

1 **AREVA Resources Canada Inc.:**
2 **Environmental Assessment**
3 **Screening regarding the**
4 **Proposal to install and**
5 **operate a ferric sulphate**
6 **production Circuit at the**
7 **McClellan Lake Operation**

8
9 **THE CHAIRPERSON:** The next item on the
10 agenda today is the consideration of the results of the
11 Environmental Assessment Screening of AREVA Resources
12 Canada Inc.'s proposal to install and operate a ferric
13 sulphate production circuit at the McClellan Lake Operation.

14 I'd like to begin this afternoon by
15 introducing the Members of the Commission that are
16 participating in this hearing.

17 To my left is Mr. Alan Graham and Dr. James
18 Dosman.

19 In addition to Mr. Marc Leblanc, the
20 Secretary of the Commission, Ms. Samantha Maislin-Dickson,
21 Counsel to the Commission, is with us on the podium today.

22 I understand that we have three
23 representatives from AREVA Resources joining us by
24 teleconference.

25 Mr. Pollock are you on the teleconference?

1 **MR. POLLOCK:** Yes, we are on the
2 teleconference, Madam Chair. With me also are Vincent
3 Laniece, Director of Project Development, and Jim Corman,
4 General Manager, McClean Lake.

5 **THE CHAIRPERSON:** Thank you.

6 And I also believe that we have, by
7 videoconference, Mr. Kevin Scissons.

8 Mr. Scissons, can you hear us?

9 **MR. SCISSIONS:** Yes, I can, loud and clear.
10 Thank you.

11 **THE CHAIRPERSON:** From Saskatoon.

12 And then as well we have members of the
13 staff with us today led by Mr. Christopher Taylor.

14 Is that correct, Mr. Taylor?

15

16 **06-H146**

17 **Written submission from**

18 **CNSC staff**

19

20 **MR. TAYLOR:** Yes, Madam Chair and Members
21 of the Commission. My name is Chris Taylor. I'm the
22 acting Director of the Environmental Assessment Division
23 within the newly-formed Directorate of Environmental
24 Assessment and Protection, and in addition to Mr. Scissons
25 from the CNSC staff, as you have mentioned, I have with me

1 today Mr. Michael Rinker, an Environmental Assessment
2 Specialist, and Mr. Avijit Ray, an Environmental Program
3 Specialist within the Geosciences and Environmental
4 Compliance Division, for which I'm also Director.

5 Staff has presented for the consideration
6 of the Commission the completed Environmental Assessment
7 Screening Report for the proposed installation and
8 operation of a ferric sulphate production circuit at the
9 McClean Lake mine in northern Saskatchewan.

10 Ferric sulphate is used to remove dissolved
11 arsenic in tailings' pore water prior to discharge to the
12 Tailings Management Facility and in the treatment of
13 effluent prior to discharge from water treatment plants.

14 Currently, AREVA trucks liquid ferric
15 sulphate to the site in tanker trucks.

16 The proposal would allow AREVA to
17 manufacture the ferric sulphate at the site using imported
18 iron ore powder and facilities already at the site for
19 producing sulphuric acid and oxygen, the other necessary
20 ingredients in that process.

21 The screening report is attached to CMD 06-
22 H146. Staff will not be making a detailed presentation of
23 the screening report. However, we are prepared to answer
24 questions that you may have and as is, I believe, the
25 representatives from AREVA who are present by

1 teleconference.

2 Staff is recommending that the Commission
3 accept the conclusions of the screening report; that is,
4 that the project, taking into account the mitigation
5 measures, is not likely to cause significant adverse
6 environmental effects and, consistent with paragraph 21(a)
7 of the *Canadian Environmental Assessment Act*, to proceed
8 with consideration of the licence application under the
9 *Nuclear Safety and Control Act*.

10 Thank you.

11 **THE CHAIRPERSON:** Thank you.

12 Mr. Pollock, are there any comments that
13 you would like to make at this time?

14 **MR. POLLOCK:** No, Madam Chair. We are
15 available here to answer questions which the Commission
16 Members may wish to address to us.

17 **THE CHAIRPERSON:** I would like to note that
18 the Commission is in receipt of the slides entitled
19 "McClellan Uranium Mine Mill Maps for the Ferric Sulphate
20 Production, Commission Information Request, Fall of 2006",
21 dated October 24th, plus two schematics that were on 8½ X
22 14 paper that were also distributed here. So I do
23 acknowledge that for the record, for the questioning.

