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IOWA ARMY AMMUNITION PLANT
PUBLIC MEETING
MAY 28, 2013
OPERABLE UNIT 5 PROPOSED PLAN
HISTORICAL SMALL ARMS RANGE EE/CA

Comfort Suites Hotel & Conference Center
1780 Stonegate Center Drive
Burlington, Iowa 52601

REPORTED

BY: M. Jane Weingart
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PERSONS PRESENT:

Public Meeting Facilitators:

Mr. Alexander Smith, Project Manager, CB & I/Shaw

Mr. Rodger Allison, Environmental Manager, IAAAP

Mr. Vaughn Moore, Concerned Citizen Attendee

Ms. Lueene McCracken, Concerned Citizen Attendee

Ms. Paula Graham, Concerned Citizen Attendee

Mr. Thurman Huffman, Concerned Citizen Attendee

Ms. Jen Busaud, IAAAP-PIKA

Ms. Laura Percifield, USACE

Mr. Sandeep Melta, EPA - R7

Mr. Jim Bard, USAEC

Ms. Linda Wobbe, IAAAP

Mr. Dan Cook, Iowa DNR

1 (Time: 5:03 p.m.)

2 MR. RODGER ALLISON: Ladies and
3 Gentlemen, let's go ahead and get started. It's
4 5:00 now, and I bid you good afternoon.

5 I am Rodger Allison. I'm an
6 Environmental Manager located at the Iowa Army
7 Ammunition Plant, serving as part of the team
8 that's responsible for the environmental cleanup
9 under the Defense Environmental Restoration
10 Program at the Iowa Army Ammunition Plant.

11 On behalf of Lieutenant Colonel
12 Michael Bruens, welcome to the public meeting
13 held by the U.S. Army to discuss the proposed
14 plan for Operable Unit 5 and accept public
15 comments regarding the proposed action.

16 Operable Unit 5 covers actions taken
17 as part of the Military Munitions Response
18 Program, also known as MMRP, which addresses
19 protective actions taken for risks associated
20 with munitions and explosives of concern that
21 include Unexploded Ordnance, discarded military
22 munitions, Munitions Constituents and munitions
23 debris.

24 This public meeting also addresses
25 proposed actions covered in the Engineering

1 Evaluation/Cost Analysis performed for the
2 Historical Small Arms Range that lies within one
3 of the MMRP sites called the Possible Demolition
4 Site.

5 These documents are presented with
6 oversight and with concurrence from the EPA.

7 In its role as the lead agency for
8 environmental cleanup at the Iowa Army Ammunition
9 Plant under the Comprehensive Environmental
10 Response, Compensation and Liability Act, also
11 known as CERCLA, the Army announced that it will
12 accept public comment for both of these documents
13 any time from May 6th through June 4th of 19- --
14 excuse me -- 2013.

15 These documents have been available
16 online at www.iaaap.adminrecord.com, or at the
17 Information Repository located at the Iowa Army
18 Ammunition Plant, whose address is 17571 DMC
19 Highway 79 in Middletown, Iowa, 52638.

20 Now, this public meeting is required
21 by Section 117 of CERCLA, 42 United States Code
22 Subsection 9617, and Article 27 of the Federal
23 Facility Agreement between the Army and the EPA.

24 Now, as we move through today's
25 agenda, we will hear from Alex Smith from CB and

1 I, as he presents the proposed plans. He will
2 allow some time for questions and answers to
3 clarify the points presented.

4 Now, please note that these will not
5 stand as the official comments that the, that is
6 -- that the Army is required to provide written
7 responses for under CERCLA. Those will come
8 during the next allotted time frame on the
9 agenda. We'll accept public comments today.
10 However, the Army won't provide official
11 responses today.

12 The Army will fully consider all
13 pertinent comments and will provide official
14 written responses as part of the Record of
15 Decision which follows this phase in CERCLA.

16 The public can continue to expect
17 regular updates during quarterly RAB meetings;
18 and by "RAB," I mean the Restoration Advisory
19 Board.

20 Tonight the proceedings will be
21 recorded by a stenographer for the official
22 record. Therefore, if you offer any questions or
23 make any statements, please state your name for
24 her benefit as you begin speaking; so, we thank
25 you for that.

1 And with that said, allow me to
2 introduce Alex Smith from CB and I, who will talk
3 more about the proposed plan.

4 MR. ALEX SMITH: Thank you, Rodger,
5 and thank you all for coming tonight. We really
6 appreciate it.

7 My name is Alex Smith. I'm the
8 project manager for CB and I. I see a lot of
9 familiar faces out there from the RAB and so
10 forth, and I've been talking to you before.

11 Previously, we were Shaw
12 Environmental, and we're CB and I now, if you're
13 confused.

14 So we're going to talk about, we have,
15 really, two presentations here -- the Proposed
16 Plan, which covers the MMRP sites, and the
17 Engineering Evaluation/Cost Analysis, which
18 covers just the Historical Small Arms Range,
19 which, as you'll see later, is part of the
20 Possible Demolition Site.

21 And we have the EPA here, and it looks
22 like we've got the State here. And all these
23 studies have been done by the Army and with the
24 EPA involved, and looking forward -- the
25 hierarchy here is the Corps of Engineers, is

1 working for the Army, or is performing the work;
2 and then CB and I, we work for the Corps of
3 Engineers.

4 I'll just go over what Rodger just
5 talked about with this comment period. We are in
6 the comment period right now, which goes until
7 June 4th. It's a 30-day public comment period,
8 which is required under CERCLA.

9 If you have any comments, you can do
10 it either written, or you can do it verbally
11 tonight.

12 The two documents, the Proposed Plan
13 is on the left here on the display on the left.
14 There is a couple of copies down there, if you
15 want to see those; and on the right display is a
16 couple copies of the Engineering Evaluation/Cost
17 Analysis, or EE/CA.

18 But before I get too far into this, I
19 want to go over a few acronyms because there are
20 always places to stumble.

21 MMRP is Military Munitions Response
22 Program, which is where this is getting funded
23 through the Army.

24 Munitions Response Site is how we
25 refer to these different sites; but the two that

1 I really wanted to talk about are in blue here.

2 The Munitions Constituents, or MC, I
3 might refer to them -- you have to think about
4 chemistry, this is either explosives, usually, or
5 metals that may leach out of munitions, so it's a
6 chemical kind of concern, kind of a long-term
7 exposure-ingestion kind of thing.

