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NUNAVUT WATER BOARD HEARING

RE: CAPE DORSET TYPE B WATER LICENSE

HEARING HELD AT THE
COMMUNITY CENTRE
CAPE DORSET, NUNAVUT
JANUARY 23, 2008

1 APPEARANCES:

2 NUNAVUT WATER BOARD:

3	Mr. T. Kabloona (by phone)	Chair
	Mr. R. Hanson	Acting Chair
4	Mr. G. Kusugak (by phone)	Vice Chair
	Mr. L. Toomasie	Member
5	Mr. T. Tatatuapik	Member
	Mr. G. Porter	Member
6	Mr. G. Kakkiarniun	Member

7

NUNAVUT WATER BOARD (NWB) STAFF:

8

	Mr. W. A. Tilleman, Q.C. (by phone)	Legal Counsel
9	Ms. C. Emrick, Esq.	Legal Counsel
	Ms. D. Filiatrault	Executive Director
10	Mr. D. Hohnstein	Acting Director Technical Services
11	Mr. B. Kogvik	Secretary/Interpreter/Translator
12	Mr. D. Bhandari	Technical Advisor
	Mr. D. Carr	Licensing Administrator
13	Mr. R. Dwyer	Licensing Administrator

14

NUNAVUT WATER BOARD CONSULTANTS:

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16	Mr. H. Hartmaier	BGC Engineering Inc.
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17 LICENSEE:

18 HAMLET OF CAPE DORSET

19	-Mr. A. Stewart	Senior Administrative Officer (SAO)
20	-Mr. B. Roy	Community and Government Services (CGS)
21	-Mr. F. Schell	Mayor of Cape Dorset
22	-Mr. J. Palluq	CGS Assistant Regional Director
	-Mr. M. Aulakh	CGS
23	-Mr. P. Fuentes	Project Officer CGS
24	-Mr. T. McDonald	Project Officer CGS

HAMLET OF CAPE DORSET CONSULTANTS

25

26	-Mr. P. Cavanagh	Geotechnical Consultant, AMEC
		Earth & Environmental
	-Mr. C. Joyal	Dillon Consulting Ltd.

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1 INTERVENERS:

2 GOVERNMENT OF NUNAVUT-DEPARTMENT OF ENVIRONMENT
(GN-DOE)

3 -Mr. M. Atkinson Manager of Environmental
4 Assessment and Land Use

5 ENVIRONMENT CANADA (EC)
6

7 -Ms. C. Spagnuolo

8 INDIAN AND NORTHERN AFFAIRS CANADA (INAC)

9 -Mr. J. Rogers Manager of Water Resources
-Mr. A. Keim Water Resource Officer
10 -Mr. D. Abernethy Water Resources Coordinator

11 INTERPRETERS/TRANSLATORS:

12 Mary Hunt Inuktitut Language
13 Ben Kogvik

14 Trevor Bourque Sound Technician

15 Karoline Schumann, CSR(A) Court Reporter
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1 (PROCEEDINGS COMMENCED AT 10:59 A.M.)
2 THE CHAIR: Good morning, everyone. My
3 name is Thomas Kabloona, and I'm the Acting
4 Chairman of the Nunavut Water Board. As Chair of
5 the Board, I regret that I am unable to attend this
6 public hearing in person. Unfortunately, the
7 weather does not allow me to be with you in Cape
8 Dorset today, and the Board will also have the full
9 transcript of the hearing available for review.
10 To ensure that the hearing is run efficiently
11 and effectively, I have delegated the Chair for
12 this hearing to Mr. Robert Hanson, a past Chair of
13 the Board. I ask the parties advise the Board now
14 if there are any concerns with proceeding in this
15 fashion.
16 ACTING CHAIR: Nobody has shown any
17 concerns, Thomas.
18 THE CHAIR: Are there any concerns?
19 ACTING CHAIR: No.
20 THE CHAIR: Mr. Hanson, please
21 proceed.
22 ACTING CHAIR: Thank you, Mr. Chairman.
23 Before we proceed with the hearing, let us begin
24 with a prayer, and I'll call on Tommy Tatatuapik to
25 say a prayer for us. Please stand.
26 (OPENING PRAYER)

1 ACTING CHAIR: The Nunavut Water Board
2 is an institution of the Public Government, created
3 under Article 13 of the Nunavut Land Claims
4 Agreement and is responsible for the use,
5 management, and regulations of fresh water in the
6 Nunavut settlement area. On behalf of the Water
7 Board, I welcome everyone to Kingait.

8 The purpose for this public hearing is to
9 review the application filed by the Hamlet of Cape
10 Dorset for an amendment to their Type B water
11 license in accordance with the Nunavut Waters and
12 Nunavut Surface Rights Tribunal Act.

13 With me today are the Members -- some of the
14 Members of our Board. To my far right is Guy
15 Kakkiarniun from Kugaaruk, Lootie Toomasie from
16 Qikiqtarjuaq. To my left is George Porter from
17 Gjoa Haven. Tommy Tatatuapik from Arctic Bay.
18 And, of course, I'm the Acting Chair, Bob Hanson
19 from Iqaluit since '65, Cape Dorset '69, '70.

20 The people who are not here is Thomas Kabloona,
21 of course, our Chair from Baker Lake, he's on the
22 phone; Geoff Kusugak, the Vice Chair from Rankin
23 Inlet. I don't think he's on yet, but he will be
24 coming on board from Rankin Inlet, of course. They
25 are both weathered-out.

26 Several staff members and Nunavut Water Board

1 consultants who have aided in a technical review of
2 the Hamlet's application are present, and I will
3 highlight key individuals: Dionne Filiatrault, the
4 Executive Director; David Hohnstein, the Acting
5 Director of Technical Services; Richard Dwyer, the
6 licensing administrator trainee; Ben Kogvik,
7 interpreter/translator and secretary to the Board,
8 and several other support staff. As I mentioned
9 before, Bill Tilleman, our legal counsel of the
10 Nunavut Water Board will be participating via
11 teleconference. Good morning, Bill.

12 MR. TILLEMAN: Morning.

13 ACTING CHAIR: Also assisting us here in
14 Kingait is Catherine Emrick, who is also a lawyer
15 who does work with Bill from Calgary; she's also
16 one of our people who works with us. In addition,
17 we have interpreters available for simultaneous
18 translation. As I mentioned, Ben Kogvik is our
19 Board secretary/translator. And for some of you in
20 this room, Mary Hunt from Yellowknife, also born
21 from Cape Dorset; welcome home, Mary.

22 The Board has contracted with BGC Engineering
23 and Associated Engineering to independently review
24 the application, provide submissions, and give
25 evidence at this public hearing on geotechnical
26 matters.

1 To ensure an accurate record of the
2 proceedings, we have with us a court stenographer,
3 Karoline Schumann. To assist Karoline, I ask that
4 all parties please state their name before
5 speaking.

6 In the past, parties in other proceedings have
7 approached the media prior to the release of the
8 Board's decision suggesting comments about what the
9 Board is going to do either procedurally or in
10 terms of the final result. Since the Board cannot
11 comment on pending matters either by confirming or
12 denying the accuracy of other statements to the
13 media, the Board would appreciate it if all parties
14 would refrain from any such comments that may imply
15 a certain action or decision by our Board. Board
16 Members will not discuss the hearing or the matters
17 before the Board with any of the parties of the
18 media.

19 If you have any questions about the Board and
20 its practice or procedures, please speak to the
21 Executive Director, and she will assist you.
22 There was a note that CBC possibly will be here,
23 and they're not, so we haven't got to worry about
24 them.

25 APPLICATION HISTORY:

26 I will now give a brief history of the

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1 application. The Hamlet has held a valid water
2 license for water use and waste disposal associated
3 with its municipal infrastructure from -- it says
4 from start license term. From when?
5 MS. FILIATRAULT: My apologies,
6 Mr. Chairman. The license only recently expired in
7 August of 2007.
8 ACTING CHAIR: '7? Okay, so 2007. It
9 says, "from", but it's okay.
10 The Board would like to advise parties that in
11 addition to the application for amendment, there is
12 a second application for amendment currently
13 underway to extend the term of this license.
14 In 2005, an initial application was filed by
15 the Hamlet of Cape Dorset. The Applicant submitted
16 an updated application in February 2006. A
17 technical meeting was held in September 2006.
18 Following the technical meeting, the Nunavut Water
19 Board requested re-submission of the application to
20 include final design report. A revised water
21 license application was submitted to the Nunavut
22 Water Board from January to March of 2007.
23 Following consultation and review by interested
24 parties and direction by the Board, following
25 receipt of the requested documents, the Nunavut
26 Water Board -- the Board decided in June 2007 to

1 proceed to a public hearing on the application.

2 A technical meeting teleconference was held on
3 July 3rd, 2007. The Board encouraged the technical
4 experts to once again meet to resolve issues.
5 Additional supplemental information was to be
6 provided by the Applicant prior to this public
7 hearing. In July 2007, Community and Government
8 Services informed the Board that construction of
9 the new sewage lagoon was ongoing and requested
10 additional time to file required supplemental
11 information.

12 A subsequent pre-hearing/technical meeting was
13 held in Iqaluit on September 27th with the Nunavut
14 Water Board staff participating via teleconference.
15 Once again due to bad weather, we couldn't be
16 there.

17 The pre-hearing discussion of October 10th,
18 2007, was issued setting out the issues before the
19 Board today and require the Applicant to submit
20 final supplemental information no later than
21 November 15th, 2007. Written submissions for this
22 hearing have been received from the Government of
23 Nunavut-Department of the Environment, Environment
24 Canada, BGC Engineering, and INAC.

25 ROLL CALL:

26 If there are no concerns, I would like to move

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1 forward to a roll call. I will begin the roll call
2 with the Hamlet and then go to the other
3 intervening parties.
4 I see the Hamlet is well-represented. Welcome.
5 GN-DOE?
6 MR. ATKINSON: Yes, Mike Atkinson
7 representing GN-Department of Environment.
8 ACTING CHAIR: Thank you. My mistake,
9 if I could just come back to the Hamlet, and maybe,
10 Art, have you introduce yourself along with your
11 members, who will be assisting you at this hearing.
12 MR. STEWART: Art Stewart, SAO, Cape
13 Dorset. We also have to my left, Bhabesh Roy
14 representing CGS; Fred Schell, Mayor of Cape
15 Dorset; Johnathan Palluq, CGS; and Malli Aulakh,
16 also representing CGS.
17 ACTING CHAIR: Thank you, Art.
18 Environment Canada?
19 MS. SPAGNUOLO: Thank you, Mr. Chair.
20 Collette Spagnuolo representing Environment Canada.
21 ACTING CHAIR: INAC? Jim?
22 MR. ROGERS: Thank you, Mr. Chair.
23 It's Jim Rogers, Manager of Water Resources,
24 representing INAC. Also, I would like to point out
25 Andrew Keim, who is the Water Resource Officer for
26 the Qikiqtani region is also here, and David

1 Abernethy is the Regional Coordinator. Thank you.
2 ACTING CHAIR: BGC Engineering?
3 MR. HARTMAIER: Holger Hartmaier with
4 BGC Engineering from Calgary.

5 ACTING CHAIR: If any other interveners
6 would like to speak, please identify yourself.
7 Are there any members of the general public who
8 would like to identify themselves and perhaps
9 address this hearing?

10 It is also our tradition to give respect to our
11 Elders. At any time an Elder may speak to this
12 application on file. As the hearing goes on, you
13 may see somebody come in, we'll find out who they
14 are, and we'll stop, and we'll recognize them
15 immediately, and if they wish to address either the
16 Board or the hearing, they will do so without any
17 hesitation.

18 Before we -- before proceeding, I would like to
19 request that all parties register with Richard
20 Dwyer, the Licensing Administrator, at the side
21 table, and I'm sure you all already have. And
22 anybody who does come in, Richard, you'll get them
23 to sign, I'm sure.

24 That kind of brings us to Item 7 on the agenda,
25 and it is the identification of any motions or any
26 objections to the application that is before the

1 Board.

2 Then with none, we will now proceed with the
3 Item 8 of the agenda, the presentation by the
4 Applicant. The Hamlet is requested to make a
5 brief -- is requested to make a brief presentation
6 on the current status of the project by Art
7 Stewart, SAO of Cape Dorset. And just a question,
8 Art, basically how long will you need? And, again,
9 state your name.

10 PRESENTATION BY HAMLET:

11 MR. STEWART: Art Stewart. I
12 personally will only need about 2 minutes. Our --
13 the group will probably need about an
14 hour-and-a-half. And, Mr. Chairman, I failed to
15 introduce two people. Colin Joyal from Dillon
16 Consulting, and Paul Cavanagh is our geotechnical
17 consultant.

18 May I proceed?

19 ACTING CHAIR: Thank you. Before you
20 proceed, I will now swear in the witnesses, and I
21 will remind participants to state your name prior
22 to speaking to assist the stenographer in keeping
23 an accurate record. Thank you.

24 ART STEWART, BHABESH ROY,
25 FRED SCHELL, JOHNATHAN PALLUQ, MALLI AULAKH, COLIN
26 JOYAL, PAUL CAVANAGH, sworn:

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1 ACTING CHAIR: Normally, the lawyer
2 would do this on our behalf, Mr. Tilleman, who is
3 on the phone. He's not in attendance. Catherine
4 is our lawyer, but she's not registered yet for
5 Nunavut, but it is the power of the Canada Evidence
6 Act that gives us the power to do the swearing in
7 of any member that needs to speak before this
8 hearing, and that's why I have been asked to do it.
9 I should have been a commissioner of oaths, and I'm
10 not, after all these years.

11 So anyway, yes, Mr. Stewart, would you please
12 go ahead with your presentation, and we'll now go
13 to the agenda.

14 MR. STEWART: Art, Stewart, SAO, Cape
15 Dorset. We will have four speakers on our behalf,
16 one of which is Fred Schell, and Fred would like to
17 make some opening remarks to this committee. Fred?

18 MR. SCHELL: Yes, as Mayor of Cape
19 Dorset, I'd like to welcome --

20 ACTING CHAIR: Sorry, Fred, always state
21 your name before you speak.

22 MR. SCHELL: Oh, yes, Fred Schell,
23 Mayor of Cape Dorset.

24 I'd like to welcome everybody to the public
25 hearing of the Water Board for our new sewage
26 lagoon license, and definitely would, number one,

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1 like to welcome the Water Board for choosing Cape
2 Dorset to come here and actually look at it, and
3 also for CG & S and all the engineers and
4 consultants that showed up here for this meeting.
5 I'd just like to welcome everybody. Thanks.
6 ACTING CHAIR: Thank you, Fred. Carry
7 on, Art.
8 MR. STEWART: Next, I'd like to
9 introduce Johnathan Palluq, and Johnathan has some
10 remarks on behalf of CGS.
11 MR. PALLUQ: Johnathan Palluq,
12 Assistant Regional Director for CGS. I'll be
13 talking in Inuktitut, so you want to put your ear
14 piece on.
15 My name is Johnathan Palluq. I'm Assistant for
16 the Regional Office and for the Services. I will
17 mention Timoon Toonoo's name was not mentioned.
18 He's our Regional Director. And behind us back
19 here, Patricio Fuentes and Tom McDonald, Project
20 Officer. My name is Johnathan. I'm originally
21 from Clyde River, and I speak a dialect, a high
22 Arctic Ponlictin. I have no doubt of the fact that
23 everybody understands my dialect by most people
24 here.
25 And I have worked for MACA prior to Nunavut
26 creation before year 2000, and I've been SAO in

1 Clyde River for six-and-a-half years, and I was a
2 member of Clyde River too, as well, and that time I
3 work for DPW before CGS became a department. And I
4 been -- since Nunavut creation, I was Regional
5 Director of DPW, and also after Nunavut creation, I
6 became Assistant. I just thought I give you an
7 introduction, a little bit about myself.

8 In regards to these people from -- Colin as
9 well from Dillon, Paul Cavanagh is from AMEC,
10 Melody Aulak, Senior Manager of the Infrastructure
11 from CGS.

12 I like to -- in regards to this public hearing
13 regarding P Lake lagoon, this application was arise
14 in the year 2000 -- or after 2005, and the
15 application was given to Pond Inlet. It had to be
16 documented in regards to sewage lagoon in Cape
17 Dorset.

18 This is an old application; it's not just
19 recently that it arised. When I lived in Clyde
20 River, I have heard about it, about the
21 application, and apparently there was some
22 problems, issues related to this lagoon. Then in
23 2008, what we see here before us that it was
24 approved like it was indicated earlier, the
25 application for the Nunavut Water Board.

26 We're requesting for mechanical -- the

1 infrastructure has to be renewed. This is an old
2 file, an old application. This has been ongoing
3 project for some time, and it has been amended by
4 Hamlet of Cape Dorset, and they get funding from
5 our department, and it has been a concern for some
6 time, and it does not -- it always breaks down, and
7 the sewage tends to spread onto the land or to
8 clean environment. It's a result from the problem
9 where the lagoon is in Cape Dorset. In February
10 2006, in February 8, the application was approved
11 by Hamlet, by their Council.

12 In regards to that, it's called regional
13 submission, the document. It's for renewal of a
14 license in 2005 in July up to today. It has been
15 three years since then, since it was proposed. We
16 had a technical hearing, and it was reviewed in
17 September 2006 in Cape Dorset. We visited the
18 site, the description of the system.

19 And as of July 2007, there was some meeting in
20 Calgary, and our research people from our Nunavut
21 Government and your -- they had another meeting in
22 regards to that. Then in 2007, we had another
23 meeting in regards to the same issue in Iqaluit.
24 During our meeting at that time, 12 issues arised.
25 There was 12 issues that had to be addressed, and
26 we had to go back to them. The application has

1 been -- gone through interveners, and it was given
2 to interveners so they can assess them for a few
3 days. This is the case as up to today.

4 What we see or hear before us with our staff
5 and our -- the interveners here, we have not
6 addressed some of the issues as we haven't had
7 time. This past Monday, some of the Board
8 submitted to our office from BGC, it's called Final
9 Report. We have not looked through them. Whether
10 we are -- we have to -- some answers to some of the
11 issues related to this project. We've been
12 communicating through e-mail prior to this hearing
13 today, and some of them were submitted less than
14 ten days. And if that should be the case, I'm not
15 sure if we're going to go ahead because some of the
16 documents were submitted less than ten days. I
17 don't know what is the legality issues related to
18 those for the number of days because they're less
19 than ten days.

20 My final comment, like I said before, this has
21 been an issue for the last nine years, since the
22 time when we heard about it, and it has been very,
23 very slow, and it's taking too long. I think it
24 shouldn't take that long. It should just take four
25 years at most. It has been going on for almost
26 nine years now, and it has not -- the problems with

1 the lagoon has not been solved. And it's costly,
2 and it took many, many years, days -- or months and
3 days, and it has been -- it's taken too long. And
4 some of the -- it's been just ongoing project, and
5 there's always a problem with this, related to this
6 application or to the project. I'm sure today
7 we'll probably be elaborating on the same topics
8 today, but I think we should resolve this related
9 to this project.

10 We know that what the project is about it's
11 called a sewage lagoon, and it's one of the best
12 lagoons on Baffin Island actually, and most of the
13 sewage lagoons in all the communities, they're all
14 faulty. Like this here one in Dorset, Pond Inlet,
15 this past September 2007, when we reviewed it, the
16 sewage lagoon when we visited the site, we were
17 reviewing the license. It was under the criteria,
18 it's a little bit below that, and it can be easily
19 fixed.

20 We feel that -- and it's always going to be --
21 it was same thing in Pond Inlet when we review --
22 when we visited the site in Pond Inlet. Like there
23 is some old lagoons; they're a lot better than this
24 one -- I mean, this one's a lot better than the
25 other lagoons in other communities, and the berm is
26 stable. Where it flows, it's stable. You will

1 hear this from other interveners, and it has been
2 documented, and you will hear from their point of
3 view, and I thought I bring this up. Like I said
4 before, this is one of the best sewage lagoons on
5 Baffin Island.

6 When we work, as an Inuk myself, I grew up in
7 Nunavut in Inuit Nunavut, and I've also grew up
8 outside of our community out on the land. I'm
9 survivor, and I survive from the land, our
10 environment. And we used to be out of staple foods
11 such as flour, sugar, tea, coffee. In those days,
12 that's how I grew up. We did not depend on what
13 was store-bought food, such as groceries. We had
14 to use our dog team for -- as part of our lifestyle
15 for surviving.

16 This is still very, very important to us, and
17 the sewage -- such as the sewage lagoons are a big
18 problem. They tend to spread and damage the waters
19 and the land. This is what we're protecting, and
20 us Government employees of Nunavut, we're striving
21 for those projects to be resolved. We don't want
22 to build another that is badly designed.

23 Regarding to this project, I'm very optimistic
24 it can be easily fixed. We know that it's
25 anywhere, like globally, in our land, anything can
26 be damaged that is man-made, it can be fixed, and

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1 it can be -- it has to be maintained. Nothing can
2 last forever. I don't think that there's anything
3 that's -- lagoons anywhere in the world and up here
4 that's fixed for permanently. We all have the same
5 expectations in order to maintain, such as this
6 lagoon. It's like anything else, like your
7 skidoos, your equipment, the garbage dump; they
8 always have to be looked after and maintained.
9 It's like anything else.

10 We like to see this to be completed, and we
11 like to be -- it's costing us. We're always --
12 there's always question of funding in Nunavut, and
13 especially in Baffin. I think all the lagoons in
14 all the communities has to be fixed. This just one
15 of the examples, and it's cost -- it's very, very
16 costly. I think we have to go towards maintaining
17 the lagoons in the communities, not just reviewing
18 such as this one all the time because that can be
19 very expensive. As a people in Nunavut or on
20 Baffin Island, like I said, we're only hurting
21 ourself with the -- dealing with the same project
22 over and over again.

23 Please review this application or the project
24 carefully, and I'm trying to come up with are there
25 some issues that still has to be fixed or looked
26 into, or if there's any better ideas that will come

1 up in order to develop a new sewage treatment, and
2 we have other things to do, other projects to
3 maintain. This is just one of the projects that we
4 have to resolve.
5 This is all I have to say for now. Thank you.
6 ACTING CHAIR: Art?
7 MR. STEWART: Thank you, Johnathan.
8 Our next speaker will be Colin Joyal from Dillon
9 Consulting, and just before Colin takes the floor,
10 I'd just like to mention that Gary Strong, who was
11 the lead from Dillon, unfortunately Gary can't be
12 here. He had some family problems, so Colin is
13 filling in for him.
14 ACTING CHAIR: Just before you start,
15 Bill, are you still with us? Mr. Tilleman, are you
16 there? Thomas, are you there?
17 THE CHAIR: Yes, I'm here.
18 ACTING CHAIR: Geoffrey, are you there?
19 One last time, Bill Tilleman, are you there? I'll
20 check again in a few minutes; maybe he just walked
21 away for a bit. Sorry, Art, go ahead.
22 MR. STEWART: I'd like to now introduce
23 Colin Joyal.
24 MR. JOYAL: Thank you, Mr. Chairman.
25 My name is Colin Joyal with Dillon Consulting. As
26 mentioned, Gary Strong, the project engineer, could

1 not attend unfortunately. I'm an associate with
2 Dillon Consulting out of our Yellowknife office, so
3 in Gary's absence, I'll be presenting the technical
4 information on behalf of Dillon Consulting. So I
5 guess this means I drew the short straw.

6 As an outline of the presentation, I'll be
7 discussing the project description and purpose,
8 site selection and selection process, design
9 considerations, system description. There will be
10 a geotechnical presentation from Paul Cavanagh from
11 AMEC, and then we'll have some comments on looking
12 forward, and questions, which I'll leave to
13 Mr. Chairman to manage.

14 The project description and purpose: The
15 objective -- essentially the purpose of the project
16 is to develop a new licensed sewage treatment
17 system at the selected site, which is P Lake. The
18 reasons leading to the identified need for a new
19 site include the documented failure of the existing
20 lagoon, the fact that it was not feasible to expand
21 the existing system, and an order that was issued
22 by Environment Canada 2003.

23 A number of potential sites were considered.
24 The site at Q Lake was considered, but in the
25 winter of 2001/2002, the community's water supply
26 pipeline froze, and Q Lake was used as an emergency

1 backup water supply source, which wanted to be
2 maintained; mechanical plant, the capital and
3 operating costs were deemed to be prohibitive; and
4 the Site R lagoon option, however, this site is
5 currently used as granular stockpile and is located
6 at the end of the runway.

7 Through consultation, the proposed site was
8 selected. Water license application was submitted.
9 The paper there that you probably can't read comes
10 from the Community authorizing to proceed with the
11 design of the lagoon at that site.

12 The owner of the facility is the Municipality
13 of Cape Dorset. The Applicant is the Senior
14 Administrative Officer. The operating authority is
15 the Senior Administrative Officer.

16 The terms of reference issued by Community and
17 Government Services and Dillon's proposal dated
18 November 12th, 2004, briefly includes the
19 following: Develop the 5-, 10-, and 20-year sewage
20 generation values, sizing of the lagoon based on
21 community requirements, identify potential for
22 expansion beyond the 20-year design window, develop
23 the conceptual layout of P Lake lagoon including
24 the site access road, site layout for lagoon cells,
25 and location of lagoon outfall, along with the
26 completion of an assessment of the expected lagoon

1 treatment.

2 And again as part of the process, various
3 treatment methods were considered as demonstrated
4 in the table. A long retention lagoon with a fall
5 decant was selected as a preferred option. The
6 system includes year-long treatment, the sewage
7 freezing over the winter and treatment during the
8 ice-free days with discharge in the fall. In
9 comparison to the other options, such as the
10 mechanical plant option, lagoons are easier to
11 operate and are more cost effective.

12 The lagoon was designed to achieve the
13 following discharge criteria: Five-day BOD of 45
14 milligrams per litre; total suspended solids, 45
15 milligrams per litre; and fecal coliform counts of
16 1.5×10^4 fecal coliform units per 100 millilitres.

17 In addition, some of the design parameters were
18 the lagoon volume designed for 20-year community
19 demand based on annual retention, which had a
20 capacity of 96,100 cubic metres, a free board in
21 the lagoon per INAC design requirement of 1 metre,
22 berm slope stability greater than 1.25.

23 Some of the operating parameters included a
24 decant, annual decant in the fall, in September,
25 each year over a two-week period; a filling rate, a
26 monthly filling rate of 1/12th of the annual volume

1 each month with the first fill after one period of
2 overwintering of the constructed lagoon.

3 The off-site drainage and runoff would be
4 directed away from the lagoon, resulting in
5 precipitation equal to evaporation.

6 The water retention system was a freeze-back of
7 a lined berm and an impermeable liner. The liner
8 is keyed into foundation soils or bedrock.

9 Environment Canada temperature data was used
10 for the modelling, and the acceptable berm
11 permeability was 10^{-8} . Berm height, maximum berm
12 height based on the site geometry is 6 metres with
13 a minimum 4 metre crest constructability.

14 I'm not sure how well you can see that on the
15 screen there. You've probably seen it before. I'm
16 not sure how well you can see my pointer either,
17 but along the left side here is the community of
18 Cape Dorset. You've got the existing site,
19 existing lagoon site over here with the discharge.
20 There's the site access road that you can see up
21 here, and the proposed location for the lagoon in
22 this area.

23 I think they're going to dim the lights a bit
24 here, might help us out. I'll proceed, we'll try
25 our best. There we go; now we can't see each
26 other, but we can see the screen.

1 So again, we've got the community located over
2 here, the existing site over here. This is the
3 site access road going up to the proposed lagoon
4 site in this area with a discharge through P Lake
5 and then down through the wetlands to Telik Inlet.
6 That's to give you some context of the site
7 location.

8 This slide shows the facility that we're
9 discussing, the sewage lagoon. Just briefly, some
10 of the features at the top here is the truck
11 discharge flume with a truck turnaround. The
12 lagoon utilized the natural configuration of the
13 land upstream of P Lake, berms, around the
14 perimeter of the berm, which is shown here on the
15 figure, at the bottom side of the west side of the
16 lagoon with the discharge to P Lake.

17 The next few slides show construction photos of
18 the facilities. The pictures do most of the
19 talking, but I'll walk through a little bit of what
20 we see. Road to the site is shown on the left.
21 It's an 8-metre wide access road with a guardrail
22 designed to TAC standards. Some of the drainage
23 works shown on the photo on the right, the
24 intercept runoff and distributed through the
25 culverts across the road.