24 So at this time I would like to open the
25 floor for questions.

1 Dr. Dosman, would you like to start,
2 please, sir?

3 **MEMBER DOSMAN:** Thank you, Madam Chair.

4 I have several questions relating to the
5 screening report and the first involves the use of
6 sulphuric acid and I take it that this will result -- and
7 this question would be for AREVA, for Mr. Pollock or
8 others. I take it that there will be an increased use of
9 sulphuric acid and additional production of SO₂. Although
10 the document does deal with that, I wonder if AREVA would
11 be able to describe how that acid will be used and to
12 describe the efficiency of removal of SO₂ from the
13 emissions from the point of view of preventing acid rain
14 and so on?

15 **MR. POLLOCK:** Bob Pollock, for the record.

16 The sulphuric acid is used to dissolve the
17 iron in the iron ore to convert it into a mixture of
18 ferrous and ferric sulphate. The ferric sulphate is then
19 further oxidized so that the final product is ferric
20 sulphate.

21 As shown in the screening report, the
22 amount of sulphuric acid that we use will be increased
23 relative to the amount that we currently use, but it will
24 remain well within the capacity of the existing acid plant
25 and, as well, when we last did a major environmental

1 assessment for McClean Lake, we used a rate of sulphur
2 dioxide emissions which is significantly above both the
3 current production rate for sulphuric acid and also above
4 the rate that will correspond to the production of ferric
5 sulphate.

6 So in effect what we have done is reduced,
7 in fact, the margin between the SO₂ emissions rate which
8 will actually occur and the rate that was used in the
9 environmental assessment.

10 The detailed analysis was shown in the
11 screening report. We will remain well within the Air
12 Quality Guidelines for SO₂ and, as well, the loadings of
13 -- dispersion modelling was done to model the dispersion
14 of sulphur dioxide and its conversion to SO₄ which is the
15 precursor to acidic deposition, and the rates are very low
16 relative to any type of critical soil loading. My
17 recollection is that the deposition rates correspond to
18 something like 0.2 per cent of the lowest critical soil
19 concentration for any type of concern with respect to acid
20 soil or acid rain deposition.

21 **MEMBER DOSMAN:** May I, Madam Chair?

22 I take it, Mr. Pollock, that AREVA has the
23 capacity to have an ongoing monitoring of the potential
24 deposition in the environment?

25 **MR. POLLOCK:** Yes, there are several types

1 of monitoring. We have a stack monitor to ensure that our
2 operation is running efficiently, that we are in fact
3 converting the sulphur to sulphuric acid without excessive
4 SO₂ emissions.

5 We have an on-the-ground continuous monitor
6 that is located in the direction of the maximum wind
7 vector from the stack, and periodically we carry out
8 environment assessments at the sites and look for any type
9 of environmental effect, plus one can always just observe
10 the vegetation in the vicinity, for example, of where the
11 air monitor is, that it looks healthy.

12 **MEMBER DOSMAN:** Thank you.

13 I have one or two other questions on the
14 environment.

15 I wonder, Mr. Pollock if you or others
16 could comment on the development of the iron ore pad and
17 whether it will result in any new type of disruption or
18 any new type of contamination of the environment.

19 **MR. POLLOCK:** Bob Pollock, for the record.

20 I'm probably going to ask Mr. Laniece to
21 expand in a moment, but the short answer is no. This pad
22 is constructed within the existing developed area of the
23 mill so that in addition to having a -- it is drained or
24 is graded in such a way or constructed in such a way that
25 the pad itself slopes to a collection sump so that runoff

1 would be collected in the sump, and in addition, this is
2 within the area which is protected by runoff ditches that
3 protect the overall mill terrace from having leakage to
4 the environment outside of the developed area.

5 I will ask Mr. Laniece if he has anything
6 to add to what I have just said.

7 **MR. LANIECE:** Just that the iron ore pad is
8 covered with fabric on top of it. So whatever runoff will
9 come from the snow or from the rain won't mix with the
10 iron ore. So the only thing that we need to collect to
11 the sump is runoff or water coming out from the iron ore
12 itself or whatever is coming from the apron in front of
13 this building which is collected to the sump also.

14 **MEMBER DOSMAN:** Thank you for that
15 information.

16 On page 18 there is a discussion of rare
17 species. There are three endangered species in the area,
18 including sage and so on.

19 I would like to ask AREVA to confirm that
20 there would be no -- to discuss and perhaps confirm the
21 likelihood or non likelihood of effects on these rare
22 species.

23 **MR. POLLOCK:** Bob Pollock, for the record.

