

ORIGINAL

STATE OF IOWA
DEPARTMENT OF NATURAL RESOURCES

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IN RE: :
: :
Lehigh Portland Cement :
Company Site, : Public Hearing
: :
Mason City, Iowa :
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Auditorium
Mason City Public Library
225 Second Street SE
Mason City, Iowa
Wednesday, June 5, 1991

The above-entitled matter came on for hearing
at 6:10 p.m.

BEFORE: ROBERT DRUSTRUP, Presiding



KELLI M. MULCAHY - CERTIFIED SHORTHAND REPORTER

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STATEMENT OF

PAGE

Tracy Rector

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Paul Roemeran

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P R O C E E D I N G S

1
2 MR. DRUSTRUP: I guess we'll get started
3 here. I'd like to welcome you all here. I'm Bob
4 Drustrup with the Iowa Department of Natural
5 Resources. We're here to talk about the Lehigh
6 Portland Cement Company Superfund site and the
7 proposed remedial work for that site. Most of you
8 here probably know everybody else. There's not too
9 many strange faces here.

10 Also, from the DNR we have here Tracy
11 Rector, who is a project manager for the site, and
12 Tracy will be giving a little presentation about
13 what's going on at the site. We have from the DNR
14 also representatives from our field office in Mason
15 City, Bill Jinkinson and Jeff Vansteenburgh.

16 We have two representatives from the EPA.
17 We have Paul Roemerman and Jan-- I forgot your last
18 name.

19 MS. LANDON: Landon.

20 MR. DRUSTRUP: Landon. I should have
21 remembered that. We have a guy in the office named
22 that.

23 At any rate, Tracy will be giving a brief
24 presentation about what's gone on at the Lehigh
25 site, a little background about the Superfund

1 program.

2 The basic purpose for this meeting is to
3 give the public opportunity to ask questions about
4 what's going on at the site, and I'd like to point
5 out that we have a court recorder here who is
6 recording this entire meeting, and if you have any
7 questions or speak, would you please let her know
8 what your name is before you talk, and then she can
9 have that for the record.

10 So with that, I guess I'll let Tracy start
11 off and give her presentation.

12 MS. RECTOR: I hope you can all hear me. I
13 can speak up a little bit if you need me to. It's
14 going to be a little bit impossible to run this and
15 talk into a microphone.

16 As Bob Drustrup mentioned, the purpose of
17 this meeting is under the Superfund program it's
18 required that the public is notified and made aware
19 of the proposed remedial plan that a Superfund site
20 has, in this case, Lehigh Portland Cement, so we're
21 here tonight to give you an overview of their
22 proposed plan. We are in agreement, as is the
23 federal EPA, with their proposed remedial plan.

24 I'll also be discussing some remedial
25 activity that's proposed for Lime Creek Nature

1 Center, and just to mention, Fred Heinz is here, who
2 is an employee of Cerro Gordo County and works
3 for--is director of the nature center, I believe.

4 Is that correct?

5 MR. HEINZ: Correct.

6 MS. SPECTOR: He is in charge there, so if
7 you have any questions on that specific site, he's
8 here for that purpose.

9 With that, I'll just get started. I don't
10 mind being informal about this. If you want to ask
11 me something as we go, you can. Otherwise, we'll
12 allow plenty of time afterwards for
13 question-and-answer, comments, whatever.

14 Through the Superfund process, part of
15 Lehigh's responsibility was to investigate this site
16 and come up with remedial alternatives to take care
17 of the contamination problem that has been
18 discovered on their site, so this is the plan for
19 doing that. Again, it's in conjunction with both
20 state and federal EPA. We have both agreed on their
21 proposal.

22 A little bit of background on Superfund--
23 If you're really interested, there is more
24 information out in front of the auditorium on that,
25 and there's a representative here from the EPA to

1 answer some more of your questions--but Superfund
2 got started through some legislation known as
3 CERCLA, which required action on any abandoned or
4 uncontrolled sites. There is separate legislation
5 to control active facilities, but this was passed to
6 take care of sites that were abandoned and
7 uncontrolled.

8 Superfund was a fund created, and it was
9 funded through private means, tax on chemicals and
10 petroleum mainly, to clean up sites where we
11 couldn't find the responsible party to clean them
12 up. Each site is ranked before it goes on to
13 Superfund to a hazard ranking system, and that was
14 done at Lehigh in 1987 by contract for the EPA
15 called Ecology and Environment.

16 The NPL are the sites that are eligible for
17 Superfund clean-up money. NPL means national
18 priorities list. Lehigh was proposed for the NPL in
19 1988, I believe, and was made a final site just last
20 August, I believe, NPL site.

21 PRP's are the people responsible for the
22 contamination at the site. These are the parties
23 that are encouraged to fund the clean-up effort.

24 What we've done up to this point has been
25 called the RIFS. It's remedial investigation

1 feasibility study. That's a major step in the whole
2 Superfund process, and that's what Lehigh has just
3 completed.

4 We're working up to a record of decision or
5 ROD, which will be the final decision of the remedy
6 for the site, and finally, to begin some remedial
7 activity on the site, RDRA. This remedial design,
8 remedial construction, the actual clean-up process,
9 will begin as soon as we get through presenting the
10 proposed plan and reaching a decision.