26 The road and guardrail shown on the left with

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1 the main access to the new road facility from the
2 photo on the right. These two photos are of the
3 lagoon berm construction, showing the key trench
4 and the placement of the geosynthetic clay liner.
5 The photo on the left shows the berm on the west
6 side of the lagoon; it's one of the larger
7 sections. The 4-metre wide top, side slope, and
8 placement of the riprap control erosion, along with
9 the photo on the right of the deflection berm.

10 The trench was compacted, the material on site,
11 as shown on the photo. We've got the discharge
12 vault being constructed and discharge pipe as it's
13 being backfilled in place. The discharge pipe went
14 through the -- penetrated through the berm and
15 liner. This shows the ceiling of the liner at the
16 pipe with the geosynthetic clay liner and placement
17 of bentonite powder. On the right is the truck
18 discharge flume where the sewage is discharged into
19 the lagoon.

20 ACTING CHAIR: Thank you. Just before
21 we get into the effluent quality estimates, I think
22 it's getting very close to lunchtime, and I know
23 the SAO has to pick up some staff and take them
24 home for lunch, so what we'll do is we'll break
25 now, we'll adjourn for now and come back in at
26 1:30, and we'll start the hearing again at 1:30.

1 Just before we go, Thomas, are you still there?
2 THE CHAIR: Yes, I'm still here.
3 ACTING CHAIR: Okay, if you want to call
4 back in at, let's say, 25 after 1; we're going to
5 re-start again at 25 after 1.
6 And, Bill, are you there?
7 THE CHAIR: Okay.
8 ACTING CHAIR: Yes. Bill, are you
9 there?
10 MR. TILLEMANN: Yes, I am.
11 ACTING CHAIR: Okay, we lost you for a
12 bit. We weren't sure; you didn't answer us. We
13 just wanted to double-check. If you could just
14 check back in, Bill, at 1:30, I'd appreciate it.
15 MR. TILLEMANN: Okay, will do.
16 ACTING CHAIR: Okay. Geoffrey, are you
17 there or still not? Okay.
18 Just I guess for point of information or point
19 of order here, Bill, Geoff is not here for the
20 morning, for the first hour session; I'm just
21 wondering are we going to bring him on, and he can
22 read the transcripts, or is he now out?
23 MR. TILLEMANN: Well, that's what I would
24 propose, and the sooner he comes on, the easier
25 that is to do, but you know, he can always catch up
26 that way. You just want to make sure the parties

1 have no objections.
2 ACTING CHAIR: I'll ask that at the end
3 of the day if he's still not there. Thank you,
4 Bill, so we'll say good-bye for now, and we'll be
5 talking to you people at 1:30. So we will adjourn
6 for now and come back here at 1:30.
7 MR. TILLEMANN: Okay.
8 (PROCEEDINGS ADJOURNED AT 11:56 A.M.)
9 (PROCEEDINGS RESUMED AT 1:32 P.M.)
10 MS. FILIATRAULT: Mr. Chairman, we do have
11 quorum, and with the Chair himself on the
12 teleconference, we are fine as far as proceeding
13 with the hearing.
14 ACTING CHAIR: I appreciate that, no,
15 that wasn't my problem; I knew we already had that.
16 Anyway, gentlemen, if you want to carry on with
17 your presentation, and again, just please state
18 your name when you start.
19 MR. JOYAL: Thank you, Mr. Chairman.
20 My name is Colin Joyal with Dillon Consulting.
21 I'm just going to resume from where we were,
22 moving on from system description to effluent
23 quality estimates. This slide shows some of the
24 results of the modelling that was done and
25 estimates of the effluent quality after the lagoon
26 and after the wetlands. The best- and worst-case

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1 scenario is presented based on adjustment of some
2 of the variables, such as residence in the lagoon,
3 temperature, and the time of discharge, just to
4 show that anticipated effluent quality limits to be
5 set by the Board in the license will be met at the
6 point of compliance.

7 This slide shows there's eight locations
8 presented as part of the monitoring program. This
9 slide doesn't show the lagoon itself, but its
10 location is right here. We've got the control
11 site, lagoon inflow, lagoon effluent, P Lake
12 effluent, wetlands effluent, and three sites along
13 the wetlands between P Lake discharge and the
14 wetlands outlet as well in this slide. The lagoon
15 location is in this area, the effluent here, this
16 is P Lake, and the discharge route through the
17 wetlands.

18 Next, I'll call on Paul Cavanagh from AMEC to
19 present a geotechnical presentation.

20 MR. CAVANAGH: It's Paul Cavanagh
21 speaking. Thank you, Mr. Chairman, and thank you,
22 Colin.

23 This presentation that I'm going to give is a
24 follow-up to a previous presentation given in this
25 very room in Cape Dorset in the late summer of 2006
26 and includes information from various technical

1 meetings during 2007. The presentation summarizes
2 information that has already been provided to the
3 Water Board in written submissions or meetings
4 since 2005.

5 This first slide is an aerial photograph that
6 shows the location of the proposed sewage lagoon
7 site. It's in a natural drainage remote from and
8 elevated above Cape Dorset, and the area drains
9 away from Cape Dorset, as shown on the slide.

10 Based on 2007 Dam Safety Guidelines, the
11 classification of this facility for consequences of
12 failure is designated low, and this classification
13 is based on there's no population at risk
14 downstream, minimal potential short-term losses to
15 the environment and cultural values, and low
16 potential for economic loss.

17 The suggested frequency of dam safety reviews
18 for this class of structure is as follows, and this
19 is a quote from the Dam Safety Guidelines: (As
20 Read)

21 A dam safety review is not required for
22 low-consequence dams. However, the
23 consequences of failure should be reviewed
24 periodically, since they may change with
25 downstream development. If the
26 classification increases, a dam safety

1 review is required at that time.
2 In a nutshell, what this means is that the selected
3 site is a good, safe location, with low operational
4 costs and low potential for downstream
5 consequences. It also means that formal dam safety
6 reviews and a schedule for future dam safety
7 reviews are not required at this time; however, a
8 periodic review of the classification should be
9 established.

10 This slide shows in a very short form what AMEC
11 has completed in terms of general work for the
12 project. The first five sub-bullets were
13 undertaken in advance of construction. The results
14 of that work suggest that a frozen core dam design
15 was feasible for this site.

16 During construction, AMEC and Dillon were on
17 site to witness the construction of the berm and
18 related facilities, which included excavation and
19 backfilling of the cutoff trench and the
20 installation of the secondary liner system. The
21 observations during construction confirmed original
22 assumptions used in the preliminary design.

23 Since construction, AMEC have conducted more
24 detailed analysis to confirm the original design
25 assumptions and to satisfy the regulatory requests
26 for different, additional information and analysis.

1 All work done to date suggests that the structure
2 has been designed and constructed in such a manner
3 that it will perform its intended purpose, to
4 retain sewage, for up to one year before annual
5 discharge or decanting of the contents to the
6 environment. All of this information has been
7 provided to the Board.

8 There has been a significant amount of work to
9 get us to where we are today. The next step is to
10 monitor performance during operations and use those
11 observations and data to, one, periodically confirm
12 that the design assumptions and the dam safety
13 class are still appropriate, and two, to develop
14 and review ongoing maintenance and repair
15 requirements as they are required.

16 This slide is a quick layout showing the
17 location of the berm, right here, upstream of
18 P Lake, which is here. The roads, the access
19 roads, they're coming in from the top here in the
20 truck turnaround area, and it also shows locations
21 where bore hole drilling was conducted. Actually,
22 this bore hole drilling was done during
23 construction. And just to give you an idea, Cape
24 Dorset is off the top of the chart, out of the
25 chart picture.

26 This next slide provides a summary of the

1 geothermal analysis that was done and includes the
2 next four slides following to try to illustrate and
3 summarize the analyses that were undertaken to
4 develop and confirm the design approach. The
5 results suggest that the design is sound, and the
6 structure would function satisfactorily as a frozen
7 core dam.

8 Generally speaking, conservative parameters and
9 assumptions were used throughout the process of
10 designing and analyzing the structure. On this
11 basis, the structure is expected to perform as good
12 as or better than projected from the analysis. The
13 analyses indicate that the berm will freeze in the
14 first one to two years of operation, and then an
15 active layer or an unfrozen layer about 1 to
16 1-and-a-half metres thick should occur on the
17 surface during summer thaw, annual summer thaw.

18 Confirmatory monitoring of berm temperatures
19 using thermistors in support of these predictions
20 and design analyses was recommended early on in the
21 design process. The other thing that we learned
22 was early predictions from the analyses show that
23 the lagoon base should remain frozen -- would
24 remain frozen using conservative assumptions. More
25 rigorous analysis conducted after construction
26 still supports this early conclusion.

1 This chart is a reproduction of some geothermal
2 analyses that were submitted in a report dated
3 August 21st, 2007. So this is a pretty recent
4 review of the thermal analyses after construction
5 and has been submitted to the Board.

6 Conservative values for air temperatures and
7 material parameters were used in this and all of
8 the simulations that follow, along with
9 conservative assumptions regarding the timing for
10 the start of filling with sewage. This results in
11 a conservative estimate of berm temperatures, the
12 amount of thawed area within the ground and berm,
13 and the active layer depths estimated in the
14 simulations.

15 This particular figure shows that at the end of
16 the first winter, the lower portion of the active
17 layer beneath the lagoon could be around zero
18 degrees, and that's over on this part of the chart.
19 It essentially -- in language that's easier to
20 understand, it will be unfrozen for the first
21 little while.

22 The active layer under the berm crest will be
23 unfrozen, and that's the original -- that's this
24 unfrozen part here in the center of the -- beneath
25 the center of the dam, and that the berm and the
26 active layer downstream are frozen, and that's all

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1 this portion over here because it's exposed to
2 freezing temperatures.

3 The simulation was based on an assumption that
4 the lagoon would be starting to be filled
5 immediately after construction, and it would be
6 roughly half full by the end of this current
7 winter. Now you can see there's a water level on
8 this side of the drawing. This is more
9 conservative than what has actually occurred, in
10 that filling with sewage has not started, and the
11 amount of fluid retained behind the berm is likely
12 much less than assumed in the simulation.

13 It was reported in the meeting October 1st we
14 had in Iqaluit that seepage of water from the
15 upstream side of the structure to the downstream
16 side had occurred shortly after construction was
17 completed in the fall of 2007. This possibility
18 was expected because the core of the berm had not
19 yet frozen and the secondary liner had not yet
20 fully hydrated to form a seal beneath the
21 structure. The backfill material within the core
22 trench was porous, and seepage likely followed the
23 original active layer that existed between the
24 structure immediately after construction and around
25 the bottom edge of the clay liner. So again, last
26 fall, it was reported that seepage from upstream

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1 went to downstream, and that's entirely possible
2 because this active layer would have been unfrozen
3 at the time.

4 From the same report, I now put up a figure
5 that shows the berm immediately prior to the first
6 decanting at the end of the first summer. The
7 original active layer beneath the lagoon is shown
8 to be about 1.8 metres thick; that's over here.
9 Due to penetration of winter freezing into the
10 berm, the majority of the berm body is now below
11 zero and frozen, and that's shown by this zero
12 isotherm here, so there's a frozen core developing.
13 And the upper unfrozen portion of the active layer
14 is about 1 to 2 metres thick, and that's this
15 surface on the top.

16 This scenario is now likely conservative
17 because fluid levels would not typically be to full
18 berm height during this first year and, in
19 particular, for this year, since sewage filling has
20 not yet commenced. And it is interesting to note
21 that the clay liner is almost completely encased in
22 the frozen core of the berm; in here.

23 This next slide shows a simulation for the berm
24 temperatures at the end of the third winter of
25 operation, sometime in the future. The berm
26 temperature will decrease considerably during the

1 first years of lagoon operation. This figure shows
2 that at the end of the third winter, only a
3 localized portion of the active layer -- again,
4 it's the portion underneath the lagoon -- will
5 remain near zero degrees and possibly unfrozen,
6 while the majority of the active layer is frozen.
7 This is at the end of winter, so the entire berm
8 would be frozen.

9 It is important to note that due to the gradual
10 lagoon filling, a talik will not form under the
11 lagoon, and the base of the underlying soils are
12 expected to be in the range of minus 3 to minus 4
13 degrees, and that's just these temperatures under
14 here.

15 By the end of the third summer, now this is 36
16 months after construction, the berm base
17 temperature is frozen, and we've estimated between
18 minus 2 to minus 3 degrees, somewhere -- and that's
19 in this area here. The thickness of the active
20 layer under the lagoon is about 1.5 metres thick,
21 slightly less than the earlier charts I showed.
22 And the active layer on the surface of the berm
23 shell is about 1 to 1-and-a-half metres thick on
24 the upstream and downstream surfaces.

25 During years following and with lagoon
26 operation, the berm temperature will be

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1 quasi-stable in winter and summer. It is not
2 expected for a talik to exist under the lagoon
3 portion, and the thickness of the active layer
4 under the lagoon could be in the range of a metre
5 or less.
6 The analyses in these slides did not include a
7 component of climate warming over the expected life
8 of the lagoon. When typical climate warming values
9 in the range of .05 degrees C -- sorry, .5 degrees
10 C per decade are applied to the simulations, the
11 results after several decades show berm
12 temperatures to be about 1 to 1-and-a-half degrees
13 warmer than what is shown on these drawings. And
14 that represents a small but not really significant
15 increase -- sorry, and there will be a small but
16 not significant increase of the active layer
17 beneath the lagoon. And it is expected, as well,
18 that the secondary liner will be encased in frozen
19 material for most of it.
20 This slide and the next two slides try to
21 illustrate and summarize seepage and slope
22 stability analyses that were undertaken to develop
23 and confirm the design approach -- oh, I'm sorry,
24 all these things I have to keep track of; okay, I
25 apologize for that, there we go -- the results
26 suggest that the design approach is sound and the

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1 structure would remain stable with minimal seepage.
2 Generally again, conservative parameters and
3 assumptions were used throughout the design process
4 and the analysis of the structure. On this basis,
5 the structure is expected to perform as good as or
6 better than projected from the analysis.

7 The analyses indicate that the berm will remain
8 stable under a variety of possible conditions and
9 operating scenarios and confirmatory monitoring in
10 support of these predictions was recommended early
11 on in the design process.

12 One case that was presented to the Board
13 implies what we considered a worst-case scenario,
14 where the berm has completely thawed and the liner
15 was completely removed under full reservoir
16 conditions. The calculations suggest that seepage
17 through the berm would likely occur, but the dike
18 would remain stable under these worst-case
19 conditions. This would allow time to implement
20 contingency seepage control and/or stabilization
21 measures as appropriate. This particular scenario,
22 one of many that we described in our report, is
23 considered to be extremely low potential for
24 occurrence.

25 Another condition that was modelled was slope
26 stability under what's called rapid draw-down

1 conditions and was presented in our report from
2 August 2007. The occurrence of this event is where
3 fluid in the reservoir is suddenly drained, leaving
4 a saturated upstream shell of the berm that is no
5 longer submerged. It should be noted that the rate
6 of annual decanting of the lagoon would be managed
7 over several weeks, such that annual lowering of
8 the reservoir each year is not considered rapid
9 draw-down. The scenario presented here is
10 nontypical -- is a nontypical temporary operating
11 condition with a factor -- with a factor of safety
12 above 1.3, which is considered appropriate.

13 The cross-section shown used a conservative
14 depth for the frozen core. This portion here is
15 much deeper than we had predicted in our geothermal
16 analyses, and the water level in the upstream shell
17 of the berm is almost right at the top, which would
18 be much higher than would typically be expected for
19 this type of material in the berm. In other words,
20 as the rapid draw-down occurs, the material in the
21 upstream shell should follow drainage; there should
22 be drainage out of the shell. We've assumed in
23 this simulation that drainage is not occurring, and
24 the water level is still at full height in the
25 berm.

26 Much of the clay liner is still expected to be

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1 within the frozen core, and the failure circle, the
2 critical failure circle under these circumstances
3 does not come in contact with the liner. The
4 factors of safety against failure under normal
5 operating conditions were also evaluated during the
6 design and found to be greater than 1.5, which is
7 considered acceptable for this type of structure.

8 Early on in the design process, it was
9 recommended by AMEC that thermistor monitoring
10 sites be installed at several locations along the
11 berm center line to various depths to monitor the
12 progress of freezing within the berm and the
13 foundation soils. This data could be used in
14 conjunction with condition surveys and performance
15 operations during -- sorry, performance
16 observations during operations to assess the need
17 for further study, analyses, or implementation of
18 contingency or remedial measures. The frequency of
19 the surveys or data collection should be monitored
20 and adjusted on the basis of observed performance
21 under operating conditions. If performance is
22 acceptable, then frequency can gradually be reduced
23 as the structure approaches a geothermal steady
24 state.

25 The application of contingency plans or
26 remedial measures depends on the observations made

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1 during condition surveys or the data collected from
2 the thermistor monitoring. The rate of change of
3 the structure, condition, and parameters is
4 expected to be relatively slow and would allow for
5 the development of alternative operating
6 parameters, designs, remedial measures, et cetera,
7 as is required.

8 So today, it is considered that the structure
9 has been designed and constructed to generally
10 accepted design and construction standards and
11 guidelines under rigorous scrutiny and would
12 perform its intended use. It is considered that
13 suggested contingency concepts are available in the
14 event that the structure does not perform according
15 to expectations and could be implemented in a
16 timely fashion to restore the structure to a
17 satisfactory and safe operating condition.

18 So I guess the only other comment I would add
19 to that is that the monitoring is recommended. It
20 should be used in conjunction with contingency
21 measures. The details of these contingency
22 measures have not been fully fleshed-out because
23 they don't need to be, and we have conceptual
24 contingency measures that will work for a variety
25 of situations. Thank you.

26 ACTING CHAIR: Thank you very much.

1 Just before we go any further, I would like to
2 recognize one of the Elders from Cape Dorset:
3 Makituk Pingwartuk. Makituk, welcome.

4 Okay, I'll do it again. I'd like to welcome
5 Makituk Pingwartuk, one of the Elders from Kingait.
6 Welcome to our hearing, and Makituk is also Mary
7 Hunt's sister.

8 MS. PINGWARTUK: Thank you, I feel very
9 much welcome.

10 ACTING CHAIR: Please carry on,
11 gentlemen.

12 MR. JOYAL: Thank you, Mr. Chairman.
13 Colin Joyal with Dillon Consulting.

14 Looking forward, the items to be addressed by
15 the Proponent include responses to any outstanding
16 issues from today, response to any draft license
17 conditions, if issued by the Nunavut Water Board,
18 and compliance to license requirements if issued by
19 the Nunavut Water Board.

20 License requirements may include things such as
21 monitoring, issuance and update of an operations
22 and maintenance manual, issuance and update of a
23 spill contingency plan, response to issues that
24 arise from monitoring, and annual reporting to the
25 Nunavut Water Board.

26 That completes our presentation. If there are

1 questions, I'll leave it to the Chairman to manage
2 that. Thank you.

3 ACTING CHAIR: Thank you. I would
4 probably imagine once the whole presentation is
5 done, then we'll call on the other interveners that
6 may have questions for your whole presentation. Is
7 that how it's normally done?

8 MS. FILIATRAULT: Yes.

9 ACTING CHAIR: This is my first hearing,
10 by the way. I've been to many of them, but I've
11 never ran them, so I just want to make sure I do it
12 right. But normally after the whole presentation
13 is done, then we'll call on the individual
14 interveners who have questions for anybody.

15 Okay, Mr. Stewart, do you have other
16 presenters?

17 MR. STEWART: Art Stewart. No, we
18 don't have any further presentation.

19 I would like to make a comment that our current
20 sewage situation is not good. It consists of a
21 three-cell lagoon and a small sewage lagoon, and it
22 is just not what this Hamlet needs. The new sewage
23 lagoon has been well thought out. We believe it's
24 a safe design, and we would request that the Water
25 Board consider our application very carefully.
26 Thank you.

1 PROCEDURAL MATTERS:
2 ACTING CHAIR: Okay, thank you very
3 much, Art. I will call on Catherine. I know there
4 have been quite a few exhibits that have been
5 presented to us by the interveners. Perhaps you
6 want to start a registry.
7 And before you start, Bill, are you still
8 there?
9 MR. TILLEMAN: Yes, I am.
10 ACTING CHAIR: Thank you. Thomas, still
11 there?
12 THE CHAIR: Yes, I am.
13 ACTING CHAIR: Okay, thank you,
14 gentlemen.
15 So, Catherine, if I could ask you to deal with
16 the exhibits, I'd appreciate it. Thank you.
17 MS. EMRICK: I think there's four
18 exhibits to be added to the exhibit list. The
19 first would be the Dillon Cape Dorset Sewage
20 P Lagoon Public Hearing Presentation, the hard copy
21 submitted by Colin Joyal.
22 EXHIBIT NO. 1:
23 HARD COPY OF THE DILLON CAPE DORSET SEWAGE
24 P LAGOON PUBLIC HEARING PRESENTATION,
25 SUBMITTED BY COLIN JOYAL.
26 MS. EMRICK: And the second would be

1 the Dillon Cape Dorset Sewage P Lagoon Public
2 Hearing Presentation, the electronic copy submitted
3 by Colin Joyal.

4 EXHIBIT NO. 2:
5 ELECTRONIC COPY OF THE DILLON CAPE DORSET
6 SEWAGE P LAGOON PUBLIC HEARING
7 PRESENTATION, SUBMITTED BY COLIN JOYAL.

8 MS. EMRICK: The third exhibit would
9 be the AMEC Geotechnical Design and Construction
10 Cape Dorset Sewage Lagoon, January 23rd and 24th,
11 2008, hard copy, and that was submitted by Paul
12 Cavanagh.

13 EXHIBIT NO. 3:
14 HARD COPY OF THE AMEC PRESENTATION,
15 GEOTECHNICAL DESIGN AND CONSTRUCTION CAPE
16 DORSET SEWAGE LAGOON, JANUARY 23 AND 24,
17 2008, SUBMITTED BY PAUL CAVANAGH.

18 MS. EMRICK: And the fourth exhibit
19 would be AMEC Geotechnical Design and Construction
20 Cape Dorset Sewage Lagoon, January 23rd and 24th,
21 2008, electronic copy, submitted by Paul Cavanagh.

22 EXHIBIT NO. 4:
23 ELECTRONIC COPY OF THE AMEC PRESENTATION,
24 GEOTECHNICAL DESIGN AND CONSTRUCTION CAPE
25 DORSET SEWAGE LAGOON, JANUARY 23 AND 24,
26 2008, SUBMITTED BY PAUL CAVANAGH.

1 ACTING CHAIR: Thank you, Catherine.
2 Bill, is there anything you'd like to add at this
3 time?
4 MR. TILLEMAN: No. With exhibits, if
5 any of these people have any questions or comments,
6 they can make them, otherwise, you mark them and
7 you go ahead with the hearing.
8 ACTING CHAIR: Thank you. Catherine?
9 MS. EMRICK: I think it might be
10 useful for Colin Joyal just to indicate that
11 Exhibits 1 and 2 are his submissions because I do
12 note that it states "Gary Strong" on the
13 presentation.
14 ACTING CHAIR: Would you please come
15 back and state that?
16 MR. JOYAL: Colin Joyal, Dillon
17 Consulting. Yes, I confirm that the two exhibits
18 are my submissions.
19 ACTING CHAIR: Thank you very much. I
20 guess we'll carry on. We will start with
21 GN-Department of Environment. Do you have any
22 questions?
23 GN-DOE QUESTIONS HAMLET:
24 MR. ATKINSON: Thank you, Mr. Chair.
25 Mike Atkinson, Government of Nunavut-Department of
26 Environment.

1 Slide 19 of the Dillon presentation was a slide
2 showing effluent quality limits. I believe the
3 limits were 120, 180 for BOD in suspended solids,
4 and I believe that's just a direct copying of the
5 limits on the existing license. My question is
6 whether considering the change in location of the
7 sewage lagoon from a marine discharge to a
8 freshwater discharge, whether Dillon thinks those
9 limits are still appropriate.

10 ACTING CHAIR: Thank you. You can stay
11 right there. Could I have someone from Dillon come
12 forward and answer the questions, please?

13 MR. JOYAL: Colin Joyal, Dillon
14 Consulting.

15 In reference to that slide, the effluent
16 quality limits would be set by the Board. If
17 presented with the limits in Slide 19, we do
18 believe those would be appropriate for use at the
19 facility.

20 ACTING CHAIR: Thank you. GN-DOE?

21 MR. ATKINSON: Mike Atkinson, Government
22 of Nunavut-Department of Environment.

23 It's my belief that the limits previously set
24 in the license were derived using the guidelines
25 for discharge of treated municipal waste water in
26 the Northwest Territories, commonly known as "The

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1 Blue Book". And using those guidelines, I would
2 suggest that the appropriate limits are 80, 100, as
3 opposed to 120, 180.
4 ACTING CHAIR: Okay, Dillon, questions
5 or comments? I know he gave a comment. It's not a
6 question to you; it's a comment. Do you want to
7 respond or not?
8 MR. JOYAL: Colin Joyal, Dillon
9 Consulting.
10 We would accept that comment from the
11 Department of Environment and would be willing to
12 be in compliance with that guideline.
13 ACTING CHAIR: DOE?
14 MR. ATKINSON: Mike Atkinson, Government
15 of Nunavut-Department of Environment. I have no
16 further questions.
17 ACTING CHAIR: Thank you, Mike, thank
18 you. Okay, Environment Canada, any questions for
19 the Licensee?
20 EC QUESTIONS HAMLET:
21 MS. SPAGNUOLO: Thank you, Mr. Chair.
22 Collette Spagnuolo with Environment Canada.
23 I just have two quick questions actually. The
24 first is given that the design report states that
25 due to some difficulties with the terrain, the
26 construction of diversion ditches won't be possible

1 in the area surrounding the lagoon, I was just
2 wondering how drainage around the lagoon will be
3 managed, especially during spring freshet.
4 ACTING CHAIR: Dillon? Most of the
5 questions are going to be for you two gentlemen, so
6 if you could please come to the Licensee table,
7 both of you, because you are presenting on behalf
8 of the Hamlet. That way, you haven't got to keep
9 going back and forth; they can just turn to you,
10 and you can answer it. Everybody else can stay.
11 Don't get up, Fred. There's enough room. One at
12 one end and one at the other and just come, and if
13 you're asked a question, please do your
14 presentation.
15 If you ever need time to confer, just let me
16 know, and I'll take a 5-minute break or whatever
17 until you're ready for it. Don't think you have to
18 answer immediately. If you need a break to compile
19 information, please let me know, and I'll make sure
20 you have enough adequate time. Thank you.
21 MR. JOYAL: If we could take a short
22 break to confer, and we'll address the question.
23 ACTING CHAIR: Okay, thank you. We'll
24 take a 5-minute break, and then we'll come back.
25 (BRIEF ADJOURNMENT)
26 ACTING CHAIR: Bill and Tom, are you

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1 still there?
2 MR. TILLEMANN: Yes, sir, thank you.
3 ACTING CHAIR: Thomas?
4 THE CHAIR: Yes.
5 ACTING CHAIR: Okay.
6 MR. JOYAL: Thank you, Mr. Chairman,
7 for the opportunity to consult project documents.
8 Colin Joyal with Dillon Consulting.
9 In response to the question, the issue of
10 difficulties in constructing that berm were
11 localized on the north berm on the north side of
12 the site that was constructed for the majority of
13 the site, but site features, being rock outcrop, do
14 not permit that to be constructed in that small
15 area, which then would be that portion of the site
16 where that ditch was not constructed.
17 ACTING CHAIR: Thank you. Environment
18 Canada?
19 MS. SPAGNUOLO: Thank you, Mr. Chair.
20 It's Collette Spagnuolo.
21 So just to clarify then, the only portion of
22 the lagoon that doesn't have a diversion component,
23 I guess, is the north side; is that correct?
24 MR. JOYAL: A portion of the north
25 side.
26 ACTING CHAIR: Excuse me, just before

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1 I -- even though you're looking at -- Dillon, come
2 through the Chair always. I'm good-looking, look
3 at me. Don't...

