

40-8838



DEPARTMENT OF THE ARMY
U.S. ARMY SOLDIER AND BIOLOGICAL CHEMICAL COMMAND
5183 BLACKHAWK ROAD
ABERDEEN PROVING GROUND, MARYLAND 21010-5424

December 6, 1999

REPLY TO
ATTENTION OF

BRAC Environmental Coordinator

Member
Jefferson Proving Ground
Restoration Advisory Board

Dear Member:

Enclosed for your information is a copy of the Jefferson Proving Ground (JPG) Restoration Advisory Board (RAB) meeting minutes for the JPG RAB meeting of November 3, 1999. In addition, please be advised that the Internet web site address for the JPG web is changing. The new address will be <http://www.jpg.sbcom.army.mil>. Should you have any problems accessing the JPG Internet web site using the old address please use the new address provided above.

Should you have any questions concerning the JPG RAB meeting minutes enclosed or the new JPG Internet web site address, please contact me at 1-800-392-2015, extension 5-2381.

Sincerely,

Paul D. Cloud
JPG BRAC Environmental Coordinator

Enclosure

11/10

PDR APOCK 04008838

JEFFERSON PROVING GROUND
RESTORATION ADVISORY BOARD

COPY

DATE: November 3, 1999

TIME: 7:00 P.M.

PLACE: Presbyterian Church
202 Broadway Street
Madison, IN 47250

PRESENT: Paul Cloud, Co-Chair
Richard Hill, Co-Chair

Sharon Shields, Reporter

Audience Members

Sharon Shields
S.A.S. Reporting Service
3650 N.Old SR 62, Madison, IN 47250
Business: (812) 265-2994
Fax: (812) 273-5220

1 A public hearing of the Jefferson Proving Ground
2 Restoration Advisory Board meeting was held in the Madison
3 Presbyterian Church, 202 Broadway, Madison, IN at 7:00 P.M.
4 on November 3, 1999.

5
6 **OPENING STATEMENTS BY MR. PAUL CLOUD:**

7 Okay. I think it's about time to get
8 started. I would like to welcome everyone. I'm Paul Cloud
9 from the United States Army. I'm the BRAC Environmental
10 Coordinator for Jefferson Proving Ground. I think a lot of
11 you may know me already. I have a business card that
12 identifies myself, gives all the necessary information as
13 far as E-mail, phone numbers, addresses so if you ever need
14 to get ahold of me you can do it toll free. Ah and I'm in
15 Aberdeen, Maryland. I would like to welcome everyone and
16 make sure that you sign in on the attendance sheet so that
17 we can keep you on our mailing list and make sure that
18 you're informed of future meetings and developments at
19 Jefferson as they develop. Also we have a number of
20 handouts and in the boxes on the floor are copies of one (1)
21 of the draft reports that we're putting out tonight for
22 public comment. I would encourage you to take one (1) of
23 those ah at your pleasure and look at it and then you can
24 provide us with comments. There will be people here from

1 the Huntsville Corps of Engineers and their contractor to
2 discuss that ah a little bit later in our agenda. This is
3 our agenda - whoops went too far - for this evening. At
4 this point in time I'll introduce Richard Hill the community
5 co-chair for the JPG Restoration Advisory Board. Ah he can
6 give his opening remarks and we'll go into the agenda from
7 there. Richard?

8
9 **OPENING STATEMENTS BY MR. RICHARD HILL:**

10 Thank you Paul. Good evening. Ah welcome
11 everybody tonight. Ah do we just want to reiterate to be
12 sure and sign in on your way out if you didn't sign in on
13 your way in. Okay? And there are some things to pick up
14 over there. I would just like to go ahead and get started
15 right into the agenda and the first thing we have is ah
16 listed up here as Technical Assistance for Public
17 Participation. Now what this is we had ah - there was some
18 funds made available for the community RAB to hire more or
19 less a consultant to assist us, that's the community RAB, in
20 reviewing and interpreting technical documents that's -
21 that's put out by the Army and their contractors and you
22 know everybody that's involved with JPG. So we were ah - we
23 went through the process and got that funding and ah we
24 hired Dr. Diane Henshel who's here tonight and she will be

1 talking ah doing the main part of this agenda. I would just
2 like to say that Dr. Henshel is from IU School of Public and
3 Environmental Affairs and she has very much experience in
4 health effects of environmental pollutants. Very interested
5 in developmental toxicology and risk assessments and very,
6 very, very good credentials. Ah the - basically what she -
7 just a brief run down of what she's done so far. We have
8 what was called the I think Draft Phase II Remedial
9 Investigation, I might have some of those words mixed up,
10 volumes that were put out that - and these were like if you
11 stacked them all together they would take up about that much
12 space (indicating) on a book shelf. It's about seven (7) or
13 eight (8) volumes that went through describing the samples
14 that were taken at various sites in the cantonment area,
15 that's the southern area of JPG, what was found there,
16 recommendations on you know how - what should be vested
17 here, that sort of thing. Well Diane has reviewed those
18 volumes for us, boiled it down to sixty (60) pages and ah we
19 didn't bring copies of the full sixty (60) page report that
20 she's given to the community RAB, but if anyone is
21 interested in seeing that be sure and let me know. You can
22 get with me after the meeting and I can arrange to get - get
23 you copies of that. Now tonight she's going to boil it down
24 more and if a couple of the handouts that aren't on the

1 table over there ah one (1) is - looks like it's going to be
2 - it's a handout that has copies of the overheads that she's
3 going to go through with us tonight and then there's a
4 couple of page, two and a half (2½), three (3) pages,
5 something like that summary that she has here also. So ah
6 what have I forgotten? I think that's good enough?

7
8 **MS. DIANE HENSHEL:**

9 Yeah.

10
11 **MR. RICHARD HILL:**

12 Okay. So Diane if you would like to just
13 kind of run through what - what you've come up with so far I
14 would appreciate it.

15
16 **MS. DIANE HENSHEL:**

17 All right. Am I going to put everybody to
18 sleep with the lights out?

19
20 **MR. KEN KNOUF:**

21 It depends on what you say.

22
23 **MS. DIANE HENSHEL:**

24 Well I will try not to be very boring. I'll

1 truly try not to pretend this is a class. Ah my attempt
2 here is to in twenty (20) minutes introduce you to the
3 decision making type of process that was used in which -
4 used to prioritize clean up of the sites, make decisions
5 about clean up of the sites, and then what I use afterwards
6 in looking at their final evaluation say ah it's fine, we've
7 recommended it. It needs more consideration in terms of
8 maybe there needs some more data, maybe we need some more
9 monitoring, maybe it just needs to have some considerations
10 about how it's going to be used in the future, ah or to say
11 that something else needs to be looked at here. So there's
12 a decision making process that's been developed over the
13 past almost thirty (30) years now since about 1970 is when
14 it started to be worked at. It came out of economics and
15 started to get used within environmental science and over
16 time it's developed and it's in a continuous state of
17 development and it includes assessment for both humans and
18 assessment for the ecosystem, for animals, plants and how
19 ecosystems are as a whole. Now before I go any further if
20 I'm going to use terms like ecosystems do people understand
21 it or do I need to explain those terms as I go too? How are
22 people - because ecosystem to me is basic and it may not be
23 to you. I need to know right now what people's knowledge
24 is?

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

MR. RICHARD HILL:

I think we're okay.

MR. KEN KNOUF:

I think it's an informed group.

MS. DIANE HENSHEL:

You think people are okay with ecosystems?

MR. RICHARD HILL:

Yes.

MS. DIANE HENSHEL:

And when I say functioning within the ecosystem it means that the interactions between the animals, if there's enough food that the animals are able to survive and repopulate and produce for the next generation. That's the ultimate goal within the ecosystem as best as I can tell. It's all based now on a term called risk assessment. And risk assessment comes down to fundamental definitions of what you tend to consider to be risks or you consider to be harm or a hazard. And it all boils down to what people throw into their considerations of risk or harm. Now from the start I'm going to take you through this

1 process hopefully pretty quickly. If you're confused, if
2 you have any questions stop me right away number one (1).
3 And number two (2) recognize there's a lot of fuzziness in
4 the process. Not only is it a developing process that has
5 some cook books made 1976, 1983, all the way up, the major
6 cook book that was used for assessment of these sites book
7 was written in 1986 or at least published in draft form.
8 Never really published past draft form in 1986 and
9 ecological - that was human health and ecological has come
10 over time and the most recent version of that was I think
11 it's '96 that's on my shelf. So recognize that number one
12 (1) it's fuzzy in terms of the process. Number two (2) it's
13 fuzzy in terms of what we include in terms of your
14 consideration of risks. And number three (3) definitions
15 can get fuzzy too and people define things differently. So
16 I will start by defining things as best as I can and if
17 you've got questions or challenges please do. So what is
18 risk? Oh well all of this is virtually on the handout so
19 hopefully if you can't see what's up here it's on your
20 handout. What you're primarily paying attention to is
21 things that can potentially harm. Now harm is a very
22 questionable term because it started as death in terms of
23 consideration and moved up to cancer and more recently it's
24 been non-cancer, not lethal, end point, not deadly, end

1 points, and so it went from there pretty much to
2 reproductive health so whether or not you can reproduce, and
3 so in the environment you're talking about ability to
4 reproduce to the next generation and for humans you're
5 talking about having difficulty to reproduce. So this
6 includes right now spreading a little bit farther to even
7 more so than points such as immune system problems where you
8 get sicker or sick more often or ah nervous system problems
9 and these are developmental and I will talk about these.
10 These can include learning disabilities for example or
11 behavior problems. And these are actually potentially hard
12 wired in due to malformations in the brain during
13 development even though it's not a gross malformation, even
14 though you're not able to look at a person and say there was
15 a problem with this person in their brain during
16 development. There are ways to detect if the other problems
17 are there. Obviously the function ones are some of the ones
18 that some of us deal with on a daily basis. Ah so the first
19 point is your evaluating potential for harm and how you
20 define harm has changed over time. And changes with the
21 person. Some people will define it differently than others
22 and therefore recognize that part of us have induced - I am
23 introducing considerations of harm that would not
24 necessarily be considered in the first round of this risk

1 assessment. And that's I think part of the issue. The next
2 parts up from that is how to quantify the potential of harm.
3 And that's the risk. And there's two (2) ways of doing it.
4 And one (1) is more solid I guess in terms of no risk in
5 others and so one (1) is to define probabilities. That's
6 the cancerous and the other is just trying somehow to
7 estimate the likelihood that harm is going to exist. And
8 that's a lot more pleasant because it's not just coming up
9 with an easy probability. It's well and you leave it at
10 that. All right. So why are you doing risk assessment?
11 And I'm going to speed up a little bit here because you want
12 to estimate, you want to prioritize, you want to see whether
13 or not there's going to be a problem, which problem you're
14 going to address first. And who are the considerations for
15 harm? Humans and most of us are apt to -- let's look at
16 humans first and that usually is the first consideration.
17 And that was the case here as well. The other consideration
18 is wildlife. They are required by law to consider wildlife
19 on the environment and some of us are actually concerned
20 about that too. Ah so then what actually gets estimated?
21 As I said the probability of cancer and I will define that a
22 little bit better. And then the non-cancerous likelihood
23 that something is going to happen that would be in some way
24 considered harmful by somebody. So in order for there to be

1 a risk, in order for there to be a likelihood of harm, you
2 have to have several conditions to be met. You have to have
3 something that can cause harm. That's the source of the
4 risk, the hazard. In this case primarily use chemical.
5 It's not always chemical. You have to have something that
6 can be effective, i.e. that can be harmed. That makes
7 sense. But the third criteria is the most important of all.
8 And that is the organism, the humans, the animals, the
9 plants, whatever it is that can be harmed has to have
10 exposure to the chemical, that thing which can do the
11 harming. Because if there's no exposure there's no risk.
12 If there's no exposure no harm can happen. Does that make
13 sense? That's the most fundamental -- for us. It doesn't
14 make a difference that the chemicals are there if nobody is
15 getting in to be exposed. So if you can keep the stuff
16 isolated there is no risk. And some of the remedial that
17 takes place and some of the decisions about it come from
18 that premise that if you can isolate the problem then
19 there's not going to be any problem. And I - I have to
20 agree with that. So I do. I mean I - I mean legally it's
21 true but and it is true. It's within the regulations. But
22 logically it makes sense to me too. So therefore you
23 evaluate that the hazards exist then you have to evaluate
24 the exposure. That the exposure has to exist. And then the

