and 15 minutes. Would you like to take a five minute break and stretch a little bit? If you have questions that you have written down you can hand them to the

gentlemen over there by the yellow pillar or to this young lady. And if not, then you can just move around a little bit, get a drink of water or whatever. All right? About five minutes.

QUESTION AND ANSWER SESSION

Thank you. At this time we would like to open it up to your questions. We did not get an overwhelming response with regard to the 3X5 cards. In fact, we received no response. Obviously that was not such a hot idea. We would like to start then with those that would like to speak at the microphone and the way we would like to do this is for you to step up, state your name and your question. Oh, we do have some 3X5 cards. We will cover them first. We have a few cards.

Again I would like to point out that a certain level of restraint is needed here with regards to posing questions related to the topic tonight. However, if your interest is something else, if you came here for a different reason, please step up to that microphone and tell us what is on your mind. The whole idea is to schedule future meetings to match up with your questions and concerns. You understand what I am saying? If it is ground water monitoring that has you concerned, then do not hesitate to say so. We will not have a formal response tonight, but certainly that is the desire here, to make sure that future topics address those needs.

What is our first question?

Question: How and by what route will the hazardous materials be transported off site?

Response: Tonight we have talked about the fact that some hazardous materials are going to be removed from the site. The question here on this card is how are they physically going to be moved.

Let me repeat the question. The question is, By what route will the containerized chemicals, the transformers, the other hazardous materials be shipped off site? My response is, first of all, these are proposed interim actions. The specific disposal facilities have not been selected yet. However, we will follow DOT guidelines, EPA guidelines, state guidelines for packaging, for the licensing of haulers. Haulers must have a specific amount of insurance. They will be part of our site safety plan, our spill control plan, before any of these materials are packaged up and shipped. But I really cannot address the specific routes tonight since I cannot tell you where every material that is going off site is in fact going.

Let me add to that from the point of the

Environmental Protection Agency. I think in the concepts that we have heard in the presentation of these proposals that there is intent to meet both the state, federal and the local laws pertaining to the movement or shipment of these. There are things that have been put into the new law under Superfund that talk about sites that would be eligible to receive these materials, and that would be a part of the process we would go through in making our determination as to whether or not to approve these proposals. I do not expect that I am necessarily going to get a site-specific submission in these proposals, but they would tell me that they want to take it to a facility that meets or complies. Then we would look, as the Environmental Protection Agency in the State of Missouri, at what facilities met that criteria and put that listing before the Department of Energy for selection through a bidding process. That is how I assume it would be done.

Question: Could I have a response in writing from one of the representatives from the EPA reference? At <u>any time</u>, will the students at Francis Howell be in danger from contamination during school sessions? If so, at what level? Please respond with a straight answer. Thank you.

Response: How about two straight answers. One from the state and one from the EPA. You want to take the first crack at it, Nick, and then let me tell.

Let me tell you, as it pertains to the inhabitants in this school. Part of the work that we would consider is to look at what kinds of contaminates would have the potential to be released from that site and that site boundary. If the techniques that they would use would not preclude that from happening, I cannot envision us as an agency, approving that process. As far as the written comment, in the event we were to approve this action, you are going to be in receipt of that. If you want a direct letter as an individual as it pertains to your children I think we have the health people, both here this evening and then working with us in the Environmental Protection Agency, that we can give you a letter that would state to that effect.

So we need to save this card for future reference.

Question: Due to two peak traffic periods at the Highway 40/94 intersection and the arrival and departure times for the high school children, can the traffic removing

the materials from the site be scheduled to avoid these crucial time periods. That is from Ron Griesenhauer.

Response: Jack Hammond would be more appropriate to answer that question but I will take a stab at it and, Jack, you can pitch in. I do not see any reason at all why we cannot, when we are performing these actions, schedule our shipments around the arrival and departure of the students from the school and the peak hours on Highway 94 and 40/61. Do you, Jack.

No, I do not see any reason why we cannot do that.

Question: All of the nine interim response actions deal with the plan. But it is the Quarry that is listed on the EPA list. Why isn't somebody doing things about the quarry.