11 Due to the logistics of this room, this
12 slide isn't very clear. This is an aerial view of
13 the site. Highway 65 is running through the center
14 of the slide. It's kind of impossible for me to
15 point and talk, so I'm going to go right over this,
16 because it's not very clear. Those of you in the
17 room are pretty familiar with the site anyway, I
18 would guess.

19 Mason City is the south part of your
20 slide. Lehigh is north and on the west side of
21 Highway 65. Lime Creek Nature Center is on the
22 eastern side of Highway 65.

23 Again, unfortunately, the logistics prevent
24 that slide from being closer to you.

25 Let me give you a little bit of background

1 about the Lehigh site. Lehigh is a portland cement
2 company. My understanding is it's been in operation
3 since 1911. Correct me if I'm wrong.

4 Cement kiln dust is the contaminant we're
5 talking about tonight. It's a byproduct of portland
6 cement manufacturing. My understanding is that in
7 1969, the industry requirements changed on what
8 components were allowed in portland cement
9 manufacture.

10 Before 1969, companies were allowed to put
11 most of this dust right back into the operation of
12 making portland cement. Well, this dust is a very
13 alkaline dust. It has a high pH when it mixes with
14 water, and right around that time, people said
15 that's not good for cement, it's too alkaline, so it
16 had to be wasted somehow, so the dust was dumped, in
17 Lehigh's case, in large quantities in abandoned
18 quarries on their site and in addition at the Lime
19 Creek Nature Center.

20 As I mentioned, this dust, cement kiln
21 dust, CKD, is highly alkaline when it comes in
22 contact with water. It does also contain some trace
23 amounts of metals.

24 This particular site was discovered in 1981
25 through some routine investigations, and it was

1 found that the pH levels in Blue Waters Pond were
2 high, high levels, higher than normal range and
3 higher than background for this particular area.

4 In 1984, the State, through the hygienic
5 laboratory, did a fairly comprehensive study of
6 Calmus Creek. There had been some problems in
7 Calmus Creek. There had been some blow-out areas
8 where seepage had gone into the creek, and Lehigh--
9 And I would like to mention Northwestern States was
10 also responsible for some water quality problems at
11 Calmus Creek. This was documented in a 1984 study.

12 Also, it was studied again by the EPA in
13 1989. It was found out that the water quality in
14 Calmus Creek had improved some, but as is the
15 current problem now, there has been a lot of
16 rainfall in this area, and there is still an
17 overflow problem from Blue Waters Pond into Calmus
18 creek.

19 Lehigh was proposed for Superfund study in
20 '87 and proposed for Superfund in 1988, and that
21 brings us about up to date. Again, the main problem
22 with the site is high pH, high total dissolved
23 solids in the water.

24 This shows you the plant investigation
25 area, some of the ponds that we're talking about.

1 Again, most of you are probably pretty familiar with
2 this, the Blue Waters Pond that's responsible for
3 the discharge in the Calmus Creek, some of the other
4 site ponds.

5 Arch Pond has had the highest pH levels.
6 Arch Pond has had pH over 13 on several different
7 occasions. Regulated-- A regulated hazardous waste
8 is considered 12.5 pH units. It's considered an
9 RCRA or RCRA corrosive hazardous waste, so it
10 becomes a regulated concern at that point. It is
11 also considered a problem with high pH at lower
12 levels than 12.5.

13 There is an area to the north of the Lehigh
14 plant called the CKD Reclamation Area, where a lot
15 of this dust has been placed and covered, and
16 probably some seepage from this area is getting into
17 Arch Pond and other places and causing a higher pH
18 level.

19 There is some dust sitting in Area C Pond
20 right now that is actually in contact with water.
21 Cooling Waters Pond is not part of this
22 investigation.

23 This is going to be a little hard to see
24 for some of you sitting way in the back, but this
25 just shows-- Lehigh was--had sampled the site four

1 different occasions, and this slide shows you the
2 July 1990 water quality results for pH and specific
3 conductance, and you can see if you look to the very
4 left of the slide, the pH in Arch Pond at that time
5 was 13.2. The pH in the other ponds was right
6 around 12, and these results were typical of the
7 investigation that was done as part of the remedial
8 phase.

9 There were several monitoring wells
10 installed on the Lehigh property, and the monitoring
11 wells were put in to find out what effects this pH
12 water was having on the groundwater in the area, and
13 you can see there's monitoring well--that's
14 monitoring well 9. That was the most impacted well
15 throughout the study.

16 The pH this particular month was 11.4, so
17 consistently throughout the study the higher pH
18 levels were always found in surface water analysis.
19 The pH dropped off a little bit lower when you got
20 into the shallow groundwater. We did not find much
21 of an impact or only a slight impact in our deeper
22 monitoring wells.

23 TDS is a measure of total dissolved
24 solids. Total dissolved solids is an important
25 water quality parameter because it gives you an

1 indication of what types of material are in your
2 water.

3 It also has affected the aquatic life in
4 Calmus Creek. If you have a higher total dissolved
5 solids, you're getting a sediment, and that has
6 happened repeatedly in Calmus Creek, and it affects
7 aquatic life and affects the fish populations.

8 It's more of an aesthetic concern than
9 potential physiological concern when you're talking
10 about humans, but again, higher total dissolved
11 solids usually means lower water quality, so you can
12 see here--this was taken from the October sampling
13 results--that the total dissolved solids in Arch
14 Pond was up around 25,000.

