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In the Matter of: )  
)

Public Meeting on Seaway Site ) September 24, 2008

Proposed Plan )  
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Transcript of meeting held on September 24, 2008.  
at the Phillip Sheridan Building, Community Room  
3200 Elmwood Avenue, Buffalo, New York 14217

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1 P R O C E E D I N G S

2 LIEUTENANT COLONEL SNEAD: Well, good  
3 evening. It's good to see everybody this evening  
4 and what a nice day. It's funny. I grew up in  
5 Florida and I've been here about three months  
6 commanding the Buffalo District of the US Army  
7 Corps of Engineers, and there's no doubt in my  
8 mind, this was the coldest August I've ever  
9 experienced in my entire life. But it's been  
10 wonderful and I guess I anticipate that the  
11 winters will be a little bit different than what  
12 I had in Florida as well.

13 Well, good evening. My name is Dan Snead and  
14 I'm the Commander of the Buffalo District. And  
15 I'd like to welcome everybody here tonight. Also,  
16 before I start I'd like to acknowledge some of the  
17 elected officials or the representatives that are  
18 here today in the audience.

19 First off, representing Congresswoman  
20 Slaughter, Kathy Lenihan. Good to see you, Kathy.  
21 Also here representing Robin Schimminger from the  
22 New York State Assemblyman, Terry Weigler, and Mr.  
23 Anthony Caruana, the Supervisor for the Town of  
24 Tonawanda. Good to see you, sir.

25 I want to thank everybody for coming out

1           tonight and listen to our presentation on the  
2           Proposed Plan for the Seaway Site. And just to  
3           assure you that your participation today and in  
4           the process of taking on public input is very  
5           welcome and very appreciated. Next slide.

6           This is the agenda of what we're going to  
7           follow today, but before I start, I want to point  
8           out some of the folks that are our Project  
9           Delivery Team with the Corps of Engineers at  
10          Buffalo. Jim Karsten, he's our Program Manager  
11          for our overall FUSRAP program, and I'll explain  
12          a little bit more what FUSRAP is, a little  
13          further. Steve Buechi, he's our Project Manager  
14          for the Seaway Site. Janna Hummel, she's our  
15          Project Engineer and she's got the incredible task  
16          of trying to explain the science in terms that  
17          everybody can understand this evening. So I  
18          applaud her in advance to do that. Colin Ozanne,  
19          with our Office of Counsel. Hank Spector, Health  
20          Physicist. Bruce Sanders, Public Affairs Officer,  
21          and Arleen Kreusch, our Outreach Program  
22          Specialist. And she's helping to collect folks'  
23          names that would like to make a comment.

24          Also we have, as Kathy has pointed out here  
25          to me, Paul Grants with Erie County Environmental

1 Planning and Mike Hetler who's here to represent  
2 Senator Rath. Good to see you, sir.

3 Also, in addition to the project delivery  
4 team that's here tonight, we have some of our  
5 senior leaders. Dave Conboy, he's my Chief of  
6 Technical Services Division at the Buffalo  
7 District and also, Ron Church who at our higher  
8 level, our division office, he manages the FUSRAP  
9 program at our higher level out of, actually,  
10 Chicago, correct? You're in Cincinnati. I know  
11 some folks are Chicago, I get confused with that.  
12 Okay, great.

13 Again, welcome. As an overview of tonight's  
14 meeting I'll be continuing with the introductory  
15 slides. I'll be followed by Janna, our project  
16 engineer, who will give the brief on the technical  
17 aspects of the project and how we arrived at the  
18 preferred alternative for addressing the site. We  
19 will then open up the floor to record your  
20 comments regarding the Proposed Plan and the  
21 transcript from tonight's meeting will be posted  
22 on our website when it becomes available.

23 When you came in, you should have filled out  
24 and returned a sign in card. If anyone did not,  
25 please contact our folks, Arleen, right over here,

1 she can get you a card so you can fill one out if  
2 you have any comments that you would like to make  
3 this evening or even a written comment. On the  
4 card, there is a box to mark if you which to make  
5 a statement or ask a question. If, during this  
6 meeting, you decide you would like to speak and  
7 did not check the box, please see Arleen and we'll  
8 make sure that you have an opportunity to speak  
9 this evening.

10 And just a reminder, we've put out the  
11 Proposed Plan approximately thirty days ago and we  
12 still have until the 27<sup>th</sup> of October to receive  
13 comments so after we leave today if you still have  
14 any comments, and I'll make sure that you have all  
15 the contact information either through email,  
16 phone or if you would like to write a letter; any  
17 of those options, I'll make sure that you have  
18 that information before you leave. But we will be  
19 accepting those comments from now until the 27<sup>th</sup>  
20 of October. Next slide.

21 There's two things that I'd like you to take  
22 away from this slide. There's two terms that  
23 you'll hear myself and Janna use throughout the  
24 presentation this evening. The first one is  
25 FUSRAP and the second one is CERCLA.

1 FUSRAP stands for Formerly Utilized Sites  
2 Remedial Action Program. It was a program that  
3 was created by the Federal government in 1974 and  
4 its mission is to identify, investigate and, if  
5 necessary, clean up sites that were contaminated  
6 from past activities associated with the Federal  
7 government's early atomic energy and weapons  
8 program. What the mission really means is, it is  
9 our duty to protect the human health and the  
10 environment now and into the future. We can't  
11 change what happened at that site in the past and  
12 we don't have the right authority to evaluate  
13 potential past health impacts but we are going to  
14 evaluate what the potential threat is of that site  
15 and clean it up so that it is safe for future use.