1 next step which is happening at the site right now is you
2 have to make decisions in order to reduce the likelihood of
3 harm and reduce the likelihood of the risks and then there
4 are several ways that this is happening here. Number one
5 (1) there is site remediation. Clean up in some way.
6 Getting rid of the chemicals so it's not there. Number two
7 (2) monitoring or making sure - does everybody understand
8 what monitoring is? Continue the evaluation of whether
9 chemicals are moving or whether they're getting into the
10 animals and plants or the streams, the air, whatever. So
11 number two (2) continue monitoring. See that if whatever is
12 left there gets out. Whether or not there's a potential for
13 exposure still. And number three (3) there is the
14 evaluation that - or the - Ken as manager, managers can say
15 well we know the chemicals are still there. There's a
16 potential for some small problem, but if we make decisions
17 about how the site's going to be used we can minimize the
18 potential for harm. And the site can still be useful.
19 We're just going to make sure that the worst of the problems
20 aren't going to happen. And so that comes down to
21 restrictions on site use. So those are the three (3) major
22 types of management decisions that come out of this whole
23 process. And these are the things that we were paying
24 attention to as we went through and looked at risk

1 assessment or the Remedial Investigation, whatever you want
2 to call what it was. It was partially risk assessment and
3 partially not. So quickly what are the processes in risk
4 assessment? This is the standard flow chart as it were.
5 You start with an identification of the hazards on site. In
6 other words paying attention to and identifying what
7 potential chemicals are there as we've done with the hazards
8 here. Looking at quickly whether or not there's going to be
9 the likelihood of exposure and what type of chemical, what
10 type of animals are there or people and animals are there
11 that can possibly be harmed. So you're basically doing a
12 miniature version of the - of the whole process in that
13 first step just to see if there's a problem. Well clearly
14 at JPG there was a problem and they went further and they
15 did continued evaluation in order to assess the - what was
16 happening at each of the sites. In order to go farther you
17 need more detailed evaluation of the potential toxicity and
18 I'll talk about the rationale behind it in a second. And
19 then you look at the potential for exposure. And you put
20 those two (2) together in order to actually identify
21 potential risk, both chem - cancer, lung cancer, human and
22 ecological. All right. So within the four (4) steps for
23 risk assessment you start with the hazard identification and
24 a question remember you're asking yourself is is there a

1 potential for harm? For whatever is on site or off site you
2 can get exposed because of movement of the chemicals. And
3 so that was done. They identified the chemicals that were
4 present. They identified the potential animals where the
5 humans were, how the humans could get exposed, and they
6 looked at all the difference what are called media which
7 basically comes down to water, surface and ground water, so
8 streams runoff which is still surface water. Everybody
9 knows runoff. This is flood area right? And ground water.
10 And recognizes surface water and ground water overlap and
11 everybody here's been in a flooded area so I think you
12 should know about that. Ah soil and then air. And there
13 has to be a recognition that these are all connected. So
14 things that are in the soil through runoff can get washed
15 over to soil - to the ground. Things that end up in the air
16 as dust can settle out to the ground both in the water and
17 in the soil areas. There's a certain amount of movement of
18 dust -- which is how you get exposed throughout as to what's
19 in the soil. The second step is toxicity assessment. What
20 we're doing here is trying to quantify giving - any given
21 amount of the chemicals of concern within any given amount
22 of the chemicals that are on site that you think might cause
23 harm. What would be the likely effects and how severe are
24 those effects going to be throughout the chemical? So it's

1 more of a intellectual exercise unless you're actually doing
2 the laboratory analyses to try to quantify it better. And
3 it's going back to the literature and saying this is what we
4 know. This is what we know of potential for these chemicals
5 for all the animals, all the humans that have been studied
6 with regard to these chemicals or chemicals that are like
7 them. So it's an intellectual exercise. It's not so much
8 evaluating what's on site at that point. So you're going to
9 use that information. The next step, and this is often done
10 at the same time, especially for time purposes, is the
11 exposure assessment. Now you're looking at the site itself.
12 And you're considering what are - ah what all these
13 different potentials, responding organisms, the humans, the
14 plants, the animals, how much they could potentially be
15 taking in? What's their exposure? And that's going to get
16 put together into those characterizations. And I'm going to
17 do this a little bit backwards, both for time purposes and
18 so that I can move the sites into the tox assessment. So
19 when you're considering - so when you're considering
20 exposure you're trying to assess, these are the questions
21 you're asking yourself, what are the routes? How can they
22 get into the body? There are three (3) standard things that
23 you always have to consider. And the three (3) standard
24 routes are eating, ingesting or drinking, well taking in

1 through mouth in whatever way it is. Through your skin.
2 Through skin contact. And then through air. You can
3 breathe in those fumes. You can breathe in gasses if
4 something volatilizes and we do have solvents here. And as
5 anybody who's worked with solvents know those solvents get
6 back into the air. Because if you can stand away from
7 turpentine you can smell that turpentine, and you're
8 smelling the turpentine because molecules of turpentine
9 actually get into the air, volatilize, and then gets into
10 your nose and you're detecting it. So because you can smell
11 it it's volatilized. So that's how things get into the air
12 especially things like solvents. Ah so the three (3) main
13 routes of exposure come from the three (3) main sources
14 which are water. You can drink water. If it's in your
15 ground water it might end up in your drinking water if
16 you've got a well. Through skin exposure. If you swim in
17 it, if you play in the dust or if you're a worker. Very
18 often workers have more intensive exposure through their
19 skin especially if they're not covered up - every single
20 aspect of their skin. Dust can settle on your face. Dust
21 can settle between the gloves or the - their work clothes or
22 something like that. And that point of contact is a point
23 at which slowly something can move from that dust into your
24 mouth. So you actually can get movement from dust straight

1 into the body. That's the skin exposure we're talking
2 about. And then breathing. You know you can breathe dust
3 and you know you can breathe gasses and you know you can
4 breathe fumes because you've all stood on sand and felt it
5 coming to you or tripping over something and sometimes it's
6 hot, those fumes are getting into your skin. It's hot so
7 it's affecting you. All right. Basic premise in this part.
8 Recognize. If there's no exposure, if it doesn't get into
9 the body it can't interact with the body. So if it's not
10 getting into the organs at which it can have an effect, if
11 it's interacting with the nervous system but it's not able
12 to get into the nervous system it's not going to have an
13 effect. If it comes in through the mouth and gets ingested
14 then the next step is it's going to be going to the liver.
15 Because that's where everything goes after it's eaten. And
16 if the liver takes care of it and gets rid of it
17 immediately, the rest of the body is safe. The liver on the
18 other hand may have problems. On the other hand if it comes
19 into the skin it can go all the way through the body, never
20 get taken care of by the liver, and you have a greater
21 potential for damage to other organs. The same thing if you
22 breathe it. It doesn't go to the liver first thing. So
23 there's a greater potential for there to be other burdens.
24 Other things to realize if it's something that volatilizes

1 that means that it's fat soluble. It means that it can bind
2 into a movement or trap. That means that it's more likely
3 to become both into the body then get into the nervous
4 system which is important because we're talking about some
5 nervous system effects. That's - it includes things like ah
6 learning disabilities that I mentioned. So two (2) major
7 things that you're evaluating sorry - I don't need to talk
8 back there. Those two (2) major things that you're
9 evaluating is cancerous and non-cancerous. Cancerous is
10 expressed as a probability. And you have to recognize that
11 you're reading it. The way to interpret it is this is a
12 probability for getting cancer within a lifetime which is
13 estimated as seventy (70) years for the average person for
14 the group of people or animals that are exposed. So EPA has
15 designated, originally designated ten (10) to the minus six
16 (-6) can be acceptable cancer risk and then spreads to ten
17 (10) minus five (-5) at least ten (10) or fifteen (15) years
18 ago and then ten (10) to the minus four (-4) by the early
19 nineties. So acceptable range for the EPA is ten (10) to
20 the minus four (-4) to ten (10) to the minus six (-6) with
21 discretion from states. Indiana at this point has a -
22 chooses ten (10) to the minus five (-5) most of the time.
23 Ten (10) to the minus four (-4) for very selective purposes
24 and rarely goes to ten (10) to the minus six (-6) and I'm

1 translating. Other states have had the minus six (-6)
2 straight up. So it depends on your state. And the states
3 sort of supersede everything else. And how you translate
4 that, those numbers? Ten (10) to the minus four (-4) means
5 one (1) in ten thousand (10,000) people exposed will get
6 cancer in their lifetime with the assumption that that
7 cancer was caused by the exposure to that chemical. So ten
8 (10) to the minus six (-6) means one (1) in a million
9 (1,000,000). So that's what you're talking about. The
10 likelihood that one (1) person in a million (1,000,000) of
11 the exposed population getting cancer in a lifetime is
12 considered to be an acceptable rate of cancer. Ah now
13 realize that we are all exposed to many, many, many things
14 that cause cancer on a regular basis and some people
15 purposely expose ourselves to things that cause cancer. So
16 realize that you're talking about selectively trying to
17 determine the increase in risk of cancer from certain
18 chemicals when you're exposed to a whole group of chemicals
19 that can cause cancers. So part of this is estimations
20 because it's hard to keep it out. Cancer doesn't happen
21 very often. It's relatively low in frequency considering
22 the number of people in the population although these days
23 if you live to be a hundred (100) chances are really good
24 that that can go down to a one (1) in two (2) chance of

1 getting cancer in our society. We're an industrialized
2 society with a lot of carcinogens that you get exposed to.
3 So we're talking about trying to identify likelihood of
4 increases of cancer above the ones that we really are going
5 to get based on our other exposures. And then there's also
6 background incidences of cancer that comes from things like
7 cosmic rays and the sun for skin cancer, things like that.
8 So there's a lot. And things like - well okay. Non-cancer
9 is not a probability. Non-cancer comes down to a hazard
10 index. Trying to assess a relative - a relatively safe
11 level that you can be exposed to and not be likely to have
12 the harm happen. It's a lot pleasanter. You have a safe
13 dose that's determined experimentally which need animals,
14 occasionally in humans from industrial or accidental
15 exposure, and then you add in all sorts of uncertainty
16 factors to bring down the number a little bit further and
17 provide an extra margin of safety and that increase in
18 safety can be anywhere from an order of magnitude ten
19 fold all the way to even ten thousand fold in the extreme or
20 it can be at two thousand fold. So you have concentration
21 which is considered safe which is based on experiments and
22 then introducing margins of error basically to provide extra
23 safety. And then you compare that as a ratio to that which
24 you think people are or animals are really being exposed to

1 it. And from that we get essentially a hazard index is what
2 it's called. So if you've got hazard index of one (1) your
3 estimate is that the population is being exposed at about
4 the safe level. And we think that therefore is a built in
5 margin of error that's - you're probably safe. And you
6 don't think anything harmful is going to come. If you've
7 got a hazard index of two (2) you say people are exposed to
8 two (2) times that level. Hazard index of ten (10). Ten
9 (10) times that level you just canceled out at least one (1)
10 of the uncertainty factors. At least one (1) of this
11 margins of error that's shown here. And sometimes, in very
12 rare occasions these days, it's the whole margin of error.
13 So hazard indexes above one (1) at this point still need to
14 be considered a potential for harm. And so that's what's
15 considered here. Recognize however that there's still this
16 fuzziness. What does it mean to say that we're being
17 exposed to twice that safe level? Does it mean that people
18 are likely to get hurt? It's not clear. For some chemicals
19 maybe the most sensitive individuals might get them through
20 -- where others maybe not. By the time you're up to a
21 hazard index of maybe fifty (50) to a hundred (100) you're
22 much more likely to start seeing potential for harm. So -
23 but see that variability in range though. All right. In
24 terms of toxicity and measures of concern there. Looking

1 specifically at the sites. I'm looking at decisions that
2 were made so far. This is based on what I have. It's not
3 based on new stuff but I haven't seen that yet apparently.
4 The overall - the overall contaminants of concern that we've
5 marked down are primarily ones that are actually identified
6 by the contractor. Ah we threw in a few that were not
7 really always identified by the contractor because at least
8 we think they should be assessed for fairly good reasons.
9 So heavy metals. Aluminum, arsenic, iron, lead, silver,
10 manganese and zinc. These are supposed to be alphabetical.
11 All right. Pesticides. Dieldrin shows up at primarily the
12 pesticide storage site and - at least a little bit at least
13 on one (1) of the other sites in the soil. Solvents.
14 Polycyclic aromatic hydrocarbons. That's things like
15 benzene and ah like creosote. You're familiar with creosote
16 I think. So creosote is a polycyclic aromatic hydrocarbon.
17 That's that gooey stuff that shows up on - on the chimneys
18 after you've been burning for a long time and you have to
19 have a chimney sweep sweep - clean it out. That's a PAH.
20 That's a polycyclic aromatic hydrocarbon. Ah other - those
21 tend to be volatile. That means you tend to get them into
22 the air. Other ones are the non-aromatic. Aromatic means
23 it's got a certain grain structure to it. And non-aromatic
24 means it's just a whole bunch of carbons strung together