15 Now, that varied quite a bit, but it was
16 always quite high in Arch Pond. It was 6,000 in the
17 other two site ponds, and again, monitoring well 9
18 seemed to be the most impacted throughout the study,
19 and its total dissolved solids level was 6,300.

20 Now, again, this in itself is not a major,
21 major health concern. It's just more of an
22 indicator of the overall water quality for the site,
23 and the water quality has been definitely adversely
24 affected here.

25 This slide is to give you a feel for

1 shallow groundwater flow. This was taken from
2 October 1990 results again, and it's pretty easy to
3 understand the shallow groundwater flow if you
4 realize that just below the site is Calmus Creek,
5 and then about a mile east of the site is the
6 Winnebago River, so the groundwater is going to be
7 flowing either toward the creek or to the river, and
8 that was the case, as these arrows indicate on the
9 slide, and we found that pretty typical throughout
10 the study.

11 Another important consideration is the
12 location of the drinking water wells for the
13 municipal Mason City water supply and any drinking
14 water supply wells for private populations.

15 If you see where the plant area is, in
16 relation to the plant area north, there are some
17 domestic wells located to the north. These were not
18 sampled as part of the study. They had been sampled
19 by E & E in 1987.

20 We did find, though, the northernmost well
21 on the Lehigh property--it's kind of hard to
22 see--which was up in the very tip of that triangle
23 area--it was monitoring well 7--was generally pretty
24 well unaffected water quality on the site. It had
25 some of the lowest pH values. It did not show

1 metal. It did not show high total dissolved solids,
2 so we feel pretty confident that there is no impact
3 on the domestic wells north of this area.

4 Municipal water supply wells are not in
5 writing, but they're represented by that dot as the
6 northernmost well. The first well location is
7 there, and the others go south and a little bit
8 east. Someone from Mason City can be a little more
9 precise about it than I can.

10 These wells are developed in a lot deeper
11 aquifer than we believe the contamination is
12 actually occurring in. The flow patterns would
13 indicate that the higher pH water is probably
14 flowing in this direction, but it's in a shallower
15 layer of geology than what these particular drinking
16 water wells are developing, so because of that, we
17 do not feel at this time there is any threat to the
18 water supply of the Mason City area.

19 The Lime Creek Nature Center, which I'll
20 discuss in a couple minutes, has a drinking water
21 well, and we sampled that well as part of our
22 investigation. We had Lehigh sample the well, and
23 that was basically unaffected also. It did not have
24 high pH values, did not have high total dissolved
25 solids, did not show any impacted metals, so that

1 well was coming up clean.

2 All right. Lehigh proposed five remedial
3 alternative actions, and I want to cover those as
4 far as presentation briefly and then tell you about
5 the one that was selected.

6 The first one was no action. Obviously,
7 nothing would be done other than what's currently
8 being done. The cost would be considerably lower
9 than the other alternatives.

10 The second alternative was to drain the
11 ponds on their site and treat the pond water for
12 high pH utilizing some sort of an acid treatment
13 system.

14 As they're pumping out the pond water,
15 there's a good chance that a lot of the shallow
16 groundwater will also be collected and treated, so
17 this alternative provides for a treatment of the
18 site pond water and the shallow groundwater, to some
19 extent.

20 Also, they would be monitored. The pH
21 levels and other water quality parameters would be
22 monitored on the site, and this particular cost in
23 terms of present dollars would be about 1 1/2
24 million.

25 The third alternative that was presented

1 was isolating the cement kiln dust and then capping
2 it. This alternative includes everything I just
3 mentioned in alternative 2 plus the following
4 activities--- There are some deposits of cement kiln
5 dust on the Lehigh site, as well as Lime Creek
6 Nature Center. For now we're just talking about the
7 Lehigh site.

8 There are some deposits in the Area C Pond,
9 and there is believed to be some possibly in the
10 sediment of the Blue Waters Pond and Arch Pond.

11 There is also a CKD Reclamation Area.

12 The site ponds would be consolidated. All
13 the dust would be consolidated and then capped,
14 obviously, after the ponds have been drained, and
15 then the CKD Reclamation Area would also be capped.

16 This cap would be in compliance with state
17 landfill requirements. It would be an engineered
18 clay or other type of material cap with a cover on
19 top of the cap, and this, again, would be
20 monitored. Present worth cost, again, as an
21 estimate, would be about 3.4 million.

22 Another alternative that was presented was
23 waste stabilization. This is real similar to the
24 third alternative. It includes draining ponds,
25 treating the water for high pH. Also, it would

1 include consolidating the cement dust material, but
2 this time, instead of simply capping the material,
3 the waste would be stabilized using some sort of a
4 polymer or a binder, or portland cement, perhaps,
5 something to make it immobile, turn it into a solid
6 mass.

7 The cost of this-- And again, the site
8 would be monitored. The cost of this would be
9 around 25 million, roughly, in terms of present-
10 worth dollars.

11 The fifth alternative was to develop an
12 on-site landfill to manage this cement kiln dust,
13 very similar to the second and third alternatives.
14 In fact, you can just follow the same process; drain
15 the ponds, collect the water, treat it for high pH.
16 This time, though, the dust on site would
17 be excavated, be removed, and hauled to a separate
18 site, separate landfill, so it would require a
19 little more engineering design to create the
20 landfill and to close it, and things like that.