8 The other one is MEC -- similar, but
9 different -- Munitions and Explosives of Concern.
10 These are things that actually have an imminent
11 safety risk to it because they might explode in
12 your face.

13 And there's three different categories
14 here:

15 Unexploded Ordnance, which is
16 something that's been fired, armed and fired, but
17 didn't go off as it was designed to.

18 And then there's what you might find
19 here at the Iowa Army Ammunition Plant, the DMM
20 is probably more common, which is something that
21 hasn't been fired but has been disposed of --
22 just discarded, buried or however it was disposed
23 of.

24 And then the third category of MEC is
25 Munitions Constituents in high enough

1 concentrations that they might be an explosion
2 hazard by themselves. So if you have -- I think
3 it's 20 percent --

4 MR. RODGER ALLISON: Ten percent.

5 MR. ALEX SMITH: Ten percent, if you
6 have it mixed into the soil, once it gets to a
7 certain concentration, it's a hazard.

8 The last one is Munitions Debris, MD.
9 This is just fragments of munitions that are
10 non-hazardous. So we pick them up as we go, but
11 they really don't pose a concern by themselves.

12 So let me talk about the Proposed Plan
13 first. And this is part of a process, the CERCLA
14 remedial process, which I've laid out here. It's
15 kind of a long process; but, basically, the top
16 three blocks are, basically, investigations.

17 The Preliminary Assessment is where
18 you determine whether you have -- you identify
19 sites that may have a concern.

20 The second box is a Site Inspection,
21 where you maybe do a little testing and see
22 whether you actually do have a problem.

23 And then the third block is Remedial
24 Investigation, where you do a lot more testing
25 and delineation, find out what the nature and

1 extent of the problem, you want to get a full
2 understanding of what you're dealing with.

3 And then the next block is the
4 Feasibility Study, where you look at different
5 options for remediation.

6 And then the Proposed Plan is the
7 document for public consumption that identifies
8 what the Army's preferred remedy is at this
9 point.

10 So all the boxes in blue have been
11 done.

12 We're here at the Public Comment
13 stage, which is in green; and this is the stage
14 where you come into it and give us your input.
15 And once you've provided your comments, we'll
16 address those comments. They get incorporated
17 into the Record of Decision, which could, it
18 could stick with the preferred remedy that the
19 Army has identified, or based on comments, the
20 Army may choose to switch to a different remedy.

21 But the Record of Decision documents
22 the selected remedy.

23 And then you move into the Remedial
24 Design, redesign what you're going to do; and the
25 Remedial Action where you actually perform the

1 remediation.

2 Sometimes you can go straight from
3 Remedial Action down to Site Closeout; but more
4 often than not, you go into a long-term
5 maintenance or long-term monitoring phase, and
6 you do recurring reviews every five years; and
7 maybe at some point, you do a site closedown.

8 So that's the process we're in, so
9 we're in an important part of the process.

10 This is just a quick overview of where
11 the MMRP sites are, the MRSSs.

12 I'm going to talk about each one in
13 detail, so I'm just going to move on here.

14 The first site is the Central Test
15 Area. This site is, is -- it's Line 5, within
16 Line 5 -- and I know a lot of you are probably
17 familiar with that -- historically, was used for
18 munitions testing and open burning and
19 detonation. It's about 22.9 acres. What we're
20 talking about for this site is within the blue
21 boundary. The bottom left corner is a building
22 that has been carved out because it's still in
23 the active range, and is not part of the MMRP
24 site.

25 What was done on this site, for an

1 investigation, was, the entire site was walked
2 over to see if there was any munitions on the
3 surface, which there were not.

4 Then there was a geophysical
5 investigation done where the entire MRS was
6 mapped to see where the metal is in the
7 subsurface. And some percentage of the items
8 that were determined to be metal-like items were
9 investigated.

10 But, basically, what the outcome here
11 was that within the pink circle is where the bulk
12 of the metallic items were concentrated; and
13 that's where the majority of the Munitions Debris
14 and the potential MEC is.

15 I don't think there was any actual MEC
16 found at this particular site; but there's a --
17 you know, given the amount of metal that was in
18 the ground and what was done there, we think that
19 there is a concern here.

20 As far as Munitions Constituents,
21 there was some soil sampling done, and there were
22 no Munitions Constituents that were detected
23 above human health or ecological screening
24 standards.

25 So that's the Central Test Area.

1 MR. RODGER ALLISON: Before we move
2 off of that, IRP did take some action for soil,
3 probably -- well, it was a few years ago now, it
4 was generally in this area right, right in there
5 (Indicating); and it -- I'm trying to think of
6 how much they removed. It was just a small area
7 that had elevated explosives, and they extracted
8 that and that's, it evidently took care of the MC
9 issue.

10 Following, it was after that action
11 that we discovered that this was included in the
12 MMRP program.

13 Those of you who regularly attend the
14 RAB probably recall us talking about that through
15 the years.

16 MR. ALEX SMITH: Thanks, Rodger.

17 One of the other things, actually,
18 before I leave here is that we look at access,
19 how easily are these sites accessed? And all of
20 these sites are within Iowa Army Ammunition Plant
21 fence, so they're fairly restricted to start
22 with.

23 This particular site is within Line 5,
24 so it's also got a good bit of fencing to get in
25 there, so it's a restricted area within a

1 restricted area.

2 Okay, the next site is actually two
3 sites, the Line 6 Ammo Production; historically,
4 there were some explosions in 1968 and '70 that
5 scattered detonators and what have you from two
6 locations; and so the entire site is in orange,
7 is part of the MRS site, was part of the MRS
8 site, but it's been split, based on the findings
9 here.

10 A similar kind of investigation was
11 done here with a site walk and geophysical survey
12 to find out where the metal is. And the
13 conclusion here was that the areas within the
14 circle, within the Blast Radii are the potential
15 areas of concern.