24 There won't be any effects whatsoever from
25 this particular installation. We're fully within the

1 developed area of the mill for any development. The ore
2 pad is within the developed area of the mill terrace right
3 now and the rest of the equipment goes inside the existing
4 water treatment plant and the calculations, I think,
5 showed that in terms of any sort of deposition of sulphur
6 dioxide emissions, that we're well over a factor of 100,
7 0.2 per cent of what was estimated to be the lowest sort
8 of critical deposition rate. So I believe the answer is
9 that there is no effect whatsoever on vegetation at and
10 around the mill area as a result of this particular
11 modification.

12 **MEMBER DOSMAN:** Thank you.

13 Madam Chair, I have several more questions,
14 but I'm certainly willing to pass for this round.

15 **THE CHAIRPERSON:** Thank you.

16 Mr. Graham, do you have any questions?

17 **MEMBER GRAHAM:** I just have a couple. A
18 couple have been answered by Dr. Dosman's.

19 Just for clarification, first of all, this
20 will see a reduction in truck traffic, I believe, from
21 Saskatoon to the site; is that correct?

22 **MR. POLLOCK:** Yes, that is correct. In
23 effect, we're going to add the water at the site now as
24 opposed to crushing it up along with the iron in the form
25 of ferric sulphate. Ferric sulphate is about half or a

1 little more water, basically. So we're now going to only
2 truck solid iron. There will be a little bit more
3 sulphur, but overall it's a significant reduction in the
4 context of the amount of trucking required for ferric
5 sulphate.

6 **MEMBER GRAHAM:** My question is then, I know
7 how the ferric sulphate was transported. How is this
8 transported? Are they in closed containers or in dump
9 bodies that are covered? I'm just wondering about dust
10 blowing off these trucks and so on, some of the ore being
11 distributed along the highway as it came along. How is it
12 stored?

13 **MR. POLLOCK:** It's Bob Pollock.

14 I'll ask Jim Corman, General Manager, to
15 elaborate on the trucking.

16 **MR. CORMAN:** Jim Corman, for the record.

17 The raw ore, iron ore, that is brought up
18 to site comes in in truckloads of around 40 tonnes per
19 truckload on a B-Train and dump trailers. The trailers
20 themselves are tarped and they've got an end dump gate on
21 them. So the raw ore itself is fully contained within the
22 trailers themselves.

23 There is a small amount of moisture with
24 this material as well which also helps keep any potential
25 dusting down in the loads themselves.

1 **MEMBER GRAHAM:** The material comes from
2 eastern Canada, I believe, by railcar to Saskatoon and
3 then it's transhipped to the B-Train dump bodies.

4 At the railhead where this is done, how is
5 the environment protected there in unloading those hopper
6 cars and transporting it to the dump trailers?

7 **MR. POLLOCK:** Bob Pollock.

8 I'm not sure that we're all that familiar
9 with the operations of the commercial carriers here in
10 Saskatoon. I'll ask Vincent if he has any specific
11 information.

12 **MR. LANIECE:** Vincent Laniece for the
13 record.

14 I went once into the train station and the
15 transfer to truck, which is done in Saskatoon -- so it is
16 more my visual inspection or witnessing that I can report
17 over there. The iron ore comes through railcar, then it
18 is being cleaned, or with a bucket it is being taken out
19 from the railcar and then being put on some pads, concrete
20 pads on the ground. Then, from there, everything is
21 stopped if there are no trucks around to be loaded with
22 this iron ore. When the trucks arrive, then the top is
23 removed, and it is being loaded into the truck.
24 Everything is being very meticulously taken care of because
25 one of the things that we don't want is to have any

1 chloride pollution of this iron ore, because later on in
2 the process the chloride would be a very corrosive type of
3 element because all of the process revolves around high
4 temperature sulphuric acid and oxygen conditions.

5 So this is why we are taking so many
6 precautions into making sure the unloading doesn't
7 translate into pollution of this iron ore.

8 **MEMBER GRAHAM:** Thank you, and perhaps that
9 wasn't relevant to the whole EA screening, but I want to
10 get a picture of that.

11 When the material reaches the mine site, it
12 is then put on a storage pad and tarped; is that correct?
13 I believe I understood.

14 **MR. POLLOCK:** Bob Pollock.

15 No, we actually have a coverall-type
16 building that goes right over the pad.

17 **MEMBER GRAHAM:** Something like a salt shed
18 or a salt dome or something. Okay.