21 Again, it would be monitored and
22 maintained. Present-worth cost of this alternative,
23 approximately \$19 million.

24 Most of you know what was selected,
25 remedial alternative 3, which was the consolidation

1 and capping of the cement kiln dust. Site pond
2 water would be drained, and, again, it's believed
3 that we'd also be able to collect a lot of the
4 shallow groundwater and treat that for pH at the
5 same time of doing this.

6 An acid treatment system, discharge permit
7 to either Calmus Creek or the Winnebago River would
8 be required here. The dust that's in Area C, any
9 dust in the other two ponds would be consolidated
10 and capped, and the CKD Reclamation Area would also
11 be capped.

12 What was the rationale for the selection?
13 In the Superfund process, there are two overriding
14 criteria, and that is protection of human health and
15 the environment and complying with applicable
16 regulations and requirements. We felt that this
17 alternative was the best one as far as complying
18 with the regulations and protecting human health as
19 well as the environment, and it was lower cost than
20 either alternative 4 or 5.

21 The first two alternatives did nothing to
22 take care of the problem of any further leakage or
23 seepage that might be coming through the reclamation
24 area. We feel like that's a very significant
25 problem and quite possibly the cause of the high pH

1 levels in the site ponds, and remedial alternatives
2 1 and 2 did not address that.

3 Remedial alternatives 4 and 5, waste
4 stabilization, is a rather difficult technology to
5 implement. It has-- It's not as certain as other
6 technologies available, and creating an on-site
7 landfill, in our opinion, was unnecessary, and it
8 would amount to just moving the waste from one point
9 to the other, which we would like to avoid that if
10 we can. That was our rationale for selecting that
11 alternative.

12 I want to discuss for a few minutes what's
13 going to happen at the Lime Creek Nature Center.
14 First, I need to give you some background on this
15 site. This was not part of Lehigh's remedial
16 investigation area. The area that I showed you--
17 The area that I showed you in this slide was what
18 they were required to study as part of their
19 remedial investigation and feasibility study.

20 Lime Creek Nature Center was a voluntary
21 study that Lehigh agreed to, and this area is east
22 of Lehigh's property--excuse me--site, east of
23 Highway 65, and it's bounded by the Winnebago
24 River. I'm sure everyone that's from Mason City
25 knows what I'm talking about.

1 There are some rather large quantities of
2 the cement kiln dust that have been deposited in the
3 abandoned quarries in the Lime Creek Nature Center.
4 There is a pond--and I'll show you in a slide in a
5 minute--on site. It's actually-- The pond has kind
6 of an eastern and a western section. The western
7 section of the pond is in contact with a fairly
8 large area of cement kiln dust. It's like a small
9 hill of dust.

10 There's another area in the Lime Creek
11 Nature Center known as Badlands, which is a public
12 access nature trail, and it contains a very large
13 quantity of cement kiln dust.

14 For the record, both Lehigh and
15 Northwestern States donated parcels of this land to
16 the county, which eventually led to the development
17 of the nature center sometime in the late 1970's.
18 I'm not sure of the exact year. I believe it was
19 '79.

20 Is that right?

21 MR. BLUM: '79 to '83.

22 MS. RECTOR: This slide is intended to show
23 you what we're talking about. It's really not a
24 very good slide, particularly for you in the back
25 row. This area that I'm kind of roughly pointing

1 out is what I call the Badlands area. This is all--
2 The upper part of this slide is all the Lime Creek
3 Nature Center.

4 Let's see if we can get to another slide.

5 This shows you a little bit better. This
6 was the Lehigh plant study area, all this area was
7 Lime Creek that they investigated. They put in four
8 monitoring wells, and they took several samples of
9 this dust.

10 The quarry lake that I mentioned is right
11 there. The pH levels in the quarry lake were
12 significantly lower than what we found on the Lehigh
13 property ponds. We'd seen pH of over 13 on the
14 Lehigh site. Here it was somewhere between 8 and
15 9.

16 The highest I'd ever seen it was during a
17 field measurement when it was like 9.6 or
18 something. The lab measurements were down to 8.3.
19 This is not nearly as elevated as the other site
20 ponds we were looking at.

21 The only monitoring well that was really
22 impacted was monitoring well 14, which was put in on
23 the western side--excuse me--on the eastern side of
24 the nature area, and this was in the Badlands area,
25 and that showed a pH of around 10 fairly

1 consistently.

2 The other wells were really not impacted to
3 any degree, and as I mentioned, the nature center
4 has a drinking water well right there, and this well
5 was basically not impacted in any of the parameters
6 that we looked at.

7 This slide shows you the pH levels and the
8 specific conductance of one of the sampling rounds,
9 the first sampling round, I believe.

10 Again, just to put on-- I've mentioned
11 some of these points. The western section or half,
12 if you will, of this quarry pond that's at Lime
13 Creek is in contact with cement kiln dust, and the
14 pH levels fall about roughly in that range.

15 The eastern half of this quarry pond is in
16 very good shape. It has normal water
17 quality--roughly normal water quality, good aquatic
18 life, good fish population.

19 The monitoring well in the Badlands area
20 was really the only well that showed an elevated pH
21 level. The pH and the total dissolved solids were
22 lower than what we saw at the Lehigh site. Again,
23 no effect on drinking water quality in the well that
24 was at the nature center.