16 So this site was actually split into
17 Line 6 Ammo Production, Inside Blast Radii, and
18 Outside the Blast Radii.

19 The areas outside were not found to
20 have a concern, really. Some soil samples were
21 collected, and, again, no MC detected above human
22 health or ecological screening.

23 Again, this is a site that's within
24 Line 6, and it's completely -- access is
25 restricted. Again, within the restricted access

1 within restricted access.

2 Hello.

3 The next site is the West Burn Pads.
4 This site is where there were flashing of metals
5 contaminated with explosives done. The size of
6 this site is down about 0.9 acres.

7 This was an IRP site. There was an
8 action taken, some cleanup; and, so, what we have
9 here is the remainder of this site that was not
10 addressed by the IRP program. So there's three
11 small areas.

12 This, this site is not fenced by
13 itself, it's just got the access restrictions for
14 the plant, itself. And -- but for the IRP
15 program, they removed 46,496 cubic yards of soil;
16 and so we're dealing with the other areas.

17 They were searched, and found no MEC.
18 Really, this is not a site that you would expect
19 to find Unexploded Ordnance or exposed munitions
20 or flashing metals. So it's more of an MC
21 concern; and we found no evidence of MEC
22 contamination here.

23 And, really, as far as the MC
24 contamination, it's all being addressed under the
25 IRP program.

1 So from an MMRP standpoint, with MEC,
2 there's not much of a concern here.

3 The next site is right across the
4 street, which is the West Burn Pads area south of
5 the road. It's a related site. Again, flashing
6 of metals was done here.

7 The MEC investigation was performed,
8 and some MD was found but nothing posing an
9 explosive hazard.

10 This site was actually mapped with a
11 digital geophysics. They did find some metal
12 items, but no MEC; and this site is also being
13 handled by IRP and FUSRAP.

14 The next site is the Possible
15 Demolition Site. This is down off of K Road to
16 the south part of the plant. Historically, there
17 was, what you see in this yellow circle was a
18 demolition area; and there's a lot of evidence of
19 munitions that have been scattered out from that
20 yellow area.

21 This site actually grew during the
22 investigation to the north side of the road,
23 because of the kickouts; and this site was the --
24 and this site -- between this site and the INDA
25 was part of a dispute resolution in 2006, in

1 which this site was actually fenced off; and that
2 fence was installed in 2012, and that's
3 represented by the red line.

4 K Road still runs through it, and
5 that's open. There's also, in the green-hashed
6 area up here (Indicating), is an active range,
7 active Small Arms Range that has been excluded
8 from the MRS because it's not part of the MMRP
9 program.

10 So we have the detonation area. This
11 whole site was geophysically investigated, and
12 surface clearance done.

13 Munitions Debris was picked up. Some
14 MEC was found.

15 There was an issue with some RDX in
16 one of the soil samples, and there's a small area
17 that exceeds the 1.3 milligrams per kilogram,
18 Remedial Goal, for the protection of groundwater.

19 So this site, after the investigation
20 found there was a MEC concern there, and then
21 there's a small area where the RDX and soil was
22 posing a problem that could potentially -- what
23 the deal is, if the RDX could leach to
24 groundwater and pose a concern.

25 MR. RODGER ALLISON: That location

1 was --

2 MR. ALEX SMITH: I've got it later in
3 the slide, I'll show it.

4 MR. RODGER ALLISON: Oh, you have it
5 -- never mind.

6 MR. ALEX SMITH: The companion site
7 within PDS is in the Incendiary Disposal Area, is
8 another detonation site along the east side.
9 This is located just a little further east on
10 K Road.

11 It was also fenced as part of that
12 dispute resolution. It's about 34 acres in size.
13 A similar kind of investigation -- surface walk
14 and geophysics to look at where the metal is; and
15 a similar conclusion that there is a MEC concern
16 here. There were live items that were found.

17 From an MC standpoint, soil samples
18 were collected, but there were no MC above human
19 health or ecological screening criteria.

20 There was some lead and mercury found
21 in surface soil, but that was determined to be a
22 known acceptable risk in a risk assessment, so
23 it's not really posing a hazard to anybody.

24 And then the eighth and the last MMRP
25 site is the Maneuver Area -- a much larger area.

1 It does not -- this is the Incendiary Disposal
2 Area we just talked about, so that's excluded
3 from the larger Maneuver Area MRS. It's a large
4 site, 486 acres.

5 The use of this site, historically,
6 was as a Maneuver Area. So that, by itself,
7 doesn't indicate that there's MEC used, and
8 that's pretty much what was found in the
9 investigation. Because it's such a large site,
10 the entire area was not geophysically surveyed.

11 Transects were done, so in a line of
12 geophysics across the site, a space of transects,
13 they found very low magnetometer counts, so
14 there's no indication of a lot of metal in the
15 ground. There was no MEC found. Minor amounts
16 of Munitions Debris. So this site does not seem
17 to pose a concern.

18 But when I say, Does the site pose a
19 concern or not -- really we run this through kind
20 of a risk assessment process, and so we start
21 with collecting and evaluating data.

22 We move over to the -- Is there a MEC
23 present? This is evaluating for the MEC. We
24 look at the MEC separately from the Munitions
25 Constituents. So we say, Is there a MEC problem

1 here? And some of these sites we say, No,
2 there's no problem. There's no evidence. Based
3 on the historical use of the site; and when we
4 look at what is on the ground, we don't see any
5 indication to counter the historical use.

6 So there are four sites that we feel
7 have no MEC concerns and that are eligible for no
8 further action.

9 That will be the Line 6 Ammo
10 Production, which is outside the Blast Radii, and
11 the West Burn Pads, and the West Burn Pads below
12 or south of the road, and the Maneuver Area.

13 If we decide there is a MEC concern at
14 the site, which we did for four sites, then it
15 goes into a MEC hazard assessment, which is a
16 ranking system that -- it's a relative ranking
17 system. It doesn't say, You have a problem and
18 you need to do a cleanup, it's just a way to rank
19 sites in a relative manner -- which one is worse
20 than the other.