4 MR. JOYAL: Thank you. Colin Joyal,
5 Dillon Consulting.

6 Yes, that is accurate, is a portion of the
7 north side.

8 ACTING CHAIR: Environment Canada?

9 MS. SPAGNUOLO: Thank you, Mr. Chair.

10 I do have one additional question. I was just
11 wondering if the Hamlet or Dillon on their behalf
12 could provide a bit of explanation on how they
13 think spring flooding during the freshet will
14 affect the performance of the wetlands and the
15 P Lake lagoon as part of polishing of the lagoon.

16 ACTING CHAIR: Okay. I don't know if I
17 should -- I should go over to Art or not. Do you
18 want to pass it down, or do you just --

19 MR. STEWART: I think pass it down.

20 ACTING CHAIR: Okay. Dillon?

21 MR. JOYAL: Thank you. Colin Joyal,
22 Dillon Consulting.

23 The lagoon effluent, the point of control is at
24 the discharge point of the lagoon. There's
25 recognition of P Lake and the wetlands, but the
26 intent is to meet the discharge criteria at the

0055

1 discharge of the lagoon.
2 ACTING CHAIR: Thank you. Any further
3 questions?
4 MS. SPAGNUOLO: No, thank you, Mr. Chair.
5 ACTING CHAIR: Thank you very much.
6 INAC, do you have any questions? Jim?
7 INAC QUESTIONS HAMLET:
8 MR. ROGERS: Jim Rogers, INAC.
9 I have a question actually for the Hamlet or
10 their representative. A number of the consultants
11 working for you have indicated that installation of
12 thermistors for monitoring should be installed and
13 included in the design and the operation of the
14 dike. However, I have not seen anything from the
15 Hamlet or its agencies that's working on its behalf
16 to say that they will monitor ground temperatures
17 in the berm. Would it be appropriate to ask what
18 the decision of the Hamlet is, Mr. Chair?
19 ACTING CHAIR: Thank you. Art?
20 MR. STEWART: I'd like to refer that to
21 Mr. Cavanagh or --
22 ACTING CHAIR: Or Colin? Colin, we'll
23 put you on the hot seat all the time, I guess.
24 You're too far down. Go for it.
25 MR. JOYAL: Thank you, Mr. Chairman.
26 If you can give me a few short moments. We won't

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1 need a break, but a few moments.
2 ACTING CHAIR: Go ahead, please.
3 MR. JOYAL: Thank you, Mr. Chairman.
4 Colin Joyal, Dillon Consulting.
5 If it is a requirement of the Board, the
6 thermistors would be installed, and in accordance
7 with the operation and maintenance manual, there is
8 quarterly monitoring and recording of thermistor
9 measurements from each location, which includes a
10 minimum recording of depth and temperature
11 readings.
12 ACTING CHAIR: INAC?
13 MR. ROGERS: Could I ask a
14 supplemental to that, Mr. Chair? Jim Rogers.
15 Would the Hamlet confirm that the consultant is
16 making this decision to do the monitoring, or is it
17 because they're the Licensee? I could add to that
18 because the INAC inspector will be enforcing the
19 terms and conditions of the license on the
20 Licensee, and we would just like some confirmation
21 that the -- that they are speaking on behalf of.
22 ACTING CHAIR: Thank you. Hamlet? Art?
23 MR. STEWART: Yes, Dillon will be
24 speaking on our behalf, and if it is a requirement,
25 most certainly we will be meeting that request.
26 ACTING CHAIR: Thank you. INAC?

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1 MR. ROGERS: Thank you, Mr. Chairman.
2 Jim Rogers.

3 The second question is related somewhat to
4 Environment Canada's question is was the maximum
5 flow, overland flow from upstream of the lagoon
6 calculated not on a monthly basis but on an
7 instantaneous or short-term basis to determine if
8 the water, the channel on the south side, was
9 sufficient to route water around the lagoon, or
10 will some of that water pile up behind the east
11 berm and perhaps overflow? It's unclear at this
12 time.

13 ACTING CHAIR: Thank you. Hamlet?

14 MR. JOYAL: Thank you, Mr. Chairman.

15 Just for clarification, your request is for
16 modelling or assessment of runoff conditions at the
17 east side of the lagoon; is that correct?

18 ACTING CHAIR: INAC?

19 MR. ROGERS: The -- there's a channel
20 designed to run water -- Mr. Chair, Jim Rogers --
21 there's a channel designed to run water around the
22 lagoon from the east to the west side. However,
23 within the documentation and during the
24 presentation, I didn't see any explanation of
25 how -- what the capacity of the channel was and how
26 that estimate was made except for a monthly mean

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1 flow, but of course, channels never handle monthly
2 mean flows, they handle instantaneous or short-term
3 flow. So that's more or less the question. It
4 wasn't part of your presentation either.
5 ACTING CHAIR: Thank you. Hamlet?
6 Colin or Dillon?
7 MR. JOYAL: Colin Joyal, Dillon
8 Consulting. Thank you, Mr. Chairman.
9 I'd request a moment to consult documentation
10 for the specifics of those conditions.
11 ACTING CHAIR: Go ahead. If I can,
12 Colin, I will -- I've just conferred with the
13 Executive Director, and basically I understand that
14 you were thrown into this at the last moment
15 because your counterpart had a death in his family,
16 and I appreciate that. I don't want to put you on
17 the spot, so basically what I'm looking at now is
18 just moving on, and if you're ready to go, fine; if
19 you're not, just let me know, and I can defer that
20 question. And then I think Jim has a few more, and
21 then he can carry on with his additional questions.
22 And then at the end of the time, if you need more
23 time, we'll just take a break of 15 minutes or
24 something. Just don't like putting you every 5
25 minutes and have to stop and give you time to
26 confer. If you're not ready, just let me know.

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1 Are you ready to answer or not?
2 MR. JOYAL: Thank you. I appreciate
3 that. For the moment, looking at addressing the
4 question based on the information here. Thank you.
5 ACTING CHAIR: Then, please, state your
6 name and go ahead.
7 MR. JOYAL: Okay, Colin Joyal, Dillon
8 Consulting.
9 In the area that you're referencing, the
10 drainage patterns for the site are away from the
11 lagoon. They're down the rock face and down where
12 the site road access is, rather than towards the
13 lagoon itself.
14 ACTING CHAIR: Okay. INAC?
15 MR. ROGERS: I'll defer that question
16 until later on and after the INAC presentation. We
17 can, if it would be okay with the Board -- it's Jim
18 Rogers, sorry -- if it's acceptable to the Board,
19 we can maybe caucus slightly tonight or over
20 supper, and I'll explain a little more detail of
21 the question.
22 ACTING CHAIR: Please, Jim, carry on.
23 MR. ROGERS: Okay, the -- Jim
24 Rogers -- the next question is throughout the
25 report, the decant rate proposed by the Hamlet
26 varies. The original design had as long as 60

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1 days. At the technical meeting, we heard as short
2 as four days. And the most recent one is a decant
3 rate over two weeks. Is the decant rate going to
4 be over the two-week? Is that the planned decant
5 at approximately .1 cubic metres per second, or is
6 it a different decant rate? This will apply to --
7 in the presentation, we'll explain why this
8 question is coming about in a little more detail.
9 Thank you.

10 ACTING CHAIR: Hamlet? And again,
11 Colin, if you're not ready, just tell me, Can we
12 defer it, please, until later.

13 MR. JOYAL: Thank you, Mr. Chairman.
14 Colin Joyal, Dillon Consulting.

15 In accordance with the operations and
16 maintenance manual, the decant is to occur once a
17 year in late September over a two-week period.

18 ACTING CHAIR: Thank you. INAC?

19 MR. ROGERS: That's acceptable,
20 thanks. I have no further questions, Mr. Chair.

21 ACTING CHAIR: Okay, thank you, Jim,
22 appreciate it. BGC Engineering, questions?

23 BGC QUESTIONS HAMLET:

24 MR. HARTMAIER: Thank you, Mr. Chair.
25 Holger Hartmaier with BGC Engineering.

26 I have several questions. First off, just a

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1 few questions regarding the details that were in
2 AMEC's presentation that they made. I had a couple
3 of questions on some of the slides.

4 First off, Slide Number 3, which was the
5 discussion on the work that AMEC had completed. I
6 believe it was mentioned in that part of the
7 presentation that AMEC had considered the berm to
8 be a frozen core design. We were just questioning
9 that because the geothermal analysis that they
10 presented is showing that although the foundation
11 is frozen, it's not really considered to be a
12 frozen core design because you have quite a
13 significant active zone within the berm, so the
14 berm itself has not been engineered to maintain
15 frozen conditions up to and above the full supply
16 levels. So I just wonder if they could clarify
17 that for us.

18 ACTING CHAIR: Hamlet?

19 MR. CAVANAGH: Paul Cavanagh. I used
20 the term "frozen core" as a generic term to
21 describe that the center portion of the berm would
22 remain frozen. There will be annual active layer
23 thawing of the outer surface of the shell on an
24 annual basis.

25 MR. HARTMAIER: Thanks. Holger Hartmaier
26 with BGC.

1 Then I think it's fair to note that within the
2 active zone of the berm, the GCL is acting as a
3 primary liner in that sense; it's not really a
4 secondary liner. Perhaps a secondary liner only in
5 the winter period, but during the active storage
6 period in the summer when there's water behind the
7 liner, it is the primary liner?

8 ACTING CHAIR: Hamlet?

9 MR. CAVANAGH: Paul Cavanagh.

10 Just for clarification, I understand they're
11 talking about the portion of the liner above the
12 frozen core within the active layer during the
13 summer period, and that is the case. The water
14 level -- or the fluid level within the lagoon will
15 only be at that level for a short time, and,
16 therefore, the liner is -- will only be put into
17 service for a very short time each summer, if, in
18 fact, the lagoon fills that high.

19 ACTING CHAIR: Thank you. BGC?

20 MR. HARTMAIER: Thanks, Holger Hartmaier,
21 BGC Engineering.

22 It's an important point which we'll get into in
23 our presentation, because the critical thing is
24 what is the actual prediction of that active zone
25 thickness. We believe it's potentially a lot
26 bigger than what AMEC has predicted. Their

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1 prediction is in the order of 1-and-a-half metres.
2 We think it might be 3 to 4 metres, so the length
3 of time that that GCL has to act as the primary
4 liner could be significantly longer.
5 ACTING CHAIR: Thank you. Any further
6 questions, Holger?
7 MR. HARTMAIER: Yes, I have a couple more
8 questions on the presentation. Holger Hartmaier,
9 BGC.
10 The slide that was presented, Slide Number 4,
11 which showed the site layout and bore hole
12 locations, I just wanted to note that that
13 particular layout that was shown is not really the
14 detail that was in the as-built drawings that were
15 submitted on November 15th. There's variations
16 that we've noted in our intervention with regard to
17 the north abutment of the west berm and the actual
18 location of the access roads around the north and
19 south sides of the berm -- of the lagoon, sorry.
20 ACTING CHAIR: Now, is that a comment,
21 or is that a question?
22 MR. HARTMAIER: Holger Hartmaier. It's
23 more of a comment, but I think it's just as far as
24 the presentations go here, I was assuming that
25 everything would be according to as-built details
26 from here on in, just reflected an older design

1 layout, and it relates to some comments we have in
2 our intervention as well.

3 ACTING CHAIR: Okay, thank you. Dionne?

4 No. Hamlet, questions or comments, please?

5 MR. CAVANAGH: Paul Cavanagh.

6 The intent of that slide was -- it was not
7 intended to provide as-built design details. It
8 was intended to provide some background information
9 and set a context for the location of the structure
10 relative to P Lake and relative to other things, so
11 it really wasn't -- it wasn't intended to convey an
12 as-built condition. It was intended to provide
13 background information.

14 ACTING CHAIR: Thank you.

15 MR. HARTMAIER: Holger Hartmaier, BGC.

16 Fair enough.

17 Another comment on Slide 6 in the presentation,
18 which was the slide that showed the temperature
19 variations within the berm after the end of the
20 first winter, which was assumed to be eight months
21 after the end of construction.

22 I just noted that the -- there's a difference
23 in this detail compared to the one that was
24 originally presented by AMEC in their August 21st
25 geothermal analysis, and the main difference is the
26 indication of the GCL liner, and I just wanted to

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1 get clarification from AMEC that in the August 21st
2 geothermal analysis, which you presented in our
3 pre-hearing in Iqaluit back at the end of
4 September, I think, from my understanding, the
5 contours that you're showing on this section were
6 based on the conservative assumption that there was
7 no liner present and that the water level as shown
8 was creating the temperature effect within the
9 berm.

10 So I just wanted to confirm that what was in
11 the slides that you're presenting today with the
12 GCL liner that really that condition hasn't
13 changed. The -- I note that the contours are
14 exactly the same as what you're showing in your
15 August 21st presentation, so in effect, the GCL
16 liner really has no impact on the temperature
17 contours, you know, that was not included in the
18 model, so the temperature contours in your
19 presentation today are still reflective of a liner
20 not being there.

21 ACTING CHAIR: Thank you. Hamlet?

22 MR. CAVANAGH: Paul Cavanagh.

23 Yes, that's correct. The -- I inserted the
24 liner in this presentation just as a point of
25 reference again, to show that there is a liner
26 within the frozen zone.

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1 MR. HARTMAIER: Okay, thanks.
2 ACTING CHAIR: Holger, does that answer
3 your question?
4 MR. HARTMAIER: Yes. Just checking if I
5 had a couple other questions on -- oh, yes, there's
6 one more on Slide 12, which was the slide that
7 showed the slope stability under rapid drawn-down
8 conditions.
9 I just want to ask Paul whether this was a new
10 analysis that was done in response to our
11 intervention request to do an assessment of the
12 upstream slope stability with the GCL shown in its
13 as-built configuration, because the stability
14 analysis that was actually included in the
15 September 21st -- or August 21st analysis seemed to
16 show a vertical GCL going down to the frozen soil,
17 so it didn't look like the effects of the sloping
18 GCL had been taken into account. So I'm just
19 wondering whether this is a new analysis that is an
20 update of the previous analysis.
21 ACTING CHAIR: Go ahead. Sorry, one
22 Elder is walking in. I've just got to find out who
23 they are. If I can just hold that for a second.
24 I'd like to welcome Oqutaq Mikiguk. Welcome to
25 this hearing. Just stand up and wave hello. One
26 of our Elders from Kingait. Welcome to the

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1 meeting.
2 Thank you, Holger. Sorry. Hamlet?
3 MR. CAVANAGH: Paul Cavanagh.
4 The analysis is identical to what was presented
5 in the report. Again, I included the GCL liner as
6 a point of reference. I guess what I was doing was
7 just checking to see where the failure circle
8 occurred, the critical failure circle in relation
9 to that liner, and it was more just from -- as a
10 point of reference again, but the analysis is the
11 same one that we had within our -- within our
12 report.
13 MR. HARTMAIER: Holger Hartmaier, BGC.
14 Okay, to that end then, did you actually run a
15 factor of safety for the condition, for the circle
16 going from the crest, as shown, and then along the
17 GCL and then coming out on the upstream slope? Do
18 you have an actual value of a factor of safety for
19 that condition?
20 ACTING CHAIR: Hamlet?
21 Mr. CAVANAGH: No, we haven't run that
22 condition -- Paul Cavanagh -- no, we haven't run
23 that condition yet.
24 ACTING CHAIR: Thank you.
25 MR. HARTMAIER: Holger Hartmaier, BGC.
26 Then I think as -- that wasn't a request.

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1 That's maybe perhaps you could submit to the Board
2 as an addendum to the work that was done. That was
3 one of our intention requests, and just wonder if
4 you're agreeable to providing that just to show
5 that the -- that this is -- or compare this factor
6 of safety with the condition of sliding on the GCL.
7 ACTING CHAIR: Hamlet?
8 MR. CAVANAGH: Paul Cavanagh.
9 I have no issue with running additional
10 analyses, but I just want to make sure that I
11 understand exactly what the intervener is looking
12 for so that I get it right again.
13 ACTING CHAIR: Okay, Holger. Do you
14 want to explain exactly what -- I think there was
15 an intervention submitted, and you had a question
16 that you wanted answered, and I guess it has been
17 answered, and now you want a clarification; is that
18 correct?
19 MR. HARTMAIER: Holger Hartmaier, BGC.
20 Well, what we could do is when I make our
21 summary of our intervention and we have the request
22 outlined in that, when they have the opportunity to
23 question us on that, we can go into the specifics
24 if it's still not clear at that point, but
25 basically we just want to see what the factor of
26 safety is for sliding on the GCL in that

1 configuration with the rapid draw-down condition.
2 ACTING CHAIR: Thank you. Does that
3 suffice, Hamlet?
4 MR. CAVANAGH: Paul Cavanagh.
5 Yes, I think I understand what he's looking
6 for.
7 ACTING CHAIR: Any more questions,
8 Holger?
9 MR. HARTMAIER: Mr. Chair, I have a bunch
10 of questions that have to do with things that were
11 not addressed in their presentation with respect to
12 questions we asked in our intervention. So I
13 wonder is it appropriate to question them at this
14 point, or do we make our presentation on our
15 intervention questions, and then, you know, work
16 back and forth on that. So, you know, I can go
17 through our intervention and pick out some of the
18 points that weren't addressed in this presentation
19 and get their comments now, if you like.
20 ACTING CHAIR: Thank you. I will have
21 to call on my technical staff on where to go from
22 here. Dionne?
23 MS. FILIATRAULT: Thank you, Mr. Chairman.
24 Dionne Filiatrault.
25 I believe probably some of those are a fairly
26 extensive list of clarification requests. If that

1 is the case, maybe we could highlight them at this
2 point for the Proponent, such that when
3 Mr. Hartmaier does his presentation, you are
4 prepared to speak to those points, and whether or
5 not you agree or disagree to his recommendations or
6 not. Would that be acceptable?
7 ACTING CHAIR: Okay, thank you, Dionne.
8 Holger?
9 MR. HARTMAIER: Okay, then -- Holger
10 Hartmaier, BGC -- what I'll do is I'll just quickly
11 run through the intervention issues, just to list
12 them off. They have the copies of the intervention
13 in front of them, so it's more for reading that
14 into the record here and then getting the
15 discussion going.
16 ACTING CHAIR: Just before you start,
17 Dionne, go ahead.
18 MS. FILIATRAULT: Thank you, Mr. Chairman.
19 Dionne Filiatrault.
20 I just want to clarify that you're just going
21 to be going through sort of an executive summary of
22 the points that you feel that they have not
23 highlighted; is that correct?
24 ACTING CHAIR: Holger?
25 MR. HARTMAIER: Holger Hartmaier, BGC.
26 Yes, I'll just go through the -- pick off the

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1 ones that I don't think I've heard any response to
2 at this point.

3 ACTING CHAIR: Please, carry on.

4 MR. HARTMAIER: Okay, one of the first
5 ones was the need to have a stamped drawing from
6 the AMEC side. We have stamped drawings from
7 Dillon, but we still haven't seen any drawings that
8 show a professional engineering stamp from AMEC.
9 Wondering whether that will be forthcoming. That's
10 one.

11 The next one has to do with the -- essentially
12 highlighting the field changes that were made on
13 the as-built drawings from the design drawings.
14 We -- I picked up ones that have to do with
15 geotechnical. I think it might be appropriate to
16 try to highlight those just for the record in some
17 form. Typically what we do is have some kind of a
18 bubble around the area that was changed from the
19 original design drawing and have a note as to why
20 and when it was changed, just so it's highlighted.

21 The other one that has to do -- has some
22 ramifications with the geothermal foundation
23 conditions is the -- there seems to be a change in
24 the detail of the north abutment of the west berm.
25 For some reason, the width of the berm was changed
26 to allow, it looks like, a turnaround area, and

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1 there seems to be some ditches or swales on the
2 upstream slopes, so the thickness and depth and
3 extent of the berm material over the bedrock in
4 that area is going to be critical to maintaining
5 the inactive layer that is above the cutoff trench
6 in that area, otherwise, there's a potential for
7 some end-run seepage around the abutments through
8 the active zone. If that detail could be provided
9 and to make sure that it satisfies the geothermal
10 criteria.

11 The other one is in Drawing 109; it seems that
12 some riprap fill was placed on top of the original
13 ground under the berm. We need to know what kind
14 of material that consisted of because the core
15 trench itself was backfilled with sand. The
16 original AMEC design recommended that the core
17 trench be backfilled with impervious material. So
18 although we're predicting the foundation to be
19 frozen, the problem occurs if there is a seepage
20 occurring through the foundation, then that sand
21 that is in the core trench could migrate into
22 what's called riprap material, which, to me, is a
23 material that has a lot of open voids within a rock
24 mass. So we need to know what the gradation of
25 that material was, whether it was riprap or sand
26 or -- how compatible is that with the material that

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1 was backfilled in the core trench.
2 ACTING CHAIR: If I can just for a
3 second, please, Holger.
4 Thank you. There's been three or four
5 questions now, and what we're trying to do, instead
6 of holding them all towards the end, do you have a
7 yes or a no answer for the first three, perhaps
8 four questions that Holger has asked, and would you
9 like to answer any of them now as he's going
10 through them?
11 I should have deferred -- I should have asked
12 the question, went to you first, and you could have
13 said deferred or answer it yes or no, or do
14 whatever. What is your wish, Hamlet?
15 MR. CAVANAGH: Paul, Cavanagh.
16 I'm a little confused. These requests are --
17 what document are they contained in?
18 ACTING CHAIR: Dionne? Sorry, or
19 Holger?
20 MR. HARTMAIER: Holger Hartmaier, BGC.
21 These are all listed in our January 8th
22 intervention statement, which was submitted to the
23 Board.
24 ACTING CHAIR: Did the Hamlet receive
25 that intervention? I guess that's the question I
26 have for you.

1 MS. FILIATRAULT: Yes, they would have.
2 MR. CAVANAGH: Paul, Cavanagh.
3 No, I haven't received it. I don't know if
4 other members of the team have received it, but I
5 haven't received it.
6 ACTING CHAIR: Okay, I guess we may have
7 a problem here. If there's interventions being
8 done and you're not given copies, we've got a
9 problem, so I'm going to call on Dionne.
10 MS. FILIATRAULT: Mr. Chairman, Dionne
11 Filiatrault.
12 I think the question has to be asked to the
13 Hamlet and CGS and their representatives of these
14 submissions. This submission and the comments that
15 Holger is making were received on January 8th, and
16 those were filed with the Applicant. The
17 responsibility is to the Applicant and CGS to make
18 sure that their expert consultants, that would
19 potentially be asked to answer questions of this
20 nature, should have been provided the information.
21 So my question would be one to Art: Was CGS
22 provided the information; second, to CGS, was the
23 information provided to Mr. Cavanagh?
24 ACTING CHAIR: Thank you. Art?
25 MR. STEWART: And I'm going to ask
26 Bhabesh Roy to answer that.

1 MR. ROY: This is Bhabesh Roy. I'm
2 the Municipal Engineer of CGS. We received two
3 sets of documents from Water Board on the comments
4 of BGC. One document came on Saturday, January
5 19th, and I opened this file on Monday, last
6 Monday. According to Dillon's letter, this
7 document I don't know we can accept or dissent, but
8 according to Dionne letters, after 8 of January, no
9 document will be accepted, but these document came
10 to me on -- issued on 19th of January.

11 ACTING CHAIR: Dionne?

12 MS. FILIATRAULT: Thank you, Mr. Chairman.
13 Dionne Filiatrault.

14 Let me clarify for the Licensee. The document
15 that was submitted by BGC on January 8th in their
16 intervention statement was received. The comments
17 that are being made right now by BGC are from their
18 January 8th submission that the Proponent has
19 received.

20 There were two documents that were submitted
21 following the deadline for interventions. Normally
22 when the Board receives intervention statements,
23 they receive executive summaries of the
24 intervention statements. These are just a summary
25 of the main intervention statement that was
26 received. So the executive summary, which also

1 contains the comments that Holger is making right
2 now in summary form, are based on the January 8th
3 submission.

4 The executive summaries are used by the Board,
5 and this was a direction that the Staff gave to
6 Mr. Hartmaier when we realized that he did not
7 submit an executive summary with his presentation,
8 because we use those executive summaries and have
9 them translated and available for the public so
10 that -- the full technical submissions that are
11 made by intervening parties are sometimes confusing
12 for local people. So the executive summary was a
13 request of the Staff to Mr. Hartmaier, but there's
14 no new information in the executive summary that
15 was not provided in the January 8th submission.

16 The other submission that was received was
17 thermal analysis, and this, in the January 8th
18 submission, it was identified that there was
19 technical information that they were running a
20 model and that the information would not be
21 available by January 8th. So there was an
22 indication provided to the Applicant that this
23 information would be made available to them.

24 I would request, Mr. Chairman, that you may
25 wish to seek clarification from BGC on whether or
26 not this information is critical to any

1 determinations that they've made. It is only
2 supporting background information that they've used
3 to increase their confidence level in understanding
4 the application that's been filed by the Proponent.
5 ACTING CHAIR: Between a rock and a hard
6 place here. Do I go here, or do I go there? I
7 guess I'll go, Holger, to you first and get your
8 comments.
9 MR. HARTMAIER: Holger Hartmaier, BGC.
10 The deficiencies I'm running through right now
11 are on our intervention statement, which was filed
12 on January 8th. The executive summary, as Dionne
13 has just outlined, is nothing more than an exact
14 excerpt of the actual intervention deficiencies,
15 except for the sort of paragraphs of explanatory
16 text that go with our reports, so there's nothing
17 new in that executive summary, basically a
18 direct-word transcript out of our January 8th
19 submission, which was prepared at the request of
20 the Water Board for their own internal use.
21 Nevertheless, it has been included on the pile in
22 the back as materials being available to the
23 hearing as well as filed on the FTP site as soon as
24 we submitted it to them.
25 With respect to the geothermal analysis, the
26 geothermal analysis was done by BGC as a means of

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1 trying to get an understanding ourselves of a lot
2 of differences in terms of as-built versus design
3 details that were shown on the AMEC analysis versus
4 our own feelings on what the assumptions with
5 respect to existing ground temperatures and
6 thermal, long-term global warming, those kind of
7 assumptions would have -- what kind of effects
8 those would have on the analysis, rather than take
9 the existing geothermal analysis and present a list
10 of questions which would go to AMEC, and then they
11 would have to respond back. So it was our own
12 means of saying, Okay, despite the fact that we
13 have some reservations with maybe what was done,
14 are we going to come up with the same answer at the
15 end of the day. So that is just submitted for the
16 record, and we'll go into the results of that as
17 far as our presentation goes.

18 So again, that was submitted after the date.
19 It's really immaterial with respect to the
20 intervention. It really just provides everybody
21 around this table with maybe a greater degree of
22 confidence or understanding of what the geothermal
23 implications are.

24 ACTING CHAIR: Thank you. Hamlet?

25 MR. CAVANAGH: Paul Cavanagh.

26 Okay, thanks for that clarification; I

1 appreciate that. Perhaps what we can do then is if
2 the intervention that was received January the
3 8th -- I'm sorry, how many points were there that
4 we need to go through?
5 ACTING CHAIR: If I can, we'll wait for
6 that -- did you receive the January 8th BGC
7 submissions; have you received them?
8 MR. CAVANAGH: Yes.
9 ACTING CHAIR: Doesn't look good. Have
10 you received them before? I heard something about
11 January 20-something, 21st. That's two days ago.
12 I mean, have you actually seen this from before?
13 And I'm trying to get at the questions that were in
14 that intervention for the Board. Have they been
15 answered?
16 MR. CAVANAGH: Yes, I've seen this
17 before, yes.
18 ACTING CHAIR: So, Bill, legal opinion,
19 where do I go from here, please?
20 MR. TILLEMANN: Well, Mr. Chair, I think
21 what we need to do is make sure we help the Board
22 understand the evidence and the application. So
23 why don't you just have Holger turn his concern
24 into a bunch of questions, and then the Applicant
25 can answer those questions based on their knowledge
26 of the file and based on their expertise generally.

1 And then you can go to Holger's presentation,
2 whenever that happens, and then the Applicant can
3 ask him questions at that time, if they have
4 questions.

5 So, for example on the one question of whether
6 or not the applicant believes that it should have
7 stamped drawings, the answer is yes or no. And if
8 it's yes, then the next question is, Well, when
9 will you sign those, and who will do it.