25 The main problem that we have here is that

1 we just have large amounts of cement kiln dust.
2 It's low toxicity, but we have a very large volume
3 of it.

4 Again, Lehigh came forward voluntarily to
5 perform this--excuse me--perform this investigation,
6 and they've also come forward voluntarily and
7 proposed a remedial plan for this site, which the
8 Department of Natural Resources and the EPA is in
9 agreement with this proposal, as well as for the
10 Lehigh site.

11 What they propose to do is drain the
12 affected half of the quarry pond by installing a
13 dam, removing the dust from this pond area, and
14 disposing of it in an abandoned quarry that's just a
15 little bit east of the ponds.

16 By doing this, then we could preserve the
17 aesthetic quality of the pond. We could let the
18 pond refill, and we wouldn't have to drain the pond
19 and have it just dry up. The CKD that's been dumped
20 in this abandoned quarry would be graded and then
21 capped.

22 The Badlands area, again, would be
23 consolidated and capped as they are proposing to do
24 with the dust on their own site. This area would as
25 well be monitored and maintained.

1 Let's just take a look at that. Here's
2 where they would dam up quarry pond. The eastern
3 portion would be the part that's drained. There is
4 an abandoned quarry approximately at this location.
5 It's probably 10 or 15 feet below the surface, and
6 the limestone is right at the surface, as is the
7 case throughout this site. This would be filled up
8 with cement kiln dust, graded, and capped, and it
9 would, again, have to meet state landfill
10 requirements.

11 The area of the Badlands contains very
12 large quantities of cement kiln dust. This would be
13 consolidated and capped as well.

14 That's the end of my formal presentation.
15 I wanted to just go over a few things as far as what
16 to expect next.

17 Public comment period for this site will
18 end June 19, unless someone were to request an
19 extension. We anticipate a record of decision
20 reached by June 30th, and the next three steps are
21 just estimates. Then we'd begin negotiations for
22 the remedial work, the remedial design and remedial
23 construction where Lehigh would actually begin to
24 implement what I just presented to you.
25 If there are those of you interested in

1 furthering your education, there is an
2 administrative record for this site on file here at
3 the Mason City Public Library and in Des Moines in
4 the Iowa Department of Natural Resources' main
5 office in the Wallace Building.

6 Our public affairs person assigned to the
7 site is a man by the name of Gene Bateman, who could
8 not be here tonight, but I put his phone number on
9 the slide if you have any further questions.

10 And finally, I put my name and address up
11 there. If you have any written comments that you
12 would like to go into the public record, all written
13 comments will be included in the public record as
14 part of a response of this summary which goes along
15 with the record of decision, so if you do have
16 something you'd like to include, just put it on
17 paper and send it to me.

18 With that, I'll open it up for any
19 questions that anyone has or any particular comments
20 they'd like to make.

21 MR. DRUSTRUP: Tracy, let's give Paul a
22 chance.

23 MS. RECTOR: Oh, I'm sorry. Paul Roerman
24 from the EPA would like to start off with the first
25 comments.

1 MR. ROEMERMAN: I just want to say I'm Paul
2 Roemerman from the EPA. I'm here representing
3 Maurice Kay, the regional administrator for region 7
4 for the EPA. He has been briefed on the proposed
5 plan, and EPA is in agreement with the proposed
6 plan, but we are here to solicit public comment
7 before the ROD is signed. That's one of the nine
8 criteria that Tracy mentioned that have to be
9 evaluated before the proposed plan can be accepted.

10 Thank you.

11 MR. DRUSTRUP: I'd also like to mention--I
12 forgot to introduce him--we have Brad Cudal, with
13 the Iowa Department of Health, and he is associated
14 with the--let's see if I can get this right--Agency
15 of Toxic and Substance Disease Registry. It's a
16 federal agency associated with EPA, who--this
17 particular group does health assessments on all
18 Superfund sites, so Brad has been involved in the
19 health assessment for the Lehigh site, and we also
20 have representatives here from Lehigh, of course,
21 and their consultant who has developed this plan.

22 With that, any other questions from the
23 audience here? We've got lots of people here that
24 are familiar with many aspects--all aspects of the
25 site, so it's a good chance to ask questions.

1 Yes.

2 MR. McMAHON: Does the current situation
3 pose any threat to human health if unabated--if left
4 unabated?

5 MS. RECTOR: The main threat would occur if
6 a person were to trespass onto Lehigh's property and
7 fall or come in contact with any of the site ponds
8 such as, say, Arch Pond--

9 MR. DRUSTRUP: In particular.

10 MS. RECTOR: --In particular, yeah.

11 MR. McMAHON: What would that feel like?
12 Would that feel like falling into vinegar?

13 MS. RECTOR: Well, it's highly corrosive
14 pH. Anything over 12.5 is highly corrosive.
15 Something lower than that could be very corrosive
16 depending on, you know, what your skin can handle.

17 PH is based on a logarithmic scale, so an
18 increase of 1 pH unit is a very drastic increase in
19 alkalinity. Some people might be affected by a pH
20 of 10 or 11. It could be like a bad skin irritant,
21 but it would be corrosive at 12.5 or above.