21 So Category 1 is the highest hazard.
22 Category 4 is the lowest hazard.

23 We had three sites that were a
24 Category 3, so kind of a moderate hazard, and
25 that's the Line 6 inside the Blast Radii; the

1 Possible Demolition Site, which was fenced; and
2 the Incendiary Disposal Area, which is fenced.

3 Then a little lower hazard was the
4 Central Test Area.

5 So we move to the feasibility study
6 and look at what can be done about these sites.

7 And there were three alternatives
8 identified as three different ways we could go.

9 We could do no action, which is
10 actually a requirement on the CERCLA, is to look
11 at no action as a baseline.

12 We could use Land Use Controls, which
13 are methods of restricting access or restricting
14 land use in some form so that -- to break the
15 receptor pathway. It basically changes people's
16 behavior. It keeps people out of the site, or
17 requires construction support.

18 Then the third alternative is to do
19 actually an active remediation of the subsurface
20 clearance of -- What you'd have to do is
21 basically remove every piece of metal to
22 determine where it's munitions and hazardous, and
23 remove it; so it's a pretty long and tedious
24 process.

25 In the feasibility study, we look at

1 and we rank -- or we evaluate the alternatives,
2 using nine criteria that's laid out in CERCLA.

3 The first two criteria are threshold
4 criteria. You basically have to have a "yes" to
5 make that alternative a reasonable approach, so
6 it has to be, it has to provide overall
7 protection of human health and the environment;
8 and it has to have compliance with applicable or
9 relevant and appropriate requirements.

10 If you can pass that threshold stage,
11 then your alternative looks at a number of
12 balancing criteria.

13 Long-term effectiveness and permanence
14 is just what it sounds like. Down the road, how
15 well is this alternative going to protect the
16 environment?

17 Reduction of toxicity, mobility or
18 volume of contaminants through treatment is a
19 preference by CERCLA that you want a remedy to
20 have, if possible.

21 Short-term effectiveness looks at
22 while the remedy is being implemented, are people
23 at risk? Are you doing more damage than good to
24 the environment?

25 Number 6 is implementability -- How

1 hard is this to do? Is it just physically
2 impossible? Or are you going to have a lot of
3 hurdles to meet?

4 And then Number 7 is cost -- How much
5 is it going to cost?

6 Then there are modifying criteria,
7 which is input from the State and support
8 agencies -- from the EPA and INDR.

9 And then the ninth is community
10 acceptance, which is why we're here today, trying
11 to get some feedback from the community.

12 So we look at all these things before
13 we actually select a remedy.

14 So, we've done a preliminary screening
15 of all these criteria for our three alternatives.

16 No action at all doesn't seem to pass
17 the first overall protection of human health and
18 the environment for those four MEC sites. Since
19 it's not protective, we really don't have to talk
20 about that much more; but it is an alternative
21 that we have in there as a baseline for
22 comparison.

23 Alternative 2, Land Use Controls, and
24 Alternative 3 would both be protective and both
25 comply with ARARs, so we pass the first two

1 tests.

2 Okay, so the first two --
3 Alternative 2 and 3 pass the first two evaluation
4 criteria.

5 As far as long-term effectiveness and
6 permanence, obviously, if you remove munitions
7 and explosives from the ground, you're going to
8 have better long-term effectiveness.

9 The Land Use Controls alternative has
10 "moderate" because the items are still left
11 there. We're just keeping people away from them.

12 Reduction of Toxicity Or Mobility Or
13 Volume -- the same thing. Alternative 3 probably
14 would fall within that because you're actually
15 removing the items.

16 Alternative 5, short-term
17 effectiveness, we also look at green and
18 sustainable remediation.

19 There was a study done that looked at
20 the various alternatives and gave them a ranking
21 score on how well they, or how much the
22 greenhouse gases and priority pollutants and the
23 -- what am I trying to say? -- and the resources
24 that it takes; and they found the Alternative 2,
25 Land Use Controls, is a more green and

1 sustainable approach because you're not, you're
2 not burning a lot of gas, spending a lot of time
3 out in the field doing remediation.

4 Implementability, Alternative 2,
5 again, is going to be easier to implement.

6 From the cost standpoint,
7 Alternative 2 is the less expensive option.

8 We've got the cost total for all four
9 sites and the cost broken down by sites.
10 Actually, I think there's a typo in your -- if
11 you're following along in your -- she caught it
12 -- Right here it should say \$941,000
13 (Indicating). It might say "401" in your
14 handout.

15 As far as the support we get from the
16 EPA, they've been supportive of this remedy.
17 We've been telling you about this as far as the
18 RAB for a while. So we think we have community
19 acceptance, but we'll hear from you tonight.

20 So Alternative 2 is the preferred
21 alternative by the Army to address the MEC.

22 Now, what does that mean for these
23 four sites?

24 As I said earlier, the Incendiary
25 Disposal Area and Possible Demolition Site

1 already have the fencing that's been installed,
2 so they're pretty much good to go.

3 The two top sites are probably going
4 to need some kind of restriction to keep people
5 out of that area, even though it's a restricted
6 area within a restricted area, they're a subset
7 of those restricted areas that may be delineated
8 somehow to keep workers out of there. And that's
9 something that we would develop as part of the
10 remedy, what kind of fence and what kind of
11 maintenance would have to be done in those areas.

12 So that's the MEC.

13 So then there's Munitions
14 Constituents, and a similar kind of risk
15 assessment is done. You collect and evaluate
16 data -- Is there an MC release?

17 For seven of the sites, we found that
18 there was really no MC release, and there would
19 be no further action for Munitions Constituents.

20 For the Possible Demolition Site, it
21 was run through a human health and an ecological
22 risk assessment to see whether there's risks to
23 humans that might be accessing that area and the
24 wildlife that's in the area; and the output of
25 that was that the RDX and soil, which is at 14

1 milligrams per kilogram is, exceeds the 1.3
2 milligrams to kilograms, and it may pose a
3 leaching soil concern.

4 There wasn't any direct risk to people
5 incidentally injecting or handling the soil
6 because there's really not much traffic in that
7 area. There's not many people actually down in
8 there; but there is a concern that that could
9 leach to groundwater.

10 And the location of that RDX is right
11 here (Indicating), where the red circle is.

12 So we looked at three different
13 alternatives to address the RDX. Again, no
14 action.

15 Again, Land Use Controls -- could we
16 just keep people out of that area?

17 And then Alternative 3, removing the
18 soil and disposing of it appropriately.

19 And it's, we estimate it's about 200
20 cubic yards that it could be. That needs to be
21 delineated a little bit better in the remedial
22 phase.