1 with hydrogens and in these cases usually chlorines and
2 sometimes oxygens thrown in. So that's the basic makeup.
3 These again are very volatile the types of things that we
4 have here are 1,1,1-trichloroethane. That's one (1) of
5 those things that's very commonly used in the electrical
6 industry, for example cleaning. Usually it's ah
7 perchloroethylene that's it but that's one (1) of them.
8 Here's some furans that show up as marked. They are used
9 basically in solvents for cleaning and for - well what the
10 solvents usually are used for. And they were, as was the
11 common practice at the time, throw out the back this is
12 something that was very common until we started realizing
13 what the solvents were. It's really important for people to
14 realize that a lot of the things that we did over time we
15 did out of ignorance and what were done here at the base was
16 done out of ignorance. It wasn't done out of any other
17 intent or anything like that. And so the reason why there's
18 a problem now is only because we now recognize that our
19 practices were not good. We're really actually very well
20 involved in this country because we've been addressing these
21 for the past thirty (30) years. Eastern Europe is just now
22 recognizing their problems. And so if you want to see where
23 we were thirty (30) years ago go to Eastern Europe and see
24 how far we've come. And the others. Dioxins and furans

1 are products of incineration, especially products of
2 incineration solvents. And so therefore especially the
3 aromatic solvents. And so we think that those need to be
4 looked at at the sites where there was incineration at least
5 to asses it. At least to make sure that it is not a
6 problem. And PCBs, it's interesting. I know I've seen a
7 risk assessment from way back when they did the first, what
8 was the first essentially hazard I.D. I guess it was '93 or
9 something like that. Ah and in it they described that the
10 PCBs aren't safe. So I know there were PCBs on site and it
11 makes sense that there would have been PCBs on site. The
12 only measures that were done of PCBs had to be thrown out
13 and weren't reported at all. The results weren't reported
14 because they never did the standards that have to be run in
15 conjunction. If you don't run the standards you have
16 nothing to compare again and so the data doesn't mean
17 anything. So there was zero (0) assessment of PCBs on site
18 even though we know there were PCBs on site. And so that's
19 another concern of ours that shows up more at some sites
20 than others I think especially when we get some of the
21 landfills and that needs at least to be considered. All
22 right. All right. These are the sites that were slated by
23 us to be moved to the Feasibility Study so continued actions
24 happen. And we agree with all of these. These are non-

1 controversial and everybody agrees there still might be a
2 problem on what is to be done. So these are included in - I
3 can give you site numbers. I can give you site names. Site
4 number one (1) the incinerator. The sewage treatment plant
5 and the sludge application areas, two (2) and twenty-seven
6 (27). Three (3) and four (4), explosive burn area and
7 abandoned landfill. Seven (7) and twenty-one B (21B),
8 that's the red lead disposal area and temporary storage
9 area. And I hear that more has happened there but I don't
10 know exactly what happened. Nine (9), burning ground south
11 of Gate 19 landfill. Ah twelve A (12A) to twelve C (12C),
12 the solvent pits and there primarily that's a ground water
13 problem with solvent, potential for solvent migration. In
14 some cases it seems like it might be and some cases it seems
15 like it might not be. Thirteen (13), the old fire training
16 pit. Fourteen (14), the yellow sulfur disposal area.
17 Twenty-one A (21A) and thirty (30), the temporary storage
18 area and adjacent shed. And those are the worst of the
19 pesticide sites. All right. Then there were three (3)
20 sites that we agree should have no further action. And that
21 was twenty-six (26), the storage area and possible disposal
22 site south of Defense Revitalization Marketing Office. I
23 love these names. Thirty-one (31) is the former storage pad
24 and thirty-four (34), the sand blasting area. Those seem to

1 have been addressed well. And I would like to say right now
2 before I go any further - and go any further into the rest
3 of this with you, and these concerns come in, I live in
4 Bloomington and we have big PCB sites and I'm involved in
5 the PCB sites up there. I will say that things happened
6 here much more quickly, much more efficiently and with real
7 great consideration for what happened. I was very
8 impressed. So I will say that things are happening here and
9 they are happening quickly and they seem to be happening
10 with a great deal of concern for both the com - surrounding
11 community and to some extent the (inaudible). So you know
12 coming from a place where there was fighting for twenty (20)
13 years to get something done before anything got done I'm
14 impressed. So this is my prospective just so you know. All
15 right. Sites of concern. Wood storage pile in the wood
16 burning area. Ah our concerns here was primarily it looked
17 like there was some contaminants that were potentially
18 getting up on - excuse me. There were some concerns here
19 especially about lack of data on the incineration byproducts
20 that we thought need to be at least paid attention to before
21 anything further is recommended. And there just seemed like
22 before you recommended it for families living on site, those
23 in residential housing for example or before you had
24 agriculture where there was potential for migration into the

1 vegetables, and this is based on risk assessment, that at
2 least a little bit more needed to be considered. Ah it
3 doesn't say that there's not going to - that it's going to
4 be a problem for ever, just a little bit more needed to be
5 considered here. The small arms firing range and the indoor
6 range. It seemed like for the most part a lot was
7 considered especially in the small arms firing range. It
8 seemed like there was some areas where dust could accumulate
9 that dust samples are not taken. Ah this includes for
10 example right out the door and right out the windows. It
11 seemed at least we needed to have confirmatory sampling
12 because you're dealing with that. In addition you're
13 dealing with a site that's probably permanently going to be
14 contaminated with lead at low levels and there's not going
15 to be much that you can do about it so it probably needs to
16 stay industrial. And I think it's best use to probably in
17 the firing range. And people have limited exposure. It's
18 primarily adults that are going to be exposed so the primary
19 concerns about whether developmental or -- that's not a
20 concern then and it stays as a functional site. The new
21 incinerator. At this point it seems like the issues around
22 gasses and furans again need to be at least paid attention
23 to and looked at. And our concern was also if the
24 incinerator is to get restarted because it wasn't clear from

1 what I read whether or not it was going to be used as an
2 incinerator. If it is going to be used as an incinerator
3 you don't want animals there and you don't really want crops
4 there either. And it's not just the absence of -- at that
5 point mercury becomes a big issue too because mercury
6 invariably is in incineration products and mercury is very,
7 very difficult to clean out from things out of an
8 incinerator. So until that is settled it seems like we need
9 to be cautious about how it's to be used in that area.

10
11 **MR. KEN KNOUF:**

12 Diane do you know if there's some kind of a
13 safety zone that could be established around the new
14 incinerator or what the distance of that zone might be?

15
16 **MS. DIANE HENSHEL:**

17 I don't know but I can - I can call and ask.

18
19 **MR. KEN KNOUF:**

20 EPA is here.

21
22 **MS. DIANE HENSHEL:**

23 Yeah.

24

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

MR. CHARLES FACEMIRE:

The experience I had at Fernazd ah in looking at fallout from the stacks there and from the incinerator site, the distance isn't very great, probably one (1) to two (2) kilometers would - would catch most of it. It's an expediential that falls out very rapidly.

MS. DIANE HENSHEL:

Okay. And then on the northwest-southeast the runway flare test area, there's cin - the cinders were put down. Cinders are not by themselves a problem unless they're disturbed. What our concern was is it starts to be - we had talked to some people who said oh yeah I used to run on the cinders running track and I thought my gosh what happened to the cinders? Oh they start to break down. And they start to break down and turn into dust. Cinders are a phenomenal irritant to the lungs. And so our only concern about this was if it gets used so that the cinders are - are disturbed and broken down you have a potential for cinder dust to start to develop that's going to get into the air and there's a potential for getting into the lungs. And that's just a lung irritant, increases the likelihood of any other things happening as well because the lungs get unhappy. Just not a very biological way of phrasing it but

1 that's just the case. So our concern was just the cinders
2 and it's a basic - you know nothing to do with anything
3 related to the -- If you've got cinders pay attention to
4 what you've got. All right. And here's where we sort of
5 disagree. And again our disagreements are primarily due to
6 lack of knowledge rather than anything else. Primarily what
7 we want paid attention to is maybe some additional data or
8 additional monitoring to be paid attention to. And then
9 last one (1) is going to be the most interesting. All
10 right. Ah the Gate 19 landfill. This is above the firing
11 line so I'm not sure it's an issue but we do think that at
12 least some additional data needs to be there. We're
13 concerned about PCBs. We're wondering if toxic fumes
14 actually is not safe at all as part of the pesticide. You
15 know was it dumped there? Asbestos was dumped there in the
16 unwanted landfill. What happens to that? We just think
17 that additional monitoring needs to be done including and
18 especially at the springs because the springs were noted
19 coming out and yet there was no comment about sampling of
20 those springs. And so that's what our concerns were there.
21 We recognize that we have nothing to do with below the line.
22 All right. Site Fifteen (15), the burning area south of the
23 new incinerator. We just think that needs to be
24 confirmatory sampling after the last - after the last of the

1 cleanup is done. It may very well be very cleaned up. Yes?

2

3 **MR. TIM MALONE:**

4 What was burned at the landfill at the
5 incinerator?

6

7 **MS. DIANE HENSHEL:**

8 Ah I'm trying to - on this one (1)
9 (indicating)? The new incinerator?

10

11 **MR. TIM MALONE:**

12 The new one (1).

13

14 **MS. DIANE HENSHEL:**

15 Over the ground area this was probably - I'm
16 not going to stick my neck out. I have to go - I don't
17 memorize every single site. It's really hard. But if you
18 want me to look I can look it up. I can look it up now.

19

20 **MR. TIM MALONE:**

21 You can do it later. That's fine. Paul do
22 you know what was --

23

24

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

MS. DIANE HENSHEL:

Off hand do you know what was burned there?

MR. PAUL CLOUD:

I think the incinerator was paper in that area south of it. I don't know that there is any documented you know instances of what. It was just noted that there was a charred or burned area there.

MS. DIANE HENSHEL:

Okay.

MR. PAUL CLOUD:

I don't recall any specific as to A, B, C, this or X, Y, Z that ah in any report.

MS. DIANE HENSHEL:

My experience and training was sometimes things that were there that they just may need to get rid of at different sites. And so my guess is the same sort of thing would have happened here. But I don't know. And I can look up or unless we can go back to the original documents too. Okay? All right. Site Twenty-five (25), Paper Mill Road disposal area. This was a really

1 interesting one (1) to read because what happened after some
2 sort of a remediation was done was a farmer went in and grew
3 some corn there. At the same time some soil samples were
4 taken and ecotoxicology studies were done and they all sort
5 of showed up negative. And so everything sort of showed up
6 negative except for one (1) small problem. The corn was
7 stunted. The corn wasn't mildly stunted. The corn was
8 severely stunted. Now when I look at corn, corn is supposed
9 to be five (5) or six (6) feet. It's above my head anywhere
10 near my home town, anywhere near Bloomington and stuff like
11 that. The corn here was one (1) to two (2) feet high. That
12 to me was a flag indicating that there was a potential
13 problem at this site. And the type of things that are at
14 that site that were of concern there was some clear burned
15 stuff and burned material, dark material and so the
16 potential for either incineration byproducts of dioxins or
17 furans or PAHs, polycyclic aromatic hydrocarbons were known
18 to have been there so the question is to what was affecting
19 the corn. Could it have been the dioxin, the incinerator
20 byproducts? Could it have been the PAHs? But we really
21 don't know and so we think more needs to be done there in
22 terms of evaluation. And it really was the corn that
23 flagged our concerns. Now Twenty-eight (28), the open burn
24 area and the Gator Z mine test area brings up a point that

1 is a concern throughout and raises our concerns of certain
2 issues regarding some of the other concerns that we have.
3 The -- studies seem to indicate there wasn't really very
4 much of a problem. The eco studies sort of said well
5 compared to reference site sampling there's not much of a
6 problem. But boy the reference site samples is the problem.
7 This is one (1) of the ones where we thought you know we
8 really need to find this for the --- So let me talk about
9 reference sampling. Okay. According - there's a
10 recognition that there are two (2) forms of background
11 contamination that have to be paid attention to. There's
12 natural background contamination. A lot of - well all of
13 the heavy metals are elements and they're going to show up
14 naturally, sometimes more intensely than others, and that's
15 how geologists for example know how to flag an area to
16 identify something. There's also anthropogenic. There's
17 also sources that come from man uses. Incineration can be
18 one (1) problem. Mining is another that's really common.
19 Now here we have a situation where there's sort of a semi-
20 industrial building of weapons, right, and then setting them
21 off. And you have ah a fair amount of things that were
22 stacked in outside piles. You have explosions of munitions.
23 You have spillage from many things that are being made. And
24 then there's some purposeful spillage as in the solvents but