10 So I don't think you need to get into going to
11 their document, our documents, you know, and back
12 and forth. Let's just have Holger -- this is an
13 opportunity for cross-examination, so Holger should
14 just take his points and turn them into questions,
15 the best he can, and then the Applicant can answer
16 these questions the best they can, and then when
17 we're done with that, you go on to the next
18 presentation.

19 ACTING CHAIR: Thank you, Bill. So
20 basically then, the three or four questions that
21 have already been asked, Paul, are you prepared to
22 answer any of them now, or are you going to wait
23 until after everything is asked?

24 MR. CAVANAGH: Paul Cavanagh.

25 Yes, I can answer some of these now.

26 ACTING CHAIR: Then please proceed. I

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1 was supposed to, I think, do it every time a
2 question was asked. I should have went to you
3 first. So please answer the questions.
4 MR. CAVANAGH: Okay, the first one is a
5 need for a stamped drawing by AMEC, correct?
6 MR. HARTMAIER: Holger Hartmaier, BGC.
7 Yes, it was to find out if AMEC is prepared to
8 stamp the as-built drawings.
9 MR. CAVANAGH: Conceptually, yes, we
10 are -- Paul Cavanagh -- yes, we are. The mechanism
11 if that happens, I believe, is that Dillon will
12 provide the engineering stamp. AMEC will provide
13 signatures by a professional engineer that we have
14 reviewed and accepted those drawings. Is that
15 acceptable?
16 ACTING CHAIR: Holger?
17 MR. HARTMAIER: Holger Hartmaier, BGC.
18 I think there's a couple of issues here. First
19 of all, I think under the NAPEGG Act, you are
20 actually required to stamp it as a discipline,
21 separate discipline. The other point is that the
22 Board has a discretion as the authorizing body to
23 request any kind of stamping they want. So if they
24 want your stamp on it, they can ask for that, so I
25 leave that up to the Board.
26 ACTING CHAIR: Thank you. Carry on,

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1 please.
2 MR. CAVANAGH: Paul Cavanagh.
3 Then I'll let the Board advise us. AMEC is
4 prepared to stand behind its work in whatever form
5 you want.
6 ACTING CHAIR: Okay, do you have other
7 comments on the other three questions?
8 MR. CAVANAGH: Paul Cavanagh.
9 The second question, I believe, is about
10 highlighting the changes from the field during
11 construction on the drawings, and my understanding
12 was that Dillon was looking after that. Now, if
13 that hasn't been done or if it needs to be
14 clarified, then I think I'd have to ask Dillon.
15 That's more of a mechanical process, but in
16 principle, we've agreed to the changes that
17 occurred in field and would have no problem.
18 ACTING CHAIR: Okay, thank you. Colin?
19 MR. JOYAL: If the Board requests
20 that the drawings are clarified or re-issued, on
21 that note then, we would be obliged to comply with
22 that.
23 ACTING CHAIR: Next question? I think
24 there was a four-part question there, I think.
25 MR. CAVANAGH: Paul Cavanagh.
26 I think the third question was about the change

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1 in the abutment at the north end of the west berm,
2 and the concern that seepage may go around the
3 abutment.

4 This is always a concern in any structure that
5 retains water. The area that is being referred to
6 is actually quite high in elevation, and so the --
7 much of that area would only see fluid behind it or
8 being retained by it when the pond is very full.

9 The answer to how that would be handled is --
10 again, it's through the monitoring plans with -- we
11 can monitor temperatures with thermistors, or we
12 can monitor performance and observations of seepage
13 and deal with it at that time. As I understand it,
14 it's being expressed as a concern that may need to
15 be addressed during operations, and my suggestion
16 would be that's how we would do it.

17 ACTING CHAIR: Okay, Holger?

18 MR. HARTMAIER: Holger Hartmaier, BGC.

19 Just on that point, what we were looking for is
20 one of the earlier design drawings did include a
21 detail of that abutment treatment, which was not
22 included in the as-built, so essentially what we're
23 looking for there is what the as-built condition is
24 for the abutment and your concurrence that, you
25 know, the end-run seepage would not be a problem
26 through the active zone based on that

1 configuration.

2 So, you know, you can review what was done and
3 whether, you know, the geothermal analysis that
4 you've done would include that case, or whether you
5 need to do some confirmatory geothermal analysis to
6 show that, you know, as you were just mentioning
7 with the fluid levels and the relative elevations
8 of the cutoff trench and the rock and the active
9 zone, that kind of thing, that there would be no
10 issue with that.

11 ACTING CHAIR: Hamlet?

12 MR. CAVANAGH: Paul Cavanagh.

13 I think we can include a detail -- I'm looking
14 at Colin -- I think we can include the detail on
15 the drawings of what occurred during construction.
16 We haven't done any specific geothermal analysis
17 for that condition. We reckoned that it was a
18 relatively small risk factor, and we would prefer
19 to handle it through monitoring and operations.

20 ACTING CHAIR: Thank you. Holger?

21 MR. HARTMAIER: Holger Hartmaier, BGC.

22 I think the -- let's look at what the actual
23 as-built looks like, and if it looks like, you
24 know, a maybe relatively minor issue, then I would
25 agree we could go with just monitoring.

26 However, our concern was the fact back in

1 September, the Hamlet was already reporting that
2 they were seeing underseepage through the active
3 zone, and so that, you know, any of the active zone
4 areas are a potential seepage path, so we just want
5 to make sure they're addressed, so there's no point
6 going to great lengths to, you know, construct a
7 frozen berm and have all those conditions if we
8 have a weak point around the sides.

9 ACTING CHAIR: Thank you. Hamlet?

10 MR. CAVANAGH: Paul Cavanagh.

11 I'm not sure what was being suggested, but the
12 seepage condition beneath the berm is a different
13 situation -- consideration than the end-run
14 potential, simply because the berm -- the seepage
15 condition beneath the berm was expected as a
16 possibility, and it's in the deepest part of the
17 lagoon, so any amount of fluid that accumulated
18 could potentially seep.

19 Where we're talking about the abutments of the
20 berm, that's a condition where the fluid has to be
21 at a certain level, and again, it's only going to
22 occur potentially late summer, and I can agree with
23 let's look at the as-built configuration. But if
24 that's going to be a deterrent to issuance of a
25 license, I'm a little hesitant to suggest that we
26 include that in it as well. I mean, it can be a

1 condition of the license that we look at the
2 abutment and put in place some monitoring, but I'm
3 a little nervous about do we make this a condition
4 of the license, because then it just delays
5 everything.
6 ACTING CHAIR: Okay, Holger?
7 MR. HARTMAIER: Holger Hartmaier, BGC.
8 I think, as I suggested, we at least get the
9 as-built and see what it looks like, get the
10 elevations and the conditions, and then I think in
11 our intervention, we're recommending that, you
12 know, monitoring be done so if that is an area, and
13 I think it's one of the critical areas of the dike,
14 is we need to install the required monitoring into
15 that area just to confirm that it's frozen back and
16 that there's no seepage.
17 ACTING CHAIR: Hamlet? Observation,
18 question, answers?
19 MR. STEWART: Mr. Chair, could we
20 possibly have that question deferred?
21 ACTING CHAIR: No problem. Holger, any
22 other questions for the Licensee?
23 MR. HARTMAIER: Holger Hartmaier, BGC.
24 Thanks again, Mr. Chair.
25 Yes, I am still rolling through the items in
26 the intervention statement, and what I could

1 suggest, maybe to speed up the proceedings, is that
2 Paul Cavanagh now has a copy of those intervention
3 statements, and perhaps we can have him respond at
4 a later time in these hearings with specific
5 responses to those rather than at this time. It's
6 up to you; we can continue on, or we can just table
7 the intervention statement as it is and have them
8 respond.

9 ACTING CHAIR: Okay, sounds like there's
10 quite a few more questions that you may have, so
11 perhaps, if that is sufficient for you people, do
12 you want to take it under advisement, and perhaps
13 once he does his own presentation, you'll have a
14 lot of answers at that time? Is that what you
15 wish, or do you want us to carry on question by
16 question?

17 MR. CAVANAGH: Paul Cavanagh.
18 Well, the suggestion earlier from, I believe,
19 the Board's lawyer was that this is a submission.
20 It has comments and it has recommendations, but it
21 really doesn't have specific questions, and for me
22 to try to address these is difficult right now.
23 And the idea was that these need to be turned into
24 some sort of specific question that I can answer.
25 If we do that -- we can either do that now or after
26 the presentation. It's probably better after the

1 presentation.

2 ACTING CHAIR: Because what I was
3 thinking to do was take a 15-minute break, give our
4 translators a few minutes and ourselves to get up
5 and stretch. If you want to put your questions
6 down in a question form, I don't know how you want
7 to do this, but maybe Dionne can fill me in, but I
8 know there's quite a few questions you need
9 answered, and of course, we need all the evidence
10 before us to make a decision. Without the
11 information, it's pretty hard for us to make a
12 decision. Dionne?

13 MS. FILIATRAULT: Thank you, Mr. Chairman.
14 Dionne Filiatrault.

15 What I might suggest, Mr. Chairman, is that
16 there is a significant amount of questions, and
17 even a 15-minute break, I don't think, is going to
18 give them both the time to be able to do that.

19 What I might suggest is there are other
20 presenters before we actually get to BGC. I
21 believe, Mr. Chair, you have BGC as the last
22 presenter for the hearing, that we give them the
23 opportunity during breaks, during potentially a
24 supper break, to side-bar between themselves,
25 resolve any of the issues or questions that still
26 remain outstanding and that, when Holger makes his

1 presentation, he can provide that list of
2 clarification and the list of outstanding issues
3 that still need to be clarified at that point in
4 the form of questions to the proponent. If that's
5 acceptable to you, Mr. Chairman, and to them, it
6 will keep the process moving forward.

7 ACTING CHAIR: I have no problem. As I
8 say, this is my first hearing. I just want to make
9 sure that all the bases are covered for us and for
10 our consultant and also the Licensees for sure.

11 Is that okay with yourself, Holger, that you
12 can do a side-bar and discuss it with your
13 counterparts and get some of that information done
14 between now and, I don't know, tonight or
15 something, 7:00, when we reconvene again? I know
16 right now my Board has been up quite late, and I
17 know their bottoms need to get off these chairs for
18 a minute and walk around, so can you please carry
19 on?

20 MR. HARTMAIER: Holger Hartmaier, BGC.

21 Yes, that's acceptable to me. I think it's
22 only fair to Paul that, if this is the first time
23 he's seen these things, that he gets a chance to
24 read through it, and we can meet and discuss them
25 point by point, and I can formulate questions so
26 that for the purposes of a hearing, we can publicly

1 go through them question by question and have his
2 formalized response for any of the outstanding
3 issues.
4 ACTING CHAIR: If I may, do you have
5 anything else besides your intervention questions;
6 do you have anything else that you want to add now?
7 MR. HARTMAIER: Mr. Chair, no, the rest
8 of the information we'll include in our
9 presentation.
10 ACTING CHAIR: Okay. Thank you very
11 much, Holger. Is that satisfactory, Paul; do you
12 agree?
13 MR. CAVANAGH: Paul Cavanagh. Yes,
14 that's fine.
15 ACTING CHAIR: Okay, legal dude over
16 there in Calgary? Bill, any question?
17 MR. TILLEMANN: No, no comments, just
18 whenever the break is, have the Staff call me, but
19 I don't have -- or I'll call them, so no comments,
20 just carry on.
21 ACTING CHAIR: Okay, so right now, we're
22 going to take a -- let's say we'll reconvene again
23 at quarter to 4.
24 (BRIEF ADJOURNMENT)
25 ACTING CHAIR: Okay, we'll come back
26 into regular session. I guess basically, Holger,

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1 do you have any more questions, Holger, on the
2 Applicant's presentation at the present time?
3 MR. HARTMAIER: Holger Hartmaier, BGC.
4 No, not at this time. I think the way we're
5 going to proceed is when I make my presentation,
6 we'll have a list of recommendations, and we'll
7 allow the Proponent to ask questions and
8 clarification at that time.
9 ACTING CHAIR: Perfect. Thank you very
10 much, so you're done. Any questions from the Staff
11 or the technical people. David?
12 NWB STAFF QUESTION HAMLET:
13 MR. HOHNSTEIN: Thanks, Mr. Chair.
14 I'm going to bring up a drawing on the screen
15 here just to have it illustrated for the Licensee.
16 ACTING CHAIR: While Dave is trying to
17 find that, Dionne, do you have any questions you'd
18 like to ask?
19 MS. FILIATRAULT: Yes, thank you,
20 Mr. Chairman. It's a point of clarification
21 understanding the unique dynamics between the
22 Licensee and the Applicant, who is the Hamlet of
23 Cape Dorset, the fact that they rely on CGS for
24 technical expertise and financial dollars to be
25 able to implement potential things that may be
26 coming out of a potential future license, if the

1 Board decides to issue, and then their reliance on
2 Dillon and AMEC, who are making commitments on
3 behalf of the Hamlet.

4 So I guess my question is to the Hamlet, I
5 would like to get, I guess, assurance and
6 confirmation that they understand that, should a
7 license be issued, that the conditions in that
8 license related to any recommendations or any
9 commitments made by CGS or Dillon or AMEC on behalf
10 of CGS and the Applicant that the Board potentially
11 would adopt in a license are bound solely by the
12 Hamlet of Cape Dorset, and that they understand
13 that the licenses issued to Cape Dorset and the
14 subsequent enforcement of that license is the
15 responsibility and solely the responsibility of the
16 Hamlet of Cape Dorset and not of CGS and Dillon and
17 AMEC, and I would like them to make a comment and
18 assurances from them on that, Mr. Chairman.

19 ACTING CHAIR: Thank you, Dionne.

20 Hamlet?

21 MR. STEWART: Art Stewart, SAO, Cape
22 Dorset.

23 Mr. Chair, yes, we realize that we will be the
24 owners, and as a Hamlet not having expertise in
25 these matters, we do rely on the consultations from
26 CGS and from Dillon, and we understand that we will

1 be the sole owners and that we will be responsible
2 for any conditions that are attached to the
3 license.
4 ACTING CHAIR: Thank you very much. Any
5 follow-up, Dionne?
6 MS. FILIATRAULT: Thank you, Mr. Chairman.
7 Dionne Filiatrault. No follow-ups.
8 ACTING CHAIR: Thank you. David, are
9 you now ready?
10 MR. HOHNSTEIN: Yes, thank you,
11 Mr. Chair. Just a quick follow-up --
12 ACTING CHAIR: No, sorry, just I'm --
13 MR. HOHNSTEIN: No, sorry, David
14 Hohnstein.
15 ACTING CHAIR: No, sorry, David, I
16 didn't see his hand. Art, go ahead, please.
17 MR. STEWART: Mr. Chair, could we ask
18 one question before David makes his presentation?
19 ACTING CHAIR: Sure, go ahead.
20 MR. STEWART: I'll ask Bhabesh Roy to
21 ask a question on behalf of the Hamlet.
22 MR. ROY: This is Bhabesh Roy of
23 CGS. I have a question, Mr. Chairman. Here we
24 have three consultant present. I understand Dillon
25 and AMEC, and to my concern to you and the Board,
26 Mr. Holger is presenting a document asking

1 question, so I ask his -- what capacity he's --
2 he's asking question, as the consultant of the
3 Water Board or as BGC as an intervener? Thank you.
4 ACTING CHAIR: Okay, Dionne? I know the
5 answer, but go ahead.
6 MS. FILIATRAULT: Thank you, Mr. Chairman.
7 Back in, I believe, it was May 2006 when the Board
8 decided to engage BGC to assist with the review of
9 this file, a letter was sent to all parties
10 including, CGS, the Hamlet, and any other
11 intervening party that had been identified,
12 identifying that the Board intended to hire BGC and
13 Associated Engineering as independent experts in
14 the review of this file, and that any party
15 objecting to the Board undertaking this, were to
16 submit any notices of objection, and none were
17 received that I am aware of, Mr. Chair, on the
18 public registry.
19 So they were engaged as independent reviewers
20 to provide technical advice on -- in the areas of
21 their specialty, Holger in the area of geotechnical
22 assessment, and Associated Engineering in the area
23 of waste water engineering.
24 ACTING CHAIR: Thank you. Does that
25 answer your question?
26 MR. ROY: Yes, Mr. Chairman. Thank

1 you.
2 ACTING CHAIR: Thank you very much.
3 Okay, one more time, sir.
4 MR. HOHNSTEIN: Thank you, Mr. Chair.
5 David Hohnstein.
6 I just wanted to ask a question in follow-up to
7 the Environment Canada question regarding the
8 runoff of the slope of the north bank there and
9 the, I guess, what was supposed to be a diversion
10 road in there to control the runoff. The question
11 is for the runoff control on the north side: Has
12 there been an estimate of the amount of water
13 expected during spring runoff, and what effect
14 would this have on the treatment of the sewage with
15 the facility?
16 THE CHAIR: Thank you. Hamlet or
17 Dillon? Colin? Got to stop asking all these hard
18 questions. Are you ready?
19 MR. JOYAL: Thank you, Mr. Chairman.
20 Can I defer that question to investigate a response
21 to that and provide it later in the process?
22 ACTING CHAIR: Certainly. David?
23 MR. HOHNSTEIN: Thank you, Mr. Chair.
24 Just one more quick question as a follow-up to my
25 last. David Hohnstein.
26 I just wanted to clarify my reading of the

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1 contours shows that there's a possibility of a
2 considerable amount of water that flows to the
3 northeast, towards the east dam. Just a
4 clarification as to where that water would be going
5 to and where it ends up. It looks like it would
6 be, I guess, contained between the road and the
7 access road coming down to the dump point.
8 ACTING CHAIR: Thank you, David.
9 Hamlet?
10 MR. JOYAL: I believe your question
11 pertained to the runoff and the direction of runoff
12 in that area, in the slopes in the northeast
13 portion of the site are downwards towards the berm
14 and then down to the northeast, down the site road.
15 ACTING CHAIR: David?
16 MR. HOHNSTEIN: That's correct. If the
17 road does provide some kind of deflection of the
18 runoff, it looks like it would flow in that
19 direction, the majority of it, rather than avoiding
20 the area and going down towards P Lake and out to
21 the inlet.
22 ACTING CHAIR: That's a comment. Do you
23 have any question?
24 MR. HOHNSTEIN: It was just my question
25 is to where -- if that is the direction of flow,
26 where does that water end up? It looks like it

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1 would be, I guess, contained within that little
2 basin there.
3 Sorry, David Hohnstein.
4 ACTING CHAIR: Hamlet?
5 MR. JOYAL: Colin Joyal, Dillon
6 Consulting.
7 That's correct.
8 ACTING CHAIR: Any other technical
9 information you need or questions you may have?
10 Staff?
11 MR. HOHNSTEIN: Mr. Chair, no, that's all
12 for now.
13 ACTING CHAIR: Thank you. Any other
14 comments -- sorry, Dionne?
15 MS. FILIATRAULT: Thank you, Mr. Chairman.
16 I believe that they have deferred the question
17 regarding runoff to later, and I have no doubt that
18 runoff will become issues in some of the other
19 interveners' presentations, and if it's acceptable
20 to the Applicant, we would raise the question again
21 at that time.
22 ACTING CHAIR: Okay, thank you. Any
23 other questions from the public for the Licensee?
24 Then, Art, thank you for your presentation. As
25 you can see, there was other questions you're going
26 to have to answer anyway, so you've got your work

1 cut out for you.

2 So what we'll probably do now, if you have no
3 more comments, Art, I will move on to the next
4 intervenor. We're going to start with the
5 intervenors now, and it will be their turn to come
6 and -- I guess they still stay at the same table,
7 so you can ask -- answer the questions.

8 So do you have any final closing comments, Art?

9 MR. STEWART: Art Stewart, SAO, Cape
10 Dorset.

11 We will definitely try to get the answers to
12 those questions that we have deferred, and we'll
13 try to get back as soon as possible.

14 ACTING CHAIR: Okay. Just a
15 housekeeping issue; it's 4:00, it's going on to 5.
16 We are meeting this evening at 7:00, so we can
17 still carry on and perhaps do a couple more
18 intervenors also this evening, and probably I
19 thought 7 to 9, maybe 9:30 max, because our Board
20 is pretty tired. I'm sure you all are pretty tired
21 from travelling, and we still have tomorrow anyway
22 to finalize everything.

23 So, Bill, do you have any final comments for
24 the Licensee?

25 MR. TILLEMANN: No, sir, I certainly
26 don't have any questions at all. Thank you.

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1 ACTING CHAIR: Okay, thank you, Bill.
2 Then we will call on the Government of
3 Nunavut-Department of the Environment to do their
4 presentation, please.
5 PRESENTATION BY GN-DOE:
6 MIKE ATKINSON, sworn:
7 MR. ATKINSON: Thank you, Mr. Chair. My
8 name is Mike Atkinson. I work for the Government
9 of Nunavut-Department of Environment. I recognize
10 the dynamic here may be a little strange with,
11 obviously, Government of Nunavut, CGS representing
12 the Proponent, and then myself here as an
13 intervener.
14 I would stress that the Department of
15 Environment has a legal mandate under the
16 Environment Protection Act for environmental
17 protection, and it's a mandate that obviously we
18 take very seriously, and we are very keen to
19 demonstrate this in such public arenas.
20 Our Environment Protection Act basically states
21 that "no person shall discharge or permit the
22 discharge of a contaminant into the environment".
23 Within the Act, the definition of "contaminant" is
24 defined as "any noise, heat, vibration or substance
25 as the Minister may prescribe where discharged into
26 the environment". And under that piece of

1 legislation, there are some fairly relevant
2 regulations, and these are the spill planning and
3 reporting regulations.

4 The Department of Environment has been involved
5 in this file since 2006, and commenting on many
6 issues, and I will attempt to summarize and
7 conclude our findings on those issues. The areas
8 that we will be discussing briefly are seepage and
9 geothermal analysis, operation and maintenance,
10 discharge criteria, sludge management, the use of
11 the current treatment systems as a contingency
12 measure, abandonment and restoration, and
13 monitoring.

14 Through participation in the September 2008
15 technical meetings in Iqaluit, DOE became aware of
16 concerns expressed by residents of Cape Dorset
17 about integrity of the lagoon's retaining
18 structures, specifically the downstream berm.

19 Correspondence from Dillon to AMEC August 2007
20 concluded that the geothermal analysis indicates
21 the unlikely occurrence of seepage under the berm
22 if the liner is installed in accordance with the
23 drawing specifications. However, AMEC do know that
24 this modelling is only based on predictions, and
25 there is a need to monitor conditions and recommend
26 the installation of thermistors.

1 In November, CGS wrote to the Water Board
2 confirming that they will indeed install these
3 thermistors. However, AMEC also state the need for
4 a contingency plan, measures that should be applied
5 should the berms not freeze back as anticipated.
6 In the material submitted in the application, DOE
7 could find no such contingency plan, although
8 measures were outlined today by AMEC.

9 So on the seepage and geothermal analysis, DOE
10 recommends that a license condition requiring the
11 Proponent to monitor berm freeze-back and the
12 further development of a contingency plan should
13 the berm not freeze back as planned.

14 With regard to operations and maintenance, the
15 final submission from the Applicant included an
16 operations and maintenance manual, and DOE --
17 contained in that manual was an outline spill
18 contingency plan. We did a comparison of the plan
19 to the requirements of our regulations and consider
20 that the plan submitted to be very much an outline
21 and needs to be developed further to make it a
22 useful plan that can be applied.

23 So we recommend as part of an updated O & M
24 manual that the Proponent be prepared to file a
25 comprehensive spill contingency plan that is
26 consistent with our regulations prior to

1 commissioning the lagoon. We also recommend that
2 the license state that the plan needs to be updated
3 annually and when significant facility or
4 operational changes occur.

5 ACTING CHAIR: If I could just interject
6 here for a second. Another Elder just walked in,
7 sorry. As soon as he gets the thing in his ear.
8 Can your brother speak enough English? Echalook?
9 We have another Elder just walked in. I just want
10 to make sure he can hear me before I say hello.
11 I'd like to welcome Echalook Pingwartuk to our
12 hearing.

13 MR. PINGWARTUK: I can hear you.

14 ACTING CHAIR: This is Mary's brother;
15 our translator from Yellowknife, that's her
16 brother. Echalook, say hello. Sorry, I have to
17 introduce the Elders. Please, carry on.

18 MR. ATKINSON: Thank you, Mr. Chair. So
19 then the next area I wish to provide a
20 recommendation on is in relation to discharge
21 criteria.

22 During the July 2006 technical meeting, Dillon
23 confirmed that the wetland and waterfall are
24 considered a receiving environment and not part of
25 the treatment system. Additionally, the November
26 2007 operation and maintenance manual states that

1 the point of compliance for the water license is
2 the discharge from the lagoon into P Lake.

3 With this in mind, the Department of
4 Environment recommend that the license should
5 stipulate discharge standards at least equivalent
6 to those outlined in the document guidelines for
7 the discharge of treated municipal waste water in
8 the Northwest Territories.

9 For a discharge of less than 150 litres per
10 capita per day into a lake of a residence time of
11 less than five years, we believe the discharge
12 criteria should be as follows: For BOD, biological
13 oxygen demand, we recommend 80 milligrams per
14 litre, and for total suspended solids, 100
15 milligrams per litre.

16 Sludge management: The O & M manual submitted
17 in November 2007 states that the sludge will be
18 sampled annually when effluent becomes noncompliant
19 or more often is required. The stated purpose of
20 that sampling is to ensure that the sludge remains
21 of a quality suitable for land disposal. However,
22 DOE can find nothing in the O & M manual that gives
23 any guidance on what this target sludge quality is.

24 Draft guidelines for disposal of sewage sludge
25 exist in the, and I repeat draft document, draft
26 guidelines for discharge of domestic waste water in

1 Nunavut 2000. However, these guidelines are not
2 reflected in the O & M manual mainly because it's a
3 draft. However, DOE recommends a license condition
4 outlining terms and conditions of sludge disposal
5 as contained in the document draft guidelines of
6 discharge of domestic waste water in Nunavut. The
7 Proponent should be required to submit a plan
8 demonstrating how they would comply with these
9 guidelines of sludge management and removal.

10 The next area or issue I wish to address is the
11 use of the current treatment system as a
12 contingency measure. We've all seen the road up to
13 the lagoon, the new lagoon, and the December 2006
14 design report confirms some grade of 8 to 10
15 percent over the length of a kilometre. So this
16 leaves -- this gives DOE some concerns about the
17 accessibility of that road throughout the winter
18 months.

19 The proponent has suggested that the cell one
20 of the three existing cell lagoon will be used as a
21 contingency, and certainly DOE supports that.
22 However, if these old facilities are to be used,
23 details of any repairs, upgrades, and maintenance
24 required should be provided. The annual report
25 submitted by the Proponent should document the
26 number of days the contingency lagoon was used,

1 approximate volume of effluent stored, method of
2 discharge, and the quality of that discharge from
3 the contingency lagoons.

4 On abandonment and restoration, the lagoon is
5 predicted to have a 20-year life span, and DOE
6 acknowledges that submission of a detailed
7 abandonment and restoration plan is premature at
8 this stage. However, DOE does believe that
9 conditions relating to abandonment and restoration
10 should be contained within the proposed new license
11 with end objectives to return the site to pre-use
12 conditions.

13 So we recommend that similar to Part G,
14 Conditions 1 to 4 of the existing license, the new
15 license should require the abandonment and
16 restoration plans for P Lake lagoon be submitted to
17 the Water Board for approval at least six months
18 prior to abandoning the facility. The Water Board
19 should also require submission of abandonment and
20 restoration plans for the old three-cell lagoon and
21 the lagoon known as the "Honey Pit" within one year
22 of issuing the new license.

23 Monitoring: The draft report, December 21st,
24 2006, submitted by the applicant, outlines a
25 monitoring program essential to model and
26 understand the treatment process and to aid in

1 future expansions of the system. The program
2 includes eight sample locations along the effluent
3 path with samples taken weekly during the
4 open-water season. Parameters of interest include
5 total suspended total, BOD, ammonia, nitrogen, and
6 total phosphorus.

7 The November 9th operation and maintenance
8 manual expands further on this monitoring program,
9 including additional samples in P Lake itself. DOE
10 concurs with the benefits of this monitoring
11 program for the operation and maintenance of the
12 lagoon, and therefore, we recommend that the Water
13 Board include the sampling program outlined in the
14 November 9th, 2007 O & M manual submitted by the
15 Proponent as a term and condition of the license to
16 be issued.