22 MR. McMAHON: Is there any evidence that
23 that has occurred, that anyone has been injured by
24 coming in contact with quarry waters on the
25 property?

1 MS. RECTOR: Not that I'm aware of.

2 MR. DRUSTRUP: Brad, would you have
3 anything to add about pH effects?

4 MR. CUDAL: Well, she already explained
5 it. As far as the data that I have reviewed that
6 was taken at this site, it's unlikely at the present
7 time because it's all on site. It's not migrating
8 off site, so I feel that of those things presented
9 by Tracy, the pH is the most important thing that's
10 being handled right now, and it's the pH that is
11 more likely to give any public health implication on
12 this site.

13 Like she said, the pH about 11, or even
14 lower than that if you have certain conditions--you
15 are predisposed to certain dermatologic conditions,
16 it might be, you know, worsened if you stay in the
17 water for a longer period of time, but if the pH is
18 12.5, it's corrosive. It's just like an acid.

19 MR. McMAHON: You have no evidence that
20 anyone's ever been injured or become ill because of
21 this situation?

22 MR. CUDAL: As far as I know, checking with
23 the sanitation in the area and with the health
24 department in the local area, we haven't gotten any
25 complaints.

need to include?

1 MR. McMAHON: Okay. What has been the
2 effect on Calmus Creek to date? Is that a dead
3 creek, or how badly has the stream life been
4 affected?

5 MS. RECTOR: Well, my understanding--I'll
6 probably refer this to a representative from our
7 field office. They've seen it on more of a
8 day-to-day basis than I have--there has been a
9 substantial discharge into Calmus Creek.

10 The creek flow rates right now are quite a
11 bit higher also, due to the amount of precipitation
12 that's been occurring up here, so that will dilute
13 the effect of the discharge, but there has been a
14 substantial discharge from Blue Waters Pond as it's
15 overflowed its banks, gotten into a storm sewer, and
16 the storm sewer discharges into the creek.

17 As far as the effects on aquatic life, I'm
18 sure it's having an adverse effect on aquatic life
19 and fish population. It may not necessarily be
20 killing fish, but they are going to avoid that
21 area. They are going to find another place to
22 live.

23 I might let Jeff or Bill comment on that.

24 MR. VANSTEENBURG: Well, in 1984 when the
25 University of Iowa hygienic laboratory did a study--

1 which at that time I was with the laboratory and was
2 involved. I was one of the investigators--we
3 definitely documented an impact on the invertebrate
4 life.

5 Fisheries people were brought in. There
6 was an impact on the fisheries community as well as
7 the attached animal community to serve as a basis
8 for the food chain.

9 Since that time, there has been efforts to
10 reduce the discharges to the stream, so water
11 quality has improved, and no doubt the biological
12 community has improved, but there have been periodic
13 releases.

14 Most recently we documented last month
15 where there was an elevated pH, and you would have
16 avoidance by fish, and if it was allowed to continue
17 would eventually impact in the invertebrate
18 community as well as the animal community.

19 I would say yes, at this time it is
20 probably not still attaining its natural state,
21 fishable, swimmable criteria that EPA has
22 established.

23 As of 5 o'clock today, there was still a
24 small discharge from Blue Waters Pond to the storm
25 sewer which eventually leads to Calmus Creek.

1 MR. McMAHON: Such discharges even occur
2 during the drought year?

3 MR. VANSTEENBURG: No. At that time, I
4 think, the efforts by Lehigh--they were pumping the
5 ponds, moving water back designated as Area C, were
6 keeping the levels down, so there was not a
7 discharge that we documented anyway during the
8 drought year. The problems have come since the
9 rains have returned.

10 MR. McMAHON: Any evidence of an effect or
11 degradation of Winnebago River waters?

12 MR. VANSTEENBURG: I can't give you the
13 exact date, but when we had a--there is a diversion
14 channel that diverts storm water runoff of Highway
15 65, and it runs down on the east side of Blue Waters
16 Pond and discharges in the storm sewer. That
17 particular dike failed. I think it was in April.

18 Anyway, at that time, we had a considerable
19 discharge, and we did, doing upstream and downstream
20 sampling on the Winnebago River, notice an increase
21 in pH at the 12th Street Northeast bridge. The
22 exact increase in pH I can't recall, but there was
23 enough of a change that there was a detectable
24 elevation. The pH elevation did not exceed the Iowa
25 water quality criteria standards, though.

1 MR. McMAHON: When was this again?

2 MR. VANSTEENBURG: I don't know the exact
3 date. It would have been last month, I think.

4 MR. McMAHON: This spring, though?

5 MR. VANSTEENBURG: Yeah.

6 MR. McMAHON: How much of this waste dust
7 is on the property at Lehigh and Lime Creek? How
8 much material are you talking about? Any idea?

9 MR. HEINZ: I don't have any idea.

10 MS. RECTOR: We've estimated it probably--
11 the two sites combined probably a million tons or
12 more.

13 MR. McMAHON: That's a little hard to
14 visualize.

15 MS. RECTOR: Maybe acres would be more
16 helpful.

17 MR. McMAHON: Acres and depth.

18 MS. RECTOR: Well, the Badlands area of
19 Lime Creek has the largest deposit of this dust, and
20 that's probably about a 40-acre area, wouldn't you
21 say?