1 those are pretty identified in terms of their areas. Pretty
2 much the things that flagged our concerns were especially we
3 think the generalized background metal contamination on
4 site. What you are supposed to do, and some of the
5 considerations were, having comparisons. You always want to
6 have a comparison to pay attention to whether or not there
7 is a concern at this site compared to what's naturally in
8 the area around you. So you say I'm going to compare to off
9 site. We've got huge on site area here. It's not a single
10 landfill. There's a large number of sites and it's a fairly
11 large area. The EPA recommendations are to go off site, pay
12 attention to whether or not the off site contamination could
13 be considered a problem. If there's off site contamination
14 is it from ah something that can be identified as man made
15 or even natural, but a point source, a single place that
16 there's a source coming out. If so, you want to avoid that.
17 The second thing that you want to avoid in your reference
18 sampling is if there's a movement from the site to the area
19 that you're considering for reference. If there's an
20 indication that there is some sort of background build up
21 from migration from the area that you're concerned about,
22 again you don't want to use it as a reference site. So
23 you're trying to find an area that is similar in terms of
24 habitat, similar in terms of soils as much as possible, but

1 it doesn't have contamination from an alternative site,
2 doesn't have - unless you can clearly differentiate them,
3 and doesn't have any contamination from the sites you're
4 concerned about. Ah worse comes to worse and you can't get
5 anything off site, you are allowed to make for the testing -
6 for testing purposes you're allowed to create artificial
7 sites to do your background reference sampling. And there
8 are recipes for how you do the other source. And so that's
9 what's recommended by the way if you're having problems
10 finding a similar site that's not a contaminant source.
11 What they did here in Phase I was take a number of different
12 areas that were still within JPG, south of the firing line
13 JPG, and - but were not at sites of immediate concern. They
14 did background - after they did the background sampling and
15 then they did testing it turns out that these were somewhat
16 contaminated, somewhat background contaminated. It's not
17 apparent the -- come from the activities on site. So they
18 turned around and tried to identify four (4) more points
19 around south of the firing line, still on site, and pulled
20 samples from them, these areas that they thought were less
21 likely to be contaminated due to protection in some way of
22 the wind breaks or not as likely to be close to areas in
23 which there could have been aerial drift, i.e. from exposure
24 to whatever, so tried to get some cleaner sites.

1 Unfortunately when they did the background contamination
2 again they pulled all the data. So that's a small problem.
3 And then it's - even those were slightly background
4 contaminated, not nearly as bad as the other sites. So we
5 have a problem that there's reference sampling and the
6 comparisons for especially ecotoxicity studies are all from
7 sites that might have been contaminated from the other
8 sites, from either the munitions activity, from the setting
9 off of the munitions, from just drift from storage piles or
10 the drift from the various activities on site with nothing
11 that's clearly off site and no artificial reference soils
12 treated. And that concerns us. Because we think that they
13 really do need to have some sort of a reasonable clean
14 reference sample for comparison before you really do
15 evaluate ecotoxicity. And evaluate the potential harm to
16 the invertebrates, and the plants and then moving up in the
17 invertebrates, the animals that eat the invertebrates, the
18 animals that eat the plants and how the chemicals can
19 migrate therefore. And so this is just a flag for us and we
20 just said well this just needs to be done. And then re-
21 evaluate and then decide. But what this introduces to us is
22 a generalized concern about what appears to be low level
23 contamination throughout the site. And low level
24 contamination some of it may seem to be naturally caused.

1 Because if you go down deeper and it gets more intense you
2 sort of think that's natural. But if you go down deeper and
3 it gets cleaner, it doesn't quite seem so natural. And so
4 there's a generalized concern about low level contamination
5 at the site. Nothing high enough to really flag a human
6 health movement by itself, but because they're primarily all
7 heavy metals, because there's potential concern for heavy
8 metals acting together, because ah the concerns are
9 primarily not cancer as much as really development neuron
10 when you're dealing with these metals, our basic comment was
11 until this is addressed maybe you shouldn't have children on
12 site. So then it comes down to our toxicity evaluation in
13 the end. What are the effects of greatest concern? At
14 specific sites, cancer. The VOCs, the volatile organic
15 compound. Compounds. This includes some PAHs and primarily
16 the straight chain solvents that we talked about. Some
17 metals and in places where it's pertinent, obviously
18 dieldrin. All of this is site specific. But the non-cancer
19 effects, these issues about developmental nervous system
20 effects are primarily with those families on site. If
21 you're raising kids on site they're being exposed during the
22 period of greatest sensitivity to have the potential for
23 effect that are not obvious. Could only show up when your
24 kid starts having problems with breathing, attention skills

1 in the class, has trouble just focusing, those are the kinds
2 of things that are really so hard to define and not really
3 evaluated in the risk assessment because it's really hard to
4 get at this point, the data to evaluate it. But on the
5 other hand it's the kind of thing that we think before you
6 allow this incident of population of children on the site
7 living here, you want to at least evaluate that concern.
8 And then the other non-cancer effects tend to be more site
9 specific. And they are from - for more adult type of
10 exposures. Again generalized nervous system effects and
11 these can be irritability. You're jumping at everything.
12 Your body just sort of twitches. Ah or headaches or nausea
13 or - these are generalized nervous system effects. But we
14 can't really specify when nervous system are reacting most
15 of the time. Ah manganese is one (1) of the few that we got
16 that has a real clear, this is where it acts in the nervous
17 system. You'll see others that are going to be more general
18 unless you're doing developmental and then those are
19 specific ones again for some of the metals. Ah blood
20 problems including for some - some of the things,
21 possibility for increased arteriosclerosis for example or
22 vascular disease as well. And oh liver, jaundice, kidney -
23 ah kidney disease. Those are types of things that are
24 especially chronic to moderate exposures or very high

1 exposure for a single dose. You're not going to see any
2 very high exposure here so we're talking about really
3 moderate exposures for people who live here and are here
4 most of the time. Okay. So those are concerns really we
5 think that for the most part this is being addressed very
6 well and very thoroughly. We think that it's a really
7 reasonable clean up effort and it's just this issue about
8 the families I guess that are out - sort of can't you
9 evaluate it a little better before you make that decision?
10 All right. Any questions? I'm sure there are some.

11
12 **MR. CHARLES FACEMIRE:**

13 Maybe I got lost there somewhere on the
14 discussion of the background issue but the final point there
15 about the background contamination of heavy metals, what's
16 your conclusion on the source of that? Is that from the --

17
18 **MS. DIANE HENSHEL:**

19 It's not clear at this point.

20
21 **MR. CHARLES FACEMIRE:**

22 Not clear?
23
24

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

MS. DIANE HENSHEL:

No.

MR. CHARLES FACEMIRE:

No.

MS. DIANE HENSHEL:

It - it - I don't think it's been fairly evaluated to be honest at this point. I think it was - you could do one (1) of two (2) things. You could really worry about where it comes from or you could just save we have a site that's got this background contamination, what do you do with it? It's not enough to flag you know no use. It's still fairly useable. Whatever types of restrictions we might put want to put on the site because - I don't think that you can really clean it up to zero (0). I don't think it's economically feasible or realistic to. So you know.

MR. CHARLES FACEMIRE:

Didn't they do a statistical analysis concerning the reference sites versus those of a --

MS. DIANE HENSHEL:

No.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

MR. CHARLES FACEMIRE:

So we don't know whether there's any significant difference or not?

MS. DIANE HENSHEL:

What they did was compared it to hazard -- and their reference sites had some phenomenal consid - phenomenal -- in some places.

MR. CHARLES FACEMIRE:

Okay.

MS. DIANE HENSHEL:

Ah up to close to two one hundred (.002) of magnitude higher than one (1). That's pretty high for a background.

MR. CHARLES FACEMIRE:

Yeah.

MS. DIANE HENSHEL:

So again that was primarily for the ecotox. Because human health did not go by a comparison to the reference soils. They just went straight according to the

1 literature and potential for toxicity. So it's just the
2 ecotox. Yes?

3

4 **AUDIENCE MEMBER:**

5 You say that the stunted corn was what
6 flagged your concern on the Paper Mill Road disposal area?

7

8 **MS. DIANE HENSHEL:**

9 Yes.

10

11 **AUDIENCE MEMBER:**

12 And ah if corn had not been planted there as
13 it was not in probably most of the area?

14

15 **MS. DIANE HENSHEL:**

16 Right.

17

18 **AUDIENCE MEMBER:**

19 Then you would never have discovered this
20 right?

21

22 **MS. DIANE HENSHEL:**

23 The only other thing that could have been a
24 flag was in the description of the site that there was still

1 some tarry black balls I guess is the best way to describe
2 how they describe it, but interspersed within what was left
3 in that area, still some tarry black stuff. And again it's
4 to clear what that tarry black stuff is. And when I hear
5 tarry black stuff it could be incineration byproducts. It
6 could very well be PAHs. And you don't really know. It
7 could be incineration - incinerated PAHs which we combine
8 the two (2). So you're right. It couldn't but that was a
9 really clear flag. You know as soon as we saw that that was
10 wow this needs to be considered.

11
12 **AUDIENCE MEMBER:**

13 But corn was not raised on that area.

14
15 **MS. DIANE HENSHEL:**

16 No that's true. Though there are very
17 number of places where agricultural products are already
18 growed actually. I was --

19
20 **MR. KEN KNOUF:**

21 Soybeans this year.

22
23 **MS. DIANE HENSHEL:**

24 Soybeans this year?

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

MR. KEN KNOUF:

Yeah.

MS. DIANE HENSHEL:

Well okay. It was a fairly rapid reuse of site. So other questions? Comments? Barbs? It's yours now.

MR. RICHARD HILL:

Well thank you. Thank you very much.

MR. PAUL CLOUD:

Well I - I, through the Army would like to thank Dr. Henshel and I'm looking forward to ah the final report. Just for everyone's information I've asked her to come down within the next month or so because there is some information that she was not provided ah in the original review where we have done additional clean up and actions at the Proving Ground that I think will have some bearing on some of her comments tonight. But I'm looking forward - I've already read her report and I think it's a very good report. I would encourage you if you're interested to contact Richard and we'll make sure that you get a copy of it if you're interested. But the next item on our agenda is

1 a presentation by the Huntsville Corps of Engineers. Ah
2 this is for the evaluation - Engineering Evaluation/Cost
3 Analysis for ah UXO clearance on the western parcel of JPG.
4 I would like to introduce at this time Mr. Glen Earhart from
5 Huntsville Corps of Engineers. Glen it's all yours.

6
7 **MR. GLEN EARHART:**

8 Thank you Paul.

9
10 **MR. KEN KNOUF:**

11 Let's turn the lights off.

12
13 **MR. GLEN EARHART:**

14 My name is Glen Earhart. I work with the
15 U.S. Army Corps of Engineers out of Huntsville Engineering
16 Support Center. We are the Federal Expertise and the Design
17 Center for the Corps of Engineers nationwide. We deal
18 specifically and primarily with ordnance type issues across
19 the country. I also have with us today Mr. Rob Wilcox who
20 is from the Huntsville Center of Expertise for ordnance.
21 And we have Mr. Bob Menke and Mr. Randy Adams from Parsons
22 Engineering Science out of Virginia. They are the ones that
23 did the ah Engineering Evaluation/Cost Analysis which we're
24 going to be talking about. As you're probably aware we've

1 been - I guess we've been up at JPG now for about two (2) to
2 two and a half (2½) years. We've been working with various
3 issues related to ordnance throughout south of the firing
4 line. What we're going to be talking about today is an
5 evaluation that we performed for the area that in relation
6 is west of the airfield site, ah what we call the wooded
7 site. And so we're going to spend some time on that. Ah
8 I'm going to talk about the ordnance. OE stands for
9 ordnance and explosives. We're going to be talking about
10 the process that we went through. We're also going to be
11 talking about the Engineering Evaluation/Cost Analysis which
12 is in the EPA vernacular, similar to a Remedial
13 Investigation Feasibility Study. This is where we
14 characterize the site, evaluate the alternatives, do impact
15 analysis, and then choose a selected alternative. And what
16 we are doing today is we have the report in final draft and
17 we're going to summarize the basic parts of that report and
18 we want - we're soliciting a comment period to get
19 everybody's comments on - on the report so we can go back
20 and fix or explain or whatever we need to do. So I
21 appreciate the opportunity to summarize the report. It's a
22 large document but based upon the summary you can take a
23 look at it, provide any comments. I think your comments
24 will go through Paul and then Paul will forward them to - to