23 So, again, no action is not protective
24 of human health and the environment, so it pretty
25 much gets ruled out right away.

1 Land Use Controls and removal would be
2 protective and comply.

3 But the better alternative here is to
4 do the removal. You get better long-term
5 effectiveness and permanence. You actually get
6 some reduction of toxicity and mobility. It
7 actually turned out to be the more green and
8 sustainable approach, because the Land Use
9 Controls alternative actually has you, has the
10 Army putting wells in the ground to monitor, to
11 make sure that the RDX is not leaching in the
12 groundwater, and repeatedly coming out once a
13 year and monitoring those wells.

14 So over 30 years, that's a lot of
15 burning of gas and using, putting a lot of heat
16 in the ground. It's, it's the preferable
17 alternative to just remove that soil because it's
18 a small effort, and costwise, it actually looks
19 like it's going to be cheaper.

20 So, for this, the Munitions
21 Constituents preferred alternative is to remove
22 that soil.

23 The question marks are here for your
24 input tonight.

25 And this is just a summary page of the

1 different sites and what we're proposing.

2 So, for the Central Test Area Land Use
3 Controls for MEC, and no further action for MC.

4 Line 6, inside the Blast Radii, the
5 same -- Land Use Controls; no further action for
6 MC.

7 Outside the Radii, no further action
8 for either.

9 West Burn Pads, and West Burn Pads
10 south of the road, again, no further action for
11 both.

12 Possible Demolition Site, Land Use
13 Controls for MEC, and soil removal for RDX in
14 soil.

15 And Incendiary Disposal Area, Land Use
16 Controls. No further action for MC.

17 And Maneuver Area, no further action
18 for both.

19 So that's what is being proposed here.

20 And at this point, we could take some
21 questions for clarification on what we've just
22 covered.

23 If you want your comments recorded,
24 that comes a little bit later; but right now, if
25 anybody has any questions they want to ask, we

1 could certainly do that.

2 MS. PAULA GRAHAM: We're talking about
3 RDX and that Line 6?

4 MR. ALEX SMITH: The RDX was in --

5 MS. PAULA GRAHAM: I know -- according
6 to the map, it's pretty close to that -- Is
7 that the line?

8 MR. ALEX SMITH: The RDX is in the
9 Possible Demolition Site.

10 MS. PAULA GRAHAM: Yes. Now, how far
11 away on this map is Line 6?

12 MR. RODGER ALLISON: We're down here.
13 Line 6 is up on the map (Indicating).

14 MR. ALEX SMITH: The Possible
15 Demolition Site is here, and Line 6 is here
16 (Indicating).

17 MS. PAULA GRAHAM: I guess what I
18 wanted to ask was, Line 6, you talked about the
19 explosion -- because you mentioned an explosion
20 earlier, and there were other explosions besides
21 those.

22 MR. ALEX SMITH: Pardon?

23 MS. PAULA GRAHAM: There were other
24 explosions beside the ones you mentioned at
25 Line 6 -- I was carrying powder out of the powder

1 house on the second shift, 4:00 to 12:00, and it
2 was so hot, it was the winter, so it was so hot
3 in there they had to keep the powder dry so you
4 could sift it and weigh it. And then it was so
5 cold outside, just to go in and out, you'd get
6 headaches.

7 Have you ever had that in cold
8 weather? And I told my mother and father working
9 the same shift that I was; and I was still at
10 home, and I went to the car. It blew that night
11 and killed a girl, and it was that was carrying
12 the powder on the next shift, so there were other
13 explosions on Line 6.

14 MR. ALEX SMITH: Do you know what year
15 that was?

16 MS. PAULA GRAHAM: It was in the '50s,
17 because it was during the Korean War. I think I
18 started in 1951. I just graduated from high
19 school in '50, and I started there, and there was
20 a lot of powder in that powder house because we
21 were carrying it for all those buildings.

22 And so I do know of that one
23 explosion, and there were probably others, too.

24 MR. ALEX SMITH: Was that just powder?
25 Or were there detonators that went --

1 MS. PAULA GRAHAM: It was powder, a
2 lot of powder, because, you know, you had a lot
3 because you had all these places you were
4 carrying to.

5 MR. RODGER ALLISON: If I recall --
6 and for the stenographer's purpose, Paula Graham
7 was the one that was just speaking -- and the FS
8 and some other -- the RI, also addressed other
9 explosions besides the single one that Alex was
10 talking about.

11 However, we didn't find any evidence
12 of those, other than predominantly those, those
13 detonators is all we were discovering; and the
14 powder would have had the -- or would have left
15 the TNT or RDX constituents, HMX constituents
16 that we would have found as part of the MC, so
17 that -- those, we didn't find.

18 What he was referring to for tonight's
19 purposes was those detonators that drove, was the
20 primary driver for those Blast Radii.

21 MR. ALEX SMITH: If it was powder
22 alone, and if -- typically, that's pretty well
23 consumed.

24 MS. PAULA GRAHAM: At least it was
25 when I was on the shift, that's what they had in

1 there.

2 MR. ALEX SMITH: When you have an
3 explosion of detonators, then they spray
4 everywhere.

5 MS. PAULA GRAHAM: This was enough to
6 have killed her. I don't know if they had a fire
7 or whatever happened to them, but it blew the
8 whole thing up.

9 MR. VAUGHN MOORE: On the
10 investigation of Line 6, did you find detonators
11 outside of the buildings? Because they used to
12 throw the duds out the doors, because, see, they
13 used to take the dud-detonators, they'd just flip
14 them out the doors. What was that janitor's name
15 who got his heel blowed off? It blowed his heel
16 off; and then they told them they couldn't throw
17 them out the doors no more, and they started
18 flushing them down the sewer.

19 MR. RODGER ALLISON: The Army found a
20 number of them. I would have to go back to the
21 FS, that has the -- and the RI -- that has the
22 specific locations where they discovered them.