19 **MR. POLLOCK:** I will ask Jim to -- Jim
20 Corman to describe in a bit more detail.

21 **MR. CORMAN:** Jim Corman, for the record.

22 It is a concrete pad with a fabric domed
23 structure ovetop in the front wall with an overhead door.
24 So it is a fully enclosed building. The trailers will
25 back into this building and then offload one trailer at a

1 time into the building itself. There is significant
2 clearance in the building so that the end dump trailers
3 can dump right in the building. So they will untarp the
4 load, dump it right in the storage shed itself, and then
5 we move the material around within the building confines
6 with a small front-end loader to stack it up to continue
7 to make room for offloading activities. So everything is
8 done within an enclosed building.

9 **MEMBER GRAHAM:** Okay.

10 Just the other question I had with regard
11 to the runoff, some pits in the yard for runoff of any
12 dust or anything else, you have adequate treatment through
13 your treatment facilities in waste management? That has
14 all been taken into consideration?

15 **MR. POLLOCK:** Bob Pollock for the record.

16 Yes, in fact, you know, I have a covered
17 building, so there's really not a lot of runoff that is
18 going to come from the pad itself. I think most of the
19 moisture probably is residual moisture that is in the ore
20 when it arrives, but yes, we have lots of -- we have lots
21 of water collection and treatment capacity at McClean
22 Lake. I can't quote you a fraction, but we collect and
23 feed a lot of water at the site.

24 **MEMBER GRAHAM:** Another question now along
25 a different line. When this screening was done on this,

1 and I've read in the report that there was considerable
2 consultation with the seven communities and the aboriginal
3 people in the area, was there any negatives or anything --
4 and this perhaps may be to Mr. Scissons -- was there
5 anything that we should know that came out of that in a
6 negative way from any of those communities that may not be
7 illustrated here to the extent of the report?

8 **MR. POLLOCK:** Bob Pollock.

9 Sorry, are you asking Mr. Scissons or are
10 you asking AREVA?

11 **MEMBER GRAHAM:** Well we could start with
12 AREVA and then go to Mr. Scissons.

13 **MR. POLLOCK:** Okay.

14 No, to my knowledge, we made a fairly
15 detailed presentation at an EQC meeting, Environmental
16 Quality Community meeting, back about March or so. There
17 were some questions. Some of the -- one or two of the
18 people there had some experience operating at least a
19 similar type of plant. They had some comments that they
20 wanted to draw to our attention that had to do with the
21 actual operation.

22 I am not aware that there was any
23 particular concerns about either the process or its
24 operation. I believe as well that Mr. Rinker sent the
25 draft screening report out to the EQC and, to the best of

1 my knowledge, there were no comments on the draft
2 screening report that the -- we like to do these
3 presentations early on in the project, so that if there
4 are concerns or issues raised, we get at them at the front
5 end of the project. It is a bit frustrating if you wait
6 until the tail end and then there's quite legitimate
7 comments or concerns, that it becomes sort of a bit of a
8 timing problem to addressing them. So we like to try and
9 get out early on these things, and if there's anything out
10 there that needs to be addressed to make sure we are aware
11 of it early on.

12 I am not aware that there has been anything
13 sort of from the time this draft screening report was
14 released onwards.

15 **THE CHAIRPERSON:** I think perhaps if you
16 agree, Mr. Graham, it would be appropriate to ask Mr.
17 Rinker first and then go to Mr. Scissons after that.

18 **MEMBER GRAHAM:** Fine. That's fine, yes,
19 thank you.

20 **MR. RINKER:** Mike Rinker for the record.

21 Maybe I could provide a quick synopsis on
22 public consultation that was conducted for this
23 environmental assessment.

24 Staff first advertised this environmental
25 assessment to the appropriate channels on the Canadian

1 Environmental Assessment Registry and on the CNSC's
2 website. There was some consultation conducted on
3 environmental assessment guidelines of which the only
4 comment received at that time was the EQC expressing an
5 interest to be consulted at the time of the screening.

6 They were consulted at the time of the
7 screening as was the -- there were advertisements for
8 consultation. However, no one else expressed an interest
9 in the environmental assessment at the time, and the
10 Environmental Quality Committee did not have any comments
11 on the screening report. They were informed about the
12 project.

13 **MEMBER GRAHAM:** Thank you.

14 Perhaps that is sufficient, Mr. Scissons.
15 Do you have anything further to add?

16 **MR. SCISSONS:** Kevin Scissons, Director,
17 Uranium Mines and Mills Division.