1 Huntsville or to the Louisville district. I'm also going to
2 be talking about the Engineering Evaluation/Cost Analysis
3 process which is ah somewhat unique for the ordnance
4 program. For those of you that aren't familiar the ordnance
5 program Department of Defense is the lead response agency
6 for all ordnance issue. And that stands to reason since
7 ordnance is usually DOD type stuff. And then Mr. Menke from
8 Parsons, since their company performed all the analysis, I
9 thought it would be appropriate since he's the man on the
10 scene and he would go through the - the results, and then
11 we'll obviously have some questions or comments and try to
12 answer any questions. Please if you have any questions
13 while I'm going through this don't hesitate to ah interrupt
14 me. In the ordnance business we have three (3) basic type
15 of response actions. Ah and our guidance comes from the
16 National Contingency Plan. Basically we have what we call an
17 emergency response action. That is when there's an imminent
18 hazard immediately, there's no time to do anything. We need
19 to respond. Those don't happen very often but they do and
20 that's just - we need to get - we remediate the immediate
21 hazard and then we go through and evaluate any ramifications
22 of that hazard. And then we also have what we call time
23 critical removals and non-time critical removals. The other
24 work that we did at JPG were time critical removals actions

1 whereas you have less than six (6) months planning time.
2 For non-time critical removals they're usually addressed by
3 having more than six (6) months planning time. So we have
4 some time to do the perfect coordination and be ready to do
5 the removal. At Jefferson Proving Ground the whole process
6 was started by a preliminary assessment. We essentially
7 call - we did what we call an Archives Search Report. That
8 was a historical document, reviewed, recorded that evaluated
9 all potential areas where we would likely find ordnance
10 south of the firing line. Ah then we've done some site
11 inspections where we've come out and evaluate and verify the
12 documents that were done especially in the Archives Search
13 Report which lead us to the Engineering Evaluation/Cost
14 Analysis that we did on the three hundred (300) acre site
15 that's west of the airfield. And I think Bob has some
16 photographs of that. So essentially that parcel of woods we
17 did what we call a non-time critical removal action. And
18 we're at the point now where we've done the
19 characterization, we've done the assessment, we've done the
20 alternative analysis, the Cost Analysis and we have that all
21 in the report within - we're putting that report out for
22 review. The EE/CA process, Engineering Evaluation/Cost
23 Analysis process starts with approval memorandum which gives
24 us the authority to do it. And then we proceed with the

1 actual investigation itself. Keep in mind that in each time
2 during this process if we discover information that causes -
3 would cause an imminent hazard as a result of the ordnance,
4 we would push it over to a time critical removal action
5 where we would take care of that isolated area immediately.
6 Once we complete the EE/CA report, get the comments in, have
7 the public review, then we would do what is called an Action
8 Memorandum which summarizes the response action that we're
9 recommending. And then we would then proceed with doing the
10 actual removal itself. We will complete that with the
11 removal reports. In the case since this is a basically live
12 at site, we will do a Statement of Clearance that Paul takes
13 to his chain of command and that Statement of Clearance will
14 then accompany the real estate documentation that
15 facilitates the factual transfer of the property. That's
16 really not my area but - so if you have any questions about
17 it I'll turn it over to somebody else. And then obviously
18 the project completion. From an ordnance prospective this
19 is the last piece that I think we have south of the firing
20 line so we're real excited about bringing this to closure.
21 The actual process itself involves obviously planning,
22 coordination. We did a lot of scoping. We tried to
23 determine the best contract vehicle, what our data quality
24 objectives were, what our objectives were, what we wanted -

1 what did we want to find out at the end of the day? And
2 that was paired with the actual site characterization.
3 We'll talk a little bit more detail but ah in case of
4 ordnance projects you usually involve what we call a
5 geophysical survey where we take sophisticated ah things
6 that -- what's the word where you find money in the sand?
7

8 **MR. CHARLES FACEMIRE:**

9 Metal detectors.
10

11 **MR. GLEN EARHART:**

12 Metal detectors thank you. I can't believe
13 I forgot that. So we take sophisticated metal detectors, try
14 to ah detect underground subsurface metal objects, and then
15 once we analyze the data then we go out and investigate some
16 of those and then we determine whether or not they're nails
17 or whether or not they're ordnance items and then we take
18 that data, do an Impact Analysis, Cost Analysis, etc. and
19 come up with a recommended alternative that reduces the
20 public safety exposure. Ah once we do the characterization
21 then we do an alternative analysis and we finalize the
22 report. Public participation. Public participation is
23 throughout the process. I think this is my third or fourth
24 visit to the - to the Jefferson Proving Ground RAB but the

1 public participation in the EE/CA report is really, really
2 important. We need to make sure that we get a public
3 comment period, take a look at the document, let's identify
4 any problem areas that we can rectify and fix. That's one
5 (1) reason why Paul recommended we come up and give you a
6 little summary of what your documents contain, the
7 highlights of it, so you can take a look at it. And then we
8 do the Action Memorandum. Now with that if there are no
9 questions I'm going to turn over to the person that actually
10 did the lion's share of the work and he will go through it
11 and summarize really what's in the documents.

12
13 **MR. BOB MENKE:**

14 Thank you Glen. I'll try to maybe get this
15 a little bit closer. I think Glen hit all the highlights
16 there in our - what really were our objectives of the site
17 and that was to identify the degree and the extent of the OE
18 contamination and then try to come up with recommended
19 actions on how to proceed. Our scope was to consider the
20 very last of the - of the sites. It was three hundred and
21 twenty-three (323) acres in the southwest corner. I've got
22 ah a figure and maybe I will flip over to give you a better
23 idea. Gate 19 is just to the north, the north firing line.
24 It's just up to the north where Woodfill Road so we have a

1 small eleven (11) acre parcel that is really at the corner
2 of Tokyo Road and Woodfill Road. And then we have the three
3 hundred and twelve (312) acre site, waste water treatment
4 plant is - is just down to the - to the south and then
5 Perimeter Road and the boundary of JPG. The western
6 boundary is over here on the - on the west side. And what
7 we wanted to do was take a look at our objective was to take
8 a look at how we could reduce one (1) or could we determine
9 and verify that there was ordnance risk, OE risk on the
10 site? And then how could we reduce the public exposure to
11 any of that risk that was - that was determined to be found?
12 Glen talked very briefly about taking a metal detector or a
13 magnetometer and going over the site. A contractor showed
14 up with what they called the meandering path methodology.
15 It was to take this metal detector and randomly go over the
16 areas and you can see ah just these very small lines or what
17 they call meandering paths and so they ran some transits
18 through ah both of the sites. And those were - it was the
19 magnetometer tied with the G.P.S. which is the Global
20 Positioning System and ah - and they were able to walk
21 through and have their position recorded. And then the
22 analysis was conducted to determine whether there was any
23 anomalies or metal objects that they wanted to then go and
24 intrusively investigate. So once they have the lines and

1 they analyzed the data eighty-nine (89) suspected metal
2 objects were determined to be ah - to be in the site and
3 determined to be the best to go after and intrusively
4 investigate. Or actually to date.

5
6 **MR. KEN KNOUF:**

7 Bob can I ask you a question?

8
9 **MR. BOB MENKE:**

10 Yes go ahead.

11
12 **MR. KEN KNOUF:**

13 If you could go to the previous one (1)?

14
15 **MR. BOB MENKE:**

16 Sorry. (Getting)

17
18 **MR. KEN KNOUF:**

19 I think that the Archive Search Report
20 indicated the - the possibility of an ammo - ammo supply
21 site just right below the railroad?

22
23 **MR. BOB MENKE:**

24 Okay. Railroad is this line very faint

1 (indicating). You probably can't see it.

2

3 **MR. KEN KNOUF:**

4 You can kind of see the little box there I
5 mean on the east side.

6

7 **MR. BOB MENKE:**

8 Okay.

9

10 **MR. KEN KNOUF:**

11 Now there's no meandering lines that even go
12 close to that. Is that - why maybe shouldn't there have
13 been a line at least parallel to the railroad tracks south
14 just to see if there was anything there that may have
15 dropped off the train or at the old ammo dump site?

16

17 **MR. BOB MENKE:**

18 Un-huh (yes). I think one (1) of the
19 reasons that they stayed a little bit away from that and
20 they found it up here in the top (indicating) is that those
21 iron rails throw a pretty good signal. And so there were
22 even some of the spots along here (indicating) that that
23 metal detector, that magnetometer, could literally, as
24 sensitive as it is to - to find ah little teeny objects in

1 the ground, the ah - the railroad tracks and some of the
2 pins and - and that may be a good comment to take a look at
3 and address from a different light. But I do know the
4 signal was very strong there.

5
6 **MR. CHARLES FACEMIRE:**

7 Were the transects chosen randomly or is
8 this sort of a straddle by example these metals or
9 something?

10
11 **MR. BOB MENKE:**

12 I don't believe there was any seen at all.

13
14 **MR. CHARLES FACEMIRE:**

15 Okay.

16
17 **MR. BOB MENKE:**

18 I think there was a random ah --

19
20 **MR. CHARLES FACEMIRE:**

21 That could also explain the gap then if it
22 was random sampling.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

MR. BOB MENKE:

Yes.

MR. CHARLES FACEMIRE:

That would also explain the gap.

MR. BOB MENKE:

But there certainly seems to be a much
evenner - some of the other even distributions than literally
in that - in that area.

MR. CHARLES FACEMIRE:

Right.

MR. GLEN EARHART:

You've got to remember we also had a
significant amount of data just right from the - east of
Tokyo Road. We had just completed a complete removal action
before and I think you also see when you get your
recommendations this came up Ken too when we were looking
through what we recommend. And I think the alternative
we're recommending would address that issue. The primary
purpose of this meandering path technique quite frankly just
- just recently won a JPG team an award for this meandering

1 path. The sole idea behind this concept is rather than go
2 through and clear a wooded area to do your magnetometer
3 work, we were able to do all the surveying and not be -
4 without clearing a single tree. So it's a really exciting
5 concept and we just need to make sure that when we've done
6 the alternative and we evaluate those alternatives we take
7 these kinds of considerations into effect. And that's quite
8 frankly why we want - why we're here and why we want these
9 comments.

10
11 **MR. BROOKS EVENS:**

12 Nobody's ever seen - the three hundred and
13 twelve (312) acre site it has a lot of underbrush growth.
14 It's severely overgrown. It would have been - it would have
15 destroyed the eco system to have went in there and did clear
16 it.

17
18 **MR. CHARLES FACEMIRE:**

19 Oh yeah I don't have a problem with the
20 random path thing. In fact I used to hunt deer right
21 outside the perimeter there.

22
23 **MR. GLEN EARHART:**

24 This is mostly second growth stuff. Were

1 you a poacher?

2

3

MR. CHARLES FACEMIRE:

4

No. This was back in the sixties.

5

6

MR. BOB MENKE:

7

You said outside the perimeter right?

8

9

MR. CHARLES FACEMIRE:

10

Outside the perimeter. Not inside.

11

12

MR. GLEN EARHART:

13

14

15

16

17

18

19

20

21

MR. CHARLES FACEMIRE:

22

Right. Right.

23

24

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

MR. GLEN EARHART:

I'm sorry Bob.

MR. BOB MENKE:

No. No. Great. Were you answered then Ken?

MR. KEN KNOUF:

Yes.

MR. BOB MENKE:

Okay. Ah one (1) of the other things that we did a little bit and a good comment about being along the edge of the railroad ah we tended to also try to take some samples along the roads. And that is from that concept of did they you know dump anything or was anything more ah disturbed along the - the roadway? So you can see a fair amount of the anomaly did appear in - in - along some of the - or close to some of the roadways than they did - then they did on the interior. When we went and dug the - investigated the eleven (11) acre parcel first we found no ordnance items. We found no ordnance related scrap. We found no pieces or parts. What we did find ah was - was thirty-two (32) of the items were ah debris off of what

1 would appear to be an awful lot of welding, small metal ah
2 fragments or something as if they had done some - some type
3 of welding or other work in the immediate area. And then
4 there were two (2) holes that we dug that we literally found
5 nothing. We call them negative anomalies. Some people re -
6 refer to them as total positives. But basically there were
7 two (2) holes that were dug that no objects were found.
8

9 **MS. DIANE HENSHEL:**

10 Is there known to be a large amount of iron
11 in this - in these soils?
12

13 **MR. BOB MENKE:**

14 I'm sorry?
15

16 **MS. DIANE HENSHEL:**

17 Are there known to be a large amount of iron
18 in these soils?
19

20 **MR. BOB MENKE:**

21 Ah from a clay aspect from a soil I will let
22 somebody else try to - try to answer that about the soil
23 content in this area.
24

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

MR. GLEN EARHART:

Ah I don't know about soil content but quite frankly we find a lot of times when we do magnetometer surveys we find anomalies are actually metallic rock. Ah and I don't think we found any of those here. So - so it was either - either a magnetic signal in the soil or - Randy?