Response: The big issue is the quarry here. It is our contention that the site involves more than the quarry. We have jurisdiction and authority over this site in its entirety, albeit the quarry is what is listed. But we are here attempting to provide the oversight and the overview of what is going on. We think that these actions are going to be in concert

with what should be done in doing the final remedial action. I think that you will hear us this evening invite you to tell us what things that you would like to talk about as it pertains to other aspects of this site. We are going to have involvement with the Department of Energy and the state of Missouri in looking at ground water contamination, the chemical contamination, all of those aspects, but we are here tonight to talk about these particular proposals, not to dismiss or put aside any of the other items that have to be taken care of at that site.

Question: What is a time schedule for the work that we have talked about here tonight, these nine interim actions?

Response: The time schedule that we are looking at for these interim actions are basically to start as soon as we can get everybody in agreement that they are appropriate to do. All of them are aimed to be accomplished if possible within the next year.

Thank you. From the Environmental Protection Agency, we are anxious to precede as rapidly as we can--if these things can be done in meeting the requirements of the agencies, both the state and the federal. If

they can come up and meet the standard, we are going to push to have the actions to go forth as soon as they can be done.

Question: How is it possible that the administration building is on the site with all the contamination but is not contaminated itself?

Response: The question was how is it possible the administration building is on site with all the other contamination and is not contaminated itself. Having spent some 35 years in the uranium industry, not all of the regulations came about in the last five or ten years. When the plant was operating there was very much care taken to limit the radiation contamination spread. Particularly the tracking of it in and out. Those buildings were surveyed. They were cleaned if anything got on them, on the floors, to make sure that the administration building was not contaminated so that the average people working in there did not have to wear the protective equipment. How can you say that it did not get contaminated from wind? It just did not. Apparently if it did, the rain has washed it off over the past 20 years or so and that we have found no contamination, no radiological contamination

whatsoever.

Question: What is the level of radioactivity the DOE allows in the electrical poles that are to be released for public use? How many inches into the pole are radiological readings being taken?

Response: The release criteria are those criteria that are specified by the American National Standards Institute that have been adopted by the Department of Energy and the Nuclear Regulatory Commission. The standards are these: for uranium contamination, which is what the primary contaminate is on the Weldon Spring site, it is 5,000 disintegrations per minute, total contamination. You take a meter and you hold it to the surface. This 5,000 disintegrations per minute is averaged over 100 square centimeters. The second criteria is a removable criteria. If you are measuring direct contamination how much can be rubbed off. Well the amount that can be rubbed off and the limit for that is 1,000 disintegrations per minute for 100 square centimeters. How many inches into the pole will the measurements be taken? The measurements are surface measurements. The potential for contaminating these poles would be caused by dust floating from process

buildings while the plant was operating. So, there is no reason to suspect that the interior of poles that were brought on site noncontaminated would be contaminated.

Question: Why does the DOE believe the Weldon Spring site is adequately safe for the permanent disposal of radioactive waste and yet intends to ship asbestos and other hazardous materials off site? Does this mean that the DOE thinks that alpha emitting radioactive wastes are less hazardous than asbestos?

Response: I think I would like to address the second question first. Really, the intent of these interim actions does not have anything to do with the long term disposal cell that we have proposed to put at the Weldon Spring site. The answer I guess is that there are facilities for example for the PCBs that we can remove those to a licensed incinerator and have those burned; disposed of permanently. With the building debris there are licensed disposal facilities to put that material in. The same with asbestos. There are hazardous landfills to take that material to. We propose not to put several different types of facilities on the site to handle each small quantity of material that we may have. There are no licensed

facilities to take care of the radioactive waste and that is the reason that we are proposing to design and construct one on the site.

That answered both the questions.

Question: There are rail lines running into the plant area. Could these lines be used to more safely remove materials?

Response: I think we could probably get into a lengthy discussion about rail lines. They are in a pretty sad state of repair as well. If you look at those rail lines, do you realize that another issue may be involved. Those rail lines lead down to the old KATY line and we have other plans, I understand, with the state for that particular line. So I would tend to think that that would discount a possibility of using rail lines for removing materials from the site.

Question: Will impoundment of surface behind the isolation dike result in more surface water entering the ground water supply? Where will these contaminates flow to underground? Where are they going?