18 Basically, no, I'm just going to confirm
19 everything that has been said. The discussions and
20 questions asked are actually in some ways a little similar
21 to what the Commission Members are asking, on a little bit
22 of clarification on the project. But no, everything has
23 been covered and there was no issues or concerns raised by
24 the Environmental Quality Committee or anybody else to our
25 Saskatoon office either.

1 Thank you.

2 **MEMBER BARNES:** Thank you. I just have one
3 further question, and that's all my questioning, Madam
4 Chair.

5 And that is on page 24, 8.6, "likely
6 residual adverse effects". It is the last paragraph and
7 I'll ask the question: With regard to critical loads to
8 the environment tended to protect the environment, is
9 there anything there that is in excess of what standards
10 are for -- on a yearly basis or on a daily basis? And it
11 gives some different ones of 25 kg per hectare per year to
12 highly sensitive soils and so on. But what I'm wondering
13 is, are those -- is that loading, is that within the
14 guidelines of environmental protection?

15 **MR. RINKER:** Mike Rinker for the record.

16 I believe this equates to approximately 0.2
17 per cent of the assimilative capacity of the soils. So
18 it's a loading that would represent a very, very small
19 impact in terms of the buffering capacity of the soils in
20 the region.

21 **MEMBER GRAHAM:** So this project will not
22 have any adverse effect based on the models that have been
23 projected to any of the environment and any of the biota
24 that is there?

25 **MR. RINKER:** Mike Rinker for the record.

1 Yes, there would be -- it would be very
2 likely to be difficult to measure any impact whatsoever
3 and based on the small magnitude and the small geographic
4 extent of any effect, it's with certainty that there is no
5 significant adverse environmental effects related to this
6 project.

7 **THE CHAIRPERSON:** My question, my first
8 question actually builds on Mr. Graham's question, I
9 believe.

10 It's on page 4, when we talk about 72.1
11 "Effects of the Project". On those 11 potential
12 interactions were those interactions that match -- this is
13 for CNSC staff -- the interactions that we have seen on
14 this site before?

15 **MR. RINKER:** Mike Rinker for the record.

16 These interactions match what is seen for
17 the facilities that are proposed related to this project.
18 Of course, this operation has much larger facilities that
19 would have a broader matrix of interactions, but based on
20 the scope of this project, these interactions would be the
21 same for those that are in existence.

22 **THE CHAIRPERSON:** Thank you.

23 My other question is -- I think I'll start
24 with CNSC staff, but I think probably AREVA has a comment.
25 In CMD 06-H146 on page 2 in Background, and then on

1 Project Approval for page 2; I'm just not clear what are
2 the next steps here.

3 The Commission, I understand, will be
4 considering this in terms of acceptance of the
5 recommendations on this EA screening report, but then it
6 says that there will be an -- AREVA will have a request
7 for approval which is to, if I am correct -- and this is
8 for CNSC staff, to change or to -- I suppose this is an
9 acceptance under current licence condition 3.1. Is that
10 correct? I just can't quite understand what's next.

11 **MR. SCISSONS:** Kevin Scissons

12 Yes, in relation to the project approval,
13 section 4 on page 2 of CMD 06-H146. Yes, we are doing the
14 environmental assessment by the Commission and the
15 approval if this project is acceptable by the Commission,
16 then would allow us to utilize condition 3.1 of the
17 existing McClean Lake licence and under that modification
18 component, under approval process in following the DNCFR
19 approval and record of decision, we would then complete
20 our approval step and it likely could be done by the
21 Director General or possibly the Director, but if you need
22 a specific individual, we can state the Director General
23 would have the final approval step in that, based under
24 licence condition 3.1.

25 **THE CHAIRPERSON:** Or the Commission could

1 make that decision.

2 **MR. SCISSONS:** Absolutely.

3 **THE CHAIRPERSON:** Thank you.

4 I guess my comment to AREVA is, it seems
5 like most things are weather related to do with projects
6 in northern Saskatchewan. Have you got any comments with
7 regards to timing of these approvals and changes to them
8 and what your plan is for the next steps for this circuit?

9 **MR. POLLOCK:** Bob Pollock, for the record.

10 Yes, the general comment is that we are
11 most anxious to get this project into service. It has
12 some benefits in terms of the noted advantages in respect
13 to transportation. We appreciate it is not part of the
14 Commission's mandate, but the payback on this project is
15 in the order of \$500,000 per month. That's the cost
16 difference between producing the ferric sulphate ourselves
17 from the iron, as opposed to purchasing it and
18 transporting it as ferric sulphate. So, we're clearly
19 most anxious for this project approval to proceed.