17 In summary, DOE believes that the Proponent has
18 provided sufficient information to the Water Board
19 that a license should be issued for the proposed
20 Cape Dorset sewage lagoon subject to the terms and
21 conditions previously described.

22 Thank you very much. Any questions?

23 ACTING CHAIR: Thank you very much. Any
24 questions from the Hamlet?

25 MR. STEWART: No, Mr. Chairman, we have
26 no questions.

1 ACTING CHAIR: That was Art Stewart.
2 Environment Canada? I'm sorry, you've got to come
3 to the table, state your name for the record, and
4 say no.
5 MS. SPAGNUOLO: Thank you,
6 Mr. Chairperson. Collette Spagnuolo. Environment
7 Canada has no questions for the GN.
8 ACTING CHAIR: Thank you very much.
9 INAC?
10 MR. ROGERS: Mr. Chairman, Jim Rogers
11 of INAC. We don't have any questions at this time.
12 ACTING CHAIR: Thank you, Jim. BGC?
13 MR. HARTMAIER: Thank you, Mr. Chair.
14 Holger Hartmaier, BGC Engineering. No questions at
15 this time.
16 ACTING CHAIR: Thank you very much.
17 Staff?
18 MS. FILIATRAULT: Yes, Mr. Chairman. I'm
19 just wondering if I could beg your indulgence for
20 just 2 minutes.
21 ACTING CHAIR: In the meantime, I'll
22 just ask for any questions from the floor to the
23 Government-Department of Environment? Bill, any
24 questions you may have for clarification?
25 MR. TILLEMAN: Oh, no, sir.
26 ACTING CHAIR: Okay, thank you. While

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1 we're waiting, if I can, I would just like to
2 advise you in future when you do come to the
3 hearings and you are coming with your presentation
4 and the hard copy, would you please make sure the
5 hard copies are always available for this Board so
6 we can follow on because it's hard to peak around
7 the corner and see what's happening, and by having
8 a hard copy for everybody would be much appreciated
9 in the future. Thank you very much.

10 Dionne, are you ready? Not yet? Go ahead,
11 please.

12 NWB STAFF QUESTION GN-DOE:

13 MS. FILIATRAULT: Thank you, Mr. Chairman.
14 Dionne Filiatrault.

15 Department of the Environment has recommended
16 some contingencies, and the question may not
17 necessarily be for the Department of Environment,
18 but is the Department of Environment aware of any
19 confirmation of any funding being available for the
20 installation of thermistors to monitor the
21 freeze-back, given that your proposal is to -- for
22 them to develop a contingency measure for the
23 system?

24 ACTING CHAIR: GN?

25 MR. ATKINSON: Mike Atkinson, Department
26 of Environment.

1 I'm not aware of any funding that CGS may have
2 for thermistor installation.
3 ACTING CHAIR: Dionne?
4 MS. FILIATRAULT: Mr. Chairman, I think it
5 would be useful -- Dionne Filiatrault -- to pose
6 the question to CGS, given that a lot of the
7 concerns and questions that are going to be raised
8 and have been raised are based on the commitment
9 made by the Applicant to install the thermistors.
10 And I think it would be useful information to
11 know when the installation of these thermistors is
12 being planned for, and if they are going to be
13 installed, if they are installed prior to effluent
14 being put into the system. And if that is the
15 case, would DOE still require a contingency measure
16 if the analysis of the freeze-back proved that
17 there was freeze-back?
18 So, Mr. Chairman, the question is to CGS, and
19 then a follow-up from DOE.
20 ACTING CHAIR: Got it. Thank you. CGS,
21 would you like to respond to that question?
22 MR. FUENTES: Mr. Chairman, if you
23 permit it?
24 ACTING CHAIR: Okay, the only thing is I
25 don't know if you've been -- have you been sworn
26 in?

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1 MR. FUENTES: If you want it, I will
2 swear.
3 ACTING CHAIR: Yes, I've got to swear
4 you in. Bill, there's a gentleman that's part of
5 the Hamlet group team who wants to do a
6 presentation to the Board. Do I have to swear him
7 in before he can give evidence?
8 MR. TILLEMAN: Yes.
9 ACTING CHAIR: Okay, please.
10 PATRICIO FUENTES,
11 affirmed:
12 MR. FUENTES: My name is Pat Fuentes or
13 Patricio Fuentes. I'm the Regional Manager for
14 Project Division. This particular project fell
15 under my jurisdiction, and we're looking forward to
16 the recommendation of the Board to install the
17 thermistors. We would like to know how many they
18 are, the location that would you like to prefer to
19 be located, and we will proceed as soon as we get
20 all the information.
21 ACTING CHAIR: Thank you very much.
22 GN-DOE, a final comment?
23 MR. ATKINSON: Mike Atkinson, Government
24 of Nunavut-Department of Environment.
25 I'll briefly respond to the second part of
26 Dionne's question, I think -- thanks, Jim -- which

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1 was if thermistors demonstrated that the berms are
2 freezing back, would we still like to see a
3 contingency plan be developed.

4 I would first qualify my intervention here --
5 or I did qualify my intervention by quoting
6 sections in correspondence between Dillon and AMEC,
7 which were submitted as part of the public
8 registry. I would say that I am not an engineer,
9 so I will not engage in any dialogue between Holger
10 and AMEC.

11 Having said that, I think it would be useful
12 for the Proponent to explore a little further under
13 what circumstances they would implement their
14 contingencies so that should they be required to be
15 implemented, they could do so quickly. So taking
16 the outline of the plan they have so far and just
17 developing that a little further with various
18 triggers for implementation.

19 ACTING CHAIR: Thank you. Final
20 comment? Dionne?

21 MS. FILIATRAULT: Thank you, Mr. Chairman.
22 Dionne Filiatrault, no further questions.

23 ACTING CHAIR: Okay, then on behalf of
24 the Board, thank you for your presentation. It's
25 4:30. Environment Canada, would you like a -- you
26 need about a half an hour to do your presentation?

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1 MS. SPAGNUOLO: (NONVERBAL RESPONSE)
2 ACTING CHAIR: Then, Environment Canada,
3 would you please come forward.
4 COLLETTE SPAGNUOLO,
5 sworn:
6 ACTING CHAIR: I just want to check,
7 Bill, are you still with us?
8 MR. TILLEMAN: Yes, sir.
9 ACTING CHAIR: Thank you. And Thomas?
10 THE CHAIR: Yes.
11 ACTING CHAIR: We're just setting up
12 here with the computer, and I'm sure Environment
13 Canada will be ready. While we're waiting, Bill
14 and Tom, what we're going to probably do is stop at
15 5 and probably stop until 7, and then we'll come
16 back and hopefully do INAC and BGC and whatever
17 else is left to be done, and we shall have tomorrow
18 to finalize everything.
19 MR. TILLEMAN: Okay.
20 ACTING CHAIR: I know how hard it is to
21 deal with a hearing by phone because I think I
22 dealt with one a few years ago, and it's
23 extremely -- a very hard way to go to a hearing is
24 by phone. Very, very hard.
25 So, Environment Canada, please go ahead.
26 PRESENTATION BY EC:

1 MS. SPAGNUOLO: Thank you very much,
2 Mr. Chairperson. Once again, my name is Collette
3 Spagnuolo, and I'm here representing the
4 Environmental Protections Operations Directorate of
5 Environment Canada.

6 The primary legislation that Environment Canada
7 has submitted our intervention under is both the
8 Department of the Environment Act, as well as
9 Section 36(3) of the Fisheries Act, which are the
10 pollution prevention provisions. The Hamlet should
11 also be aware of work that is being done under the
12 Canadian Council of Ministers of the Environment to
13 develop a Canada-wide strategy for the management
14 of municipal waste water effluents.

15 The Canadian-wide strategy will more clearly
16 define the regulatory requirements related to the
17 release of discharges from municipal waste water
18 treatments into surface waters, and the latest
19 draft of the strategy is available on the Internet
20 and was released in October of 2007.

21 As part of the Federal Government's
22 implementation of the Canada-wide strategy, it is
23 Environment Canada's stated intention to develop a
24 regulation under the Fisheries Act, and our goal in
25 developing this regulation is to ensure that
26 effluents from municipal waste water systems are

1 treated before being discharged to surface waters
2 so that effluents do not pose an unacceptable risk
3 to ecosystem or human health or to fishery
4 resources.

5 So the first issue that I'd like to discuss is
6 the compliance point for the license. Any effluent
7 that is discharged into fish-bearing water must be
8 nontoxic in order to comply with the Fisheries Act.
9 In order to achieve this, it may be necessary for
10 the license to differentiate between the last point
11 of control, which is the outfall from the lagoon,
12 and the final point of discharge, which is at some
13 point upstream of the entrance into Telik Inlet.

14 Making this differentiation is not inconsistent
15 with the latest draft of the Canadian-wide
16 strategy, and the latest draft does state that
17 effluent from a waste water facility must be
18 sampled upstream of the point where the effluent
19 enters the receiving water body and downstream of
20 any treatment processes. It also defines
21 "end-of-pipe" as the point between the end of the
22 treatment process and the receiving environment.

23 So as we know from the Applicant's presentation
24 earlier this morning, the proposed lagoon will
25 decant into P Lake, and the outlet of P Lake flows
26 into a small wetland area, which then drains

1 through a small channel over a waterfall before
2 entering Telik Inlet.

3 The application documents also state that both
4 P Lake and the wetland are not fish-bearing.
5 Therefore, the first waters frequented by fish
6 would be Telik Inlet, and it's these waters that
7 are protected under the Fisheries Act.

8 All effluent that is discharged from the final
9 discharge point, which will be designated by the
10 Board, must be demonstrated to be acutely nontoxic.
11 While not the only method of determining whether an
12 effluent is deleterious, a common biological test
13 that can be used to determine whether or not an
14 effluent is acutely lethal is the reference method
15 for determining acute lethality to rainbow trout.

16 However, if the 96-hour rainbow trout test, as
17 it's commonly referred to as, is not appropriate
18 for this location due to the hardness of the water,
19 EC recommends that the Board include an appropriate
20 acute lethality test as a condition in the license.
21 We do recommend that the Proponent should conduct
22 an acute lethality test from either the effluent
23 sampled from the outflow of P Lake or from the
24 final discharge point once annually during the
25 second half of the decant.

26 The next issue I would like to discuss is the

1 discharge criteria. Any discharge criteria
2 included in the license by the Board need to be
3 both protective of the receiving environment and
4 still achievable by the Applicant. Discharge
5 criteria that are normally included in a water
6 license are fecal coliforms, biological oxygen
7 demand over five days, total suspended solids, oil
8 and grease, and pH.

9 In our original intervention, our written
10 intervention, Environment Canada did recommend that
11 the limits from the expired license would be
12 appropriate for the outflow from P Lake. However,
13 given that the Licensee in their presentation and
14 as a result of the questioning by the Department of
15 Environment with the Government of Nunavut, as the
16 Licensee has agreed to the use of 80 milligrams per
17 litre biological oxygen demand and 100 milligrams
18 per litre total suspended solids, we feel that
19 the -- we agree with the Government of Nunavut that
20 these would be appropriate limits for the outflow
21 from P Lake as per the guidelines from the
22 Northwest Territories.

23 Under the Canada-wide strategy for the
24 management of municipal waste water effluents, the
25 focus is on setting maximum allowable limits for
26 BOD 5, residual chlorine, and total suspended

1 solids. There will be a period of up to five
2 years, during which northern issues will be
3 examined under the strategy, and practical limits
4 will be put forth for the management of municipal
5 waste water in the north. The Hamlet should
6 realize that this may eventually impact the BOD and
7 TSS discharge criteria in their license.

8 Environment Canada also recommends a periodic
9 analysis of a full suite of parameters, including
10 metals, nutrients, and major ions in addition to
11 the regulated parameters. Additionally, we suggest
12 that carbonaceous biological oxygen demand or CBOD
13 should also be added as a monitored parameter to
14 help the Hamlet assess whether or not they would be
15 able to meet the proposed national performance
16 standards, as the national performance standards
17 will look at CBOD as opposed to BOD 5.

18 In terms of the lagoon design, we've heard over
19 the last number of months and again here today
20 various dialogue between the Applicant and
21 different consultants regarding the integrity of
22 the lagoon and the operational aspects in regards
23 to the design in construction. While Environment
24 Canada doesn't have technical expertise in relation
25 to engineering, we do have concerns with regards to
26 the integrity of the lagoon, as these issues could

1 impact the water quality in the receiving
2 environment.

3 So we recommend that the water balance of the
4 lagoon system be closely tracked so that any losses
5 through exfiltration or seepage are detected. And
6 we also recommend, similar to the Government of
7 Nunavut, that a contingency plan should be drafted,
8 including appropriate management actions, so that
9 they can be implemented if required.

10 In regards to monitoring, Environment Canada
11 recognizes that a new surveillance network program
12 will need to be identified for the P Lake system,
13 and we recommend that the new monitoring program
14 include sufficient sampling sites and frequencies
15 in order to inform the community about treatment
16 efficiencies. As currently proposed, the final
17 design report recommends using eight sample
18 locations and completing analyses for five
19 different parameters. Sampling is proposed to be
20 done a week prior to discharge and weekly during
21 decant.

22 We support the proposal to start sampling with
23 a series of samples taken along the treatment
24 system. However, we also suggest that samples be
25 taken at the outflow into Telik Inlet. In addition
26 to the five parameters, which are suggested by the

1 Applicant, we feel it would also be useful to add
2 periodic analysis for a full suite of parameters in
3 order to characterize the waste water.
4 Specifically we believe that an ICP metal scan
5 should be completed as well as analyses for major
6 ions and carbonaceous biological oxygen demand.
7 Finally, bioassay -- annual bioassay testing should
8 be done using an appropriate test method, and we do
9 support the Proponent's stated recommendation that
10 thermal monitoring of the berms be completed.

11 Regarding the frequency of the monitoring, we
12 feel that sufficient operational monitoring must be
13 done in order to allow the system managers to
14 optimize treatment so that the results can be used
15 to rationalize the decant strategy. While weekly
16 sampling may be more than what is needed, there
17 should be sufficient monitoring completed to
18 characterize the effluent and the quality of the
19 effluent as it travels through the treatment
20 system.

21 In regards to the operation and maintenance
22 manual, we do note that one was submitted in
23 November, and we apologize for the oversight in our
24 written intervention, where we did not have a
25 chance to fully review the operation and
26 maintenance manual. While we note that the manual

1 does address some of the concerns from our written
2 intervention, we would still recommend that the
3 plan be kept open for review prior to Board
4 approval. There are some items which we feel
5 require further discussion, including optimizing
6 the timing of the decant in order to allow maximum
7 wetland polishing of effluent, expanding the list
8 of parameters to be monitored, issues surrounding
9 whether and how ice will be removed from the lagoon
10 in order to allow discharge of effluent, and
11 drainage management around the site.

12 Regarding the abandonment and reclamation of
13 the existing lagoons, in the final design report,
14 we do note that the Applicant has stated that an
15 A & R plan will be required for the three-cell
16 lagoon as well as for the new lagoon system and
17 that there may be a need to use the first cell of
18 the three-cell lagoon system as an emergency
19 discharge option in the event that P Lake is not
20 accessible for a long period of time due to the
21 weather. So we do agree with this recommendation,
22 and we suggest that the submission of an A & R plan
23 be a term and condition in the license.

24 Finally, we would like to remind the Proponent
25 that if the three-cell lagoon system is to be
26 designated as providing emergency capacity, it

1 should be included in the operation and maintenance
2 plan, and its maintenance during its standby status
3 should be described in the plan. We would like to
4 highlight that the consequences of allowing the old
5 lagoon to fail would almost certainly result in a
6 violation of the Fisheries Act, and so, therefore,
7 appropriate planning and actions must be identified
8 in order to avoid that.

9 There are -- most of the discussions occurring
10 here today have focussed on the sewage lagoon in
11 the P Lake system; however, we do recognize that
12 there are some other components of the municipal
13 infrastructure that are also addressed in the
14 renewal application. We feel that the application
15 at this time does not contain detailed information
16 on aspects of the license beyond the P Lake sewage
17 lagoon, such as O & M plan for the solid waste
18 disposal facility, and a quality assurance and
19 quality control plan.

20 So we recommend that either the applicant
21 re-submit the renewal application with a better
22 level of detail on all aspects of the municipal
23 infrastructure, including terms and conditions --
24 or, sorry, or that the renewal license include
25 terms and conditions that require the submission
26 and approval of the plans outlined in the previous

1 license, such as the O & M plan and the QA/QC plan.
2 So, thank you, that concludes my presentation,
3 Mr. Chairperson. If anyone has any questions, I'd
4 be pleased to attempt to answer them.
5 ACTING CHAIR: Thank you for your
6 presentation. Again, I'll start with the Hamlet.
7 Any questions?
8 MR. STEWART: Art Stewart, SAO.
9 Mr. Chairman, Mr. Bhabesh Roy would like to make
10 some comments.
11 ACTING CHAIR: Thank you.
12 HAMLET QUESTIONS EC:
13 MR. ROY: This is Bhabesh Roy,
14 Municipal Engineer at CGS. Thank you,
15 Mr. Chairman.
16 This is just for your information with the
17 discussion with the Water Board, we applied for
18 renewal of the existing license, and considering
19 the process will take this -- we don't know how
20 long, that's why the existing system is being
21 renewed. When the P Lake lagoon design will be
22 approve, and then we amend the existing license.
23 So this will cover the -- as you know, this license
24 include water, waste water, and solid waste, so
25 similarly, when we amended this license,
26 automatically all three systems will be admitted

1 into the license. Thank you, Mr. Chairman.
2 ACTING CHAIR: Thank you. Did you get
3 all that? The only problem is what happened is you
4 didn't address the Board. You addressed her, and
5 when you turned on me, I didn't catch you. I hear
6 you, but, sorry, I didn't hear what you said, and
7 when you turned your head and talked to her, we --
8 MR. ROY: Can I --
9 ACTING CHAIR: -- missed it, so I --
10 MR. ROY: Mr. Chairman, can I
11 repeat again?
12 ACTING CHAIR: Please, if you would,
13 just so I know what you're saying. Thank you.
14 MR. ROY: Thank you. What I
15 explained to Environment Canada and the Board,
16 during this discussion process of the P Lake
17 lagoon, with the discussion with the Water Board,
18 we agreed to apply for the renewal of the existing
19 license. We did it. That is in the process. So
20 when the P Lake lagoon design will be approved,
21 then that new license will be amended, and that
22 license will consist of water system, waste water
23 treatment system, and the solid waste management
24 system.
25 ACTING CHAIR: Dionne, you had a
26 question?

1 MS. FILIATRAULT: Thank you, Mr. Chairman.
2 I will confirm with the Board and the parties the
3 procedural aspects of the differentiation between
4 the application for renewal and the current
5 application that we're discussing today regarding
6 the amendment. If I could do that following the
7 supper break, if that's acceptable.
8 ACTING CHAIR: Okay, no problem.
9 Anything else from the Hamlet?
10 MR. STEWART: Art Stewart, SAO. No,
11 there's no further questions or comments at this
12 time.
13 ACTING CHAIR: Thank you. GN-DOE?
14 MR. ATKINSON: Mike Atkinson, Government
15 of Nunavut-Department of Environment. I have no
16 questions, thank you.
17 ACTING CHAIR: Thank you, Mike. INAC?
18 INAC QUESTIONS EC:
19 MR. ROGERS: This is Jim Rogers with
20 INAC. I just have one short clarification question
21 for Environment Canada.
22 Collette talked about the polishing of water
23 through the wetland system; however, we've pretty
24 well clarified that it's not part of the treatment
25 system. We have letters from Community Government
26 Services stating that. If she could just clarify

1 how she looks at the wetland -- the P Lake and
2 wetland system fitting in with the existing P Lake
3 lagoon in that comment, if you wouldn't mind.
4 Thank you.

5 ACTING CHAIR: Thank you, Jim.

6 Environment Canada?

7 MS. SPAGNUOLO: Thank you. Collette

8 Spagnuolo with Environment Canada.

9 We understand from the documentation that has
10 been submitted and from the responses from the
11 Applicant earlier today that the system that's
12 being examined here today or I should say the
13 primary system ends at the outflow from the lagoon.

14 However, given that the receiving environment
15 in which fish are found is Telik Inlet and given
16 that Environment Canada's -- one of our main
17 concerns here today is as a result of our
18 administration of the Fisheries Act, we are
19 cognizant of the fact that some additional
20 treatment of water, of effluent will occur through
21 P Lake and through the wetland. So it was under
22 that umbrella that we made the comments in regards
23 to any polishing that may occur in the wetland
24 area.

25 ACTING CHAIR: Thank you. Jim?

26 MR. ROGERS: That's acceptable.

1 Thanks.
2 ACTING CHAIR: Thank you. BGC?
3 MR. HARTMAIER: Thank you, Mr. Chair.
4 Holger Hartmaier, BGC. I have no comments from the
5 BGC side, but I do have a procedural comment if I
6 may.
7 ACTING CHAIR: Of course.
8 MR. HARTMAIER: Just wondering whether
9 John Granger is on the line at this point.
10 ACTING CHAIR: Let's find out. John,
11 are you on line?
12 MS. FILIATRAULT: No.
13 ACTING CHAIR: No. Dionne?
14 MS. FILIATRAULT: Mr. Chairman, if it's
15 identified that we need to get John on the line, we
16 can bring him on the line. I'm not sure at this
17 point, having the presentation actually finished,
18 we probably should have forethought that and got
19 him on the line before the presentation. So we
20 will touch base with John Granger. A lot of
21 clarification has been provided by Environment
22 Canada, and I think some of it may address some of
23 his issues.
24 ACTING CHAIR: Thank you, Dionne.
25 MR. HARTMAIER: Thank you. No further
26 questions.

1 ACTING CHAIR: Okay, thank you. Staff,
2 any questions for Environment Canada? Dionne?
3 NWB STAFF QUESTION EC:
4 MS. FILIATRAULT: Thank you, Mr. Chairman.
5 Dionne Filiatrault.
6 Just want to seek clarification because it's
7 the first time that we've gotten this -- as
8 specific as Collette has provided. So my
9 understanding is that you want the Board to
10 consider a distinction between a point of control
11 and a final discharge point, correct?
12 ACTING CHAIR: Environment Canada?
13 MS. SPAGNUOLO: Thank you,
14 Mr. Chairperson. Collette Spagnuolo.
15 Yes, that is correct, Dionne.
16 ACTING CHAIR: Dionne?
17 MS. FILIATRAULT: So just to confirm then
18 at the point of control, is it your opinion that --
19 it's your understanding that that is where the
20 parameters of 80, 100 would be imposed, at the
21 point of control, and that that likely would not
22 necessarily meet the Fisheries Act, and that
23 there's an understanding that the wetland treatment
24 system provides that additional treatment, and
25 that...
26 ACTING CHAIR: Okay. Environment

1 Canada?
2 MS. SPAGNUOLO: Thank you. Collette
3 Spagnuolo with Environment Canada.
4 Yes, Dionne, that is correct. It's at the last
5 point of control, which is the outfall from the
6 primary lagoon that Environment Canada is
7 recommending that the 80 BOD 5, 100 total suspended
8 solids would be met, and that at the entrance into
9 Telik Inlet, which is where we would first
10 encounter fish-bearing water, that Canada would
11 like to ensure that the effluent is not acutely
12 toxic to fish.
13 ACTING CHAIR: Thank you. Final
14 comment?
15 MS. FILIATRAULT: Mr. Chairman, thank you.
16 Dionne Filiatrault.
17 So the end-of-pipe is at the final discharge
18 point, or is the end-of-pipe at Telik Inlet?
19 ACTING CHAIR: Environment Canada?
20 MS. SPAGNUOLO: Thank you,
21 Mr. Chairperson. Collette Spagnuolo.
22 The end-of-pipe would be the last point of
23 control, which is the outflow of the lagoon, and
24 the final discharge point would be upstream of the
25 entrance to Telik Inlet.
26 ACTING CHAIR: Dionne?

1 MS. FILIATRAULT: Mr. Chairman, the --
2 Dionne Filiatrault -- Environment Canada is also
3 recommending that acute nontoxicity testing using
4 the reference method, rainbow trout, she recognized
5 that there are issues in some communities and some
6 northern projects of that not being a doable test,
7 and I'm wondering if Environment Canada can provide
8 the Board with some recommendations on whether or
9 not that is an acceptable test for this community
10 or offer the Board another alternative to
11 determining whether or not we can determine acute
12 toxicity.

13 ACTING CHAIR: Thank you, Dionne.
14 Environment Canada?

15 MS. SPAGNUOLO: Thank you,
16 Mr. Chairperson. Collette Spagnuolo.
17 In regards to the first half of your question
18 in terms of whether or not the 96-hour rainbow
19 trout test is appropriate for Cape Dorset, perhaps
20 I could defer that question to the Water Resource
21 Officer from Indian and Northern Affairs Canada,
22 who is here. He may have better firsthand
23 knowledge in regards of the actual conditions here
24 in Cape Dorset and whether or not that is an
25 appropriate test for this location.

26 In regards to the second half of your question,

1 there are alternative tests that could be employed
2 such as the Daphnia Magna test.
3 ACTING CHAIR: Would you like to give
4 some evidence? I'll have to swear you in if you
5 do.
6 MS. FILIATRAULT: Mr. Chairman, Dionne
7 Filiatrault. I can ask -- I can defer the question
8 and seek the response when we go through our next
9 presentation.
10 ACTING CHAIR: Yes, no, I just want to
11 make sure because you asked a question that's not
12 answered, and I want to get on the record.
13 Collette mentioned that he'd give an answer, but I
14 need to swear him in first. If you want to defer
15 it until 7:00 when INAC does their presentation,
16 I'm sure you'll have an answer by then, so if
17 that's your wish, carry on.
18 MS. FILIATRAULT: Thank you, Mr. Chairman.
19 Dionne Filiatrault. Yes, that's fine.
20 And a final clarification, the acute toxicity
21 test, are you proposing that that is at the final
22 point of discharge or at the inlet to Telik Inlet?
23 ACTING CHAIR: Environment Canada?
24 MS. SPAGNUOLO: Thank you,
25 Mr. Chairperson. Collette Spagnuolo.
26 Just to clarify, the final discharge point is

1 the entrance to Telik Inlet. It would be the -- I
2 think perhaps the question is at the final point of
3 control or the end-of-pipe versus the final
4 discharge point. I know it gets a bit confusing.

5 In terms of our recommendation, I think we are
6 leaving the determination as to where the acute
7 lethality test should be completed up to the Board.
8 However, if you were looking for an opinion from
9 Environment Canada, I think that the test would be
10 most appropriate at the location where the effluent
11 is entering fish-bearing water, which would be the
12 final discharge point at the entrance to Telik
13 Inlet.

14 ACTING CHAIR: Thank you. Dionne?

15 MS. FILIATRAULT: Thank you, Mr. Chairman.
16 Dionne Filiatrault.

17 And I'm sure there's an understanding with
18 Environment Canada that if the acute toxicity is to
19 be done, it would be done just prior to Telik
20 Inlet, and that it wouldn't be done actually in
21 Telik Inlet, which is outside the mandate of this
22 Board, as it is marine waters.

23 ACTING CHAIR: Environment Canada?

24 MS. SPAGNUOLO: Thank you, Mr. Chair.

25 Collette Spagnuolo.

26 Yes, that is correct; we do recognize that in

1 our recommendation is that it would be at some
2 point upstream of Telik Inlet.
3 ACTING CHAIR: More comments? Many?
4 MS. FILIATRAULT: I think this is my final
5 question, I believe, Mr. Chairman.
6 You mentioned -- Dionne Filiatrault -- you
7 mentioned in your presentation the Canada-wide
8 strategy, and the implementation time frame you
9 suggested was five years. That five years
10 represents -- I was under the assumption that five
11 years represents the assessment for northern
12 communities, but the actual implementation for the
13 Canada-wide strategies is again beyond that five
14 years, that there's a period of -- I believe
15 there's a discussion now between eight to ten years
16 or somewhere in there. Am I correct in that
17 assessment?
18 ACTING CHAIR: Environment Canada?
19 MS. SPAGNUOLO: Collette Spagnuolo for
20 Environment Canada.
21 Yes, you are correct.
22 ACTING CHAIR: Dionne?
23 MS. FILIATRAULT: Thank you, Mr. Chairman.
24 Dionne Filiatrault.
25 That was a clarification for the Applicant as
26 well in that Environment Canada is proposing some

1 monitoring be done in this particular license in
2 advance of trying to assess parameters that will
3 eventually be required under the Canada-wide
4 strategy, and given that we are likely ten years
5 from the implementation -- ten-plus years from the
6 implementation of this Canada-wide strategy, I
7 would like to confirm with Environment Canada that
8 they are at present recommending that parameters
9 such as COD be included along with the requirements
10 of BOD.