16 To assure you, safety is our highest  
17 priority. We conduct our investigations and clean  
18 ups in a manner that is safe for both our workers  
19 and to the public and we are also charged with  
20 efficient use of the resources we're entrusted  
21 with to execute the FUSRAP program. We are only  
22 authorized to address contamination that is a  
23 result of past Federal government atomic energy  
24 program activities. Any contamination at a site  
25 that is from another source is beyond our

1 authority to investigate and clean up unless it is  
2 mixed in with the FUSRAP material that we are  
3 actually in the process of cleaning up.

4 Finally, to get to the second piece, CERCLA.  
5 CERCLA stands for Comprehensive Environmental  
6 Response Compensation and Liability Act. CERCLA  
7 is the law that we use and it really defines the  
8 criteria that we adhere to when we decide on  
9 different ways and alternatives on cleaning up the  
10 different sites under this program. It is a  
11 Federal law that specifies the process we must  
12 follow in investigating and cleaning up our FUSRAP  
13 sites. The CERCLA was enacted in 1980 and it was,  
14 the most recent update to that was in 2002.

15 Also, just so you know, with the FUSRAP  
16 program, initially it fell under the Department of  
17 Energy until 1997 when that mission was handed  
18 over from the Department of Energy to the US Army  
19 Corps of Engineers and we've had it ever since.  
20 Next slide please.

21 Just to give you a little background on our  
22 district. We are currently managing fourteen  
23 FUSRAP sites. Not only in New York, but also in  
24 Ohio and one in the state of Pennsylvania. We  
25 have successfully cleaned up three of these sites



1 to date and since 1997 when the program was  
2 transferred to the Corps. That includes the  
3 Ashland 1 and 2 sites that are co-located with the  
4 Seaway site and Janna will point out those  
5 locations when she provides her presentation to  
6 you.

7 We have an excellent safety record with  
8 respect to the workers on the job. During  
9 remediation, we also protect the surrounding  
10 community with engineering controls and monitoring  
11 to ensure that no contaminated material is  
12 released from the site. We use an experienced,  
13 multi-disciplinary team including environmental  
14 engineers, health physicists, risk assessors,  
15 chemists and construction managers. And the  
16 reports and plans we prepare go through an  
17 extensive technical review process that includes  
18 a review from the US Army Corps of Engineers  
19 Center of Expertise; located in Omaha, Nebraska  
20 and others within the industry. We work with and  
21 provide information to the state regulatory  
22 agencies and our local stakeholders and we provide  
23 information to and make our investigation reports  
24 available to the public. Next slide.

25 This is just a basic schematic that shows the

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1 process that we go through when we get a site  
2 designated and tasked to our district. Currently  
3 with the Seaway project site, if you see the  
4 little yellow "we are here", that's where we're  
5 at. We put out the Proposed Plan approximately 30  
6 days ago and we still have an additional  
7 approximate 30 days, up to the 27<sup>th</sup> of October to  
8 receive public comment in reference to this  
9 Proposed Plan.

10 Once we go from there, we'll move to a record  
11 of decision on where we go with the Proposed Plan.  
12 Next slide.

13 This meeting tonight, it's for you. We  
14 really want to make sure that we get your  
15 comments. And I emphasize that the public input  
16 during this period, this sixty day period, not  
17 just this evening, is very important. And this is  
18 your opportunity to make your opinions on the  
19 project and the Proposed Plan known and have them  
20 recorded in the public record.

21 Just to know, the Proposed Plan is not the  
22 final decision on action at the site. It is the  
23 Corps recommendation based on our investigations.  
24 A final decision on site action will not be made  
25 until after all the public comments have been

1 considered and responded to. If you make  
2 comments, you can look for response to them in the  
3 record of decision. A transcript of this meeting,  
4 along with all the comments and responses to  
5 everything will be there.

6 And finally, I would just suggest to  
7 everyone, that, to everyone, that when you submit  
8 comments, you make them as specific as possible so  
9 we can better understand what the point is that  
10 you're trying to make. Let us know exactly what  
11 your concerns are and what additional information  
12 you think we need to incorporate into our  
13 assessment. Viewpoints are important, however,  
14 specific concerns and information would result in  
15 a more effective comment evaluation process.

16 I will now turn things over to our project  
17 engineer, Janna Hummel and she will cover the  
18 technical portion of the presentation. I'll tell  
19 you, the technical piece of this, it is  
20 complicated and again, if you have any questions  
21 at the end, feel free to ask them in reference to  
22 the brief but I've asked Janna to make sure that  
23 we take our time and explain it in such a way that  
24 everybody can walk away at least understanding the  
25 process and our overall recommendation. With

1 that, Janna.

2 JANNA HUMMEL: Thank you. My name is Janna  
3 Hummel. I work as an Environmental Engineer at  
4 the Buffalo District. Thank you for coming out to  
5 hear our presentation about Seaway. I'm going to  
6 talk about some general information and background  
7 on Seaway, what sort of contamination is present  
8 at the site, risk and regulations that pertain to  
9 Seaway. I'll tell you about the remedial  
10 alternatives, that is the remedies we looked at,  
11 how we selected our preferred alternative and I'll  
12 go into some detail about that alternative.

13 This will be a brief and general  
14 presentation. If you want more information, you  
15 can read the Proposed Plan; its about fifty pages  
16 long. Even more detailed information is available  
17 in the Feasibility Study Addendum. These  
18 documents and all documentation about Seaway are  
19 contained in the administrative record for the  
20 site.

21 Colonel Snead will talk about the ways to get  
22 to the administrative record and it's also in the  
23 fax sheet handout. Next slide.

24 The Seaway landfill is located along River  
25 Road in Tonawanda. You can see it as you drive on

1 the 190 near the River Road exit and the Grand  
2 Island Bridge.