20 I guess a view of this would be that the
21 approval involves levels of the licensing documentation
22 that are normally approved at the staff level, so it had
23 not been our expectation that this would require an actual
24 licence amendment. So, regardless of what the actual
25 process for approval is, I guess our request would be that

1 it be done as expeditiously as it is practical to have it
2 done.

3 **THE CHAIRPERSON:** So it's not too late,
4 really, to get started this year? Is that correct?

5 **MR. POLLOCK:** We are poised, ready to go,
6 Madam Chair.

7 **THE CHAIRPERSON:** And you know the
8 Commission wishes to be an efficient commission?

9 **MR. POLLOCK:** We appreciate that this was
10 able to get on your agenda today with relatively short
11 advance notice. It has not gone unnoticed at our end.

12 **THE CHAIRPERSON:** Thank you.

13 Dr. Dosman, do you have further questions?

14 **MEMBER DOSMAN:** Yes, thank you, Madam
15 Chair.

16 I'd just like to come back to the
17 consultations with the Environmental Quality Committee. I
18 take it, Mr. Pollock, that a meeting was held at McClean
19 Lake on March 16th. I'd like to ask a couple questions
20 about that.

21 The north is pretty big and the members of
22 the Environmental Quality Committee are scattered all
23 over. So, how many would have been there for the
24 consultation process on that day? And how are they
25 supported to get there?

1 **MR. POLLOCK:** It's Bob Pollock, for the
2 record.

3 As you point out, the EQC comes from all of
4 the communities across northern Saskatchewan. The EQC is
5 supported by the Northern Mines Monitoring Secretariat of
6 the -- which is in turn supported through the Northern
7 Affairs department of the Saskatchewan government. So all
8 of the logistics for organizing EQC meetings are organized
9 through Northern Mines Monitoring Secretariat. We are
10 there at their invitation. It's fairly routine to provide
11 a least a minimal update in terms of what's new or what's
12 going on at each of our sites, as does Cameco for theirs.
13 Then if there's some specific project, it will be
14 elaborated on at more detail.

15 My understanding is that this was a meeting
16 of the whole -- no, sorry, tell you what. I don't have
17 him down formally, but it so happens that Dr. John Rowson,
18 who is our representative at that EQC meeting is also here
19 today. So, even though I didn't have him down formally,
20 with the Chair's permission, I would ask Dr. Rowson, since
21 he was there, to respond to your question directly on who
22 was there, Dr. Dosman.

23 **THE CHAIRPERSON:** Thank you.

24 **DR. ROWSON:** This is John Rowson.

25 **MR. POLLOCK:** Sorry, Madam Chair, is that

1 okay?

2 **THE CHAIRPERSON:** That's fine. Thank you.

3 **DR. ROWSON:** This is John Rowson, for the
4 record.

5 I did provide the public -- or led the
6 public consultation on the ferric sulphate plant in March
7 of 2006. It was at a meeting of the Athabasca division of
8 the EQC, arranged by the Northern Mines Secretariat at
9 McClellan Lake. There were representatives from each of the
10 Athabasca Basin communities, as we normally have when
11 there's an Athabasca meeting.

12 I believe that amounted to -- I could be
13 out one or so individuals -- but I think there were six
14 EQC members, plus the CNSC and Sask. Environment and AREVA
15 personnel at the meeting.

16 **MEMBER DOSMAN:** Is there any other means of
17 consultation or information on a project like this, such
18 as newsletter or other means of reaching the communities?

19 **MR. POLLOCK:** Bob Pollock, for the record.

20 There could be, there are standard
21 notification procedures that are associated with
22 registering projects on the Canadian Environmental
23 Assessment Registry. This project has been posted since
24 the middle of February of this year. We also send out
25 newsletters on an either three or four times per year

1 basis. I don't recall whether we actually had an article
2 on this project during this past year, or not.

3 **MEMBER DOSMAN:** Do I take it that the full
4 extent of consultation with the community was that meeting
5 on the 16th, with the six members of the Athabasca region
6 of the Environmental Quality Committee plus various
7 government representatives?

8 **THE CHAIRPERSON:** Well, I believe that Mr.
9 Rinker already briefed on the fact that this met all the
10 requirements under CEAA for posting et cetera. So, I
11 think that would probably be an incorrect representation
12 of the degree of consultation.

13 **MEMBER DOSMAN:** Thank you, Madam Chair. I
14 was just trying to get an understanding of the degree to
15 which the discussion took place with local individuals.