MR. RANDY ADAMS:

They find that a piece of wire and it's fully disintegrated so it leaves a magnetic signal in the soil that you can't even find it. So that's why you sometimes don't find it but there's other reasons that could be down.

MR. BOB MENKE:

And a tendency --

MR. RANDY ADAMS:

A lot of reasons.

MR. BOB MENKE:

It doesn't have a high - this one (1) didn't - this thing didn't have a high background noise. A little

1 more noise in background.

2
3 **MR. GLEN EARHART:**

4 One (1) more comment. When we - when we dig
5 - obviously we thought there was an anomaly there. So we
6 dig down. We dig down until there is no more signal. When
7 we dug down in that hole, we magged that area, we didn't get
8 that signal.

9
10 **MR. BOB MENKE:**

11 And I'll explain a little bit when I get to
12 the next - next parcel too. So what - what we concluded on
13 the eleven (11) acre site ah from - from a random sampling
14 point of view that there were no - no ordnance found, no OE
15 found, no scrap. And that's another thing of importance.
16 But on the eleven (11) acre then we - we recommended at this
17 point that - or recommended no further action. Ah the new
18 words no DOD action indicated from the site. I think most
19 of the people we might refer to as - as nofus. Whoops
20 sorry. Okay. When we did get over to the three hundred
21 (300) acre site, three hundred and twelve (312) acre the
22 main part of the site, we did find one (1) ordnance item.
23 It was a sixty (60) millimeter mortar. It was fused. We
24 did blow it in place so we did confirm that - that there was

1 an item. We also found one (1) hole containing an ordnance
2 related item, two point seven five (2.75) rocket that the
3 end shell, the very clean or open shell, that did not have
4 to be blown in place. Ah the vast majority was non related
5 scrap. Again thirty-six (36) of the holes had non related
6 scrap. And seventeen (17) were the negative anomalies
7 were empty holes again. The seventeen (17) when we went
8 back and really took a look at what those signals were,
9 there was originally fifty-eight (58) holes or anomaly
10 signals that were chosen to be dug. The QC or QA part from
11 Huntsville went in and looked at the data and said okay pick
12 another ah seventeen (17) or eighteen (18) anomalies or
13 holes for this part of the QC and QA process. And sixteen
14 (16) out of those seventeen (17) ended up being these empty
15 holes. So it really did confirm that we had ah - ah - that
16 the magnetometer and geophysicist had picked correctly on
17 where to go and dig. Okay. Unrelated items were shoes off
18 of horses, horse shoes, ah some spikes and material from the
19 railroad, ah some parts of some fifty-five (55) gallon drums
20 and some - and then basically what we consider probably more
21 road trash, cans and other objects down along in here
22 (indicating). The horse - the horse shoes were found in the
23 wooded areas and not too many - I was suspecting to find a
24 little bit maybe more of the farm implements you know plows,

1 shears, or some - some type of bolts. But they were pretty
2 much trashed. The sixty (60) millimeter mortar was found
3 here you can faintly see it (indicating). Sorry for that.
4 But the runway where the two (2) runways come together and
5 the sixty (60) millimeter was found down here (indicating).
6 And the - and the part of the shell was found up right off
7 of Woodfill Road. So we then came with our alternative. We
8 needed to study alternatives for the three hundred and
9 twelve (312) acre site. We then selected the no action
10 indicated institutional controls, surface clearance and were
11 then going in and clearing the sites subsurface to depth or
12 to depth where - to depth indicating that we had no shells.
13 And we applied the EE/CA evaluation criteria and that means
14 that we were going to evaluate each one (1) of those
15 alternatives for the effectiveness, implementability and
16 cost. And in the report, and I'm going over this very
17 quickly, but in the report in the chapters you get an
18 explanation of within the criteria which is dictated to us
19 protection of public safety and human help. We used an
20 Impact Analysis for that to determine those rank - rankings,
21 comparisons with ARARS and those are what we're talking
22 about regulations and affability of local and EPA and State
23 regulations. And there are long term effectiveness, short
24 term. Those were all evaluation criteria which are

1 identified and hopefully explained in the report. And then
2 under the implementability again we have the options listed
3 and we have some rankings. And then you will see down here
4 (indicating) there is a local ah Agency Acceptance and a
5 Community Acceptance and those are right now estimates and
6 part of that will be based on how you respond back in the
7 public comments ah in terms of some of the Community
8 Acceptance for ah - for these alternatives. Typically the
9 community wants ah you know the more clearance the better
10 and so we've taken the - normally they rank that as the
11 number one (1) option. So that's why we have at this point
12 have chosen to fill that in and show what the relative
13 ranking is for - for the - for those options and
14 alternatives. So we came down with our recommendations and
15 there was no DOD action indicated for the eleven (11) acre
16 parcel. We are recommending a surface and subsurface
17 clearance of OE to a depth on the three hundred and twelve
18 (312) acres at an incremental approach. And what we're
19 defining as our incremental approach is - this goes back to
20 what Glen very, very briefly touched on - again the airfield
21 is over here (indicating). It has been completely cleared
22 already. The fence or perimeter road is over here
23 (indicating) and none of this property is considered JPG.
24 And north of the firing line road and the fencing is up here

1 (indicating). In previous investigations that have already
2 heard they have found some objects, ordnance objects
3 confirmed to the north and they have found ordnance items ah
4 to the east. And so our incremental approach, since we did
5 find one (1) object really right on the very edge of Tokyo
6 Road and one (1) object ah just - just south of Woodfill
7 Road that we're recommending that we start moving - moving
8 west and then also moving south with clearance operations
9 until we go at least four hundred (400) feet with lineal
10 lines and find absolutely no scrap or no ordnance. Okay.
11 We truly believe that by the time we get to this fence and
12 the perimeter there should be nothing that's on - that it's
13 on the outside. Okay? But the same point we did find some
14 items. We know that. We want to get more. Ah we want to
15 do more clearance just to confirm that ah - that there is
16 nothing as we start moving this way (indicating). If we
17 find items then we add another four hundred (400) feet in a
18 - in a lineal line from that object as it's found so we
19 could progress the whole way across the site. Any
20 questions? This is very, very brief. Yes sir?

21
22 **MR. TIM MALONE:**

23 What activities would you do as you go
24 across the area? What would the clean up activities consist

1 of?

2

3

MR. BOB MENKE:

4

5

6

7

8

9

10

11

MR. BOB HUDSON:

12

13

14

MR. BOB MENKE:

15

16

17

18

19

20

21

22

23

MR. GLEN EARHART:

24

We would not do the ah digital geophysical

1 mapping. In this case this would be hand held.
2

3 **MR. RANDY ADAMS:**

4 Gridded out first in lines that they would
5 investigate?
6

7 **MR. GLEN EARHART:**

8 It would be a hundred (100) percent
9 clearance.
10

11 **MR. BOB MENKE:**

12 Yeah. What you can see in a report you
13 can't quite see here but there are (indicating) this is grid
14 out in two hundred by two hundred (200x200) foot grids and
15 then they approach it from that - from that approach. Yes
16 ma'am?
17

18 **MS. DIANE HENSHEL:**

19 Your implication is that you're clearing all
20 brush land is that correct or is that not correct?
21

22 **MR. BOB MENKE:**

23 That we're clearing all brush?
24

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

MS. DIANE HENSHEL:

Yeah.

MR. BOB MENKE:

There's really not that much brush in there. I mean it's - it's ah - I think one (1) of the gentlemen earlier said there are a lot of younger trees.

MR. CHARLES FACEMIRE:

It's mostly second growth.

MR. BOB MENKE:

Yeah second growth. It's ah - it's - there are some - there are I think when it's in the good season there's an awful lot of sticker bushes. There's some other stuff there.

MR. KEN KNOUF:

It's got a spice bush on it.

MR. BOB MENKE:

Okay. They've got to get that - they've got to get that --

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

MR. CHARLES FACEMIRE:

The deer keep it browsed down pretty well.
It's pretty clear.

MR. BOB MENKE:

Yeah but you've got to clear that part away.
The guys have to be able to freely move that instrument. If
they get a signal, put a flag there, and then be able to -
to come back. Normally another crew does some of the
investigation. Okay. Back to Paul or Richard? Yeah sorry.

MR. BOB HUDSON:

Ah have you - is there going to be a cost
estimate of this instrumental approach versus say no action?

MR. GLEN EARHART:

Our processing is in the books.

MR. BOB MENKE:

Yeah. I'm not going to - Randy are you
better at pulling that number off the top of your head? I'm
sorry. I'm not going to - I'm not even going to --

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

MR. RANDY ADAMS:

We made some estimates in the report based upon what we anticipated would have to be the clearance. And in our cost estimate what we assumed was that we would have to do approximately fifty (50) percent of the area in using this instrumental approach as opposed to ah the entire site.

MR. BOB MENKE:

Which is - which is the shaded area. For the basis of our cost estimate we're assuming that that's - that's our first crack at how far we believe that we will go which is eight hundred (800) feet in in all directions in these two (2) directions (indicating). Is there another - Ken did you have a question?

MR. KEN KNOUF:

Yeah. Is Bob finished?

MR. BOB MENKE:

No he's looking up something.

MR. KEN KNOUF:

This is more for Glen and I guess this is

1 kind of outside the scope of this group but many people are
2 aware that that was probably one (1) of the more popular
3 hunting areas at JPG for thirty (30) years. A lot of people
4 and we had timbering operations in there also with no clue
5 that there was any potential danger in there Glen. So I
6 guess my question is are there any Archival Search Reports
7 being done on active installations that are receiving this
8 kind of land use that if you guys look at the Archival
9 Record might suggest maybe that's not such an idea, a good
10 idea to have people doing these kind of activities in this
11 area?

12
13 **MR. GLEN EARHART:**

14 Well and I think the answer to your question
15 is in the case of JPG we have a pretty good history of this
16 area. And I think a lot of times there are sites - for
17 example we have a site at Ft. Richey, Maryland where we know
18 the impact firing line was on the side of the mountain. And
19 the bottom part of the mountain was wooded. And we know
20 that and there's a lot of records and we're finding a lot of
21 ordnance. Obviously there's a lot of institutional controls
22 or restrictions placed on the final transfer of that
23 property to mitigate that exposure. And keep in mind that
24 before any removal action gets approved there's an agency in

1 the Department of Defense called the Defense Department
2 Explosive Safety Board and they're the - they're the gurus
3 of ordnance. They're the Pentagon and they have to approve
4 - they only look at it. They don't care about cost or any
5 other factors. Their only concern is ordnance safety. And
6 so before we do any of this we have to get the Department of
7 Defense Explosive Safety Board to approve what our
8 recommendations are before we go in and do any work for
9 removal. So ah --

10
11 **MR. KEN KNOUF:**

12 But they're only interested in the transfer
13 of that property. They aren't interested in like active
14 installations where there's on going activity there and not
15 slated for closure but perhaps an installation may have a
16 hundred (100) year history so it's something that happened
17 back in World War I days that today they may not even know
18 what happened back there. They may be playing softball in
19 an old impact area or something.

20
21 **MR. BOB MENKE:**

22 Randy? And I think I got the instrumental
23 back up. That's - he's even got the cost estimate pulled
24 out in front of him.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

MR. RANDY ADAMS:

Yeah. Just back to your question. The cost for an institutional control alternative for that site was two hundred twenty-nine thousand (\$229,000). For surface clearance of the area is seven hundred ninety-eight thousand (\$798,000). And for clearance of depth was eight hundred and eighty-one thousand (\$881,000).

MR. BOB MENKE:

So that the cost differential was what we consider small for the greatest benefit which was to clear - clear it to depth. That gave us the best benefit for - for a fairly small delta. Yes sir?

MR. WILLIAM CORNING:

I can't understand the small difference between a surface clearance and a four (4) foot clearance.

MR. BOB MENKE:

Ah one (1) of the major factors was that every object we found was very shallow so we don't believe we're going to have to be doing an awful lot of deep holes.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

MR. WILLIAM CORNING:

In other words you're not going to really do a four (4) foot?

MR. BOB MENKE:

Well no. If we get any signal we will go down. In other words with some areas where - an impact area where the objects historically went deeper and so when we got into there we found that ah we had to dig a lot of three (3) foot holes. There are other areas where we go and we find most of the objects are six (6) inches, twelve (12) inches deep. Ah we found some areas that they are fairly easy to dig in. Ah so it's easy to dig a one (1) foot hole versus being ah very clay or very hard or something or being farther north where the winters are more severe and you have other logistical problems. But one (1) factor, and there are several factors, one (1) of them is that we found an awful lot of these out there very shallow. And so we believe we're not going to be digging that much deeper. Ah an awful lot of the cost is mobilizing, setting up, surveyor laying the grids out, ah essentially getting into there, doing the magnetometer searches or marking you know and flagging.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

MR. WILLIAM CORNING:

Well that's already been done.