Response: This question is in reference to the construction of

an isolation dike. I think it is important to note that the isolation dike diverts water away from a source area. Now while the water that we will be draining still is, in fact, contaminated, it is diverting water away from a source area. Based on site characterization information, information gathered by the USGS and the Missouri Geological Survey, we already know that that source area is contributing to ground water problems and so the purpose of this remedial action is to divert water away from the already known source that is contaminating the water. And, in the future, other interim remedial actions may include the impoundment of that water we are diverting if we feel that it in fact represents a hazard to the ground water. And we will impound it and test it and, if required, we will treat it.

Question: Will the DOE prepare an emergency warning and evacuation plan for the high and elementary schools and the vicinity in case of an accident (auto, truck or vehicle) involving any type of hazardous materials near the high school or the crucial intersection at Highway 94 and 40?

Response: I think part of the answer to that question is in the

question I answered before about trying to make sure that we move our material on the roads during other than peak times and obviously we are not going to be having that many shipments of this material on the highway. The quantities of hazardous chemicals we will be consolidating are fairly small. Probably the largest bulk material we will be moving will be from the two buildings that we will be demolishing and certainly that material is uncontaminated, nonhazardous material. To directly answer the question, yes, the community relations people on our site have been working, I believe, with the principal and the assistant principal here at the Francis Howell High School and we are starting to work on an emergency warning plan for the site.

Question: What is the current danger from airborne asbestos to the nearby environment and those residents who are working in the area, e.g. within a two mile radius?

Response: This perhaps is an answer that requires two answers and I will answer the beyond site aspects of asbestos and then if Dr. Crellen from the Department of Health would just like to comment on general asbestos monitoring. The current danger. What we have done on site, and we are concerned about asbestos on site

especially since we have work crews mowing the grass weekly. So, what we did was--we took several different types of measurements. We took measurements on the actual workers who mow the grass. We also placed monitors on the lawn mowers themselves where the grass is shot out in order to get some type of baseline information on asbestos levels. What we found is that the asbestos that we measured was just at detectible levels with two orders of magnitude less than the regulatory limit. Now that does not mean that we are finished. We continue to conduct on-site asbestos monitoring to monitor worker exposure both in- and outside of buildings and what may be going off site. John, I do not know if you want to add a comment.

Well, it is comforting to know that you have done some monitoring of the ambient air for asbestos. We have not. However, I guess our concern is that during the demolition project or the asbestos removal project will there be an ambient contamination issue? That is where the Missouri Department of Natural Resources air pollution control program becomes involved. We have the primary responsibility for insuring that does not happen. Now the way that we do that in general is--we have some very strict

work practice requirements--that they have to remove this asbestos under some very controlled conditions. One thing that we have not done generally in the past is require ambient air sampling to insure that, in fact, there is no ambient air contamination beyond the work site. We are considering though, because of the concern that has been expressed by citizens and passed on to me, going ahead and making such a request of DOE and the contractors at this point. And I am going on the assumption at this point that that request will be well-received. We will check with our attorneys, if it is not, and it will be more than a request. But I think it will work on a request level at this point.

Question: The storage from materials on site. Is it temporary or permanent? and what type?

Response: I am going to address this restricted to the storage of materials that we talked about tonight in the nine proposed interim remedial activities. This storage is definitely temporary. There is no permanent storage involved with it whatsoever. As was mentioned during the discussions of each of the activities, some of the storage will consist of placing materials into 55 gallon drums, setting them

with some of the other drums that we already have on site in a controlled area. Some of the other items that we may get into, for instance contaminated asbestos, would be bagged up and stored in an area where we can control it. Keep it free from the weather. Keep it free from moving around. We have a few other materials, containerized chemicals, that are already on site. What we propose to do with those is repackage them for safe storage and move them into either buildings or areas where we can keep them out of the elements and away from any potential releases to the environment.

Question: With regards to Action 5 and the ash pond area, What if any, work has been done to determine the permeability of materials underlying the ash pond? This is an important question to determine the contribution of the ash pond area to the underground pathway of contaminate migration.

Response: There has not been any specific work done to determine the permeability of materials underlying the ash pond. What is in process and is being done to begin to establish that potential contribution is there is a study being worked out with the state to utilize their expertise in dye trace studies to

determine sources and pathways of materials flow off the site. This, in combination with one of the activities that we described here tonight--to begin to divert water around that ash pond and away from the dump area--will minimize the amount of water that gets into the ash pond that could potentially permeate the bottom of it and at the same time avoid any pickup of additional materials.