11 ACTING CHAIR: Thank you, Dionne.
12 Environment Canada?

13 MS. SPAGNUOLO: Thank you, Mr. Chair.
14 Collette Spagnuolo.

15 That is correct. We are recommending that, in
16 addition to the regulated parameters that would be
17 part of the license, which -- for other
18 communities, we have typically seen to include BOD
19 5, fecal coliforms, TSS, and I believe you're also
20 recommending ammonia and phosphorus. We are
21 recommending, in addition to that, that there be
22 some monitored parameters included in the license,
23 not regulated, simply monitored in order to help
24 the Hamlet assess in the future whether or not
25 effluent from the lagoon would be capable of
26 meeting the national performance standards that are

1 outlined in the Canada-wide strategy.
2 ACTING CHAIR: Thank you. Dionne?
3 MS. FILIATRAULT: Thank you, Mr. Chairman.
4 Dionne Filiatrault.
5 I think it would be of benefit also to the
6 Board to understand the sampling and the
7 difficulties of sampling associated with BOD and
8 COD for this community, and whether or not it's an
9 appropriate parameter, and I believe the inspector
10 who does sampling in this community would be able
11 to provide us with some assistance or advice on
12 that during their presentation, Mr. Chairman.
13 ACTING CHAIR: Okay. David, any
14 questions?
15 MR. HOHNSTEIN: No, Mr. Chair.
16 ACTING CHAIR: Okay, Bill, do you have
17 any questions?
18 MR. TILLEMAN: No, sir, no questions or
19 comments.
20 ACTING CHAIR: A lot of questions and
21 answers been going on back and forth between Staff
22 and Environment Canada, and I want to give a final
23 comment to the Licensee. This is a one-sided
24 conversation; you guys are kind of stuck doing all
25 the work. Do you have anything you want to add to
26 anything that's being asked or being told that you

1 heard right now? Do you have any concerns or
2 questions that you may have?
3 MR. STEWART: Art Stewart. Yes,
4 Bhabesh Roy from CGS has a comment.
5 MR. ROY: Yeah, this is Bhabesh Roy
6 from CGS. Mr. Chairman, yes, we are familiar with
7 the new guidelines with Dionne and Collette, what
8 they're talking about, and we are involved in the
9 process, so we know the system, and we know the
10 process. Thank you.
11 ACTING CHAIR: Sorry, I just want to
12 make sure that -- a lot of things have been told
13 here the past 15 minutes. I want to make sure
14 you're in agreement and not go and say, I didn't
15 get a chance to give my 5 cents' worth. I always
16 include the Licensee. Thank you.
17 MR. ROY: Thank you.
18 ACTING CHAIR: Okay, Environment Canada,
19 thank you very much for your presentation. We will
20 adjourn. It's almost 5:00. We will adjourn until
21 7:00. We will deal with INAC hopefully at 7, and
22 then BGC Engineering or anybody else from the
23 public that may have questions, and we may have
24 final submissions tonight. If not, we'll do 'er
25 tomorrow morning. We'll have a two-hour break, and
26 who needs a little sleep now and then, go for it.

1 Bill and Tom, we'll talk to you guys about 5 to
2 7.

3 Oh, if I could just call on Catherine to do
4 some exhibits, housekeeping.

5 PROCEDURAL MATTERS:

6 MS. EMRICK: Thank you, Mr. Chair. We
7 have four exhibits to add to the exhibit list.
8 Exhibit Number 5 will be the GN-Department of
9 Environment Presentation for the Cape Dorset Type B
10 Water License Amendment Application, and this is
11 the hard copy submitted by Mike Atkinson.

12 EXHIBIT NO. 5:

13 HARD COPY OF THE GN-DEPARTMENT OF
14 ENVIRONMENT PRESENTATION FOR THE CAPE
15 DORSET TYPE B WATER LICENSE AMENDMENT
16 APPLICATION, SUBMITTED BY MIKE ATKINSON.

17 MS. EMRICK: Exhibit Number 6 will be
18 the GN-Department of Environment Presentation for
19 the Cape Dorset Type B Water License Amendment
20 Application, electronic copy submitted by Mike
21 Atkinson.

22 EXHIBIT NO. 6:

23 ELECTRONIC COPY OF THE GN-DEPARTMENT OF
24 ENVIRONMENT PRESENTATION FOR THE CAPE
25 DORSET TYPE B WATER LICENSE AMENDMENT
26 APPLICATION, SUBMITTED BY MIKE ATKINSON.

1 MS. EMRICK: Exhibit Number 7,
2 Environment Canada Cape Dorset Sewage Lagoon Final
3 Public Hearing Presentation, January 23rd, 24th,
4 2008, hard copy submitted by Collette Spagnuolo.
5 EXHIBIT NO. 7:
6 HARD COPY OF THE ENVIRONMENT CANADA CAPE
7 DORSET SEWAGE LAGOON FINAL PUBLIC HEARING
8 PRESENTATION, JANUARY 23, 24, 2008,
9 SUBMITTED BY COLLETTE SPAGNUOLO.
10 MS. EMRICK: And Exhibit Number 8 will
11 be Environment Canada Cape Dorset Sewage Lagoon
12 Final Public Hearing Presentation, January 23rd,
13 24th, 2008, electronic copy submitted by Collette
14 Spagnuolo.
15 EXHIBIT NO. 8:
16 ELECTRONIC COPY OF THE ENVIRONMENT CANADA
17 CAPE DORSET SEWAGE LAGOON FINAL PUBLIC
18 HEARING PRESENTATION, JANUARY 23, 24, 2008,
19 SUBMITTED BY COLLETTE SPAGNUOLO.
20 ACTING CHAIR: Okay, thank you very
21 much. We will -- Dionne, do you have a final
22 comment? Please.
23 MS. FILIATRAULT: No, Mr. Chairman, that's
24 fine.
25 (PROCEEDINGS ADJOURNED AT 5:00 P.M.)
26 (PROCEEDINGS RESUMED AT 7:15 P.M.)

1 ACTING CHAIR: Okay, we'll come back
2 into regular session. Just before we start, I want
3 to see, Thomas, are you on the phone?
4 THE CHAIR: Yes, I am.
5 ACTING CHAIR: Bill, are you on the
6 phone?
7 MR. TILLEMAN: Yes, sir.
8 ACTING CHAIR: Thank you. Just before
9 we go back into session again and I recognize the
10 Elders, Art Stewart has a comment he'd like to
11 bring to the table first.
12 SUPPLEMENTARY MATTERS:
13 MR. STEWART: Art Stewart, Hamlet of
14 Cape Dorset. Mr. Chairman, Bhabesh Roy would like
15 to speak for a moment.
16 ACTING CHAIR: Go ahead, please.
17 MR. ROY: Bhabesh Roy, Municipal
18 Engineer, Baffin Region.
19 Mr. Chairman, we received a letter from Nunavut
20 Water Board October 10, 2007, and in that letter,
21 we have been advised to answer two questions,
22 clarify some issues. A letter was sent -- signed
23 by Dionne, and it has deadline when we have to
24 respond those issues. Accordingly, we responded
25 within the time frame it was given to us. We
26 replied this letter on November 13, 2007. So for

1 the record, I ask Board if they officially received
2 this letter, and if it was made available to the
3 interpreters.
4 ACTING CHAIR: Thank you. Dionne?
5 MS. FILIATRAULT: Thank you, Mr. Chairman.
6 Dionne Filiatrault.
7 I believe that we have, Mr. Chairman. I'm
8 going to confirm 100 percent that we do have it,
9 and I will follow up.
10 ACTING CHAIR: Okay, thank you.
11 MS. FILIATRAULT: Mr. Chairman, Dionne
12 Filiatrault.
13 Yes, we do have the document. We received it.
14 ACTING CHAIR: We do have the document,
15 and it is part of the hearing.
16 MR. ROY: Thank you, Mr. Chairman.
17 ACTING CHAIR: You're welcome. Okay,
18 nice surprise. Basically a lot of the people from
19 Cape Dorset came out. I know I'm not going to get
20 all of your names, but our young lady is running
21 around trying to get a whole bunch of names for the
22 Elders, and hopefully if I do miss you this time,
23 I'll catch you a second time, but I want to
24 introduce some of them. If you would just stand up
25 and perhaps just wave: Peter Ningiushiaq, Panni
26 Ningiushiaq, Suuyu Pootoogoo, Kananginak Pootoogoo,

1 Kanayuk Pootoogoo, Quppa Mike, Elaija Mike, Miisa
2 Qinuajuaq, Ipayaq Oqutaq, Eege Oqutaq, Papiqa
3 Tukiqqi, Qupi Tukiqqi, Jimmy Manning, Ashevak
4 Eezeui, Mary Eezeui. Ashevak, good friend,
5 welcome. I worked with this man in 1969, a good
6 friend of mine, hope he still is. He and I worked
7 many years ago on a building that's probably not
8 even here anymore.

9 Now, I know I've missed some other people, so
10 while the young lady is still trying to get your
11 names, I'll just carry on. Just for the people of
12 Cape Dorset, before I start, I want to introduce my
13 Board to you. Thomas Kabloona is on the phone.
14 Say hi, Tom. He is there. He is the Chairman of
15 the Board from Baker Lake. To my right is Guy
16 Kakkiarniun from Kugaaruk, Lottie Toomasie from
17 Qikiqtarjuaq, George Porter from Gjoa Haven, Tommy
18 Tatatuapik from Arctic Bay. Geoffrey Kusugak,
19 another member, was weathered-out, and Thomas
20 Kabloona is on the phone with us from Baker Lake.
21 We also have our lawyer from Calgary, Bill
22 Tilleman. Say hello, Bill.

23 MR. TILLEMANN: Hello.

24 ACTING CHAIR: Of course, for those of
25 you who have no idea who I am, my name is Robert
26 Hanson, and I'm the Acting Chair for this hearing.

1 The purpose of this public hearing is to review
2 the application that has been filed by the Hamlet
3 of Cape Dorset to amend their Type B water license
4 in accordance with the Nunavut Waters and the
5 Nunavut Surface Rights Tribunal Act. And when a
6 Type B license comes before us or a Type A license
7 comes before us, we have to hold a public hearing,
8 and we hear from the Licensee, who is from Cape
9 Dorset.

10 And there's a bunch of interveners from across
11 Iqaluit and Nunavut that are here today giving
12 questions to the Hamlet of Cape Dorset, and
13 especially we want to hear from the people of Cape
14 Dorset if you would have any concerns on the
15 present sewage lagoon that's being commissioned
16 now. We have to hear from you if it's a good thing
17 or a bad thing.

18 Now we are like judges in a court. We
19 eventually come here, we hear all the evidence from
20 all the sides, we go into a private room. We take
21 all the information that's been given to us, and we
22 make a decision on whether they receive a license
23 or not and what should be in that license. That's
24 kind of giving you a really quick nutshell.

25 I have been asked, if possible, before you
26 leave tonight, if you could all sign the register

1 when you come in or when you leave. We'll have a
2 break, and if you could sign by Richard Dwyer over
3 there -- he will wave -- just sign the book when
4 you come in.

5 Just going through the names I might have
6 missed, Qavaruaq Qatsija, Eqaluk Qatsija, Zeke
7 Ejesiak, Pallu Pudlat, Majuqia Quvianatuluaq, Saana
8 Pudlat, Arnasuk Qaqjurajuk, Pinguatuk Ottockie, and
9 Lau Ottockie. Again, thank you for coming. I
10 might have missed a few, but hopefully I'll see you
11 in between the meeting.

12 I am just going to give an opportunity for you
13 to see what has happened in Cape Dorset what you
14 may not be aware of -- I'm sure all you are -- but
15 I am going to call on the Hamlet and their
16 consultants to give you a short presentation on why
17 we are here and what is being built in Cape Dorset
18 and how we're going to make our decision.

19 So, Colin, if I could call on you to make a
20 slight presentation, please.

21 While you're setting up, Thomas, are you there?

22 THE CHAIR: Yes, I am.

23 ACTING CHAIR: That's the Chairman, the
24 real one; I'm acting on his behalf.

25 Colin, you're still under oath. Basically for
26 the people from Cape Dorset, everybody is sworn in

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1 by Bible, and they take an oath whether they're
2 speaking or not.

3 COMMUNITY PRESENTATION BY HAMLET:

4 MR. JOYAL: Thank you, Mr. Chairman,
5 Colin Joyal. Dillon Consulting.

6 Okay, the first slide here introduces the Cape
7 Dorset sewage P Lake lagoon. The name on there,
8 Gary Strong, just to clarify, unfortunately Gary
9 could not make it as there was a death in the
10 family, and I'll be presenting the information on
11 behalf of Dillon. Just a point of clarification
12 there.

13 There's an outline of the presentation topics
14 that will be covered. The project description and
15 purpose, site selection and selection process,
16 design considerations, the system description,
17 there's a geotechnical presentation by AMEC, which
18 I believe we will not be including in this session,
19 as well as some comments on looking forward.

20 The project description and purpose: In short
21 terms, the purpose of the project is to develop a
22 new licensed sewage treatment system for the
23 community at P Lake. The reasons for the new site
24 have been the -- include the documented failure of
25 the existing lagoon, the fact that it was not
26 feasible to expand the existing system along with

1 an order issued by Environment Canada in 2003.

2 As part of the site selection process, a
3 variety of options were reviewed. The Q Lake
4 option. In the winter of 2001/2002, the
5 community's water supply pipeline froze, and Q Lake
6 was used as an emergency backup water supply
7 source, so it's been indicated that it wanted to be
8 maintained as an emergency backup source.

9 A mechanical plant: The capital and operating
10 costs for mechanical plant were deemed to be
11 cost-prohibitive. Site R lagoon option, the site
12 is currently used as a granular stockpile and is
13 located at the end of the runway and is also deemed
14 unsuitable.

15 Through consultation, the proposed site was
16 selected, and the letter there is from the
17 community authorizing to proceed with the design of
18 the lagoon at the P Lake site. The water license
19 application was submitted, and the owner of the
20 facility is the Municipality of Cape Dorset. The
21 Applicant for the water license is the Senior
22 Administrative Officer and the operating authority
23 is the Senior Administrative Officer.

24 Some of the design considerations that were
25 included in part of the work was to develop 5-,
26 10-, 20-year sewage generation rates based on

1 sewage generation and population growth estimates.
2 Sizing in a lagoon is based on community
3 requirements, and they identified potential for
4 expansion beyond the 20-year design window.
5 Development of the conceptual layout of P Lake
6 lagoon included site access road to access the new
7 site, the layout for the lagoon cells, and the
8 location of the lagoon outfall for discharges, as
9 well, they completed an assessment of the expected
10 lagoon treatment.

11 This slide shows some of the options for
12 treatment that are available. The mechanical
13 treatment sewage plant, short-retention lagoon,
14 long-retention lagoon with fall decant, and
15 wetlands treatment as a polishing step. The long
16 retention lagoon with fall decant was selected as a
17 preferred option. The system includes year-long
18 treatment of the sewage with freezing over winter.
19 Sewage is treated for the duration of the ice-free
20 days with discharge once per year in the fall.
21 Relative to mechanical plant operation, lagoons are
22 easier to operate and more cost effective.

23 As part of the design considerations, the
24 design of the lagoon incorporated target discharge
25 criteria to be met following the treatment period.
26 Just going to grab a pointer here. This figure

1 shows the location of the proposed lagoon site
2 relative to the community -- looking for a red dot;
3 there it is -- so I've got the north arrow pointing
4 up, the community is located here, the existing
5 site was over in this area with the three cells
6 lagoon and the discharge point. The new lagoon
7 includes the site access road through here. This
8 is the location of the new lagoon site with the
9 discharge here into P Lake and the flow patterns
10 out of P Lake through the wetlands and down a
11 waterfall and into Telik Inlet.

12 This drawing here shows the system, the lagoon
13 facility. Just to give a bit of an overview --
14 find my pointer again -- at the top here is a
15 turnaround area for the sewage truck. The sewage
16 is dumped down a discharge flume into the lagoon.
17 This is the lagoon here contained by berm at the
18 west side and another berm in the northeast and a
19 road around the perimeter through an existing
20 channel on the existing site topography.

21 The sewage resides in the lagoon for the
22 duration of the year and is treated through the
23 ice-free days in the summer. The discharge is
24 through the discharge pipe here at the bottom of
25 the lagoon. Discharge occurs over a two-week
26 period in the fall, typically in September, through

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1 the discharge pipe into P Lake, down the drainage
2 pattern as shown in the other drawing.

3 The next series of slides are photos of
4 construction. Mostly the pictures tell the story.
5 On the left side is the access road that was shown
6 in the previous slide, showing the access road up
7 to the new site. On the right, we've got some of
8 the drainage works with the culverts managing
9 surface water flow across the road. On the left,
10 we see the road, 8-metre wide road, with guardrails
11 on both sides. On the right is the main access
12 where the new road is tied in to existing roads.

13 These two photos show lagoon berm construction
14 with a key trench down into existing materials in
15 permafrost. On the right, we've got a geosynthetic
16 clay liner, which is a form of textile with
17 bentonite-packed clay powder incorporated into it
18 that can be used as a liner. So that's a picture
19 showing the installation.

20 The photo on the left shows the lagoon at
21 the -- sorry, the berm at the bottom of the lagoon;
22 the inside slope with the placement of large rocks
23 for erosion control, so the riprap. On the right
24 is the construction of the deflection.

25 We have compaction of the material being placed
26 back in the trench, and the photo on the right

1 shows the large discharge vault and discharge pipe
2 as it's being backfilled in place. The picture on
3 the left here shows where the discharge pipe goes
4 through the berm and penetrates through the liner.
5 There was more bentonite clay powder placed along
6 with the geosynthetic clay liner where the pipe
7 penetrates through it. On the right is the truck
8 discharge flume. This is where the sewage truck
9 will discharge the sewage down these pipes into the
10 lagoon.

11 Moving past those photos of construction, the
12 performance of the lagoon was modelled to ensure
13 that treatment would meet the discharge criteria
14 prior to being discharged from the lagoon into the
15 environment. The quality of the discharge will be
16 monitored, and effluent quality limits will be
17 sustained by the Water Board as part of the
18 license. I'm not getting into too much detail on
19 the numbers here, but the important part is that
20 there will be monitoring of the discharges, and
21 guidelines for acceptance will be established.

22 Prior to and during discharge, there will be
23 monitoring at the site, so there will be samples
24 taken at the eight locations in total as part of
25 the monitoring program. So you can get your
26 bearings a little bit on this drawing, the site

1 access road is up in this area. This is where the
2 truck dump or discharge area is. The lagoon is not
3 shown on this slide, but it's in this area here,
4 and with the discharge into P Lake, which is this
5 lake shown, and the wetlands and discharge down
6 into Telik Inlet.

7 So again, this shows the eight locations for
8 the monitoring program. We've got a control site,
9 lagoon inflow, which is the raw sewage coming in,
10 lagoon effluent over here, which is the discharge
11 of the treated sewage outside of the lagoon,
12 monitor lagoon performance. As the liquid leaves
13 P Lake, there will be more monitoring at that point
14 along with through the wetlands and, finally, just
15 prior to going into the ocean. As mentioned, we're
16 going to skip past that presentation.

17 Other items here, looking forward, the items to
18 be addressed by the Proponent will be responses to
19 issues from today, responses to any draft license
20 conditions if issued by the Nunavut Water Board,
21 and then compliance with license requirements if
22 issued by the Nunavut Water Board.

23 Some of the requirements that may be included
24 in the license would be things such as monitoring
25 of lagoon performance, issuance and update of the
26 operations and maintenance manual, issuance and

1 update of the spill contingency plan, response to
2 issues that arise from monitoring, and annual
3 reporting to the Water Board.

4 That concludes my presentation, Mr. Chairman.

5 COMMUNITY QUESTIONS:

6 ACTING CHAIR: Okay, thank you very
7 much, Colin. I'm just wondering -- that should be
8 adequate. I appreciate you presenting that again
9 for the people of Kingait.

10 So basically the people of Cape Dorset, the
11 floor is open to you, that if you have any
12 questions about what has been presented to you on
13 behalf of the Hamlet of Cape Dorset or any
14 information you think is relevant for us to hear,
15 because we don't live here and we don't know what
16 is happening, so we have to depend on yourselves
17 and also all the interveners, so if anybody would
18 like to come to the front table, I know it's scary,
19 but all you have to do is tell us your name.
20 Dionne has a microphone, just tell us your name
21 only, so that way we'll put you on record as giving
22 evidence, and we would appreciate the community to
23 come forward and say whatever you want, even hello
24 if you want.

25 Mr. Manning in the back.

26 MR. MANNING: Thank you. My question

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1 is I probably missed some in regards to proposal
2 for the new lagoon, and if you -- what's going to
3 happen 20 years or more than 20 years from now?
4 Will it going to be the same side? Is that going
5 to be repaired as well, or is that going to be the
6 same from here on when it becomes in operation? Is
7 it going to be more than 20?
8 ACTING CHAIR: Thank you, Jimmy. That
9 was Jimmy Manning. Licensee? Art, you have a
10 comment?
11 MR. STEWART: Colin, would you like to
12 answer that?
13 MR. JOYAL: Mr. Chairman, could you
14 please repeat the question? I caught part of it.
15 ACTING CHAIR: I think Jimmy was
16 wondering what is going to happen to this lagoon in
17 20 years, what is the life of it, what's going to
18 be happening. And I also think he was asking about
19 the other lagoons too, and maybe give him an update
20 on what's going to be happening to them for
21 reclamation. Is that right, Jimmy? Okay.
22 MR. ROY: My name is Bhabesh Roy.
23 I'm the Regional Engineer of Baffin Region.
24 The answer to your question is very important.
25 As the public, you can ask this question. The new
26 facility we are designing for 20 years lifetime.

1 It means if it is commissioned today, it will stay
2 for 20 years. It means 2028. During the period,
3 we have the existing system. The existing system
4 will keep on going, make sure the new facility is
5 functioning good. Once the new facility is
6 satisfactory functioning, we can plan for
7 decommissioning of the existing system. Thank you,
8 Mr. Chairman.

9 ACTING CHAIR: I think his other comment
10 was what's going to happen over the next 20 years.
11 Are you going to be looking for another facility to
12 replace the 20-year one also?

13 MR. ROY: Mr. Chairman, this is a
14 municipal environmental project, so when the design
15 life will expire, definitely within this time
16 frame, we have to plan for the expansion of the new
17 facility, of the new system.

18 ACTING CHAIR: Thank you. Okay, Jimmy?
19 Okay, any other questions from anybody else?

20 MR. EJESIAK: I also have a question.
21 It would have been better if you had a first
22 meeting prior to this before you came up with the
23 new designs or the new locations. There are some
24 streams or small rivers flowing that are in
25 sensitive area. They tend to overflow during the
26 freshet. And also, are you aware of the fact that

1 in between the -- in that particular site, there
2 are some streams that do flow, overflow towards our
3 community where the houses are?
4 ACTING CHAIR: Art?
5 MR. STEWART: Thank you, Mr. Chairman.
6 Art Stewart.
7 I would like to answer the first part of that
8 question. Back in November of 2003, there was a
9 consultation in this very hall about the situation
10 of the next sewage lagoon, and the vote, I believe,
11 was 23 to zero to proceed with the P Lake. All of
12 the other options were explained, and the public
13 had a chance at that time to vote on it, and that's
14 what they came up with, that P Lake was the most
15 viable option.
16 Thank you, Mr. Chairman, and I believe Bhabesh
17 Roy has something to add.
18 ACTING CHAIR: Mr. Roy?
19 MR. ROY: Thank you, Mr. Chairman.
20 Actually the -- I also missed the last part of the
21 question. If you don't mind to repeat the second
22 part of the question.
23 ACTING CHAIR: Of our question or --
24 MR. ROY: No, the gentleman's, the
25 question asked by the public.
26 ACTING CHAIR: He basically asked why it

1 wasn't brought to the public prior to, and if you
2 had any other meetings, and I think there is other
3 meetings.
4 MR. ROY: Okay, thank you,
5 Mr. Chairman. This is Bhabesh Roy again.
6 The answer, I think the issue of the Hamlet,
7 Mr. Art Stewart, he already answered the question.
8 I just added to his comments.
9 During this site selection process, there was a
10 consultation session with the public, as he
11 mentioned. And following the consultation, the
12 public and the Council give us a mandate to go
13 ahead to design the lagoon at P Lake location.
14 This is the way how we decided the P Lake location.
15 Thank you, Mr. Chairman.
16 ACTING CHAIR: Just state your name,
17 please, if you would for the record.
18 MR. GILLIS: My name is Cal Gillis.
19 This meeting that they're talking about, that
20 Bhabesh was just talking about, this consultation,
21 was this not the second meeting regarding the
22 sewage system?
23 ACTING CHAIR: Hamlet?
24 MR. STEWART: Art Stewart, Hamlet. I
25 can't get the microphone to work. Somebody must
26 have theirs on.

1 Yes, I believe that was the second
2 consultation. There was also one, I believe, prior
3 to that where we actually talked about the option
4 of having the sewage lagoon out by the waterfall at
5 Q Lake, and that was not a viable option, and CGS
6 came back with another consultation. I don't know
7 exactly when but -- or how long after the first
8 one, but I know it was in November of 2003.
9 MR. GILLIS: Now, that first meeting,
10 and I remember that first meeting very well, and in
11 that first meeting, it was agreed by the Community,
12 people voted that they wanted a sewage treatment
13 plant. I remember that clearly. They did not --
14 that's what they voted for. They voted for a
15 sewage treatment plant. Now, how did we end up
16 with a sewage lagoon? Now, I know you're saying
17 the second meeting; how many people were at that
18 second meeting?
19 ACTING CHAIR: Hamlet?
20 MR. STEWART: Art Stewart, Hamlet.
21 There was approximately 23 to 25 people at that
22 second meeting. Probably the same number as what
23 was at the first meeting. And the reason that the
24 mechanical facility didn't go through is that CGS
25 studied it, and they thought the cost was way too
26 high. There wasn't enough -- the funding for it.

1 So they come back with this other option of the
2 P Lake.

3 And also at that time, back in 2003, I know
4 that there was at least one mechanical plant, and
5 it wasn't working very good. They had all kinds of
6 problems. I believe that was in Pangnirtung, and
7 that was taken into consideration, Cal, in the
8 overall scheme of things.

9 MR. GILLIS: But is not that plant in
10 Pangnirtung working up to specs now?

11 MR. STEWART: Yes, it is. However, I
12 think at that time, it was deemed not to be a
13 viable option. I know they spent a pile of money
14 on that.

15 ACTING CHAIR: Cal, I know you're going
16 to ask more, but for your information, please come
17 through the Chair, otherwise, he's going to start
18 talking to you, and he'll avoid us. Thank you. Go
19 ahead, Art.