23 But, yes, they found them outside some
24 buildings. They found them all through that
25 radius that you see there.

1 Some -- The history, as I recall, also
2 after the blast, they replaced the buildings very
3 shortly thereafter. So while they went out and
4 picked up what they could find immediately, they
5 also moved some soil around. So some were
6 covered. Some were shifted from their original
7 locations.

8 MR. VAUGHN MOORE: Right there at the
9 6W, where you went through 6W, if you turned to
10 your right, you went to mine, and if you turned
11 to your left, you went around 6. They spilled a
12 bunch of detonators right at that intersection
13 one night. The road was just covered. They fell
14 off the back of a truck, and it scattered them
15 down the road.

16 MR. RODGER ALLISON: Are you talking
17 about right there (Indicating)?

18 MR. VAUGHN MOORE: Yeah, it was
19 Gate 6W; and if you went in the other 6W, like I
20 said, the road either went to mine or it went
21 around 6, you know, and that whole road was
22 covered with detonators. They rolled off a
23 truck, and they didn't get them all.

24 They just sent a bunch of working
25 ladies out there to pick up what they could find

1 on the road with the truck headlights, and that's
2 all they did.

3 So you might possibly have some more
4 of them laying right in there in them ditches
5 there.

6 MR. RODGER ALLISON: There was a Rapid
7 Response Action back in the mid-'90s that was
8 prompted from lead contamination; and in this
9 entire line, these ditches were cleaned. In
10 fact, I think they even came well down,
11 (Indicating) south, and might have even gone into
12 a little bit of Line 9.

13 But this entire area and even some
14 spots within the entire boundaries of the, of
15 Line 6 were cleaned up under that Rapid Response
16 Action, under RCRA.

17 MR. VAUGHN MOORE: Is the rest of
18 Line 6 coming down? Or is that going to be
19 utilized in the future? -- because that thing has
20 got lead azide up the ying-yang in that site.

21 MR. RODGER ALLISON: I understand.

22 Right now, we have Line 9, which has
23 been predominantly demolished. It has been
24 de-constructed, except for a couple of buildings.

25 We have constructed a 40 millimeter

1 test range that lies right about in this location
2 and goes to the south (Indicating), fires to the
3 south.

4 There is one building, a storage
5 location that's right in this area (Indicating);
6 and then there's another that's somewhere right
7 in here that we're using as part of that
8 operation.

9 And once again, the lead hazard had
10 been removed as part of the Rapid Response Action
11 back in the mid-'90s.

12 And then the MMRP will restrict any
13 activity from this 40 millimeter test operation
14 within those boundaries, and that's where we
15 found the unacceptable risk hazards.

16 MR. VAUGHN MOORE: Have you stumbled
17 across any mercury foam lights from World War II?
18 Because we built those detonators for Britain,
19 too, for World War II.

20 MR. RODGER ALLISON: I understand. We
21 found nothing that was above any kind of
22 hazard -- or any kind of risk, I should say.

23 Or, let me rephrase that.

24 We didn't find anything above an
25 unacceptable risk level.

1 MR. VAUGHN MOORE: Okay.

2 MS. PAULA GRAHAM: My name is
3 Paula Graham. Not only World War II -- I weighed
4 the mercury during the Korean War, too. We had
5 both lead azide and fulminated mercury that we
6 were carrying out of the powder houses; and I
7 weighed it, too.

8 MR. RODGER ALLISON: Both of those
9 used fulminated mercury or mercury -- fulminated
10 lead azide; and there was another one that
11 escapes me.

12 MR. VAUGHN MOORE: The one you didn't
13 want was the aluminum azide. That's the one you
14 detonated.

15 MR. ALEX SMITH: Any more questions on
16 the proposed plan?

17 I think we will move on to the
18 Engineering Evaluation/Cost Analysis, Historical
19 Small Arms Range.

20 So you remember this slide with the
21 CERCLA process, which is a long process.

22 Well, there's a parallel process that
23 can be done, called a Removal Process. If you
24 want to do kind of a short-circuit, a shortcut, I
25 should say, to get to the end goal, you can do,

1 instead of the RI/FS, you can do an Engineering
2 Evaluation/Cost Analysis, which is like an RI/FS,
3 it's a streamlined version.

4 We are here in a Public Comment phase
5 to get your public comments on that EE/CA.

6 The next step of the process is to do
7 an Action Memorandum, which is like a ROD; and
8 then we go into the Removal Action. So this is,
9 if you have a problem that you really want to get
10 some quick action done, this is one way to do it.

11 And the reason that we're doing that
12 on this particular site, the Historical Small
13 Arms Range here in yellow (Indicating) is
14 actually a part of the larger PDS, Possible
15 Demolition Site.

16 This is the site that was fenced; and
17 what has happened is that there's an Active Small
18 Arms Range that is a part of the operational
19 range, so it's not part of the study, so that
20 Active Small Arms Range was excluded from the RI.

21 But then it was later realized that
22 there is an older range that overlies the Small
23 Arms Range -- let me move forward here -- the new
24 range, the old range in yellow fired to the west
25 (Indicating), and the active range fires to a

1 berm that's been constructed here, and fires to
2 the north; and so partway through the RI process,
3 we realized, Well, hey, there's this Historical
4 Small Arms Range, and we need to do something
5 about that.

6 So the EE/CA is an effort to basically
7 get this site caught up to the Possible
8 Demolition Site. It's all part of one site, so
9 we're going through this advanced process, the
10 quicker process.

11 So, this purple line here
12 (Indicating), is basically from a historical map,
13 a drawing of the Historical Small Arms Range.
14 There are some targets that lie approximately
15 right here (Indicating) that you can still see
16 today, which gives us some geography and geometry
17 to orient that range.

18 The larger yellow fan is based on
19 anecdotal evidence that at one point, people
20 moved back and used larger, I guess, rifles, and
21 fired, maybe, at a larger area (Indicating). So
22 we wanted to look at a larger area.

23 To give you an idea of what we're
24 talking about, this is the west side of
25 Long Creek -- let me move back.

1 Long Creek flows from the north to the
2 south (Indicating). And, so, that picture was
3 taken, and it looks basically from the north --
4 from the south to the north on Long Creek. So
5 you're looking upstream here.