Question: Earlier in this meeting, during the presentation on removal of overhead piping and asbestos, Mr. Stewart said there was a chance that asbestos could blow-off site. Does this blow off present any danger at this time or during its removal to the students of Franc Howell?

Response: Let me ask a question. Where was the ambient asbestos monitoring taken? Between the site and the school when the wind was blowing in that direction.

It is difficult to say conclusively that there is not a problem at any point in time. I think the main concern here is that as this asbestos deteriorates, then the danger increases. And so our philosophy is that under that set of conditions we think it is the best course of action to remove the material as

quickly as possible. Now during that removal process we have some fairly strict procedural requirements that we think will minimize the possibility of any entrainment of this asbestos. As a matter of fact, once they start the process, it ought to be a safer situation than prior to the time they start the process. Let me give you some examples of the kinds of things that they will be doing. For the material that is now on the ground and is available for entrainment, they will wet it down and I am presuming that they will not only use water because it is an amisite asbestos, but they will use a surfactant or a wetting agent so that it tends to accept this increased weight and will not then become airborne. They will use a wrapping method, that the over head pipe will be wrapped with plastic. They will then wet down the areas where they are going to actually be either cutting the pipe or disconnecting the fittings. They will lower that to the ground and there, within an enclosed area, they will strip that material under wet conditions. It will be double bagged wet, and then they will remove it to a sanitary, a state-approved sanitary landfill. I have heard a couple of times that people have said hazardous waste landfills. I want to correct that. By Missouri law, they can be deposited in sanitary

landfills.

While asbestos is a serious pollutant, a contaminate, let me point out that we do about 300-400 of these removal projects a year and it is not an earth-shaking type of situation. We have a great deal of familiarity with it and I think we have the tools at hand to be able to take care of this in an acceptable fashion and a safe fashion.

Question: If contaminated materials will be stored on site, what determines contamination?

Response: Well there are the surface limits which I have already stated that apply to things such as the power poles, the transformers, equipment and buildings and the light. There are limits where you measure the amount of radioactivity per unit mass. Mostly this is applicable to soil concentrations. For radium 226, we have a law. EPA public law stating that anything exceeding 5 picocuries per gram radium in the top six inches of soil is contaminated. Anything exceeding 15 picocuries per gram below that is contaminated material and that material will stay on site. That pertains to the vicinity properties number 7 which is a radium contaminated site. Any

containerized chemicals containing virtually any radioactivity that we can see with our instrumentation above detection limits will be remaining on site. One thing I want to clarify about these limits. We have made measurements for instance on the power poles. We have measured 20% of the power poles and found that there is no contamination anywhere close to these limits for surface contamination as I have stated. To reiterate, we will monitor these things before they are removed from the site.

Question: Can you please explain why the water flowing into the ash ponds is less radioactive than the water flowing out of the pond into Busch Wildlife? What materials were dumped into the pond? Do you have an estimate of the

(Tape 2B ran out at this point)

(Tape 3A resumes with the following words)

adult life. I can walk into this area in which Mr. Hopson pointed out earlier as the south dump area. I can walk across that and I can see yellowcake on the ground. Literally uranium which has oxidized and I

can see it lying there on the ground, not scattered in big places, but periodically I can see it. You can take an instrument. Simply the water is flowing into this area which has a lot of surface contamination and it is not as contaminated when it comes into the site as when it goes out. It picks up more contamination as it passes over this contaminated area.

Steve, do you have anything to add?

No, we do not have a measurement of the curie content of ash pond simply because the level in ash pond changes. If there is 3,500 picocuries per liter, it depends upon how many liters you have in there. At certain times of the year there is no water in ash pond and at other times of the year there is a lot of water in ash pond. So the answer is, no there is no measurement.

Let me just follow up on the question about discharge from ash pond. We are also in the process of putting in a monitoring device. Remember that ash pond does not flow continually. As a matter of fact, as part of our cooperation with the state of Missouri, we collect monthly storm water samples and we have been

unable over the last four months to collect any samples flowing out of ash pond because there has been no flow. But we are in the process of putting in a weir to measure the flow when it does in fact occur and to take samples so we have a better handle of the affluent of curies or the amount of uranium that flows out of ash pond.