20 MR. STEWART: Okay, I was just handed
21 the documentation from that meeting, and in
22 summary, one of the options was to build a
23 mechanical sewage treatment facility. This option
24 provided good treatment; however, there's a yearly
25 maintenance cost of \$260,000. In order to afford
26 this facility, the water rates would have to

1 increase roughly \$80 per month per household. So
2 that was certainly the consideration as why we did
3 not go to the mechanical plant at that time.
4 ACTING CHAIR: Thank you. Cal?
5 MR. GILLIS: I would like to know what
6 the maintenance will be on this sewage lagoon as
7 far as keeping that road clear, plowing during the
8 wintertime, maintenance on the road, maintenance on
9 the sewage lagoon. What are the costs for that,
10 yearly costs for that as compared to what the
11 mechanical plant would cost?
12 ACTING CHAIR: Thank you. Hamlet?
13 MR. STEWART: Art Stewart.
14 Mr. Chairman, I'm going to defer that question to
15 Bhabesh Roy.
16 MR. ROY: Mr. Chairman, this is
17 Bhabesh Roy again.
18 The answer to your question is when we designed
19 the municipal facilities, we have three different
20 costing. One costing is the capital cost of the
21 project; second is the operation and maintenance
22 cost of the project. We have to make sure the --
23 it is easy for the community to operate and
24 maintain for the design life of the project.
25 And doing that, we also calculate the life
26 cycle cost of the project. Initially this project

1 has been estimated. The cost estimated for
2 capital -- of the capital plan -- project was
3 \$3,047,000. That was the estimated cost. The life
4 cycle cost was -- life cycle costing was \$14,827
5 thousand (sic) and total life cycle cost considered
6 17,874 thousand --
7 ACTING CHAIR: 17 million perhaps?
8 MR. ROY: Oh, sorry, yes, sorry,
9 17,874,000, yeah. So it means that the total life
10 cycle cost for 20 years' period, we are using kind
11 of 8 percent discount rate.
12 ACTING CHAIR: So if I get that correct,
13 you said 17 plus 14, is that 31 million over --
14 MR. ROY: That's the total life
15 cycle costing is 17,874,000 plus 14.
16 ACTING CHAIR: That's over --
17 MR. ROY: The \$17 million.
18 ACTING CHAIR: So 17 million.
19 MR. ROY: Yes.
20 ACTING CHAIR: I heard a 14,000 --
21 MR. ROY: No, no.
22 ACTING CHAIR: -- and 17,000 and 17
23 million. So 17 million.
24 MR. ROY: Okay, if you -- I can --
25 ACTING CHAIR: It's okay, no, no. I've
26 got it now, 17 million.

1 MR. ROY: Okay, thank you,
2 Mr. Chairman.
3 ACTING CHAIR: Question?
4 MR. GILLIS: So is that \$17 million
5 over the 20-year period, the life of the lagoon?
6 ACTING CHAIR: Is that correct, Mr. Roy?
7 MR. ROY: That -- yes,
8 Mr. Chairman, this is estimate given by the
9 consultant. This is not a lagoon, this is also the
10 access road to lagoon, effluent quality monitoring,
11 all together.
12 ACTING CHAIR: Okay, thank you.
13 MR. GILLIS: So what does that break
14 down yearly? How much is that a year?
15 ACTING CHAIR: Hamlet? \$2 million a
16 year?
17 MR. ROY: If you can -- yes,
18 Mr. Chairman, the 17,874,000, it has to be 20 --
19 1/20th will be the yearly, and then 365, it should
20 be coming by day, so I don't have calculator,
21 otherwise, I can give you the yearly expenses.
22 ACTING CHAIR: I guess, Cal, what he's
23 probably saying if it's 17 million over 20 years,
24 it's under a million dollars a year.
25 MR. GILLIS: Okay, it's under a
26 million. And how much was the -- how much was the

1 plant? Was that \$280,000 a year?
2 ACTING CHAIR: Hamlet, he asked a
3 question on the costs of the -- of the capital
4 outlay for the plant and then what it's going to
5 cost per year. I think it was 280-some thousand a
6 year to maintain, but the cost of it, I have no
7 idea. So, Hamlet?
8 MR. STEWART: Mr. Chairman, referring
9 back to the data as presented on November 28th, the
10 project -- and we're talking about the P Lake
11 now -- back then, the estimate was that the project
12 would require a large capital cost but would cost
13 only about \$37,000 per year in maintenance costs
14 versus \$260,000 maintenance costs if we would have
15 went to the mechanical plant. Those were figures
16 based -- projected in 2003, and thus, that's why,
17 looking at those figures, that is easily one of the
18 reasons why the P Lake option was chosen.
19 ACTING CHAIR: Cal?
20 MR. GILLIS: Well, from what was just
21 stated, 31 million or just under a million a year
22 for the next 20 years, I think getting a sewage
23 plant would have been a deal at 280,000.
24 Now, I -- these numbers just don't jive here.
25 They don't make sense. We have one person saying
26 one thing; we have the Hamlet saying something

1 else. What is it going to cost? What is the cost
2 per year for the sewage plant and for the
3 treatment, the sewage lagoon? Somebody has not --
4 these numbers don't make sense to me.

5 MR. STEWART: Mr. Chairman, I'm Art
6 Stewart again. I don't know what the cost to run
7 the Pagnirtung plant is, but I know back in 2003,
8 the estimated cost was \$260,000 maintenance costs
9 on a mechanical plant versus figures that we got
10 from CGS at that time; to operate the P Lake lagoon
11 was \$37,000 per year. You do the math, and that
12 was the reasoning as to why we -- they -- the plant
13 option was not an option at that time.

14 Now, the actual costs have changed obviously
15 since then, and we would -- we will know -- if we
16 do get the license for this P Lake, we will be able
17 to tell you exactly what the added cost for plowing
18 the road will be, and that will be -- it's hard to
19 predict exactly how much more plowing it will take.
20 We have to plow the road anyway now where the
21 sewage lagoon is, so yes, there probably is a
22 little bit more maintenance, but I can't think of
23 any other maintenance cost that would go up.

24 When you're talking about a mechanical plant,
25 you're also talking about having somebody that
26 knows how to actually run the plant, and at that

1 time as well, we did not have expertise in place in
2 order to run a mechanical plant, and I think
3 Pangnirtung also suffered that problem for at least
4 the first two or three years that it started.

5 ACTING CHAIR: Go ahead.

6 MR. GILLIS: Well, Mr. Chairman, it
7 seems to me that there hasn't been a lot of thought
8 put into this so far. I mean, these numbers are
9 not -- just the numbers themselves are not making
10 any sense to me. We don't know; we're going to
11 agree on something we don't know how much it's
12 going to cost really; we don't know really. Now,
13 the numbers are anywhere from three-quarters of a
14 million dollars to \$31,000. What's it going to
15 cost? We don't know.

16 But my -- what I want to get back to again
17 though is the original decision to have a plant.
18 Now, you're saying that there was 23 people at the
19 meeting. This is a town of 1400 -- or 1300 people.
20 There was not enough people involved in that
21 decision. Now, that second meeting, I don't even
22 remember hearing about it until after the fact. I
23 don't even know where it took place. I know if
24 it would have been there, I would have been there
25 at that meeting, and to have 23 people make a
26 decision like this just doesn't seem right to me.

1 But now that we do have the lagoon, I have one
2 other question. Does anybody know the depth of the
3 water in the lake, the T Lake that we're using now
4 for our drinking water? Does anyone up there who's
5 done the study, do you know the depth of that lake?
6 ACTING CHAIR: Hamlet?
7 MR. ROY: Thank you, Mr. Chairman.
8 This is Bhabesh again.
9 The drinking water source is monitored by INAC.
10 They are doing the annual water quality testing,
11 but some of the drinking water sources are being
12 controlled. We started in Clyde River, but here
13 two winter ago, I did the monitoring by myself.
14 During the wintertime, I went inside and make a
15 hole. I saw also with the depth and also with the
16 ice thickness. If you want me to know the depth of
17 water and the ice for two winter ago, I have that
18 information, but not available right now with me.
19 ACTING CHAIR: I guess we're kind of
20 stuck in a rock and a hard place, and I appreciate
21 what you're doing, but it is difficult for us to
22 have a debate on the cost in this present forum.
23 The ability of the Board -- the ability for the
24 Board is to consider options, and they are
25 restricted given the fact that the facility is
26 already built, so we're kind of -- we kind of have

1 a problem.

2 MR. GILLIS: Yeah.

3 ACTING CHAIR: The facility is built,
4 and now what we have to do as a body is to find
5 out, number one, should the lagoon have been built.
6 Okay? Yes or no. Is it the right place to put it?
7 Yes or no. We can't worry about the cost of
8 running the facility and so on and so forth.
9 That's something for your elected officials and
10 yourselves, I guess, to deal with, and that kind of
11 puts you in a bad situation.

12 But I could go on for quite a while with you
13 back and forth in debating this, and like you, I've
14 done some figuring too, and I agree, it may not
15 work, but I hear their side too, that they have
16 done work on the cost of a plant, and at that time,
17 it wasn't feasible to put that plant in place.
18 That's what we're kind of hearing.

19 But because the lagoon is there, and all the
20 information that we have received all day today is
21 about an existing sewage lagoon that's there, now,
22 is it feasible to monitor that over the next 20
23 years and is it good and so on, so forth, that's
24 what we have to do from this end.

25 So I guess if you can put your comments more
26 towards the lagoon, you know, perhaps, and is it a

1 right place to put the lagoon, do you have issues
2 about the lagoon's location, do you have questions
3 on why it shouldn't be or whatever, maybe that's
4 what we need to hear. We pretty well can't do much
5 about anything else, I don't think. Do you follow
6 me?

7 MR. GILLIS: Oh, yes, yes, clearly.
8 And this is my question about the depth of the
9 lake. The elevation of the bottom of the lake, is
10 it below the elevation of the lagoon right now? Is
11 there a possibility at some point where water from
12 that lagoon can leach over? That lake isn't that
13 far away from the lagoon. Can that water leach
14 over? I mean, we're going through periods of
15 warming now, and they're talking about permafrost
16 and everything else; can that lake at some time,
17 and I don't mean in the next 20 years, I'm talking
18 25, 30 years, can anything from that lagoon leach
19 into T Lake, the drinking water for Cape Dorset?
20 Has anybody looked into that? Has anybody thought
21 about that?

22 ACTING CHAIR: Good point, thank you.
23 Art? Sorry, Dionne? Okay, Art? Can anybody from
24 Dillon answer Cal's question is -- what is the
25 depth of the water in the lake, and is there a
26 possibility that this stuff may go into the lake in

1 25, 30 years? Go ahead, Colin.
2 MR. JOYAL: Thank you, Mr. Chairman.
3 I guess to address that, the lagoon is being
4 designed for and monitored for containment of that
5 sewage for the duration of its lifespan. That is
6 the design considerations and that is the
7 operating, functioning lagoon. So for that, to
8 have discharges get into water supply is what
9 would -- designing against any discharges outside
10 of that lagoon. In addition to that, it's my
11 understanding the water supply lake is at a higher
12 elevation than that of the lagoon.
13 ACTING CHAIR: And I guess the question
14 that I want to go back to time and again, he asked
15 you for an -- a figure. Do you have a depth on the
16 difference between the two in measurements?
17 MR. JOYAL: I don't have the relative
18 elevation difference between the lagoon and the
19 water supply lake offhand.
20 ACTING CHAIR: Thank you. That's what I
21 want to hear. Cal?
22 MR. GILLIS: So, in other words, they
23 don't know. Okay, they don't know. I think they
24 should know. And it's just not the lagoon. When
25 you decant that lagoon, where is that water going
26 to go? It's going to go into the next little lake,

1 which isn't lined. What's to stop it leaching from
2 that when you decant it? Nice word "decant" for
3 flushing. Where's that water going to go? As soon
4 as you decant that, where is it going to go? It's
5 going to go into the next little lake that has no
6 liner, that has nothing, and then it's supposed to
7 slowly run down to the ocean. Well, how about if
8 it slowly runs into our water supply at T Lake
9 because you guys don't know how deep T Lake goes.
10 You don't know if T Lake is below that.

11 Our water supply is right beside what you're
12 doing, if you get up there and look. T Lake is
13 right beside. This is an island. We live on a
14 little island here, and our water supply is our
15 water supply, and you're going to put a sewage
16 lagoon right beside it, and you don't know how deep
17 the lake is, you don't know if there's any chance
18 of leaching over. You say this is good for the
19 duration, the 20-year duration. What after the
20 20-year duration? What's going to happen then?
21 Cape Dorset's not going anywhere. We're going to
22 be here after 20 years. What's going to happen
23 then? What's going to happen to the water that
24 you're going to decant into this next lake? I
25 don't think there's a lot of thought gone into
26 this. This has been very expedient as far as I'm

1 concerned.
2 ACTING CHAIR: Bill, is there some legal
3 opinion here? Do we carry on and -- with debating
4 this, or what do you suggest?
5 MR. TILLEMAN: Well, I mean, it's
6 ultimately up to you as a Board, and I think you're
7 right in calling it just about the right way.
8 ACTING CHAIR: So carry on with debating
9 for a bit longer?
10 MR. TILLEMAN: Well, what I meant was
11 you could remind the audience that the Board is
12 here to deal with an application involving a
13 facility that is built or at least, you know, has
14 to be decided by the Board on the issue of the
15 deposit of waste into water, and the last 10
16 minutes have been enlightening for a lot of
17 reasons, and that's why you ask the Community for
18 their views and --
19 ACTING CHAIR: I agree. Yes -- sorry,
20 Bill -- I agree what you're saying. I just want to
21 make sure everything that Cal is saying is
22 pertinent information for our decision and is
23 pertinent to the Hamlet of Cape Dorset, and it's
24 something you gentlemen are going to have to answer
25 to because there is questions on the floor, and we
26 need to hear the answers.

1 MR. TILLEMAN: So I have no comment.
2 Just carry on, Mr. Chairman. It's the Board's, you
3 know --
4 ACTING CHAIR: Yes, thank you, Bill.
5 Dionne?
6 MS. FILIATRAULT: Thank you, Mr. Chairman.
7 Dionne Filiatrault.
8 I guess one question that could be posed to the
9 Applicant is are there any assurances that can be
10 provided by the Applicant for them to confirm the
11 protection of T Lake and that there will be no
12 contamination through monitoring or any other
13 measures.
14 ACTING CHAIR: There is a few questions
15 here, so, Art?
16 MR. STEWART: Thank you, Mr. Chairman.
17 I'm going to defer this question to Colin of
18 Dillon. Colin, could you answer that, please?
19 MR. JOYAL: Thank you, Mr. Chairman.
20 I apologize I wasn't able to answer the question
21 earlier.
22 ACTING CHAIR: Please state your name,
23 Colin.
24 MR. JOYAL: Sorry, Colin Joyal,
25 Dillon Consulting. It's not that the information
26 is not available; it's that I didn't have it on

1 hand and now I do. So if you can bear with me,
2 I'll read a portion of a report here: (As Read)
3 P Lake and T Lake are located approximately
4 1 kilometre apart. The surface at T Lake
5 is located at 150.5 metres above sea level,
6 which is significantly higher in elevation
7 than the surface of P Lake at 113. The
8 variance in elevations suggests that the
9 possibility of sewage running from P Lake
10 to T Lake is highly unlikely. Sewage
11 would, in essence, have to run uphill in
12 order to reach T Lake. In addition, the
13 land mass lying in between P Lake and T
14 Lake is significantly higher in elevation
15 than P Lake, creating a physically
16 impossible path for sewage to flow to
17 T Lake from P Lake. The second flow path
18 extends northeast from P Lake. This flow
19 path will be blocked by a construction of
20 lagoon berms that will contain the volume
21 of sewage discharged into P Lake.
22 The source for that is from a report issued in
23 January 2006.
24 To address one of the other issues was
25 regarding discharges from the lagoon. To be clear,
26 the discharges from the lagoon is treated sewage.

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1 There is discharge criteria that is set and
2 monitoring that is done to provide assurances that
3 the sewage -- or the effluent, because it's no
4 longer sewage, it's treated sewage, the effluent
5 that is being discharged from the lagoon meets the
6 criteria through the monitoring program established
7 in the license by the Water Board. So I think it's
8 important to differentiate that at the discharge
9 time in September, it's treated effluent that's
10 being discharged to P Lake and through the
11 wetlands.

12 Thank you, Mr. Chairman.

13 ACTING CHAIR: Thank you, Colin.

14 Mr. Roy?

15 MR. ROY: This is Bhabesh Roy
16 again, Mr. Chairman.

17 The question is before if we have any control
18 of the water lake. I think I answered the question
19 that I physically measured the water depth and the
20 snow thickness. But all the water lake when it was
21 declared as a potable water source, there is a
22 procedure to follow to do that. There is a control
23 done on each and every potable water source, and
24 the control was mentioned to us. And this is the
25 control, Mr. Chairman, is done for the water lake,
26 and it is in our record. So this will sure tell us

1 what is the bottom elevation of the drinking water
2 source.

3 ACTING CHAIR: Okay, thank you. There's
4 a couple people here. Jimmy Manning and --

5 MR. QUPIRRUALUK: I'm Qupirruualuk, and I
6 lived in Kingait all my life. I grew up here, and
7 our drinking water source closer to the community
8 is no longer a viable place to receive our drinking
9 water, potable water.

10 Our community is very small in terms of
11 placements for buildings and so on, and the
12 population is continually growing, and people are
13 always -- there's always a shortage of housing in
14 the community. And no doubt that in the future, we
15 would have to find additional -- or different
16 sources for locations of both possibly the water
17 source and the lagoon, as is the problem apparently
18 in Iqaluit. It's so close to the community that
19 you get the stench and so on coming from it,
20 depending on the winds.

21 And there is fish apparently in the drinking
22 water source, and I'm wondering whether -- also a
23 concern about whether there would be any seepage
24 underground from one facility to the other.

25 And also we'd like to know, I don't know for
26 sure if there is any liner placed in the lagoon

1 that is built. And those are the types of
2 questions that we really need answers to.

3 I don't know a whole lot about these designs
4 and so on, but I know that I'm -- unfortunately was
5 not able to attend the 2003 public meeting that is
6 held with regards to discussions on this issue.
7 And no doubt, there were enough concerns raised
8 that you had to come in and do this hearing. And I
9 know that a lot of work has been done in order to
10 prepare for this and that we have to think of our
11 future, our children and grandchildren, and this
12 has to be well thought out.

13 If there's too much stench and smell from the
14 lagoon towards the community, I don't know whether
15 that has been considered and whether testing has
16 been done to that effect, and I know that things
17 cost a lot of money, and even if we have to plan to
18 move to a different location, it would cost a lot
19 of money, but those things have to be considered.
20 And thank you for the opportunity to speak.

21 ACTING CHAIR: Most of your questions
22 were answered earlier this evening. I'm sorry you
23 missed the presentation from Dillon, but there
24 is -- a lot of your questions have been answered at
25 the beginning of this meeting this evening, and
26 there is lining there and there's all kinds of

1 other things.

2 Maybe if I can just have Art do a quick update
3 for him on what's been happening.

4 MR. STEWART: Okay, thank you,
5 Mr. Chairman. Art Stewart, SAO, Cape Dorset.

6 Just to address the -- there seems to be some
7 feeling that there was no thought put in this.
8 That is absolutely false. CGS hired a consultant,
9 Dillon Consulting. They did all the tests. They
10 come up with the design of the lagoon, and that's
11 basically why we are here today because this was
12 the best option for our sewage treatment.

13 Currently our old sewage treatment, which
14 consists of a three-cell, we are not meeting the
15 standards, environmental standards. We are putting
16 raw sewage into the ocean, and this is why a lot of
17 thought has gone into this. There was
18 consultation, there was at least two consultations.
19 And there was a thought process there, and this was
20 our best viable option, through CGS helping us out,
21 to treat our sewage -- our -- the raw sewage, and
22 I'm just going to ask Colin and/or Bhabesh to
23 comment on the seepage and explore what kind of
24 liner we have in the berms and that sort of thing.
25 ACTING CHAIR: Just kind of a short
26 answer, please.

1 MR. CAVANAGH: My name is Paul Cavanagh.
2 I'm with AMEC Earth & Environmental. We're
3 geotechnical consultants. We were hired by CGS
4 through Dillon to evaluate the design, to prepare
5 the design for the main berm on the west side of
6 the lagoon. The design was -- and also look at the
7 lining of the lagoon. The design relies on
8 permafrost as a liner, and also a secondary backup
9 liner that's made of synthetic materials to --
10 that's sealed in the presence of fluid or water.

11 A lot of design consideration has gone into the
12 site selection so that it is remote from drinking
13 water sources and from the town of Cape Dorset.
14 Part of the construction was to build a new access
15 road, which was by no means an easy task in itself.

16 So I must admit that some work was done prior
17 to us coming on the scene and helping out, but
18 we've been working on this for two or three years,
19 and Dillon has been working on it for longer than
20 that with CGS. So I concur, I think there has been
21 a lot of effort and thought and involvement to get
22 to where we are today.

23 ACTING CHAIR: Okay, thank you. Jimmy
24 Manning, you had a question?

25 MR. MANNING: It's not a real question.
26 It's during this meeting this evening, what the

1 Hamlet has been developing up to now, and I'm sure
2 that some people have now gone to their office and
3 to see the consultants are working closely with the
4 Hamlet through their CGS. I've gone through their
5 several meetings during their consultation. And if
6 it's not going to be -- we want to make sure that
7 if it's not going to be any seepage to anywhere, to
8 any environment that's sensitive to the land where
9 I care about, as long as it's stable, if it was
10 well thought out. I just want to support this in
11 regards to this issue. Thank you, Mr. Chairman.
12 ACTING CHAIR: Thank you, Jimmy.
13 MR. MANNING: Thank you.
14 MR. HAYWARD: My name is Mike, and I
15 work for the Municipal Works Department, and that
16 new access road, I'm curious about the safety on
17 the switch-back in wintertime. There's no runoff
18 for the sewage trucks if they start sliding. Is
19 that going to be addressed before the road opens?
20 ACTING CHAIR: Dionne, is that for us?
21 MS. FILIATRAULT: Thank you, Mr. Chairman.
22 Dionne Filiatrault.
23 The operation of the road falls within the
24 mandate of the Board insofar as there's water
25 crossings or drainage. The issue of public health
26 and safety, unfortunately, isn't the mandate of

1 this Board, but I was just conferring with
2 Catherine to try and determine whether or not we
3 can provide recommendations to the responsible
4 authority, who has the responsibility for public
5 health and safety.

6 It might be worthwhile, Mr. Chairman, to
7 actually -- not to put Mike on the spot because I
8 seem to do it in every hearing, but to actually go
9 to the Government of Nunavut and determine who's
10 responsible for public health and safety. It may
11 be -- I'm not sure if it's Territorial or if
12 there's a Federal responsibility. I believe it's
13 Territorial though.

14 ACTING CHAIR: Okay, it's just that Art
15 had a comment. So before I call on Mike, Art?

16 MR. STEWART: Thank you, Mr. Chairman.
17 Art Stewart, Hamlet of Cape Dorset.

18 The issue of the road is separate from the
19 water license itself. However, this is something
20 even though the Hamlet is a proponent of the new
21 sewage lagoon, we understand that the road can be
22 changed to be more safe, and that is an issue that
23 we would like to address with CGS at another forum.

24 To answer your question, Mike, yes, we know
25 that it is a concern, and we are looking into
26 having that situation fixed.

1 ACTING CHAIR: Mike, is that an adequate
2 answer for you?
3 MR. HAYWARD: Well, we sent a loader up
4 there once, just our operators from town. One of
5 our loader operators was scared coming down there,
6 so if you send a fully loaded sewage truck going up
7 that hill, it starts sliding backwards, and the
8 only thing at the end of it is a mountain and a 90
9 degree turn, which he'll never make, I think it's a
10 very serious concern.
11 ACTING CHAIR: Okay, point taken, thank
12 you. Probably something to be involved with the
13 Department of Environment or something we could
14 probably take under advisement and bring back to
15 your people, and perhaps it's something that we can
16 discuss, I don't know. What do you wish, Mike?
17 MR. ATKINSON: Mike Atkinson, Government
18 of Nunavut-Department of Environment.
19 My suggestion would be concerns regarding
20 safety and Municipal workers on the road should be
21 reported to Workers' Compensation. That's the only
22 advice I can give him.
23 ACTING CHAIR: I guess that is probably
24 the right way to go is through WCB for sure if
25 members of the staff has a problem. You know, I
26 know I personally wouldn't -- don't want to see a

1 sewage truck going up a hill fully loaded and then
2 coming down backwards, trying to stop because he's
3 not going to. It's just going to be a wall of
4 you-know-what at the end of it. And that's not
5 what anybody wants to see; let alone the spillage,
6 it's the guy's life or the person's life that we're
7 talking about. So it is an issue for WCB more so
8 than us for sure. So we'll take it under
9 advisement, and I'm sure the Hamlet also will.
10 That's all I can say.

11 MR. HAYWARD: One last thing, while the
12 construction guys were here, we did mention if they
13 had a runaway lane for something like that. If
14 they had to build it, it would solve the problem,
15 but they still didn't build it.

16 ACTING CHAIR: Well, cost probably.
17 Yes, something that will be taken under advisement.
18 Art?

19 MR. STEWART: Thank you, Mr. Chairman,
20 yes, we certainly know about the turn that Mike is
21 talking about. Several letters have been written
22 to CGS, notifying them of our concern, and as I
23 say, that is something that we want to address with
24 CGS before we actually open up the sewage lagoon if
25 we do get the water license for it. Thank you.

26 ACTING CHAIR: Kananginak, I think you

1 had a question?

2 MR. POOTOOGOO: My name is Kananginak
3 Pootoogoo. I'm another local person here in Cape
4 Dorset.

5 It's not a real question. I've been involved
6 with this -- with people consulting in regards to
7 same issue here. I'm quite knowledgeable in this
8 area. Like I'm quite up to what's been happening
9 in regards to the lagoon.

10 The particular site that has been chosen, and
11 when it turns to runs down to the ocean and during
12 the low tides or the beaches area along the shore,
13 it's completely contaminated. It's so dark now
14 where it used to be clear. And also further down,
15 there's an area, some areas that's dangerous, and
16 the whale, they do come around that area, and also
17 I want to say like there's some areas too --
18 there's other options in that area for possible
19 lagoon sites, although I'm concerned about -- and
20 it used to flow so easily in some areas over there
21 where there's some streams flowing. They used to
22 be more forceful; now they hardly run because, like
23 I said, I'm quite up to date.

24 And I like that site to be -- remain a lagoon
25 site, and if it should be moved, I don't think
26 there are any other options to pick. That's all I

1 want to say.

2 ACTING CHAIR: Thank you, Kananginak.

3 Any other questions from the public? Ashevak?

4 MR. EEZEKIU: Can you hear me? My name
5 is Ashevak. Thank you, Mr. Chair. I just want to
6 make small comment here. Like our community still
7 developing fast, and the population is growing
8 fast. And prior to the Government start building
9 the houses and before the new infrastructure, there
10 was hardly any people here then.

11 And also there was a devolution long before
12 Nunavut creation, and they gave us an idea what
13 eventually they're going to be building. That was
14 then in -- back in 1970s when the Legislative
15 Assembly of the NWT used to come here from
16 Yellowknife region.

17 They came here to Cape Dorset, and they give us
18 an idea that eventually Cape Dorset's going to be
19 too small for infrastructure alone because it's
20 only -- it's an island. Where we live, it's an
21 island, and perhaps it will even eventually reach
22 the camp called Saaturittug and Isoktok, and they
23 also gave us an option, maybe perhaps we should
24 move to one of those camps and pick them as a
25 community instead of Cape Dorset because Cape
26 Dorset's right on the small peninsula, it's on an

1 island. Other -- if we were closer to the
2 mainland, we would have better access to water,
3 roads, access to roads.

4 When people pick to remain in this site, in
5 Cape Dorset, so it never went further any of
6 then -- other than that. So now we are facing this
7 problem with the sewage lagoon sites, and now
8 you're doing your job for our future generation,
9 but still this is community issue.

10 At that time in 1970s, if we had made the
11 decision to move or prefer our community in a
12 different location not far from this area, but
13 majority of the local people from Cape Dorset, they
14 did not want to move out of this community.

15 And in those days, we were not very familiar
16 with -- to be involved with developing our
17 communities then. And although some of the topics
18 were not supported mainly in some areas, we were
19 consulted from outside of our communities through
20 GNWT.

21 At that time then only if we had made a
22 decision, different decision. We're just facing
23 different situations today, which is more
24 difficult.

25 The Nunavut Water Board is here, they're here
26 to listen to us, and also the consultants here for

1 our Hamlet on behalf of our community. Let's not
2 worry about how much it's going to cost. Let's
3 have a good discussion amongst us here and talk
4 about our involvement, let's be involved.

5 And this -- like the plant that they have in
6 Pangnirtung, sewage plant, that we were also given
7 an option, but the money was the issue. We know
8 that it was going to cost us a lot more than what
9 we're facing with our sewage lagoon. But our
10 community here, it's -- everything is close
11 together, like the houses, the roads.