6 This is the western bank, which is a
7 fairly steep slope, and it formed a natural berm,
8 a natural backstop for munitions, small arms
9 firing at the targets on the east side of the
10 bank, across the bank. The bullets would hit the
11 ground here (Indicating).

12 And so the concern -- you know, these
13 are bullet slugs, they're not explosive items, so
14 this isn't really an MEC situation, it's an MC
15 situation because the bullets are made out of
16 lead, copper, and you can have some alloys of
17 antimony and zinc to copper. So, basically, very
18 typical four metals of concern at the Small Arms
19 Range are copper, lead, antimony and zinc, so we
20 looked at those for metals.

21 We did some soil sampling, so each dot
22 represents a soil sample that was collected from
23 the surface. We looked back here near the firing
24 points (Indicating), and they're all green
25 because that's less than 150 milligrams per

1 kilogram, which is probably pretty representative
2 of background.

3 But as expected, when you look beyond
4 the targets, we saw a hot spot of -- this is just
5 lead that we're representing here (Indicating) --
6 but lead up to over 1,100 parts per million.
7 It's pretty well-confined here, as expected,
8 right across from the targets. So what we did by
9 the sampling was, basically, confirm what we
10 thought we were going to find.

11 As you go up the slope, it turns back
12 into green, which is background (Indicating).

13 We didn't really see much of a problem
14 down here or any problem to the south.

15 So it looks like these targets that
16 are still there today remain, or were the targets
17 all along. So we have this area here that's got
18 some lead in the soil.

19 A cross-section, to give you an idea
20 of the firing point to the east, fire at the
21 target and hit the bank here (Indicating), so --
22 there's been some, probably, slumping of bullets
23 and lead down towards the creek, itself. You can
24 actually find bullets in the creek; but as you
25 go, really, above 550 feet in elevation, you

1 really don't have a problem. So we have a pretty
2 well-confined area of contaminated soil.

3 Since it was so close to the stream,
4 we wanted to do some stream sampling to see if
5 that was an issue, so we collected surface water
6 and sediment samples at one, two, three, four,
7 five, six, seven, eight, nine, ten locations on
8 Long Creek. We wanted to see what it was like
9 coming into the Small Arms Range, as you go
10 through the Small Arms Range, and then downstream
11 of the Small Arms Range.

12 What we have -- you may not be able to
13 see, but there's a green triangle on top of a
14 square. The squares are the sediment, and the
15 triangles are the water; and they were all green
16 because they did not exceed any health standards
17 or -- we had one hit right here (Indicating),
18 which was in water, so, really, it was a
19 detection, it wasn't -- it did not exceed the
20 15 milligrams per liter -- milligrams or
21 micrograms? -- micrograms per liter -- it was a
22 detection, but it wasn't exceeding any drinking
23 water standard.

24 So what we're seeing here is that we
25 don't really have an issue in the stream.

1 And, again, we run this through the
2 hazard assessment, collect data.

3 Is there a release? Yes.

4 We looked at a site worker receptor,
5 so somebody doing wildlife surveying or
6 maintenance of the stream.

7 We also looked at an ecological risk
8 assessment, and the main thing we're trying to
9 protect here is the Indiana bat. And the outcome
10 of the risk assessment is that there is a
11 potential risk to the site worker, that would
12 actually be in the fetus of a pregnant site
13 worker. There is a -- there is a 7.2 percent
14 that it would exceed -- that the blood would
15 exceed 10 micrograms per deciliter -- deciliter
16 -- right? -- which is above the 5 percent
17 threshold; and that's where EPA has decided is a
18 concern. So we have a concern here to human
19 health that we need to address.

20 Again, the EE/CA is very similar to a
21 feasibility study. There were three alternatives
22 we looked at:

23 No action.

24 Land Use Controls, to prevent -- since
25 it's a human health concern, we can protect it

1 with Land Use Controls.

2 And then the third is to remove the
3 lead.

4 When we run -- the EE/CA is a more
5 streamlined process. It really looks at the same
6 kind of evaluation package. They're all lumped
7 into effectiveness, implementability and cost;
8 but it's a simpler process.

9 Of course, no action is not
10 protective. The lower cost would be for Land Use
11 Controls; but the most protective would be to
12 remove the lead, and we've heard concerns from
13 the public, and this is the preferred
14 alternative, is to do the removal. It costs a
15 little bit more, but it provides the protection,
16 and it -- there is a potential that the lead
17 values for concern for human health risk could
18 actually be lowered in the future.

19 They're starting to do that in
20 California. So the Army is a little concerned
21 that this site could actually get opened up in
22 the future, and for more of a remedy, so I think
23 the Army is just saying, Let's just get rid of
24 the problem. So that's --

25 MR. RODGER ALLISON: Especially given

1 the -- while it's, Alternative 3 is more, it's,
2 what, almost \$150,000 more; and in the long-term,
3 I think we would see that that's cost effective,
4 especially when we're looking at potential
5 tightening of the regulations, and the like.

6 It would cost us more in the future,
7 so --

8 MS. PAULA GRAHAM: My name is
9 Paula Graham, but I agree 100 percent when it
10 comes to the lead, they don't even want it in our
11 drinking water in the cities and towns and so
12 forth; and we don't know how much more might run
13 off the plant to add to it, so I think that's the
14 thing to do. I only represent one person in the
15 community.

16 MR. ALEX SMITH: I think Rodger has
17 heard that before, and he takes that into
18 account. So, now, to be honest there, there is a
19 short term -- it's going to take some effort to
20 get the soil and the lead out.

21 We've looked at this, and there's --
22 probably going to have to dam up the stream
23 temporarily so we can get in there and work, and
24 do a lot of site restoration, so there will be a
25 negative impact on the environment.

1 So we've added the protections that we
2 would need to prevent erosion while we're doing
3 the work, and to, you know, restore the site.

4 So, just a nutshell of what this is --
5 The first thing we would do is to delineate with
6 soil sampling a little bit more refined than we
7 have already, to find out exactly where it is.

8 Then we'd remove the vegetation within
9 the area of soil exceeding 1,100 parts --
10 milligrams per kilogram, and that's estimated at
11 2,800 square feet.