If you would hold your comments just for the moment.

The lady asks the question, What was put into ash pond originally? I think that was one of the original questions.

Response: Originally the ash pond was used for ash from the power plant itself. The concentration of uranium contamination that is being picked up by the area or by the water that is coming out of ash pond really is being picked up as it was shown on the slide in what is referred to as the south dump area which is adjacent to the pond. It is an area that we recently discovered that is filled to a depth of about 10 feet with a lot of debris and other items that were removed from the building evidently during the past fifteen years or so.

The dump area that we have identified is right in that area in there. What we are doing with this proposed interim action is to dike up the water and divert it around that so it does not run through that area into the ash pond where it does accumulate and during heavy storm runoffs it does carry water out. It overflows and the uranium content in that water is considerably higher than anything that is measured up above.

The indication is that that concludes the questions. Let's backtrack just a little bit. It looks like there were a few questions here that that were considered to be duplicates. However, you may feel otherwise. If that is the case then please ask that question. If you feel like you got less than the response you wanted, will you please come back up to the microphone there and cover that issue again. Do that as part of the response now.

Merideth, you have a word for us?

Question: Well, I have a question. I would like to know why they are building the dike that just deflects the water around ash pond instead of a berm or a dam

below ash pond between ash pond and the Busch Wildlife Area fence border to catch all the water as it goes downhill because that is what they did at Cannonsburg. They did not let any contaminated water leave the site. They treated it before it left the site. And I think especially with Busch Wildlife being a public recreational area that the levels that are going into the northwest stream into Lake 35 and from Frog Pond into Lake 36, no one has talked about what is running off of Frog Pond and we have tested and gotten very substantial levels of radiation in water samples from Frog Pond and from ash pond. So, why is there not a berm being planned to be built or a dam or whatever you want to call it instead of this dike that deflects? Because, let me say this before you answer, the water quality code of regulations for the state of Missouri states that all surface waters of the state must comply (this is all surface water--it is lakes, streams, everything) with federal and state drinking water standards which are 15 picocuries per liter maximum. There is a big difference between 400 picocuries per liter and 15 picocuries per liter.

Response: Let me make sure I answer all your questions. First of all, this is an interim action and if you remember

what I said, this is a proposed interim remedial action, just to put in a diversion system.

Question: (From Meridith) But why go through the work of a diversion system when you could make the dike on the other side and act as a dam and it would stop any water from going into Busch that would be contaminated?

Response: But remember what I said, this is an interim response action. We also said that down the road we believe we are going to put in an affluent holding pond which will collect the water that now would be diverted off, test it. If it requires treatment, treat it. And that goes not only for ash pond but for Frog Pond, the discharge to the southeast drainage. I think your question is taken well and what we are saying is that that will probably be a future interim response action--to then take this one step further. What we said is we have a source area, a major source area. We have uranium and magnesium slag that did not meet specs that was dumped into that area. As a first and interim action, we are going to divert the water. It takes us from 3,500 picocuries down to 400. Your point is well taken; 400 still is a number that does not meet federal co

and so we are, in fact, having the water treatment and affluent ponds to retain that water. I think that is the most I can say. Your question is well-taken and we really are, in fact, making some efforts to do that but at this point it is an interim action for the near future.

Question: (From Meridith) It is not federal codes, it is the state water quality code and maybe somebody from the Department of Natural Resources would like to respond to that. Because I think that there is ... I get calls all the time from people who use Busch Wildlife and are very concerned about what is running off that site into Busch Wildlife and every single day there are people fishing out of those lakes and out of those streams and it is a continual pathway to the public. I do not think it should be allowed to continue. If you have some means to do something, you should do it now, not down the road.

Response: That is exactly what we are doing, Meridith. We do have some means to do things and that is why we are taking these actions. You have to remember that we have to do things, we have to do engineering design work. We just cannot put the water treatment plant in like that. It does take some planning. We do

have to understand the flow of contaminates off site and I think that is the direction we are moving in.

I think we have heard the concern, Meridith, from the regulatory agencies. I think in looking at this concept we did see that there was improvement that would be accomplished by that. I think we understand the concern, and I think the state of Missouri understands what the law says and that is an area that we are going to get into.