3 It's about 160 feet higher than ground  
4 elevation at its peak so its very noticeable. The  
5 area around the site is highly industrial with  
6 petroleum storage previously prevalent. The  
7 closest residents are about a half mile away, both  
8 across the river in Grand Island and to the  
9 southeast of the site in Tonawanda. The site is  
10 safe under current conditions. The FUSRAP related  
11 contaminants do not pose an immediate risk to the  
12 public or to workers.

13 Adjacent to the site are Ashland 1, Ashland  
14 2 and Rattlesnake Creek. Remediation at each of  
15 these FUSRAP sites has already been completed.  
16 It's actually all the same contamination at  
17 Seaway, Ashland and Rattlesnake Creek, there were  
18 not operations at Seaway or Ashland, all the  
19 FUSRAP material at Seaway and Ashland was  
20 transported from the nearby Linde Site. Uranium  
21 processing took place there.

22 Remediation at Linde is ongoing. What made  
23 its way to Seaway was the part of the uranium ore  
24 that wasn't useful to the Manhattan Engineer  
25 District. It's low level radioactive waste. Next

1 slide.

2 Here's a summary of Seaway site history. As  
3 I said, the FUSRAP related material was moved from  
4 Linde and placed on Ashland between 1944 and 1946.  
5 It wasn't moved to Seaway until 1974. This was  
6 soil that was removed from Ashland 1 due to the  
7 construction of a drainage ditch in bermed area  
8 and was moved to Seaway and Ashland 2. The  
9 landfill also contains other types of waste that  
10 are non-FUSRAP related. The Seaway landfill  
11 started accepting material in 1930 and stopped in  
12 1993.

13 Also, in 1993, the Department of Energy  
14 released a Proposed Plan for the Tonawanda site.  
15 The Tonawanda site included Linde, Ashland and  
16 Seaway. When the Army Corps took over FUSRAP they  
17 decided to re-remediate the sites individually.  
18 This Proposed Plan is just for Seaway. A final  
19 decision, or record decision was never issued for  
20 Seaway based on that proposed plan.

21 USACE was designated as lead Federal agency  
22 for FUSRAP in 1997. After that, the Army Corps  
23 did a walk over of the site in 1998 and a sub-  
24 surface investigation in 2001. Now we're zoomed  
25 in the site itself. The road in front is River

1 Road and we're looking to the southeast.

2 FUSRAP materials was placed in Areas A, B and  
3 C. Areas B and C were once thought to be separate  
4 areas but were found to be one area during the  
5 Army Corps investigations conducted in 2001. Some  
6 of this material has become mixed with soil so  
7 nowadays it may be indistinguishable from soil.  
8 I can tell you that when we excavated the Ashland  
9 sites concentrated pockets of the material often  
10 looked like coffee grounds. Much of the material,  
11 especially in Areas B and C, has become mixed up  
12 with the material around it.

13 You can see, hopefully from this picture,  
14 that these areas don't have a final landfill cap  
15 and they aren't at the same elevation as the  
16 finished parts of the landfill. These areas were  
17 left this way on purpose until a remedy could be  
18 established. We also found out, during the 2001  
19 investigation that contamination in the vicinity  
20 of Areas B and C goes under some portions of the  
21 closed landfill.

22 Seaway Area D was remediated as part of  
23 Ashland 1. It's finished.

24 Seaway Northside and Southside. These areas  
25 were found during the remediation of Ashland 2 and

1 Ashland 1. Contamination was removed up to the  
2 property line but there were some remaining areas  
3 and these areas are being addressed under the  
4 Seaway Site. Some of this contamination is right  
5 at the center of the landfill. Next slide.

6 I'm going to show you a couple things with  
7 this slide. First, how the landfill is  
8 configured. There's a thick layer of clay soil at  
9 the bottom, greater than forty feet thick. This  
10 clay soil inhibits the vertical spread of  
11 contaminants. Also, around the base of the  
12 landfill, there is a cut-off wall to prevent  
13 lateral migration of contamination. Inside that  
14 wall is a pipe that collects liquid from the  
15 landfill materials so it doesn't pool and can be  
16 treated. So that's the first thing.

17 Secondly, the difference between inside and  
18 outside the leachate collection system. I'll talk  
19 a lot about this when I talk about the remedies.  
20 Material inside is essentially in the landfill and  
21 therefore afforded the protections of the  
22 landfill. Material outside is not. Material at  
23 Seaway Southside and Northside exists both inside  
24 and outside the cut off wall. They did not know  
25 it was there when they put the slurry wall in.



1 It's not actually part of the slurry wall. On the  
2 outside, you can see, this material is considered  
3 outside the leachate collection system and this  
4 portion is considered inside the leachate  
5 collection system. Next slide please.

6 The risks from Seaway Media. The soils,  
7 groundwater, surface water and air were examined  
8 as part of our investigations regarding the nature  
9 and extent of contamination from FUSRAP  
10 constituents. For soil, there are unacceptable  
11 risks for potential future use and they are  
12 radiological - radium, thorium and total uranium.  
13 The potential future use considered was an  
14 industrial worker for all these areas of exposure.  
15 For groundwater and surface water, FUSRAP material  
16 is not impacting these media. Modeling and  
17 sampling shows that these media will not be  
18 impacted in the next 1000 years. Air was also  
19 studied and no exceedences of guidelines are  
20 occurring or are predicted to occur.