12 We need to put in a temporary access
13 road and a staging area for construction.

14 We will temporarily divert the creek
15 so that we can work in there.

16 We will remove all the
17 lead-contaminated soil exceeding 1,100 milligrams
18 per kilogram. We estimate that's 156 cubic
19 yards. It's not going to be very deep because
20 you hit bedrock pretty quickly there.

21 We then do a TCLP, which is
22 Toxicity Characteristic Leaching Procedure, which
23 determines whether that soil is a hazardous waste
24 or not; and if it is below a certain level, which
25 is 5 milligrams per liter, then it can go to a

1 nonhazardous landfill.

2 If it is above 5 milligrams per liter,
3 we can do some kind of stabilization on it,
4 basically mixing it with Portland cement so it
5 doesn't leach out, and then dispose of it in a
6 nonhazardous landfill.

7 Then we do the transportation and
8 disposal.

9 Site restoration is to include stream
10 bank and streambed stabilization to, basically,
11 put it back to the way it was. We want to keep
12 the sediment from flowing down the creek.

13 We think that this approach is
14 probably going to end up getting it to
15 concentrations of 400 parts per million because
16 it's a pretty well-confined area. If we're going
17 to get everything above 1,100, we're probably
18 going to get everything. So we think we're going
19 to where the average is less than 400, and if
20 that's the case, then there would be no lands use
21 controls needed, and this site could be closed
22 out with no monitoring at five-year reviews.

23 And that's our proposal for EE/CA.

24 Before we go into the official public
25 comments, does anybody have any questions of

1 clarifications on what we talked about?

2 MS. PAULA GRAHAM: Could I ask a
3 question? Do you want my name? Paula Graham,
4 again.

5 MR. RODGER ALLISON: Yeah,
6 Paula Graham.

7 MS. PAULA GRAHAM: This lead is found
8 in Long Creek below the dam? Or is some of it
9 above?

10 MR. ALEX SMITH: This is below the
11 dam.

12 MS. PAULA GRAHAM: That's what I
13 thought. Now, you were talking about, at some of
14 the other meetings you had, about draining the
15 lake. Sometime -- with all this rain -- but is
16 that still something you're planning to do?

17 MR. RODGER ALLISON: It's being
18 discussed. They are talking about -- the
19 discussions center on whether the -- there's two
20 control mechanisms, an upper and a lower. The
21 engineers are still evaluating how to address
22 those. So we don't know if the lake will be
23 drained or not at this point. It's still being
24 evaluated.

25 MS. PAULA GRAHAM: The only reason I

1 was thinking, well, you know, you drain the lake
2 and that isn't cleaned up, if I'm envisioning it
3 right -- you know what I mean? It might work the
4 lead on down, if it isn't cleaned up, if it's in
5 that area where the lake, where the Long Creek
6 runs.

7 That was just a thought I had.

8 MR. RODGER ALLISON: It's been our
9 experience that if it's going to move anything,
10 it's going to move the sediment. Typically, it
11 won't move the lead shot or the lead bullets, but
12 we share that concern.

13 MS. PAULA GRAHAM: Well, it would
14 depend on how much water was used, too, and what
15 it will take. So that was just a thought I had
16 that I'd share, a concern.

17 MR. ALEX SMITH: Thank you.

18 Any other questions? Clarification?

19 Okay, then we move into the comment
20 period.

21 This is the same slide I had earlier
22 that gives you the date and all the information.

23 If anybody would like to put a comment
24 verbally on the record tonight, you can do that
25 now.

1 I'd ask that you give Jane your name
2 and what is your comment or your question, or
3 that you want to put on the record, that we will
4 actually be addressing and putting a response to
5 in the ROD.

6 You can also do this in writing, you
7 don't have to do it now. There are -- When you
8 came in, there was a table with sheets to fill
9 out written comments, and we'll take those. You
10 can either drop those off tonight or mail them to
11 Rodger up until the 4th; so you don't feel like
12 you need to do it now or never.

13 MS. PAULA GRAHAM: Our comments just
14 concern this tonight, this program here?

15 MR. ALEX SMITH: It's just the two
16 presentations that we had tonight.

17 MS. PAULA GRAHAM: Okay.

18 MR. ALEX SMITH: I don't think we have
19 any.

20 MR. RODGER ALLISON: All right. I
21 think -- not hearing anything from the group, I
22 thank you, Alex.

23 MR. ALEX SMITH: Thank you.

24 MR. RODGER ALLISON: So, Ladies and
25 Gentlemen, the Army and the EPA thanks you for

1 participating tonight, coming to the public
2 meeting regarding the Proposed Plan For the
3 Operable Unit 5, and the Engineering Evaluation
4 and Cost Analysis.

5 Now, representatives from the Army
6 will be available near the poster stations for
7 some time following our meeting, so if you have
8 any, any other questions that we can help you
9 with, as you think or look over the information,
10 we'll be available to talk further with you.

11 And I also want to remind everyone
12 that we do have the comment sheets that Alex
13 spoke about that you can take with you.

14 We also have copies of the document
15 that you can take -- both documents, those are
16 available for you to take with you, if you wish;
17 and remember that you can also see them on the
18 website that's located on the agenda, and it's on
19 the poster station over there, also.

20 Now, the Army will continue to accept
21 comments up until June 4, either by mail, e-mail
22 or regular mail, and as long as the date stamps
23 or the postmark is no later than June 4.

24 So with that, unless there's anything
25 else, I thank you very much for joining us

1 tonight, and bid you all good evening.

2 (End of meeting, 6:08 p.m.)

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C E R T I F I C A T E

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2
3 I, M. Jane Weingart, a Certified Shorthand
4 Reporter of the State of Iowa, hereby certify
5 that I acted as the reporter for the taking of
6 the captioned public meeting, and that I reported
7 the proceedings in machine shorthand correctly
8 and have had the same transcribed under my
9 direction into typewriting; that the above and
10 foregoing is a true and correct transcript of my
11 shorthand notes so taken of all proceedings had.

12 I further certify that I am neither
13 related to nor employed by any of these parties
14 or their attorneys in any way.

15 Dated this 3rd day of June, 2013.
16

17 M. Jane Weingart C.S.R.
18 M. Jane Weingart
19 Certified Shorthand Reporter
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23
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25