22 MR. DRUSTRUP: In the ballpark, I guess.

23 Does anybody else have an estimate? What
24 would you folks say?

25 MR. BLUM: 400,000 cubic yards in the

1 Badlands.

2 MS. RECTOR: Okay.

3 MR. DRUSTRUP: It's what, 5, 6 foot deep?

4 Not even that much? Three-quarters would be--

5 MS. RECTOR: It's a foot in some places.

6 MR. DRUSTRUP: It's variable?

7 MR. BLUM: Not as deep as Tracy is tall.

8 MR. DRUSTRUP: Less than 7 foot deep.

9 MR. McMAHON: 4 to 5 feet deep?

10 MR. DRUSTRUP: Probably--

11 MS. RECTOR: It ranges between, say, 1 to 5
12 feet, depending on where you are.

13 MR. McMAHON: Okay. That's the largest
14 area?

15 MS. RECTOR: Yeah.

16 MR. McMAHON: Would the rest of them add up
17 to about the same?

18 MS. RECTOR: We really don't know how much
19 is in the Lehigh site, the CKD Reclamation Area.
20 It's quite a large volume of material.

21 MR. McMAHON: How long has it been dumped
22 there? Decades?

23 MS. RECTOR: Probably.

24 MR. DRUSTRUP: Since '69, so--

25 MR. McMAHON: Since 1969?

1 MR. DRUSTRUP: Up until what, '84, '85?

2 MR. BLUM: I think some of the material was
3 deposited in the fifties.

4 MS. RECTOR: In the reclamation area?

5 MR. BLUM: No. Would be over on the other
6 side of the street. It would be in the Lime Creek
7 Nature Center.

8 MR. DRUSTRUP: Would you say the bulk of it
9 was deposited after 1969?

10 MR. BLUM: You can put down that he
11 nodded.

12 MR. McMAHON: '69 to '84?

13 MR. DRUSTRUP: Mid-eighties.

14 MR. McMAHON: And that was because it was
15 no longer deemed usable in the manufacture of
16 cement--

17 MS. RECTOR: Uh-huh.

18 MR. McMAHON: --suitable, not suitable?

19 How much water will have to be pumped into
20 Calmus Creek and how much acid will be used to
21 neutralize it?

22 MS. RECTOR: I might ask Mark Borucki from
23 Layne to answer that question.

24 MR. BORUCKI: We've estimated approximately
25 100 million gallons, and you're going to have to

1 treat it with approximately a 100 to 1 or 105 to 1
2 ratio of hydrochloric acid, so you're looking at
3 approximately 100,000 gallons of acid to treat
4 that.

5 MR. McMAHON: And during what period do you
6 expect to be pumping?

7 MR. BORUCKI: Hopefully over the next
8 year.

9 MR. McMAHON: Over the next year?

10 MR. BORUCKI: Uh-huh.

11 MR. McMAHON: And that will neutralize--
12 This solution would be of a neutral pH 7, and so it
13 will not pose a hazard?

14 MS. RECTOR: The Iowa water quality
15 standards require that a stream has to have between
16 a 6 and 9 level of pH, so we definitely would get it
17 below 9. I can't-- I'm not sure that they can say
18 for sure.

19 MR. DRUSTRUP: I think the quality
20 standards say shall not increase the stream pH by
21 more than half the pH in there.

22 MS. RECTOR: .5; yeah.

23 MR. McMAHON: And then those ponds will
24 have to be maintained in a pumped-out condition
25 indefinitely, so there will be some-kind of

1 maintenance pumping going on?

2 MS. RECTOR: That's right.

3 MR. McMAHON: How did the EPA and the DNR
4 become aware of this situation?

5 MS. RECTOR: My understanding was in 1981
6 through some routine investigations, pH testing,
7 mainly on Blue Waters Pond, they found it was real
8 high pH. There had been some awareness of some
9 similar problems at Northwestern earlier than that,
10 but to my knowledge, Lehigh wasn't discovered as
11 having any problems until right around 1981.

12 MR. McMAHON: When you say routine testing,
13 was this by environmental officials from one agency
14 or another?

15 MS. RECTOR: By the state agency. It was
16 not called the DNR at that time. I'm not sure what
17 it was called.

18 MR. DRUSTRUP: Bill, do you have any
19 awareness of what--of the details of how we became
20 aware of the situation?

21 MR. JINKINSON: I believe there was-- My
22 recollection, sir, is there was a discharge to
23 Calmus that we sampled.

24 MS. RECTOR: Okay.

25 MR. McMAHON: Did you become aware of that

1 through public complaint or--

2 MR. JINKINSON: I don't recall.

3 MR. McMAHON: If this is the situation in
4 Mason City with two cement plants, does that mean
5 that it's likely that similar situations exist at
6 cement plants across the nation?

7 MS. RECTOR: Yeah, I'm sure that's the
8 case.

9 MR. McMAHON: Why did you come down on
10 Mason City?

11 MS. RECTOR: I have no idea.

12 MR. DRUSTRUP: Paul, do you have anything
13 to add?

14 MR. ROEMERMAN: There is at least one other
15 plant in the country that's on the NPL. There may
16 be another one that may be proposed soon. Beyond
17 that, I really can't tell you. It just-- It may be
18 that at the other cement plants the volume of cement
19 kiln dust is less. It may be that it's not in
20 contact with the water table. You're going to be
21 getting into a lot of hypothetical situations
22 there.