21 This is a list of the standards that apply to  
22 Seaway and that we will need to meet. First, any  
23 remedy we must develop must be effective for 1000  
24 years. So, any remedy needs to be lasting. Also,  
25 for radiological contamination, the exposure

1 levels do not remain constant as the compounds  
2 decay. We look at all the years out to 1000 years  
3 and consider the maximum level of exposure. When  
4 we remove soils, the remaining level of Radium-226  
5 needs to be 5 picocuries per gram at the surface  
6 and 5 pico grams at the subsurface or less.

7 Surface soil is defined as about the top 6  
8 inches or the top 15 centimeters of soil. This  
9 surface and sub surface is how the regulation is  
10 defined and why we have two sets of clean-up  
11 numbers - you'll see them on the next slide.

12 The next regulation determines clean up  
13 levels for the other radionuclides at the site.  
14 They are calculated on an equivalent dose of the  
15 radium at 5 and 15. The last two regulations only  
16 apply when we leave material in place. We have to  
17 make sure that Radon flux is less than 20  
18 picocuries per grams per meter squared per second.  
19 Radon flux is a measure of the flow of radiation,  
20 in this case, coming from the ground.

21 Also, we have to make sure that the  
22 concentration of radiation in the air at or  
23 outside the site border is not increased by .5  
24 picocuries per meter.

25 Considering these regulations, cleanup goals

1 for contaminants of concerns were derived for an  
2 industrial worker and are showed here in  
3 picocuries per gram.

4 Background concentrations, that is, the  
5 levels of naturally occurring radiation, are shown  
6 in the first column. The average concentration  
7 for Area A, which is the highest level area at  
8 Seaway, are showing in the second column.

9 The radium cleanup goals in the last two  
10 columns come directly from the standard on the  
11 last slide. A benchmark dose, as I mentioned the  
12 next regulation on the last slide, is used to  
13 develop the Thorium and Uranium cleanup goals.  
14 This means the level of exposure for these numbers  
15 equals that for the 5 and 15 of Radium.

16 Okay, so, what does all that mean? How much  
17 radiation exposure is that? Exposure to radiation  
18 is measured in units called millirem. An average  
19 person receives exposure to 360 millirem per year.  
20 This is a theoretical tally for me: 28 from cosmic  
21 radiation, 46 from the ground, 40 from food and  
22 water, 200 from the air (that's radon gas), 5 I  
23 would receive from two trips on airplanes I would  
24 take this year (one to Florida and one to Texas).  
25 I received a mammogram; that resulted in 30

1 millirems of exposure, 1 from watching TV and 10  
2 from various other sources. It's a total of 360.  
3 These numbers come from the National Council on  
4 Radiation Protection.

5 You can also go to epa.gov and type  
6 'calculate your radiation dose' and you'll see  
7 something very similar to this table. Okay, so  
8 what is exposure like at Seaway? Currently,  
9 without any remedies, someone who would spend 3  
10 hours per day around Area A (again, our highest  
11 level), for 52 weeks, 3 hours a week for 52 weeks,  
12 would receive about 6 millirem of exposure. This  
13 amount of time is actually less than what people  
14 are out there right now.

15 If, theoretically, the Army Corps were to  
16 proceed with a containment or a capping remedy, an  
17 industrial worker (this is someone that spends 8  
18 hours a day at the site for 50 weeks per year  
19 based on 7 hours inside the building and 1 hour  
20 outside the building), their yearly exposure is  
21 less than 1 millirem.

22 Levels of contamination off the site would be  
23 much lower than either of these scenarios. To  
24 have exposure to radiation at Seaway, you need to  
25 have direct exposure to the materials.

1           This is a very brief introduction to these  
2           concepts. We have several fact sheets available  
3           outside the door, if you want to take them home  
4           and learn more about radiation.

5           I'm now going to get into the remedies we  
6           considered so here's a few things you need to know  
7           about before I go into those.

8           In 1992, a Waterfront Regional Master Plan  
9           was written to address future planning use of the  
10          Town of Tonawanda waterfront area. This plan  
11          concluded that the landfill, once closed, could be  
12          redeveloped and used for low-intensity  
13          recreational uses. This is consistent with the  
14          way other closed landfills are used across the  
15          country.

16          Due to the heavy presence of industrial land  
17          use around the Seaway landfill and uncertainties  
18          in future use regarding re-use of the entire  
19          property, the Army Corps also considered the  
20          possibility that portions of the site might be  
21          used for industrial purposes. So, both  
22          recreational and industrial scenarios were  
23          evaluated. The industrial worker scenarios is  
24          more conservative than the recreational user, in  
25          this case because the industrial worker receives

1 more exposure. All the alternatives are  
2 protective without further action from the  
3 property owner, however, the Army Corps will not  
4 close a landfill to its current standard or fill  
5 it in to uniform height.

6 Also, for all the alternatives, any impact of  
7 the closed landfill will be mitigated by restoring  
8 to the original design configuration that existed  
9 prior to re-remediation. Any FUSRAP material that  
10 has to be moved due to grading will be shipped off  
11 site for disposal. This table identifies the six  
12 alternatives that were considered in the  
13 Feasibility Study Addendum. Alternative 1 is No  
14 action. This is a do nothing alternative that is  
15 required by CERCLA as a baseline for our  
16 evaluations. Since we have determined that there  
17 is potential unacceptable risk at Seaway, this was  
18 not considered for implementation.

19 Alternative 2 is complete excavation.

20 Alternatives 3 and 5, these were Department  
21 of Energy alternatives for the 1993 Tonawanda site  
22 Feasibility Study and Proposed Plan. They  
23 involved consolidating waste into an engineered  
24 cell. These have been dropped from consideration.  
25 Material at Ashland and Linde, the other parts of

1 the Tonawanda site, have been or are in the  
2 process of being remediated under separate CERCLA  
3 actions and all waste is being shipped off site  
4 for disposal. Alternative 4 is partial  
5 excavation and Alternative 6 is containment, which  
6 is our preferred alternative.