12 So I just wanted to give a small -- a history
13 about -- this is all I have to say. Thank you,
14 Mr. Chair.

15 ACTING CHAIR: Any other questions or
16 comments from the community?

17 MR. WEEDMARK: Yes, Mr. Chair, my name
18 is Steve Weedmark. I'm with the Hamlet also. This
19 is basically addressed at Dillon Consulting. I
20 continually hear them say that the treated waste;
21 well, treated waste when you're dumping in there
22 continuously is never going to be treated. There
23 should have been a holding cell made for the
24 ten-day stand-down period of the sewage so that it
25 would settle out. So we're continually dumping;
26 where do we dump for those ten days?

1 ACTING CHAIR: Hamlet?
2 MR. STEWART: Colin, could I have you
3 respond to that? Colin or Bhabesh.
4 MR. JOYAL: Thank you, Mr. Chair.
5 Yes, I think I hear the question and understand,
6 and, I guess, not to -- to provide information, the
7 effluent is -- the criteria for the effluent is
8 what comes out of the pipe, which is continually
9 monitored and must meet the discharge criteria. So
10 that is what the lagoon is designed for, and that's
11 what will be monitored.
12 If there are concerns about the residence time
13 during the decant, then that will show up in the
14 monitoring program, if there are issues there. It
15 is standard practice for other lagoons, and it is
16 accepted and successful in meeting discharge
17 criteria by using those methods.
18 ACTING CHAIR: If I can, for the members
19 of Cape Dorset, I forgot to mention also, there is
20 a lady over here who's typing all the proceedings,
21 and she's been typing now for about an hour and 15
22 minutes. Her fingers are starting to go hard, and
23 she can't move them, so we're going to take a
24 15-minute break, not just for her but also for our
25 translators. So we'll take a 15-minute break, and
26 we'll come back about 5 to 9.

1 (BRIEF ADJOURNMENT)

2 ACTING CHAIR: Are there any other
3 questions from the public, from Cape Dorset?
4 There's a question up here, in the very back, lady
5 up in the back there.

6 MS. POOTOOOGOO: My name is Kanayuk 'P'.
7 I have a question here, although I missed quite a
8 bit because I got here late, late.

9 I think it was in the year 2000, I think there
10 was about 20 people attended a meeting here during
11 the -- when people were making the decision. Like
12 I said, I missed most part of the meeting.

13 Are we talking about the definite plans with
14 regards to the new site, the new lagoon site? Is
15 that a definite? Is that the Board's decision; are
16 they going to make a decision on this after their
17 meeting? Can you please give me an answer to my
18 question?

19 ACTING CHAIR: I will. We are here to
20 listen to the public, to the Licensee, and all the
21 interveners, including the Community of Cape Dorset
22 to discuss the issuance of a license, Type B, for
23 the new sewage lagoon that's presently built.

24 MS. POOTOOOGOO: If this now should not be
25 approved, but I understand that the new lagoon
26 site, that was an option. I think that has been

1 already -- it's going to be positive according to
2 other people's opinion, and it is cost lots of
3 money. I've heard little bit about how much it
4 cost to maintain it.

5 Don't forget that you're from outside of our
6 community, and even the people working for us or on
7 our behalf, they're from outside of community.
8 They may be consultants, and they're not the local
9 people, while we are the local people. Perhaps
10 next time through our Hamlet office, like if we
11 should be -- if we should -- if we could be more
12 consulted in the future. Like if it's possible, if
13 you could include us more in future for discussions
14 like this. I'm also supporting like what is being
15 discussed here. Thank you.

16 ACTING CHAIR: Okay, thank you. Just
17 for clarification, it was the Hamlet of Cape Dorset
18 who applied for a license in consultation with the
19 Community of Cape Dorset, and we are here now to
20 hear evidence from them, the interveners, and
21 yourselves on whether or not we are going to issue
22 a license. It's not because it's built it's
23 automatic. It has to go through a hearing, which
24 we're doing here today, and that decision will be
25 made at a later date when we get together to
26 discuss it. So just to give you a quick overview.

1 It may not happen, but we have to hear all the
2 evidence and make our decision at that time. And
3 that's why we are hear, to listen to the people
4 like yourself from Cape Dorset and get your opinion
5 on whether or not that sewage lagoon should go
6 ahead. Thank you. Art?
7 MR. STEWART: Thank you, Mr. Chairman.
8 Art Stewart. Kanayuk, as I explained earlier on,
9 and I don't believe you were here yet, but back in
10 2003, the community was consulted. It was
11 advertised on the radio, et cetera. As a matter of
12 fact, it was done in this very building. And as I
13 remember, there was roughly at any one point in
14 time, coming and going, there was probably 40
15 people. At the end of the night, we had 26. The
16 options were -- there were all kinds of questions.
17 The options were put on the table, and the option
18 to go to use P Lake was voted on, and it passed 26
19 to zero, so just to let you know.
20 ACTING CHAIR: Thank you. A gentlemen
21 over here had another question.
22 MR. WEEDMARK: Yes, Mr. Chairman. Steve
23 Weedmark, Hamlet. I'd just like to go back to
24 where Zeke was there, concerns of the seepage from
25 the new lagoon.
26 I can give you an example. We had to

1 effectively put a geotech repair on one side of the
2 new lagoon because the freshwater from T Lake was
3 running in. That filled up the lagoon probably
4 about half full. We didn't open the valve and
5 drain it. We didn't pump it out, but the water
6 disappeared within a couple of weeks.

7 I'm just wondering why the consultants or
8 whoever didn't put some kind of eco-dye in the
9 water and find out where it was actually going. I
10 think that Zeke has got a good valid point of
11 saying it's running down through town, right
12 through the valley, and into the ocean. And if
13 that be the case, the only way to effectively
14 repair it would be to encase the whole lagoon with
15 a liner, and that is a very costly venture.

16 ACTING CHAIR: Hamlet? Colin, you're
17 back on the hot seat.

18 MR. JOYAL: Colin Joyal, Dillon
19 Consulting.

20 Not totally sure what the question there was,
21 but it did pertain to the integrity of the
22 containment system, and Paul can speak to this a
23 little bit as well, but there has been considerable
24 design effort put into the design of the
25 containment system, and a monitoring program is
26 detailed so that the performance -- and the

1 monitoring program including thermistors to monitor
2 the freezing of the berms, which is part of the
3 containment system, as well as monitoring stations
4 for water quality.

5 So from our end of things, we're quite
6 confident in the design and containment of the
7 facility. And in addition, there's monitoring
8 programs in place to observe the performance and
9 detect any issues that may arise so that the
10 reaction time can be quick in that case.

11 ACTING CHAIR: Okay, so I think there's
12 still a question on the floor that this gentleman
13 has asked along with Zeke, that that sewage lagoon
14 perhaps was half full at one time. Something
15 leaked into that facility, and that water
16 disappeared. I think what you're asking, is that
17 correct, where it went?

18 MR. WEEDMARK: Yes, that's right.

19 ACTING CHAIR: So I guess it's just
20 clarification. They're asking the sewage lagoon
21 did -- was half full, and it did disappear
22 somewhere, and maybe the comment now is perhaps to
23 put a complete liner in the whole lagoon to stop
24 that from happening; that was the question. So can
25 we have an answer on that, please?

26 MR. CAVANAGH: Paul Cavanagh.

1 Just so I -- we're talking about the site that
2 we're working -- we're not talking about the
3 existing lagoon in town; we're talking about the
4 current -- the seepage that -- the water that
5 ponded behind the lagoon last fall and then seeped
6 away; is that what we're talking about?
7 ACTING CHAIR: I have no idea. Let's --
8 MR. WEEDMARK: Yes --
9 ACTING CHAIR: -- find out.
10 MR. WEEDMARK: -- that's correct.
11 ACTING CHAIR: That's correct.
12 MR. CAVANAGH: Okay, Paul Cavanagh
13 again.
14 Earlier today, we talked about how the berm of
15 the west lagoon -- sorry, the west berm of the
16 lagoon -- getting a little tired -- the west berm
17 of the lagoon is designed to act as a frozen berm.
18 It takes time for the berm to freeze completely,
19 and when the berm was constructed last summer, it
20 was constructed over the active layer, which is the
21 thawed portion of the permafrost, and then the berm
22 itself would have been unfrozen when constructed.
23 There was not enough time for the berm to
24 freeze when the water ponded, and our conclusion is
25 that the water seeped beneath the berm through the
26 unfrozen soils and drained out through P Lake.

1 Now that freezing is occurring through the
2 wintertime, permafrost will develop, a permanently
3 frozen condition should develop within the berm,
4 and that condition should not repeat itself, and
5 that is the way the berm has been designed.
6 ACTING CHAIR: So come next summer, once
7 they start using that facility very shortly, then
8 come next summer when the weather warms up and so
9 forth, we're guaranteeing that that seepage will
10 not happen again with the sewage coming out through
11 the bottom and out into the land; is that what
12 we're saying?
13 MR. CAVANAGH: Paul Cavanagh.
14 I hesitate to use the word "guarantee", but the
15 thermal analysis, the geothermal analysis that
16 we've now done and has also been now replicated by
17 the Board's own consultant, BGC, supports the view
18 that the berm will stay frozen, and the base of the
19 lagoon itself will stay frozen throughout its
20 operating life, and so we're pretty confident now
21 because there's been two sets of analyses that
22 suggest that the risk of seepage is very, very low.
23 ACTING CHAIR: Thank you. Does that
24 answer your question, sir?
25 MR. WEEDMARK: Not really, but we'll let
26 it go.

1 ACTING CHAIR: I hate to leave a person
2 hanging. You do have a concern, and your concern
3 is not answered. I don't want you to feel you're
4 being pressured to pass the mike on. If you need
5 more clarification and also pass the information on
6 to the Board, feel free to carry on until you're
7 satisfied with the response.
8 MR. WEEDMARK: I'm just curious why
9 they -- not guaranteeing, but almost guaranteeing
10 something, but they have not yet responded to my
11 fact of why didn't they use dye to see where this
12 stuff was going, where it would turn up.
13 ACTING CHAIR: Hamlet?
14 MR. CAVANAGH: Paul Cavanagh.
15 The information that -- the data that we got,
16 the observation by the Hamlet that this event had
17 occurred, where water had ponded and then seeped
18 out and gone to the other side of the dam, was only
19 brought to us after the fact, and it was very late
20 in the fall when we heard about it. I think it was
21 October the 1st. Difficult to react now and put
22 dye in the water and start doing those kinds of
23 things. I guess that's from my perspective. I
24 didn't have any direction to do that as a
25 consultant, and I think it would have been pretty
26 impractical at that time to try such a venture.

1 MR. WEEDMARK: Mr. Chair, no due
2 disrespect to you all, but the water didn't end up
3 on the other side of the berm. That's my point.
4 It didn't end up on the P Lake side of the berm; it
5 went through the ground.
6 ACTING CHAIR: Okay, Hamlet? I think
7 what it is it's not really a question; it's an
8 observation, and he's just advising you that that
9 happened, and something you may want to take under
10 advisement perhaps for later on. Thank you for
11 that comment, sir.
12 MR. WEEDMARK: Thanks.
13 ACTING CHAIR: Okay, is there any other
14 comment? I think -- Kanayuk, you had a question?
15 Anyone else? Sorry, anybody who wants to -- I
16 thought you had a hand up, and we'll do over here
17 after.
18 MR. NIVIAQSI: I just got here myself.
19 This is in regards to -- I was attending some kind
20 of workshop, and then after that, I came -- when I
21 came here it's regards to a sewage lagoon and also
22 related to our drinking water. This what I was
23 hearing.
24 Then -- but to me -- and it's the sewage waste
25 side, it's quite far from here. I would like to
26 see it in a different location, and there is to be

1 a person used to work for GN one time, he said
2 possibly it's going to be moved, it's going to be
3 different location one of these years.

4 And I heard some -- there was some study on
5 that, where would be the best location, and this
6 is -- I just want to understand better if someone
7 has knowledge of this issue in regards to like
8 which area would be better, a better location for
9 the new sewage lagoon.

10 ACTING CHAIR: Thank you. As far as we
11 understand right now, the only issue on the floor
12 is where the sewage lagoon is right now. It's not
13 about being removed or being put somewhere else.
14 It is there, it is in place, and it's not going
15 anywhere. It's now there.

16 We have to make a decision after all the
17 evidence is given on whether we agree to issue a
18 license for this lagoon or not. If by chance, the
19 Board says no, then the Hamlet is going to have to
20 go back and find another location and build another
21 sewage lagoon, of course. If we say yes, then that
22 lagoon will be there probably for the next 20
23 years. So it's not going anywhere. That's what
24 we're dealing with here tonight.

25 You had a question?

26 COMMUNITY MEMBER: I was not in this

1 community then when the issues were -- there was
2 some discussions in regards to this, the same
3 project. I was not happy with the access road.
4 For one thing, the road, access roads to that area,
5 it's very narrow. It's very, very narrow. It can
6 be dangerous when the garbage trucks or sewage
7 trucks, and if there should be an accident with
8 those two, that's the only thing I don't support.
9 I never have because the access roads are too
10 narrow for traffic.

11 ACTING CHAIR: Thank you. Again, you
12 did maybe come in a bit later. That question has
13 already been brought up, and the recommendation for
14 the Hamlet or somebody is to contact Workers'
15 Compensation because it is a safety issue for the
16 drivers, and it will be dealt with, and the Hamlet
17 is also aware of the danger, and it has been
18 brought up for different options, maybe to make it
19 a better road, and they will be looking into that.

20 And that again, may be a part of our -- it's
21 not really a part of our license, but it's
22 something that's going to have to be done by
23 another department and not us, but it already has
24 been brought up, but thank you for bringing it up
25 again. Any -- sorry, Art?

26 MR. STEWART: Thank you, Mr. Chair.

1 Art Stewart, Hamlet of Cape Dorset.

2 On the issue of the road and the width,
3 et cetera, I'd like to ask Pat Fuentes from CGS if
4 he could comment on that.

5 MR. FUENTES: Thank you, Mr. Chairman.
6 The question of the road, it was presented a long
7 time ago when we start the construction of the
8 facility. For that, we did adopt Transport Canada
9 guideline. Recently after the construction, we
10 proceed to measure the sewage truck, sewage truck
11 width, and we compare it to the narrowest point in
12 the entire road. If we put two trucks together, it
13 will be and a space of 2 metres in between. That
14 is satisfy our concern, and I believe it satisfy
15 the Transport Canada guidelines as well. Thank
16 you, Mr. Chair.

17 ACTING CHAIR: Thank you. Again, just
18 to reiterate, this is not an issue for us. It is a
19 Workers Comp. and somebody else. Comments have
20 been made, and I appreciate it's being passed on to
21 the Hamlet. I appreciate your comments, yes, but
22 again, I think the biggest concern of the member
23 from the community is when they're going up hill
24 with a fully loaded sewage truck and it starts to
25 go backwards full, where's it going to go and how's
26 it going to stop, and that's their concern. I

1 don't think it's the width of the road or how much
2 space you have between the two trucks. It perhaps
3 is another issue altogether, and that's what, I
4 think, the Hamlet will be dealing with in the
5 future, if I got your drift the first time. Thank
6 you.
7 Okay, any other questions? Yes, there is.
8 Okay, state your name and go ahead.
9 MS. NIVIAQSI: I'm Mukshowya Niviaqsi.
10 I have a question. In other communities, are there
11 lagoons that are built in a similar fashion?
12 ACTING CHAIR: Hamlet?
13 MR. STEWART: Perhaps Bhabesh or Colin
14 could answer that.
15 ACTING CHAIR: The guy behind you wants
16 to answer that.
17 MR. STEWART: Okay, Pat, go ahead.
18 MR. FUENTES: This is Pat Fuentes. For
19 the record, I would like to state, Mr. Chairman, we
20 have a facility currently in operation in Pond
21 Inlet that is exceeding -- it's below the amount
22 required by the Department of Environment and all
23 the regulatory bodies. That is one. The other one
24 is we recently, about three, three or four years
25 ago, we contracted another facility in Hall Beach.
26 It's also in compliancy. Therefore, we have a

1 certain amount of records that this facility will
2 be able to comply. Thank you.
3 ACTING CHAIR: Thank you. Another
4 follow-up question.
5 MS. NIVIAQSI: This question that I had
6 asked because we've seen some pictures of the
7 facility that's built, and we've seen the outfall,
8 and I'm just wondering whether -- how it would be
9 during the winter. We've seen some photos of it
10 during the spring, and I'm just wondering what kind
11 of conditions or situation it will be in during the
12 winter, and that's one of the things that I am a
13 bit concerned about, so I am asking this question.
14 Thank you.
15 ACTING CHAIR: Okay, thank you. Hamlet?
16 MR. STEWART: Thank you, Mr. Chair.
17 I'm going to ask for a clarification on that. Are
18 you asking what the condition of the road would be
19 in the wintertime or the actual sewage lagoon,
20 Mukshowya?
21 MS. NIVIAQSI: I am asking about the
22 actual sewage lagoon. When we were seeing the
23 pictures on the screen where the sewage truck will
24 be emptying down these half pipe, we saw that on
25 the screen, that was taken in the summer. And I'm
26 just wondering how it looks right now in the

1 wintertime. Again, going back to if we're going to
2 be in operation, whether -- which truck will be
3 going up to empty down the slope or whatever, it
4 probably is covered with snow right now. Does that
5 make sense?

6 ACTING CHAIR: Yes. Hamlet?

7 MR. STEWART: Thank you, Mr. Chair.

8 Art Stewart, Hamlet of Cape Dorset.

9 Our current three cell, when the trucks go up
10 there -- I don't know whether you've been there,
11 but there are three cells, and during the
12 wintertime, they're usually full of ice, and
13 they're not in very good condition. One of the
14 reasons why we have to do something about it.

15 In the sewage lagoon -- the new sewage lagoon
16 is going to be many times larger than the
17 three-cell. So in that aspect, we aren't going to
18 have a problem with the ice and freeze-up and spill
19 over.

20 The road itself, it is a windy road. It is
21 steeper than the road going to the current
22 three-cell, and we are -- we know that there's
23 going to be a lot of snow and that. We've
24 requested for a loader and a snowblower in order to
25 get rid of the snow so that we can have safe
26 passage of the sewage trucks.

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1 We're hoping once we get the snowblower,
2 et cetera, that the road will be safe, and as I
3 mentioned before you came in is we do have issues
4 with the road, and we are working with CGS to make
5 sure that the road is safe in the winter and the
6 summer. I don't know whether I answered your
7 question totally or not.
8 MS. NIVIAQSI: (NONVERBAL RESPONSE)
9 ACTING CHAIR: Okay, thank you. Are
10 there any other --
11 MS. QAQJURAJUK: I'm Arnasuk Qaqjurajuk.
12 I've always wanted to walk up to go and see, and I
13 did that during the summer. I didn't think the
14 number 20 -- for 20 years, if it should get full,
15 and if it should eventually start running towards
16 the community, if it should spread out, if it -- if
17 the seepage should become more than just slightly
18 seeping, if it becomes serious, if it should spread
19 out, for one thing, and that would damage the
20 lagoon side.
21 Our community, it's very small, everything so
22 close together, our infrastructure in our
23 community. We also live off the natural plants.
24 They are nutritional to our body. We still pick
25 our plants from various sites, and we don't want to
26 see them to be contaminated as a result of the

1 damaged lagoon, if it should happen.

2 ACTING CHAIR: Thank you for that
3 comment. Any comment from the Hamlet? That is
4 just more of a comment for your information. Do
5 you want to have a say on it? Art?

6 MR. STEWART: Thank you, Mr. Chairman.
7 Art Stewart, Hamlet of Cape Dorset.

8 To answer the question, prior to you coming in,
9 the consultants explained that how in the design of
10 the actual sewage lagoon, that though they couldn't
11 guarantee that seepage would not happen, there is a
12 very good chance that it won't, and if it ever did,
13 with the monitoring systems that are in place, we
14 should be able to detect that real quick and
15 correct the problem. I don't know, Bhabesh or
16 Colin, if you have further comments.

17 MR. ROY: Mr. Chairman, this is
18 Bhabesh. Before you came or probably during the
19 presentation, you probably recognize that we are
20 building a new facility. At the same time, we're
21 also keeping the existing facility to make sure the
22 new facility is functioning to our satisfaction.
23 So the existing facility we are keeping as a
24 contingency plan, so if anything happens, so that
25 we can right away address the situation, and we can
26 plan to correct the situation.

1 ACTING CHAIR: Thank you. I think Cal
2 had a question over there or a comment or whatever.
3 MR. GILLIS: The question is with
4 respect to monitoring. What's in place? I would
5 like to know what's in place. What has the Hamlet
6 put in place as far as training somebody? Is there
7 going to be somebody that's to be monitoring both
8 sides of the lagoon, one side of the lagoon? Is
9 there anything in place? Is there anything they're
10 doing now as far as training somebody to do this
11 monitoring?
12 ACTING CHAIR: Sorry, Cal, I just needed
13 some direction. Is that -- I know what he's
14 getting at, but is that our mandate now or --
15 because the question I think is once the license is
16 done, then, of course, there will be certain
17 regulatory items in there to do, but I think the
18 question he's asked is what is happening now
19 probably in the older lagoons. Where do I go with
20 this?
21 MS. FILIATRAULT: Thank you, Mr. Chairman.
22 Dionne Filiatrault.
23 I think it speaks to the fact that, as you say,
24 once a license is issued, if the license is issued,
25 there's generally monitoring requirements that are
26 put in that license. In general, I think what the

1 gentleman is trying to find out is whether or not
2 there's somebody in the community that's actually
3 going to be trained to be able to take and do the
4 sampling.

5 Historically for the smaller communities, there
6 is a lack of training and a lack of communities
7 actually doing the sampling that they're required
8 to do, and I think he's trying to find out for this
9 particular community if somebody has been
10 identified to do that sampling.

11 And I think when you're looking at compliance
12 to the water license, and INAC may speak to this
13 tomorrow in their presentation, they could probably
14 speak a little bit more to historically what has
15 been the compliance for this community as far as
16 sampling goes at their current sewage lagoons.

17 ACTING CHAIR: Yes, Cal, just before I
18 pass it to the Hamlet, to give you a better idea,
19 we issue the license, but we don't enforce it. It
20 is enforced by the person right in front of you
21 there. Now, I don't know -- again, probably by
22 tomorrow, as Dionne said, that will probably be
23 addressed.

24 But I don't know, Art, if you want to tell Cal
25 what is happening today with what you have in
26 place, what is coming that will come once a license

1 has been issued. So Art or somebody from the
2 Hamlet?

3 MR. STEWART: Thank you, Mr. Chair.
4 Art Stewart, Hamlet of Cape Dorset.

5 At this point, no, we do not have anybody
6 identified. Once we know the recommendations of
7 the Water Board and as to what type of monitoring
8 that the Water Board needs, then we will indeed,
9 with the help of CGS, get the proper people trained
10 to do the monitoring. But to answer your question
11 as of right now, no, we don't have that in place.

12 With the old sewage lagoon, the testing is done
13 by our works foreman or delegated by the works
14 foreman, and that's basically done -- it's the
15 testing where the samples are taken, and they're
16 sent away to be looked at.

17 But again, to answer your question, no, as of
18 right there now, because we don't know what type of
19 monitoring that we're going to have to do, we don't
20 have somebody trained for it at this time.

21 MR. ROY: Mr. Chairman, I just add
22 something more to the addition of Art Stewart --

23 ACTING CHAIR: State your name --

24 MR. ROY: -- the issue --

25 ACTING CHAIR: -- please.

26 MR. ROY: -- of Cape Dorset.

1 ACTING CHAIR: Just state your name. I
2 know who you are.

3 MR. ROY: This is Bhabesh Roy
4 again, the Municipal Engineer at CGS, Baffin
5 Region.

6 For -- the great news for the communities, to
7 you and to all the people of Nunavut, do you know
8 that there is an organization called Nunavut Water
9 and Waste Water Association? This association
10 formed by Nunavut and Northwest Territories
11 together. We have 50/50 membership in this
12 association. We keep -- once in a year, in that
13 seminar, one particular day we keep for the
14 operator training. We call it operators' workshop,
15 and we invite all the communities to send their
16 representative to attend this workshop. And in
17 that workshop, we show them how to do the water
18 sampling, and how we go ahead for doing the waste
19 water sampling and so on.

20 This year, I think in January, we had a
21 conference in Iqaluit, where our good friend to
22 the -- Andrew also participated. He was talking
23 about how doing the sampling of the waste water
24 system, and also we taught the operators how we can
25 do the water sampling.

26 So to answer to your question, yes, we have to

1 identify a person in a community who is
2 knowledgeable about the environmental law and who
3 is knowledgeable about the sampling procedures. So
4 we are in a process to develop this technique.

5 Thank you, Mr. Chairman.

6 ACTING CHAIR: Realizing the time, it is
7 9:30. I hate to stop this because it is a very
8 valuable -- information for us, and it's nice to
9 see everybody from the community here this evening
10 giving these presentations.

11 We are meeting all day tomorrow, and you are
12 more than welcome to come back, please, tomorrow
13 and carry on this dialogue with us for sure because
14 our court reporter, our stenographer, is really
15 getting tired. They've been there since 5:30 this
16 morning, and she's been typing for almost, I don't
17 know, 12 hours I guess by now, and our translators
18 are getting tired, and I know the members of the
19 group are getting tired.

20 So if we can, I'd like to adjourn the meeting
21 this evening for now and come back in tomorrow
22 morning, Dionne, at 9 -- okay, at 9. And if that's
23 the case, just before we close, I've just got to do
24 a bit of housekeeping, just a question. Bill, are
25 you with us?

26 MR. TILLEMANN: Yes, sir.

1 ACTING CHAIR: Thank you. Thomas?
2 THE CHAIR: Yes.
3 ACTING CHAIR: Okay, good. It's just
4 something for INAC for tomorrow. There was a
5 statement --
6 MS. FILIATRAULT: You don't have their
7 attention, Mr. Chairman.
8 ACTING CHAIR: Oh, sorry, I don't have
9 their attention, but if you'd just listen, there
10 was a statement by Pat that similar sewage lagoons
11 in Pond Inlet and Hall Beach are in compliance, and
12 I would like to request that INAC -- I'd like to
13 request INAC to confirm or speak to the compliance
14 of these two systems with respect to the water
15 licenses and their discharge requirements. INAC
16 can do this in their presentation, so I'm giving
17 you forewarning.
18 Directions to the party that we are at the end
19 of the first day. Assuming closing will follow by
20 tomorrow, with a couple items here. At the opening
21 of the meeting tomorrow, I intend to ask each party
22 to comment on whether the Board should consider
23 merging the renewal of the existing license, which
24 is concurrently underway, with a license amendment
25 for the newly constructed sewage lagoon should we
26 decide to do so.

1 Secondly, in the closing submissions of
2 tomorrow, the Board asks that each party advise the
3 Board whether or not the party recommends that the
4 Board issue the license amendment for the new --
5 newly constructed sewage lagoon. So just to give
6 you an update on that.

7 Is there any other housekeeping issues that we
8 have to deal with? No? Dionne?

9 MS. FILIATRAULT: No, Mr. Chairman.

10 ACTING CHAIR: Bill, any follow-up?

11 MR. TILLEMANN: No, sir.

12 ACTING CHAIR: Thank you. Again, on
13 behalf of our Board, I do want to thank the
14 citizens of Kingait for coming out, taking time out
15 of your night to come before us.

16 It's very important that you come to us because
17 we've taken time out of our jobs to come here to
18 listen to your comments, and it's peoples like
19 yourselves that needs to come and tell us what's
20 going on, because as we've heard a number of times,
21 we are from outside this community. But believe
22 one thing, we live in Nunavut, and we're all
23 Nunavut residents, and I'm probably the least
24 person that ever lived here, but everybody around
25 me -- but I have also lived in Nunavut for 43
26 years, and my decisions that I make in my job and

1 in my life is on behalf of the people of Nunavut,
2 and only the people of Nunavut.

3 So on that, we will adjourn until tomorrow
4 morning at 9:00. Thank you very much.
5 (WHICH WAS ALL THE EVIDENCE TAKEN AT 9:36 P.M.)
6

7 I, Karoline Schumann, Court Reporter, hereby
8 certify that I attended the above Hearing and took
9 faithful and accurate shorthand notes, and the
10 foregoing is a true and accurate transcript of my
11 shorthand notes to the best of my skill and
12 ability.

13 Dated at the City of Calgary, Province of
14 Alberta, this 30th day of January, 2008.
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18 Karoline Schumann, CSR(A)
Official Court Reporter
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