MR. BOB MENKE:

Well once we bring in the crews and they're literally walking, all those costs are essentially --

MR. WILLIAM CORNING:

You have it marked off there.

MR. BOB MENKE:

No. No. We did just those meandering path lines. And so now we're going to again bring a crew out, somebody will bring a crew out with probably five (5) people per team and walk literally and then - and then mark that. So a lot of --

MR. WILLIAM CORNING:

The grids you have on that visual there - they are just unbelievable. That's not --

MR. RANDY ADAMS:

That's just notion. Those are not --

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

MR. BOB MENKE:

Yes. Yes. The only - yeah the only - and those actually are carried over of the grid system from the airfield. We literally just carried those - that approach of two hundred by two hundred (200x200) grid, which is what the surveying, the UXO company who was on site, is how they were approaching it. So we tried to stay in that logic.

MR. WILLIAM CORNING:

But does this - this estimate for this three hundred (300) acres is so much less than the figures that we were given on some of the other pieces to the east of this.

MR. BOB MENKE:

Un-huh (yes). Another reason is we don't - we don't believe that you're going to find that much.

MR. WILLIAM CORNING:

I don't think so either.

MR. BOB MENKE:

Okay? And that's - some of the other sites it is my understanding, and I'll have some of these other experts pop up, they knew they were going to be finding an

1 awful lot of other objects. They knew they had to perforate
2 or blow in place and handle and scrap etc. Over here
3 (indicating) we don't believe you're going to be finding as
4 much. We believe it's shallower. Ah and - and therefore ah
5 - ah that cost is - is somewhat - somewhat different. Good
6 comments. Good comments to consider to make sure that you
7 know you guys do do a double check and say hey there is a
8 logic here. Yes sir?

9
10 **MR. BOB HUDSON:**

11 Who would make a decision on whether there
12 would be one (1) made connected to the fact that the
13 property is still in the government's pocket and not subject
14 to transfer at this point. And determine that it would be
15 more effective to just leave it in the government's hands
16 and not spend any money. You're talking about maybe just
17 scratching it off and leaving it as a part of the fifty-two
18 thousand (52,000) acres north of the firing line.

19
20 **MR. BOB MENKE:**

21 Who would like to handle that question?

22
23 **MR. GLEN EARHART:**

24 Anybody but me in this room.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

MR. RANDY ADAMS:

Yeah anybody but me too.

MR. PAUL CLOUD:

Well I'll take that one (1). And Mr. Hudson as my former boss you ought to know the answer but I will remind you sir. The Army has made a commitment to access or make available for redevelopment the property south of the firing line which is not only the area to the west or to the east of this (indicating) but also this particular parcel. I'm sure most of the people in the room know that at one (1) time the county had a public benefit for advance application for this particular parcel as a park. They subsequently modified that request and took this out. Ah unfortunately at the time that that was done it was done after the invitation for bids were put out and the ah high bidder, Mr. Ford of Ford Lumber and Building Supply Company, was identified for the purchase ultimately of the approximately thirty-four hundred (3400) acres. This area is fairly isolated. It is - there is no development in this area. It is strictly wooded and that is another reason why we went into the non-time critical EE/CA approach on this one (1). To really answer your question right now it is still the Army's intent to perform a UXO clearance on this area and

1 then at a future date make the property available. If in
2 fact that policy is to change it will be done in the Army's
3 Secretariat. But that is a policy level decision. But if
4 it falls in line with President Clinton's five (5) point
5 plan to make as much property available for reuse and
6 redevelopment to the community as possible, and it's still
7 the Army's intent because of the proximity to the airfield
8 and the other areas, to make this property available.

9
10 **MR. BOB HUDSON:**

11 Paul I had a - I knew that was going to be
12 your answer.

13
14 **MR. PAUL CLOUD:**

15 So can I say number two (2) instead of
16 number four (4) now?

17
18 **MR. BOB HUDSON:**

19 I will give you ah for a little bit of
20 information people in the room that might be interested in
21 this. So I don't know if originally this piece of property
22 was even a part of the original ordnance for the Proving
23 Ground?

24

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

MR. KEN KNOUF:

No it wasn't Bob.

MR. BOB HUDSON:

It was added on at a later date.

MR. WILLIAM CORNING:

It wasn't added on.

MR. BOB HUDSON:

It was purchased at a later date.

MR. PAUL CLOUD:

Yeah.

MR. BOB HUDSON:

And now I can tell you that I have seen a lot of history and pictures and photographs that go on there. I did have a picture that pertained to this area. A weapon blew up upon firing I think a one fifty-five (155) Howitzer, the bridge walk - a big chunk, a big chunk of metal. And all the way back through this woods and on this diameter down here knocked the fence and several posts down on this western line. I don't know if anybody seen that

1 picture or not. To my knowledge that's the most ah active
2 part that - of ordnance work that was done. Anyway it was
3 several hundred pounds.

4

5 **MR. PAUL CLOUD:**

6 I understand.

7

8 **MR. BOB HUDSON:**

9 Have you seen that picture Paul?

10

11 **MR. PAUL CLOUD:**

12 Yeah. Bill do you have a question?

13 Comment?

14

15 **MR. WILLIAM CORNING:**

16 Ah the only thing I question was the fact
17 that ah that is part of the original purchase or part of the
18 purchase plan. It wasn't - it was to be given to Jefferson
19 County. When Jefferson County turned it down it should have
20 gone back to the original situation where it was available
21 to any government entity that wished that.

22

23 **MR. PAUL CLOUD:**

24 During the - in accordance with the BRAC

1 property screening process which is the part of the BRAC
2 facility, by the time we got to that particular step in the
3 process other agencies in the Department of Defense, other
4 agencies in the federal government, other state agencies,
5 and community had been made - given that opportunity. So
6 once it got down that far which is about as far as you go
7 and the community then decided they did not want that and
8 they asked the park service to take that parcel out, then
9 the Army - unfortunately I say it was not soon enough for
10 the Army to include it in the invitation for bid for the
11 sale of the property. Right now this property is not in the
12 Lease in Furtherance of Conveyance. It is Army property and
13 it is not available at this time.

14
15 **MR. WILLIAM CORNING:**

16 But then it's not automatic that Dean Ford
17 can buy it?

18
19 **MR. PAUL CLOUD:**

20 There is a contract in the - or there is a
21 statement in the invitation for bid that says the successful
22 high bidder will be offered the property if it becomes
23 available. If it becomes available. And again the Army is
24 still intending to make it available. If that is to change

1 that will be a policy level decision at the Pentagon.

2
3 **MR. WILLIAM CORNING:**

4 It has to be made - DOD has to make the
5 decision if it's available.

6
7 **MR. PAUL CLOUD:**

8 Actually it will - two (2) things have to
9 happen. One (1) is we have to go through this UXO
10 clearance.

11
12 **MR. WILLIAM CORNING:**

13 Yeah.

14
15 **MR. PAUL CLOUD:**

16 Because all the other areas of the Proving
17 Ground south of the firing line in the cantonment area have
18 had a UXO clearance performed in accordance with the - as
19 Glen correctly identified - the DDESB approved plan, that
20 plan also applies to this area right now (indicating). This
21 alternative and this process that we're posing would save
22 potentially significant amounts of money. That plan has to
23 been approved by DDESB. If it is approved then we will go
24 do this. It will then be up to Huntsville to propose and

1 the Army to accept what type of restrictions may be on this
2 parcel. An example: the airfield because of the types and
3 the number of ordnance that were found there have no
4 excavation restrictions on this parcel. The things that
5 were found we found in a shallow level. They didn't have
6 physical capability to go below four (4) feet. We did a
7 four (4) foot intrusive intensive clearance on the airfield
8 area. There is no excavation restriction on that parcel
9 from the UXO prospective. It is not clear right now under
10 this new process. There still has to be DDESB approval
11 after the public comment period and the response to those
12 comments it goes up to DDESB and then the work is done after
13 they approve it, if they approve it, if there will be any
14 excavation restrictions. There may and there may not. I
15 don't know.

16
17 **MR. WILLIAM CORNING:**

18 Well you see Paul one (1) of the things that
19 bothers me currently the U. S. Government is - has a forest
20 legacy program where they buy the construction rights or an
21 easement from people that have forests. I happen to have a
22 hundred and fifty (150) acres of timber. They are
23 attempting to buy that for construction easement only. But
24 they will turn right around and sell this piece for a little

1 bit of nothing and let it be clear cut like they did Marble
2 Hill and it just doesn't make sense.

3
4 **MR. PAUL CLOUD:**

5 Well I will say that if this parcel becomes
6 available that it will be appraised by real estate division
7 of the Corps of Engineers and will be sold at fair market
8 value. If, and I suspect although I don't know, and I don't
9 think anybody knows, although I think Ken would agree with
10 me that there are probably significant and substantial areas
11 within this parcel that are wetlands. It is unlikely that
12 this area, whoever obtains it if anyone obtains it after
13 it's cleared, will be able to go in and clear cut it. And
14 if they do they will have to be in conformance and
15 compliance with all rules, regulations to do that. But
16 that's - that is reality of the situation. I - I highly
17 doubt that anyone is going to go in there and clear cut it.

18
19 **MR. WILLIAM CORNING:**

20 That's the governmental's reality. That's
21 not the reality.

22
23 **MR. PAUL CLOUD:**

24 Well you're entitled to your opinion. Any

1 other comments or questions on this portion of our agenda?

2 Yes ma'am?

3

4 **MS. ELIZABETH FACEMIRE:**

5 Is he saying that when and if this becomes
6 available that whoever bought the other exception will be
7 able to buy this at the same price?

8

9 **MR. PAUL CLOUD:**

10 No.

11

12 **MS. ELIZABETH FACEMIRE:**

13 Without it going to auction?

14

15 **MR. PAUL CLOUD:**

16 No. No. What the invitation for bid said
17 on the other - the rest of the cantonment area is that
18 should this parcel become available they will be offered it
19 after it's been appraised at fair market value.

20

21 **MR. CHARLES FACEMIRE:**

22 That's right.

23

24

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

MR. PAUL CLOUD:

What - whatever that is. The Corps will not - the Corps comes out and does an appraisal. They will not divulge that number. That is privileged information obviously because if you knew it then you could make a bid on it that would be probably more competitive than someone that didn't know it?

MS. ELIZABETH FACEMIRE:

Right.

MR. PAUL CLOUD:

So they will do appraisal and then they will go offer it in this case to the Ford Lumber and Building Supply Company. Now if he chooses to elect to purchase it at whatever the Corps has identified, then that will be the end of the deal. If he chooses not then the Army will have the option to put it up on the open market.

MR. CHARLES FACEMIRE:

But you're saying he has first option?

MR. PAUL CLOUD:

Yes sir. But it's not because he is Mr.

1 Ford or the Ford Lumber and Building Supplies. It's because
2 he was the successful bidder. We had half a dozen bids. He
3 was just the highest bidder that was accepted by the Army.
4 Yes sir?

5
6 **MR. CHARLES FACEMIRE:**

7 Ah just ah personal interest. You said you
8 found several pieces of the ordnance on the airport
9 property?

10
11 **MR. PAUL CLOUD:**

12 Yes.

13
14 **MR. CHARLES FACEMIRE:**

15 I used to mow that back in the fifties.
16 That's kind of interesting.

17
18 **MR. PAUL CLOUD:**

19 They're not there anymore. They're all
20 gone.

21
22 **MR. CHARLES FACEMIRE:**

23 Well in the fifties they were there though I
24 bet.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

MR. PAUL CLOUD:

Well I don't --

MR. BOB HUDSON:

I wouldn't think so no.

MR. PAUL CLOUD:

I would think they were probably there in the seventies to eighties.

MR. CHARLES FACEMIRE:

Well then I wouldn't - I'm all right obviously anyhow because I'm here now.

MR. GLEN EARHART:

And most of the items found were inert. In other words they weren't high explosive.

MR. PAUL CLOUD:

There were about four hundred (400) items found. Only seventeen (17) or eighteen (18) had to be detonated.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

MR. KEN KNOUF:

We had other mowers doing it in the eighties.

MR. BOB HUDSON:

And they're not here tonight.

MR. KEN KNOUF:

Yeah.

MS. DIANE HENSHEL:

If whoever this goes out to they're allowed to do whatever they want with the land?

MR. PAUL CLOUD:

No.

MS. DIANE HENSHEL:

Or is there restrictions on it?

MR. PAUL CLOUD:

There is - it depends. It's going to depend on if there are wetlands, what the DDESB says, what the Huntsville Corps of Engineers recommends to the Army, what

1 the Army accepts after the UXO clearance. There is no
2 environmental contamination in this area.