16 Thank you.

17 I have ---

18 **MR. POLLOCK:** Sorry. Bob Pollock, for the
19 record.

20 We also go on an annual tour of the -- we,
21 being in this case, ourselves and Cameco, of northern
22 Saskatchewan communities, Athabasca Basin, west-side
23 communities, those that are towards or to the south of the
24 basin that are closer to the Key Lake, McArthur River
25 sites. We also go to La Ronge, Prince Albert and

1 Saskatoon and although it would be a very brief mention in
2 passing, we do provide an overview of what are the
3 projects that are going to take place over roughly the
4 next 12 months when we go on these annual tours. So this
5 would have got at least a passing mention on the annual
6 tour as well.

7 **MEMBER DOSMAN:** Thank you very much for
8 that explanation. I appreciate it.

9 I'd like to come back and briefly talk
10 about the sulphuric acid and the discussion on page 27 of
11 the EA screening report in the context of worker health
12 and safety. There is a discussion of the effects of
13 possibly power going off and the possibility, although
14 it's handled in the discussion of a violent boil over, if
15 acid was added while the tank wasn't being agitated, which
16 presumably might have some potential health and safety
17 effects for workers.

18 I'm just wondering if you at AREVA could
19 offer a little more background on that issue?

20 **MR. POLLOCK:** Bob Pollock, for the record.

21 I'll comment briefly and then I'm going to
22 ask Vincent Laniece to provide a little bit more detail.

23 This is actually only a relatively small
24 excerpt. What I would like to -- or not like to -- what I
25 do believe is a quite thorough, you know, risk assessment,

1 basically, a hazard-type risk assessment of any new type
2 of equipment, not just this facility for producing acid.
3 I might point out this is not something that we have
4 designed from scratch.

5 We have gone to the leading supplier of
6 ferric sulphate in North America, a company called
7 Eaglebrook and, in effect, taken out a licence to have
8 them come and design this facility to provide us with
9 assistance in terms of training. They will actually have
10 people on the ground to see that -- that before we start
11 it up that everything is in good working order. They'll
12 be present during the actual commissioning. We are in
13 fact sending several of our people. They might even be
14 away as we speak on a tour of both the ferric sulphate
15 production plant and an oxygen plant so that, I think, as
16 a general statement, we have not only used our own
17 resources but we've also, as part of our contract
18 arrangement with the supplier, ensured that we received
19 the benefit of their very substantial experience in
20 designing and operating and maintaining this type of
21 facility. So that, you know, what's presented here is
22 really only sort of one page out of what, in fact, a quite
23 substantial body of information, which will eventually
24 translate into the detailed procedures and work
25 instructions that we have for every circuit in the mills.

1 This is not the only circuit in the mill
2 where we have either hazardous materials or operations
3 that need to be carried out carefully by trained people.
4 So I think in general we're quite -- becoming quite well
5 prepared for this operation.

6 I will ask Vincent to provide a little bit
7 more detail in this particular -- these particular
8 paragraphs deal with reactions or deal with the response
9 of the circuit in response to a power failure, but that's
10 only one of the types of risks that were considered in the
11 overall risk assessment.

12 Vincent.

13 **MR. LANIECE:** Vincent Laniece for the
14 record.

15 What happens is when we are adding
16 sulphuric acid 93 per cent to a slurry, which is the iron
17 ore mixed with water, there is an exothermic reaction
18 occurring and then this exothermic reaction if it's
19 localized can conflate into a boil-over of the solution
20 very locally. So we've got -- the reactor tanks are
21 agitated and when there is a boil-over the agitation
22 fails.

23 At the same time that the agitation fails,
24 I'd like to add that the acid addition fails too because
25 the pump stops working. So what we've got in addition to

1 this phenomena happening is that we engineered the
2 agitation and the radiation between the agitation and the
3 addition of -- addition of the sulphuric acid by adding
4 what is called the zero speed switch, which means that if
5 there is no agitation in the tank, then the pump won't
6 stop, so that then it prevents any potential boil-over.

7 The tank in itself is a stainless steel
8 tank, fairly thick. I don't have the thickness in my mind
9 right now, and it's capable to sustain a pressure of 690
10 kilopascal, which is in the range of seven bars or which
11 is in the range of more than 100 psi. So I believe we are
12 very well protected in terms of health and safety outcome
13 from this situation to happen.

14 **MR. POLLOCK:** Bob Pollock.