7 So, of the 6 alternatives here, only 3 were  
8 considered by the Army Corps for implementation.  
9 Alternatives 2, 4 and 6.

10 Alternative 2 is complete excavation. Here  
11 we address soils by removal of all impacted soils  
12 with offsite disposal and backfill. The yellow  
13 color represents areas of excavation. After we  
14 would implement this alternative, no FUSRAP-  
15 related materials above cleanup levels would be  
16 left behind. That means that operation and  
17 maintenance of the remedy would not be necessary.  
18 We don't need land use controls or 5 five-year  
19 reviews after implementation.

20 Let me introduce those charts since I will be  
21 using them a lot in the next few slides.

22 Land use controls are put into place to  
23 prevent future access to and disturbance of the  
24 contained waste and can include things like deed  
25 restrictions. Five-year reviews evaluate any

1 changes in conditions at the site.

2 They review the cap itinerary (sic) and  
3 ensure that land use controls are being effective.  
4 The cost for this alternative is estimated to be  
5 113 million dollars, however, the actual cost may  
6 be higher, as I said, contamination around Areas  
7 B and C extends into the closed portion of the  
8 landfill but our limit of sampling ends at the  
9 hatch mark on the slide.

10 Notice here since it will differ for the  
11 other two alternatives that all material for  
12 Seaway Southside and Northside, inside and outside  
13 the leachate collection system is removed.

14 Here's the second alternative we considered,  
15 partial excavation. For this alternative, we  
16 remove accessible soils and contain or cap  
17 inaccessible soils. We define accessible as not  
18 buried under more than 10 feet of soil or refuse.  
19 Yellow is excavation, orange is containment. We  
20 looked at the site conditions to determine what  
21 was accessible. All of Area A is not deeply  
22 covered by landfill material. A portion of Areas  
23 B and C is not deeply covered, but this  
24 transitions up quickly up a very steep slope.  
25 FUSRAP material at the border of the landfill is



1 covered by 80 feet of other materials.

2 You can also see the yellow, meaning we would  
3 take material outside the leachate collection  
4 system for Seaway Northside and Southside. Since  
5 some material above the cleanup levels is left  
6 behind for this alternative, we need to monitor  
7 the remedy and maintain land use controls and do  
8 five-year reviews. The four feet of cover  
9 consists of multiple layers of various types of  
10 soil, fabric and geomembranes that are  
11 specifically engineered and layered to provide  
12 protection from the radiological contaminations.  
13 This alternative represents the best effort to get  
14 everything that is easily accessible and not under  
15 closed portions of the landfill. Even though the  
16 cost approaches that of alternative 2, since we  
17 have more finite limits, the cost is more  
18 established than alternative 2.

19 Containment is our preferred alternative.  
20 I'll explain how we selected it as our preferred  
21 alternative in the next few slides. In this  
22 alternative, we only remove contamination above  
23 the cleanup levels outside the containment system,  
24 you can just see very small yellow areas. We  
25 contain the soils inside the leachate collection

1 system under a minimum of 4 feet, again of various  
2 types of soil, fabric and geomembranes designed to  
3 provide protection. After this remedy is in  
4 place, we need to maintain the cap, maintain land  
5 use controls and conduct five-year reviews to see  
6 if anything at the site has changed. The cost for  
7 this alternative is 30 million dollars.

8 This slide explains what are the main  
9 components of the costs. All our estimates are in  
10 2007 dollars. You can see that transportation  
11 disposal which is the dark pink area is the major  
12 component of Alternatives 4 and 6. Facilities  
13 that accept low level waste are mostly in the  
14 Western United States so this material goes on a  
15 long trip and disposal costs are very high.

16 The major cost for containment is capping.  
17 Under containment, 18 acres of material would be  
18 capped. Only 4 acres are capped under Alternative  
19 4.

20 Okay, how did we choose the preferred  
21 alternative? CERCLA sets 9 criteria to evaluate  
22 alternatives and that's what we used.

23 The first two are Threshold Criteria. They  
24 are protection of human health and the environment  
25 and compliance with Federal and state

1 environmental regulations. If an alternative does  
2 not meet this criteria, it is not a viable  
3 alternative. This would be Alternative 1, it did  
4 not meet it. The 2, 4 and 6 did meet it.

5 Then there are five Balancing Criteria. Long  
6 term effectiveness and Permanence, short term  
7 effectiveness and Permanence, reduction in  
8 toxicity, mobility or volume through treatment,  
9 Implementability and cost. These are the ones  
10 that have been evaluated already. The two  
11 remaining criteria are Modifying Criteria. They  
12 are State acceptance and Community acceptance.  
13 This is where you come into the picture, this is  
14 why we are here tonight.

15 Okay, here we're going to compare the three  
16 alternatives that met the Threshold Criteria.

17 Long-Term Effectiveness and Permanence: all  
18 the alternatives provide long-term effectiveness  
19 and permanence as residues are in a waste control  
20 disposal facility. I point out this is a  
21 difference than the Ashland site. Treatment,  
22 there is little treatment for radioactive material  
23 of this nature, the only thing really is their  
24 minimal consolidation and volume. Short-Term  
25 Effectiveness: Opening closed portions of the

1 landfill creates risks to workers and the public  
2 (this condition is also different than Ashland's)  
3 as does excavation and transportation in general.  
4 Containment also has the shortest duration of  
5 construction, which is another factor considered  
6 with this criteria.