Question: (From Meridith) But, when will the source be stopped? is what I am asking. I do not mean deflected or diluted.

Response: The point you are making is that you want it as soon as practical, right?

Meridith: Right.

Response: I think that is the comment that we are going to take home and give consideration to.

Meridith: Well that is what, I think, the people in St. Charles County (since this has been running for 30 years into the county) deserve the quickest possible action on

this and not what seems from the engineering standpoint is the right step at the right time.

Response: I think we have heard you and I think we understand the requirements that are there and we are going to work. Our role as the regulators at this site is to be responsive in that area.

Meridith: I am going to check and see how long it took Cannonsburg to get their berm.

Response: Let me try a little different approach that may clarify a little. From what I understand, DOA is proposing basically a three-phased approach to this. This would be what I call (This is my term, not DOA's, I do not know if they would agree with me.) I call this Phase One. This is something that can be done very quickly and it would reduce, but as you point out, not eliminate the violation of the standard of the water running off the site. The Second Phase is to contain the water completely as you suggest but then the problem with that is that you cannot just contain it, you have to treat it. If you contain it, it is just going to overflow and you are back where you started. The Second Phase will be this treatment plant. They have told us they are

working on plans for the treatment plant. We will be giving them limits for how much, or how the water will have to be as it is treated. The Third Phase, then, will be the phase where they pick up the material from the dump and from the ash pond and dispose of it with the rest of the rad waste. But we agreed with EPA and DOE that--as something that can be done very quickly within the next few months--this will help. However, it is not the end. We need to get that water contained and treated as soon as possible. I think we agree with you.

Meridith: I did want to say to people that I handed out the white paper. These are the monitoring results from the monitoring wells and the well fields. If anybody has any question about them, I have a map that I can point out to you what it is. I wish I could have had time to put a map on here today so you would know, but I will be here afterwards for anyone who has any questions concerning that.

Response: I think Meridith has a point.

Moderator: Would you please state your name.

Charles Roth: I have worked at that plant for eight years.

I think this lady has a point. You engineers realize that the material is there by the ash pond. Why isn't it removed before you do any kind of work at all? Here you are putting a dam, a dike. Move the material first. People who worked up there know it is there. The engineers know it is there. Here you are going to spend all this money to put up a dike that's been running off there ever since 1966 or '59 or whenever it was when I left up there. It is there! Do something about it! Don't wait and wait and wait until you draw up all these drafts and everything. It can be done. Store it. The material should be dug up and removed. Put it in drums, whatever. She's got a point. You people are smart enough to know everybody is trying to work around it, pass it on. She's got a point; it should be done.

Moderator: Thank you. I would like a comment from one of you.

Response: I think that we have agreed that she has a point and we think that it has to be addressed. I think there is a bigger question ...let me finish ... because I think there is a bigger issue. We have talked about some proposals here this night that we have talked about as interim. It does not talk about fixing this site in its entirety in any fashion, form or shape.

We know that there is a much larger problem that we are going to have to get to. We are asking that the Department of Energy understand that problem as it pertains to radiation, the chemical contamination, all of the parameters. We have a ground water pathway that has been affected. We want to know what is going on there. What is happening? I think they share that and are willing to do that. Just going out and throwing dirt helter skelter and not knowing what you are going to do and what that does to impact other portions we believe is not necessarily pertinent nor correct.

Charles Roth: I worked at every building up there but two. From 103 all the way down to 201. Every building but two. The power house, I did not work in and the sampling plant. I worked in 105, I worked in all of them. And there is material over there that should be removed before you ever get started tearing it down. You people know that and everybody else knows it who knows anything about uranium. It is the taxpayers money. The politician has let this go too long. Finally the government stepped in and did something about. I am glad to see it's done because it is your kids and my kids and the future. This is the thing that I am interested in. To get it out of

here.

Moderator: I thank you sir. Your question. Your name first.

John Susie: I am an area resident. First of all, thank you for the presentation and your time and the questions, I think we have seen some general things and when people ask specifics you said that all the details were not worked out. Well, that is reasonable because I do not think you have had the time to do that, but when those details are finalized, is it possible to have them published in some form like that, like the report was, so we can read it ahead of time? Then have another hearing because I do not have the technical know-how to stand on this forum and try to criticize the technology that is beyond the scope of my knowledge. And I just was wondering if that is possible so that we, if we have some questions in our mind about that, we could then marshall other information or other people who have that knowledge and then we could ask appropriate questions at that time.