3

4 **MS. DIANE HENSHEL:**

5 Un-huh (yes).

6

7 **MR. PAUL CLOUD:**

8 So it's purely an unexploded ordnance issue
9 right now. So if we get back after whatever action is taken
10 in this area, recommendation for ah no excavation let's say.

11

12 **MS. DIANE HENSHEL:**

13 Un-huh (yes).

14

15 **MR. PAUL CLOUD:**

16 And if the Army accepts that then that will
17 be a deed restriction in the deed title transfer of the
18 property and it will go with the land in perpetuity and
19 there will be no excavation allowed in that area. But I
20 don't know what will be the - if any restrictions right now.
21 That's just an example.

22

23 **MS. DIANE HENSHEL:**

24 I guess part of my question is also fair

1 market value because fair market value obviously changes
2 with what's allowed to be done with the land.

3
4 **MR. PAUL CLOUD:**

5 I understand that. And that evaluation will
6 not be done until one (1) the clearance is done and whatever
7 restrictions have been identified that would - we would feed
8 - the Army would feed that to the Corps of Engineers so they
9 would be able to establish a - as fair a market value as
10 possible. Kevin?

11
12 **MR. KEVIN HERRON:**

13 Since you brought up the issue of wetlands
14 will you have the State people come in and do a wetlands
15 assessment on that and have that a part of what is provided
16 to the Corps so that they know these areas are wetlands?

17
18 **MR. PAUL CLOUD:**

19 The Corps has their own personnel that are
20 qualified in that area. Our people work with them.

21
22 **MR. KEVIN HERRON:**

23 But as part of ARARS the State would have to
24 be involved?

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

MR. PAUL CLOUD:

I understand. Bill?

MR. WILLIAM CORNING:

Paul as you know in many meetings the U. S. Fish and Wildlife said nothing could be done to the airport because it was the home of the Henslow's sparrow. There was more Henslow's sparrow there than anyplace in the country. As soon as that property was sold everyone of those sparrows went north of the firing line. And when I brought that up they said well ah Mr. Ford mowed the airport so there wasn't the grass there that the Henslow's sparrow needed. So when you talk about wetlands ah they can disappear.

MR. PAUL CLOUD:

In the case of the Henslow's sparrow you have to remember a very important fact. The Henslow's sparrow is not a species that is afforded any protection under the Federal Endangered Species Act. Had it fallen under that category similar to the Indiana bat, Mr. Ford or anybody else would not have been able to use that area. So there is a significant difference in category of the species as to what protection and what enforcement can be brought to bear in particular areas. Any other questions?

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

MS. DIANE HENSHEL:

So has anybody done a species analysis of what's in there?

MR. PAUL CLOUD:

We have a letter from Fish and Wildlife Service and Joe will probably cringe when I say this. But I use it occasionally. Joe, Dr. Joe Robb, from the Fish and Wildlife Service is in the audience. We do have a letter dated I believe it's early 1997 from the Fish and Wildlife Service that we use occasionally that basically states there are no endangered species or federally endangered habitat south of the firing line.

MR. JOE ROBB:

No known.

MR. PAUL CLOUD:

No known. Thank you.

MR. WILLIAM CORNING:

All the Indiana bats flew north.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

MS. DIANE HENSHEL:

Is there going to be a survey before they start going in with the magnetometers?

MR. GLEN EARHART:

Well when we do the magnetometer work we wouldn't destroy their habitat. When we go in with the magnetometer what we do is put a flag where the anomaly is. We hand dig, obviously because of the ordnance, we are very careful when we dig the hole. So there's minimal impact and the dirt that's dug out of the hole - I mean this isn't - this isn't a backhoe type operation.

MS. DIANE HENSHEL:

You set it in the brush?

MR. JOE ROBB:

Here's some evidence for State -- species that have been there a water snake been found in that parcel.

MR. GLEN EARHART:

And if I remember we had a restriction on the east that there was a time that we weren't allowed to --

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

MR. PAUL CLOUD:

The Henslow's sparrow also.

MR. GLEN EARHART:

Yeah I think there was a time period when the activities had to be restricted. I think we - what was it July, August or October?

MR. JOE ROBB:

Sometime. For the Henslow's sparrow is May to September.

MR. PAUL CLOUD:

These are all good comments and questions. I would strongly encourage you - we have thirty (30) copies of the EE/CA Report here. I would strongly encourage each and every one of you to take a copy, to review it and to provide us with your comments so that we can make it a better effort. Any other comments or questions on this part of the agenda? Okay. The next part of the meeting I would like to go over ah the status of the Findings of Suitability to Transfer or FOST update. As most of you know the Central Area FOST was created - contains about twelve hundred (1200) acres, ah about ninety (90) buildings. It was put out for

1 initial public comment period ah last year. We did receive
2 comments and we revised the document. We put it back out
3 for comment again. We received some outstanding comments
4 from the State and EPA, environmental regulators. We
5 attached those comments with the Army response to the
6 document. They were forwarded to the Army Materiel Command
7 who has - who has been delegated the authority if they find
8 it acceptable to sign and approve the document. That was
9 done on the 19th of May. We have made copies of that
10 document available to not only the public but it's in the
11 Administrative Record at Hanover College. We have given it
12 to the State and the EPA. And currently the Louisville
13 Corps of Engineers is in the process of drafting a thing
14 titled Document Transfer for this parcel to Mr. Ford. There
15 are a couple of outstanding issues regarding lead base paint
16 that the Army is negotiating with Mr. Ford in the housing
17 units and I suspect that once those are resolved we will
18 process the paper work and the title will be transferred for
19 this area to Mr. Ford. The next FOST is the DRMO area.
20 This was originally part of the FOST that was the forty (40)
21 acres that was cut down to about thirty-six (36) because of
22 some environmental contamination at the DR - the Paper Mill
23 Road and the DRMO site. Those areas have in fact had soil
24 removal performed on them. We have provided the

1 confirmatory sampling analysis as part of the response to
2 the State and EPA comments. Ah this is documented down here
3 (indicating), down at the last line, last two (2) bullets
4 were revised FOST in response to comments. Was issued on
5 the 26th and we requested a response by the 19th of
6 November. Subsequent to that one (1) of two (2) things will
7 happen. We will either have a - receive concurrence from
8 the State and the EPA and that will be attached to the
9 document or will go up to the Army Materiel Command for
10 approval or we will have some outstanding comments. In that
11 case the Army will again attach those to the document with
12 an Army response and forward it to the Army Materiel
13 Command. If the Army Materiel Company determines that the
14 document is satisfactory they will sign it. If not they
15 will send it back to me and I will adjust it as necessary
16 for their satisfaction, regardless of what that means. And
17 then it would go to the Huntsville Corps or the Louisville
18 Corps again and they will prepare the deed title transfer
19 documents for sale to Mr. Ford because that is part of the
20 area that's under Lease in Furtherance of Conveyance to him.
21 The last FOST that we have currently available is the
22 airfield area. It's approximately six hundred and fifty
23 (650) acres and twenty-one (21) buildings. It has been put
24 out for comment. We have received comments and I am in the

1 process of responding to them. I had hoped to get them out
2 this month in October. Unfortunately that has not proved to
3 be the case and my goal now is to get them out this month in
4 November. And then we would have a similar period where we
5 would look for response or concurrence or identification of
6 outstanding comments and then we would go through the
7 similar process and go up to the Army Materiel Command for
8 either approval or return for further revisions. Those are
9 all the Findings of Suitability for Transfer that we have
10 currently on the table. I suspect that once the ah eastern
11 parcel, which was the last large parcel of UXO clearance
12 performed, once that clearance report which we now have a
13 draft of has gone final and the Army has signed a Statement
14 of Clearance we will be looking at a FOST for that eight
15 hundred (800) acre parcel probably sometime next year. I
16 don't have any more specifics on that yet but there will be
17 a few months to go through the review of not only that draft
18 report but the signing of the Statement of Clearance. But I
19 would expect that that would probably be the next FOST that
20 we could look at is the area south of the Krueger Lake.
21 However I would point out that it will not include that
22 whole area as is the case in the airfield area. There are
23 some Remedial Investigation sites there and we will carve
24 those out and they will not be transferred because there's

1 still environmental contamination there similar to the
2 twelve hundred (1200) acre parcel. There is the abandoned
3 landfill within the boundaries of the twelve hundred (1200)
4 acre cantonment parcel. We - that is not being transferred.
5 We carved that out and put a buffer area around it for that
6 express intention. That area was specifically designed, and
7 it looks kind of funny, because we wanted to transfer as
8 much property but not include any of the Remedial
9 Investigation sites. So we kind of did hooks and crooks and
10 turns and twists to keep away from areas like that so we
11 wouldn't have to worry about having issues to deal with that
12 were probably unsolvable at this time. Are there any
13 comments or questions? Okay we have a copy of the next
14 year's schedule for our RAB meetings on the table. I would
15 encourage you to pick one (1) up before you leave. Again
16 please sign the attendance sheet. If anyone would like a
17 copy of these slides, that's the one (1) thing I didn't make
18 copies of tonight, please put an "X" by your name on the
19 attendance sheet and we will mail them to you. The RAB
20 members automatically get a copy when I send them a copy of
21 the minutes from the meeting. We do have a Court Reporter.
22 We do have a verbatim transcript of the meeting. That is
23 kept in the Administrative Record at Hanover College and we
24 also have copies of it at the Proving Ground. So if you

1 ever want to see a copy that's where you would go. The last
2 thing I have is where our next meeting is going to be.
3 Right now it's scheduled for the 12th of January at the
4 South Ripley Elementary School and it's seven (7:00) P.M.
5 Wednesday night. I hope to see you all there. Bob?

6
7 **MR. BOB HUDSON:**

8 Paul as the ladies were leaving the building
9 they locked us in.

10
11 **MR. PAUL CLOUD:**

12 Well we're in the right place to be stuck.

13
14 **MR. BOB HUDSON:**

15 We can pray. We can have a prayer meeting.
16 The doors you can get out. You cannot get back in.

17
18 **MR. PAUL CLOUD:**

19 I have a key. I've got a key. Ken gave me
20 his key.

21
22 **MR. BOB HUDSON:**

23 Well the rest of you can't get back in.
24

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

MR. PAUL CLOUD:

Bob you've got to be nice to me. Richard do you have any closing comments?

MR. RICHARD HILL:

Just a couple of things. Dr. Henshel, Diane, was good enough to make up this slide and we didn't show it earlier. But for additional information.

MS. KAREN MASON-SMITH:

Richard?

MR. RICHARD HILL:

Can you make a copy of that and have Paul sent it to the - or attach it to the RAB minutes of the slides?

MR. RICHARD HILL:

Sure.

MS. KAREN MASON-SMITH:

For the RAB meeting.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

MS. DIANE HENSHEL:

Send this out.

MR. RICHARD HILL:

I did forget to mention also her assistant, Jamie DeWitt couldn't be here tonight who's also been working heavily on this project and we all have met Diane.

MS. DIANE HENSHEL:

She's very good.

MR. RICHARD HILL:

Oh yes. Yes. You both have been. We really appreciate it. Ah I was going to say something else but I don't know what it was. Oh if anyone also wants copies of the actual sixty (60) page report that they have given - given to us be sure and let me know that too. I think that's all.

MR. PAUL CLOUD:

Thank you very much.

FOR ADDITIONAL INFORMATION PLEASE CONTACT:

Diane Henshel, (812) 855-4556. Dhensel@

1 Indiana.edu or Jamie DeWitt, (812) 855-0357, jadewitt@
2 Indiana.edu.

3 * * * * *

4 CONCLUSION OF HEARING

5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

C E R T I F I C A T E

STATE OF INDIANA)
) SS:
COUNTY OF JEFFERSON)

I, Sharon Shields, do hereby certify that I am a Notary Public in and for the County of Jefferson, State of Indiana, duly authorized and qualified to administer oaths; That the foregoing public hearing was taken by me in shorthand and on a tape recorder on November 3, 1999 in the Madison Presbyterian Church, 202 Broadway, Madison, IN; That this public hearing was taken on behalf of the Jefferson Proving Ground Restoration Advisory Board pursuant to agreement for taking at this time and place; That the testimony of the witnesses was reduced to typewriting by me and contains a complete and accurate transcript of the said testimony.

I further certify that pursuant to stipulation by and between the respective parties, this testimony has been transcribed and submitted to the Jefferson Proving Ground Restoration Advisory Board.

WITNESS my hand and notarial seal this 3rd day of November, 1999.

Sharon Shields
Sharon Shields, Notary Public
Jefferson County, State of Indiana

My Commission Expires: July 2, 2007

JAN 04 2000