7 Complete excavation has the longest duration  
8 to complete.

9 Implementability: Complete excavation has a  
10 high degree of complexity due to the impacts to  
11 the closed portions of the landfill and removal of  
12 large amounts of soil covering FUSRAP-related  
13 materials. As I said, 80 feet towards the  
14 landfill, even more, as you get into the closed  
15 portion of the landfill.

16 Partial excavation has a medium degree of  
17 complexity due to excavation in close proximity to  
18 the closed landfill.

19 Containment is the easiest to implement.  
20 Excavation is limited to Seaway Northside and  
21 Seaway Southside and cost, 113 million compared  
22 with 80 compared with 30 and then the two criteria  
23 that have not been evaluated yet.

24 Let's talk a little bit more about  
25 containment. Remedial action will include FUSRAP-

1 related material within the landfill will be  
2 contained under a minimum of 4 feet of types of  
3 soil, fabric and geomembranes. Also, FUSRAP-  
4 related material outside the landfill will be  
5 excavated and shipped off site to achieve cleanup  
6 criteria.

7 After the remedy is in place, we will  
8 maintain the remedy, maintain land use controls  
9 and conduct five-year reviews to see if conditions  
10 at the site have changed. In summary, our  
11 preferred remedy is protective of human health and  
12 the environment now and in the future. We  
13 selected this alternative because it has a high  
14 degree of effectiveness and permanence. It's  
15 protected by the landfill design. It presents a  
16 lower risk to workers and the community during the  
17 remediation. It's much more cost effective than  
18 the other alternatives and it is the most easily  
19 implemented.

20 The assurances you have are: this alternative  
21 would include ensuring that land use controls  
22 required pursuant to NY regulations are in place  
23 to prevent future access and disturbance of the  
24 contained waste. Long-term surveillance and  
25 maintenance of the FUSRAP-related contamination

1 would be performed by the Federal government in  
2 accordance with a Land Use Control Plan that would  
3 be developed by the Army Corps during the  
4 completion of the record of decision. Monitoring  
5 of non-FUSRAP-related waste remains the  
6 responsibility of the property owner.

7 And, as required by CERCLA, implementation  
8 will include review of the site conditions and cap  
9 integrity every five years to ensure that land use  
10 controls are effective and that operations and  
11 maintenance are conducted in accordance with that  
12 plan.

13 Thank you for your attention tonight. Colonel  
14 Snead will take you through the rest of the  
15 presentation.

16 MR. SWEET: Do you have just a minute for a  
17 question?

18 LIEUTENANT COLONEL SNEAD: Sir, we, we will  
19 make sure that you ask your questions; if you  
20 could just bear with me for just a few more  
21 slides, I appreciate it, thank you. Thank you,  
22 Janna, as you can see here on the chart, we're at  
23 the midway point on the 60 day comment period and  
24 we will consider each comment received during this  
25 period, not just this evening.

1           The date of release for the record of  
2           decision will depend mainly on the number of  
3           comments that we receive from you all. The record  
4           of decision, currently, is scheduled to be  
5           completed in October of 2009. Of course, that can  
6           change, either earlier or later, depending on how  
7           many comments we do receive. And then we'll have  
8           a decision beyond that regarding the remedy.

9           And where do we go from there? We begin the  
10          remediation process. But to get there we would  
11          have to await funding to proceed. There is  
12          currently a number of ongoing remedial actions  
13          under the FUSRAP program that aren't covered just  
14          in the Buffalo district. There's a number of  
15          other districts nationwide that have sites just  
16          like this that are being remediated. So again, we  
17          will have to wait to see how the funding falls out  
18          on when we can actually start the remediation  
19          process. Next slide.

20          So, we've come to that piece at the end of  
21          our presentation here, I'll have just a few more  
22          slides to provide you some information, some  
23          ground rules and then we'll accept public  
24          comments. Next slide.

25          Just so you're aware, we do have a

1 stenographer. He's here to record our comments  
2 and that will be entered into the public record.  
3 I will ask that everyone be courteous, one person  
4 speaking at a time. When called upon or if you  
5 want to speak, please come to the microphone that  
6 we've provided right there. there's a podium right  
7 there. Please state your name and if you're  
8 affiliated with an agency or an organization  
9 please let us know who that is. I would ask you  
10 to please limit your remarks to about, to less  
11 than 5 minutes, that way we have an opportunity to  
12 hear everybody's comments. And please limit your  
13 comments to the Seaway site.

14 Understand there might be other concerns  
15 elsewhere but in most cases we might be able to  
16 address those issues. I will also say that we are  
17 committed to hearing your comments and we will  
18 stay here until everyone has a chance to speak  
19 this evening. We will first call upon those  
20 people who indicated on a sign in sheet they  
21 wanted to make a comment and then we will open the  
22 floor to others who wish to make comments. Next  
23 slide.

24 As I stated earlier, if you have written  
25 comments that you would like to make, there is our



1 address. If you would like to make a written  
2 comment via email, there is our email. And we do  
3 have folks at Buffalo District that check that  
4 daily to ensure that we get your comments. I just  
5 ask that if you do this, remember, you've got  
6 until October 27<sup>th</sup> to get that into us. Next  
7 slide.

8 As I stated earlier, we are required by the  
9 CERCLA process to ensure that all oral and written  
10 comments, we respond to all those. And once we  
11 receive the Proposed Plan after the public comment  
12 period has closed. When the responses are ready  
13 there will be made available at the administrative  
14 record file locations listed here at the Tonawanda  
15 Public Library and also through our headquarters  
16 in Buffalo. The administrative record file  
17 includes the documents the Corps will use to  
18 develop the preferred alternative and Proposed  
19 Plan for the site. I encourage you to obtain  
20 additional information about the site from those  
21 locations. Next slide.