Moderator: I think that is very reasonable, but I would like an additional response here.,

Let me give you my point. Then I am going to ask Rod to give you his point of view. I think what we have tried to do is at least give you a thumbnail sketch here in the oral presentations. We make no pretense, as I think we have said earlier this evening, that this is anywhere close to the details that are there and that is why we have asked that the Department of Energy make these kinds of details and the specifics so you can sit down and look at them. We have tried to make them as readily available as we can and in as many places as is possible. I think just when you start looking at the diagrams and the schematics that go with all of this they just do not lend themselves to putting that into an easy format for wide distribution. A synopsis of what is being done here and what is taking place I think would be possible but just the sheer volume of the material and the detail just really do not lend themselves to putting that into a booklet form.

John Susie: I understand that and the intent is not to paralyze you with minutiae because that is counter-productive to all of us. If that synopsis was ... anything you feel that is a reasonable summary so that we ...

Response: I think that one other thing in that light, when the

state of Missouri and the Environmental Protection Agency react or provide the comments to the Department of Energy on the input coming out of this meeting and the staff review that we will do internally, all of those copies will be available to you here via the repositories so you can see what we are saying to the Department of Energy about what we think should be added or taken away or modified to where we can find that to be acceptable.

John Susie: But to have some kind of summary of that, not the detail, ...

Response: I think what they tried to do a little about that tonight in the little fact sheet they put together albeit it is skimpy and short, I think they understand the nature of the request. Let us see if there is an opportunity to be responsive to that request.

(Voice from audience - no microphone) Excuse me, are you speaking just of the actions that we have listed on the paper or are you talking about ...?

John Susie: No, I am talking about the interim action here. Just the interim response action.

Response: I think it is entirely reasonable that you and I and all of us receive an update. Pure and simple--down the road. I do not know if that is two months from now or four months from now, but I believe that some more of the details filled in.

Yes, sir, your question.

Mike Garvey: First, I would like to commend you all because I feel that there is an openness here that maybe has not been here before this point in time and I would like to commend everybody and the people from the state for showing up. That is commendable. We are happy you are here. I have two parts I would like to discuss. One is real quick. How much, how many cubic yards of nuclear waste at this point are present in both Weldon Spring sites?

Response: That is a broader question. We have to huddle here, that was a tough question.

I think one of the things to understand is that we are still finalizing the characterization and to a degree anybody who has done this kind of work knows you will have a soft number until the day that you

are done. The numbers that we are looking at right in the area now are somewhat dependent upon how much of the building demolition or building dismantling debris remains with the rest of the waste and how much of it might go to other public landfills so that the order of magnitude that we are looking at now ranges from on the order of about 800,000 up to as high as about 1.4 million yards of material. Remember I preface that to include it depends upon how much building debris and other things end up with that waste.

Mike Garvey: I realize that this is part of the process. People in St. Charles are very concerned about the public well field and I am sure that is a reasoning for the Superfund listing. If you could explain quickly, and I know that the details are not worked out, for a layman to understand. You have this quarry with a lot of water in it and there is a slough and there is a known aqua pura that goes toward the well field, what is the initial step in the quarry cleanup going to be? and is there an effective management plan in light? I know it is a tough question, maybe it is not fair, but just in general. People are very concerned. Is this water simply going to be diverted in the Femme Osage Slough or what is actually going

to happen to that volume of water in the initial step and the water resulting potential increase in the radiation from them in the well field? Just real quick.

Response: I earlier said that we wanted to restrict it to the narrow limits--to the questions here--but he is asking a broad, general question. I think we can respond to that.