15 Can I just add one other point? And that
16 is that the tank itself is then vented back to what's
17 called a water tank so that if you have steam or steam
18 with any entrained acid particles coming from the tank,
19 then it follows the vent line and is quenched in the water
20 tanks. So this is not a -- I don't know, a boil-over to
21 me reminds me of a pot boiling over on the stove and this
22 is not like a boil-over on a pot. This is -- you know,
23 these are enclosed pressure vessels that are vented back
24 to a water tank to condense anything that transfers over
25 from the vessel itself. So it's a closed system. This is

1 not like a pot boiling over on the stove.

2 **MEMBER DOSMAN:** I wonder if I might ask Mr.
3 Scissons if he is confident that the health and safety of
4 the workers are fully protected in the operation?

5 **MR. SCISSONS:** This is Kevin Scissons for
6 the record.

7 Yes, in our preliminary review up to this
8 point on this proposal in relation to all the other mill
9 commissioning and mill activities ready at the facility,
10 we have found and believe the licensee is capable on the
11 design, the commissioning and operation of this and
12 similar type equipment. We would expect nothing less from
13 them if this project was to proceed, and we would follow
14 it up with our own review and approval and verification
15 onsite and ongoing inspection of work and documentation,
16 et cetera, review under our Compliance Program for this
17 project, if it was to proceed.

18 **MEMBER DOSMAN:** Thank you. It's on the
19 last Table in the report, the comments from Health Canada
20 with regard to the exceedance of the 10-hour standard by
21 approximately 30 hours per year, and there is a reply in
22 the text, which does explain that, but I would appreciate
23 it if AREVA could explain -- could discuss that issue
24 briefly.

25 **MR. POLLOCK:** Bob Pollock, for the record.

1 I'm not quite sure that I understand what
2 the issue is. I'll take a stab at it and if I'm off
3 course perhaps you could straighten me out in terms of
4 what the precise concern is.

5 As I understand the Health Canada comment,
6 they asked a question about -- and these standards are
7 environmental standards. They are for protection of the
8 environment and their question was, "Well, if you're
9 outside of this standard, what is the implication for
10 human health?" And you know, the answer that's given
11 here, and I believe it is correct, is that there is no
12 implication for human health because had we done the
13 comparison with the standards for human health, we would
14 have been far, far below any applicable standards.

15 So that what we are looking at here is, you
16 know, that we were -- I think Ambient Air Quality
17 Standard, AAQS, is actually a total suspended particulate
18 standard. So we were marginally above the standard for
19 total suspended particulates for very short periods of
20 time during the year, which has no implication on human
21 health, which is the direction in which comments from
22 Health Canada normally come.

23 **MEMBER DOSMAN:** CNSC staff, if they would
24 be prepared to comment on this issue?

25 **MR. RINKER:** Mike Rinker for the record.

1 There was two points that Health Canada
2 wanted to make in this long narrative. One of them is:
3 Were we using the appropriate standard by using
4 environmental standards versus the standards for human
5 health? And the response is that the environmental
6 standards are in fact more protective, meaning lower
7 values. So by using environmental standards that would
8 indeed provide a standard that is protective of human
9 health.

10 The second point, though, I think is the
11 important one, is that there was a potential for during
12 very short-term periods to have higher values, higher
13 releases than over, for example, that would be indicated
14 by a long-term annual average.

15 The response, what this project would do is
16 -- those sort of larger peak values generally occurred
17 during start-up and shut-down of the acid plant and I
18 think that's acknowledged by AREVA.

19 This project, although there may be a
20 larger annual average of sulphur dioxide load, the start-
21 up and shut-down periods would be much less. So the
22 opportunity for a short-term, high release that could
23 impact human health would in fact be decreased by the
24 implementation of this project.

25 **MEMBER DOSMAN:** Thank you very much.

1 **THE CHAIRPERSON:** Of course, what we're not
2 talking here about radionuclitides or anything like that;
3 that's right.

4 So, thank you very much. This completes
5 the record for the hearing on the matter of the
6 Environmental Assessment Screening Regarding the Proposal
7 to Install and Operate a Ferric Sulphate Production
8 Circuit at the McClean Lake Operation.

9 The Committee will deliberate and will
10 publish its decision in due course. It will be published,
11 posted on the CNSC website and will be distributed to
12 participants.

13 Thank you very much to Mr. Pollock and his
14 team. Thank you very much to Mr. Scissons. Thank you
15 very much to the staff here and to the Commission Members.

16 The Hearing is now closed. Thank you.
17 ---Upon adjourning at 4:41 p.m.

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