22 Finally, if you would like any additional  
23 information there is our phone numbers, again our  
24 email and then our address and we also have  
25 additional information on our website in reference

1 to the program. So, we also have a limited number  
2 of copies, I believe, of the presentation we  
3 provided tonight if you'd like to get one. They  
4 are available at the sign in table when you leave  
5 and we will also place a copy of tonight's  
6 presentation up on the public website and the  
7 transcript will also be made available.

8 Without further ado, I will now open up the  
9 floor so Arleen, if you could, we'll start with  
10 the cards and then go from there.

11 ARLEEN KREUSCH: Supervisor for the Town of  
12 Tonawanda, Anthony Caruana, would you please come  
13 to the microphone.

14 ANTHONY CARUANA: Thank you, Colonel Snead  
15 and members of the Corps. Ladies and gentlemen,  
16 I am Anthony F. Caruana, Brigadier General, United  
17 States Army, retired supervisor of the Town of  
18 Tonawanda, also recipient of the silver order of  
19 the Fluery medal, Army Engineer Association for  
20 significant contributions to the Army Engineer, I  
21 mean Corps of Engineers.

22 Town of Tonawanda's position on this matter  
23 is the same it has always been, namely that the  
24 site should be remediated by removal of the  
25 Manhattan Engineering District and the Atomic

1 Energy Commission contaminants in order to protect  
2 the health, safety and welfare of our public.

3 This study confirms that the site constitutes  
4 a public health risk due to radioactive  
5 contaminants present in the soil. The best way to  
6 remedy the problem is removal, not through  
7 containment. While alternative 6 recommendations  
8 in your Proposal Plan is the most cost effective  
9 at 30 million dollars, it is not the safest.

10 Alternative 2 is the best alternative since  
11 it provides for complete evacuation and disposal  
12 at the cost of 113 million dollars. CERCLA's  
13 purpose was not to create remedies that are cost  
14 effective but to protect the public from the  
15 health danger created by hazardous materials on  
16 sites. Budgetary concerns should not be put  
17 before health concerns. These radioactive  
18 contaminants have been present in our town for  
19 over 60 years. If they had been removed when they  
20 were originally recognized years ago, the cost  
21 certainly would have been significantly less than  
22 it is now. Once again, however, budgetary  
23 concerns should not be put before public health  
24 concerns that could be recognized in the future as  
25 evidenced by your need for constant monitoring for

1 a 1000 years to come. Please consider our comments  
2 prior to making your final decision on  
3 recommendations for the Seaway site. We also  
4 reserve our right to make additional comments  
5 during the continuous public comment period which  
6 ends on October 27<sup>th</sup>. I thank you for the  
7 opportunity to speak tonight.

8 COURT RECORDER: Sir, how do you spell your  
9 last name?

10 ANTHONY CARUANA: C-A-R-U-A-N-A.

11 ARLEEN KREUSCH: Mr. Kenneth Swanekamp from  
12 the Tonawanda Planning Board.

13 KENNETH SWANEKAMP: Thank you. I just have  
14 some verbal comments. The Planning Board is going  
15 to be meeting next week and we'll have some more  
16 written comments at that time. And most of these  
17 comments are going to be directed towards land use  
18 at and around the site.

19 If you take a look at what has happened  
20 recently, after the Corps cleaned up Rattlesnake  
21 Creek, that area which had been undeveloped vacant  
22 land for decades has now seen incredible demand  
23 and development, very high quality industrial uses  
24 going on. The industrial park there is being  
25 expanded and that was because the remediation was

1 completed. The ability for this area of the town  
2 to grow as the master plan calls for, to be an  
3 area for job creation, industrial growth, this is  
4 going to be predicated on people being comfortable  
5 with the fact that it's completely clean, as  
6 Rattlesnake Creek was done and the development  
7 that followed. Regardless of how many picocuries  
8 you can document, the perception will be the  
9 reality. And if people feel that there is a  
10 health, even if it's a potential, that area is not  
11 going to be able to be developed on or nearby and  
12 that will be for a long time.

13 The other part of it is, the issue of land  
14 use controls are a challenge. They have not been  
15 effective over the last 40 years. To consider  
16 them effective for the next 1000 years is  
17 certainly a questionable position to take so as I  
18 said, the Planning Board will be meeting next  
19 week, we may have more comments but I think if you  
20 take a look at what has happened immediately  
21 adjacent to the site, just to the northeast, on  
22 the vacant property once it was cleaned up  
23 completely, the demand and development is there  
24 in that environment. It is really important for  
25 this to be done properly if the surrounding areas

1 are going to flourish in the future. And not just  
2 be empty areas like they have been for decades in  
3 the town. Thank you.

4 ARLEEN KREUSCH: Thank you. Mr. Phillip  
5 Sweet.

6 MR. PHILLIP SWEET: Good evening. My name is  
7 Phillip F. Sweet. I'm a resident of the Town of  
8 Tonawanda.

9 LIEUTENANT COLONEL SNEAD: Good evening.

10 MR. PHILLIP SWEET: I'm here to discuss the  
11 problems we have with -- the children in our  
12 community are at risk because of this landfill.  
13 Young lady, I wish you had brought up a map  
14 showing possibly the close proximity of Hackett  
15 Drive to the Tonawanda landfill and as a general  
16 comment, just so my five minutes is included  
17 later, The Town of Tonawanda, originally their  
18 plans was to establish a golf course and your  
19 criteria and your final review said that a golfer  
20 could only play 15 minutes a day on this landfill  
21 when it was completed and also part of the, part  
22 of the requirement was to have somebody, a runner,  
23 could only run a short distance and what's  
24 critical is how he breathed upon finalizing  
25 exercises, one little point.