23 MR. DRUSTRUP: This is a relatively new
24 program, Superfund is, since 1980, so somebody's got
25 to be first, I guess.

1 MR. BLUM: Quite an honor, isn't it,
2 Garey?

3 MR. KNOFF: Yeah. Thanks a lot.

4 MR. JINKINSON: Bill Jinkinson from IDNR.
5 I think the impetus for DNR getting
6 involved in this was the documented discharge into
7 Calmus Creek.

8 MR. DRUSTRUP: Undoubtedly that was the
9 case.

10 Back to that study that Jeff Vansteenbureg
11 was involved in in 1984, it did a lot to develop
12 what was going on there. I think it was the results
13 of that study that really drove the concern by the
14 EPA in the state for looking at the site and the
15 Superfund program.

16 MR. McMAHON: Is Lehigh still generating
17 this waste dust, and if so, what's the plan for
18 handling future--

19 MS. RECTOR: I'm not really aware what
20 amounts--

21 MR. McMAHON: --kiln?

22 MS. RECTOR: --are being generated. I am
23 aware they are still generating the stuff. They
24 have a quarry, an old quarry that's been lined with
25 clay that they are now using to dispose of their

1 dust. From what we know about their current
2 disposal practices, this shouldn't be in any
3 interaction with water, either surface or
4 groundwater.

5 MR. DRUSTRUP: In the sense it's an on-site
6 landfill.

7 MR. McMAHON: On the Lime Creek property,
8 what's the estimated cost for remediating that, and
9 who is going to pay for it?

10 MS. RECTOR: Well, again, that would be a
11 cost that Lehigh would incur, and as I said, they
12 have stepped forward to take on that remedial work
13 in conjunction with what they're doing on their own
14 site.

15 Do you remember the actual dollar figure
16 for that plant?

17 MR. BORUCKI: I have to--

18 MR. BLUM: Tracy, I have that. It's 1.6
19 million.

20 MS. RECTOR: 1.6 to consolidate and cap?

21 MR. BLUM: Yeah. That was the top figure.

22 MS. RECTOR: Was that in terms of present
23 worth, or had that just been--

24 MR. BLUM: That was present worth.

25 MR. DRUSTRUP: Present worth includes the

1 ongoing operation, maintenance costs.

2 MR. McMAHON: Is that on top of the 3.4?

3 MR. DRUSTRUP: No. That includes that.

4 That includes like--

5 MR. BLUM: Steve's question was does that
6 include it.

7 MS. RECTOR: No. That is in addition to
8 the 3.4.

9 MR. McMAHON: It's in addition to the 3.4,
10 and Lehigh has agreed to pay for all of that even
11 though they don't own the land anymore?

12 MS. RECTOR: Well, they don't own the land,
13 but they probably were using the quarries at some
14 point in time and disposed of the dust there on that
15 site.

16 MR. McMAHON: What's the status of
17 Northwestern States' remediation plan, to change the
18 subject for a minute?

19 MS. RECTOR: I'll refer that to Paul
20 Roemer. The site's been-- The State of Iowa is
21 no longer working on that site in the lead role.
22 It's now back with the EPA, federal.

23 MR. ROEMERMAN: Just within the last month,
24 the consent decree for remedial design, remedial
25 action was signed by Northwestern States and the

1 regional administrator, and that has been referred
2 to the Department of Justice, who will review it,
3 lodge it with the court. There will be a public
4 comment period, and then will be entered by the
5 Court and will be in effect.

6 MR. McMAHON: But work has been undertaken
7 already to--

8 MR. ROEMERMAN: Yes. There's been design
9 work done.

10 MR. McMAHON: Pardon?

11 MR. ROEMERMAN: Design work has been done.

12 MR. DRUSTRUP: The quarry has been drained,
13 and it will be maintained in that condition.

14 MR. McMAHON: That's all I have right now.

15 MR. DRUSTRUP: Does anybody else have any
16 questions?

17 (No response.)

18 MR. DRUSTRUP: I guess not.

19 Well, we thank you all for attending, and
20 I'd like to remind you that this public comment
21 period does run through the 19th of this month, and
22 there is the administrative record, which is a more
23 comprehensive file of all of the activities that
24 have gone on at this site several volumes big, so
25 there's a lot of information in it, and it is

1 available in the library here as well as our offices
2 in Des Moines.

3 There are copies of the fact sheet and
4 proposed plan regarding this site out there which
5 tell you where you can send comments to us, and,
6 like I say, we'll be accepting those through the
7 19th of this month, and if there are any other
8 questions, please feel free to call any of us up,
9 and with that, I guess we'll close the meeting.

10 Thank you all for attending.

11 (Proceedings concluded at 7:15 p.m.)

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C E R T I F I C A T E

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I, the undersigned, a Certified Shorthand Reporter of the State of Iowa, do hereby certify that I acted as the official court reporter at the hearing in the above-entitled matter at the time and place indicated.

That I took in shorthand all of the proceedings had at the said time and place and that said shorthand notes were reduced to typewriting under my direction and supervision, and that the foregoing typewritten pages are a full and complete transcript of the shorthand notes so taken.

Dated at Des Moines, Iowa, this 10th day of June, 1991.

Kelli M. Mulcahy
CERTIFIED SHORTHAND REPORTER