Let me paraphrase it a little bit and make sure I have it right. Generally you are asking, How does Superfund generally work at this particular site? Is that a fair paraphrase? What we attempt to do where we have those parties that are willing to do the work in lieu of the Environmental Protection Agency, in this case in particular, the Department of Energy using monies that are from their budgetary purposes as opposed to the Superfund fund itself or the trust, we look for them to take over the work and do that, with both the state and EPA and then overviewing that process. That process would be a site characterization. There has been a lot of work done at this site as it pertains to radiation. We now are in discussions with them about other contaminates, some of those being mentioned here this evening, bu

additional contaminates as well would be a part of this site characterization. Once that is done we know the various pathways. You look at the ground water, you look at the air route, you look at the surface, the contact. All those various things. Then you begin to look at what can be done to remedy that situation. If you have a ground water problem it many times takes different fixes than it does if you have a surface problem. That is the process that we are about. All of that occurs before what is called a "Record of Decision." That is where you would have the opportunity to be made aware, I would think, in sessions similar to what we have had here this evening in the way of status reports from us, the Department of Energy, MD&R, about what is going on as it pertains to the other aspects and what is being discussed here this evening.

Thank you very much.

Moderator: Another question? Meridith.

Meridith: It is not a question, it is an announcement. Bob, I had requested from Dr. Russel about a library here at the high school--if the school library could be a repository for what we had talked about. He has

talked to the library and has consented, so they will make available an area for documents and a table where people can come in and read things. I just talked to him and he said to make that announcement so people would know that there will be things available here at the high school.

Response: The nature of the comment is that there would be space in the event that there was a decision to supply materials here as a place in the area. Is that the nature of the comment? Somebody in the school district agree with that for me? I received a confirmation. Why do you not have some discussion with the Department of Energy about that and see what we can do.

Meridith: That is Dr. Russel, the school superintendent.

Response: I know who it is. The man is kind enough to let us use his place. Thank you.

Moderator: Yes, another question?

Question: Let's beat to death ash pond a little more. You just turn the thing off (the slide projector). The little black dotted line that goes off ... is that a

ditch?

Response: Yes, that is a diversion ditch.

Question: Where does it end up? Given the fact that that water is contaminated to some extent, where does it go?

Response: This goes right back to the same place, where the water runs now when it overruns the ash pond which runs out into the Busch Wildlife area.

Question: I have one other question that pertains to future issues of discussion. You link some of this to demolition and that is really the first time I have heard anything about demolition in your plans and I was curious as to briefly what is on your mind about that.

Response: I am sorry, would you amplify that just a bit?

Question: There has been comment about removing certain things here in these remedial steps because of demolition in the future. What kind of demolition is going to take place? What is its design?

Response: I think if you recall from the EIS, the overall plan

for the site eventually, since it is a surplus facility, there has been no use found for the buildings. In fact most of them are in such a state of disrepair that they really are not usable for anything else. Eventually all of the buildings on site would be dismantled or demolished as appropriate to basically return the site to its natural state.

Question: Is there... unintelligible

Response: No. Just "dismantle" is the appropriate word. Another question?

If there are no other questions, I want to thank you. I think this has been an excellent opportunity to hear from them and to hear from you as well. We have a long way to go. I, personally, follow this as you do and on the one hand I am saying, How in the world can it take so long to bring the site to a neutral condition and go on? On the other hand, I do want to make sure that things are done in the right way, following the appropriate codes with all the appropriate reviews having been seen by all the people who have to look at the plans and follow the construction and so on. I think it is a matter of us on the one hand, being patient and on the other hand, being interested enough to ask the questions.

I thank you for your input. There will be future meetings. We talked this afternoon about what periods such

meetings would occur, and the word was "infrequent." The concern was that if we said we were going to have four per year, then three months from now you would set a date and say, Why did we not have a meeting tonight? We do not want to be tied down to that. We want to meet at intervals in which we have a well-defined topic to review with you and when that next one is, I do not know, but I can assure there will be additional meetings, forums for your input and your perspective.

I would like to thank all of our presenters here tonight. I think you did a super job and I would like just maybe a follow up comment.

If there are topics in particular that you would like to have discussed on behalf of the Environmental Protection Agency or the Department of Energy or MD&R, we would be appreciative of knowing those in advance so that we could come prepared to do that and have the proper personnel here to have those kinds of discussions. As we go along, if there are things that you would like to talk about, ground water monitoring, whatever the realm might be, we want to come here and to share and to have open discussion with you about that. I, on behalf of the Environmental Protection Agency, would like to express my appreciation again for the attendance, the good questions that were here. We thank you very much.

And maybe just one final remark: if you have any additional questions, will you please come forward and address them individually, one-on-one with the people who are here.

Thank you and good night.