1 This letter, this evening, is respectfully  
2 directed to Colonel Daniel Snead.

3 Dear Colonel Snead. Thank you for giving me  
4 the opportunity this evening to submit this letter  
5 and comments regarding the addendum related to the  
6 FUSRAP site located in the Town of Tonawanda. In  
7 direct relationship to the nuclear health risk  
8 dilemma facing Tonawanda is US Army regulation  
9 AR700-48 that requires the US Department of  
10 Defense to provide medical assistance to residents  
11 who are concerned of their health status and well-  
12 being. I am hoping that the Department of Army  
13 will begin to follow this regulation that will  
14 most assuredly enhance long term health  
15 considerations and public support. Sadly, the  
16 Army has ignored numerous requests for adoption  
17 and enactment of their own policy guidelines.

18 In addition, please allow me to please to  
19 enter into record the below information regarding  
20 AR700-48 and also the attached cure represents Dr.  
21 Rose Liber (Sic) health assessment informational  
22 program seminar given at Tonawanda High School on  
23 September 19, 2007. Dr. Bertell sends a message  
24 of critical radio nuclei educational and moral  
25 value that demands the adoption and enactment of

1 a human blood, urine, body fluid bio-monitoring  
2 program.

3 In addition, I would like to submit  
4 photographs for record. Violations of radio  
5 nuclei release at the landfill. These are  
6 documented, City of Tonawanda town records and  
7 with the school, the schools, City of Tonawanda  
8 School system. In addition, there is a photograph  
9 showing, that I took personally myself, showing  
10 radio nuclei release by Ensoil (sic)  
11 Corporation, I believe, direct radiation readings  
12 that I personally took, documented, asking for  
13 support from local officials to validate, and the  
14 readings are very high. It's in very close  
15 proximity to the Riverview Elementary School and  
16 the additional photographs show the landfill  
17 itself.

18 Sir, you need to endorse and sponsor the bio-  
19 monitoring, human bio-monitoring program,  
20 especially for the children. Thank you very much.

21 ARLEEN KREUSCH: Thank you, Mr. Sweet.

22 LIEUTENANT COLONEL SNEAD: Sir, can I just  
23 get some clarification? You made a comment, I  
24 think, just so I'm clear, Hackett Road? What's  
25 the connection?



1 MR. PHILLIP SWEET: Tonawanda, Tonawanda  
2 Landfill.

3 LIEUTENANT COLONEL SNEAD: You made a comment  
4 that Janna did not have a map up there, what's the  
5 connection with Hackett?

6 MR. PHILLIP SWEET: I would have liked to  
7 have seen a photograph given. A photograph  
8 submitted that shows the close proximity of the  
9 Riverview Elementary School.

10 LIEUTENANT COLONEL SNEAD: Okay.

11 MR. PHILLIP SWEET: And the residents --

12 LIEUTENANT COLONEL SNEAD: Sir --

13 MR. PHILLIP SWEET: Well, it's right in their  
14 backyard. I mean, you walk a few feet and you are  
15 in radioactive contamination. I mean, this is  
16 really serious stuff, this is not little stuff  
17 we're talking about, this is little children being  
18 administered to this dilemma.

19 ARLEEN KREUSCH: That is the Tonawanda  
20 landfill, though, that you are talking about.

21 MR. PHILLIP SWEET: Thank you very much.

22 LIEUTENANT COLONEL SNEAD: I'd also like to  
23 make just to, sir, just to clarify, now that  
24 you've addressed a certain Army regulation, 700-  
25 48, and I'll be honest with you, I'm not familiar

1 with that but I will make myself very familiar  
2 with it. Understand, I want to clarify to you  
3 that this site was not contaminated by the  
4 Department of the Army. It was a different  
5 Federal entity that contaminated. We've been  
6 passed it to figure out a remediation with it, but  
7 I'm just letting you know to make sure that you  
8 understand that the site was not contaminated by  
9 the Department of the Army.

10 MR. PHILLIP SWEET: It's the Army's  
11 responsibility, the Army initiated the Manhattan  
12 Project, it's up to the Army to make sure that  
13 residents, especially children, are secure in  
14 their environment. I mean, it's as simple as  
15 that. It's your waste, you put it there, it's up  
16 to you to take care of it. Thank you very much.

17 ARLEEN KREUSCH: Thank you, Mr. Sweet. Those  
18 are all the cards that I received tonight from  
19 people that were in the audience that requested to  
20 speak. If there is anyone else that has decided  
21 since seeing the presentation, that they would  
22 like to make a statement?

23 (No response.)

24 MS. KREUSCH: There are no other comments to  
25 go on record for the meeting tonight or any

1 questions or clarifications? Okay, thank you, I  
2 am going to turn this meeting back over to Colonel  
3 Snead for closure. Thank you.

4 LIEUTENANT COLONEL SNEAD: Again, I would  
5 just like to thank everybody for coming out this  
6 evening and providing those comments and again,  
7 just to reiterate, you have until 27 October if  
8 you would like to make any written comments and we  
9 have provided all that information for you so,  
10 again, thank you, and it was good to see everyone  
11 and have a wonderful evening. Thanks.

12 (Meeting concluded.)

US Army Corps of Engineers Seaway Site proposed plan

CERTIFICATE

I, [REDACTED], certify that the foregoing transcript of proceedings in the matter of Public Meeting Seaway Site Proposed plan, Information Session, was recorded utilizing a Sony BM\_246, and transcribed from same machine, and is a true and accurate record of the proceedings herein.

Signature [REDACTED]

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