ORDER NO. MH-2-95
ORDONNANCE No MH-2-95
IN THE MATTER of the National Energy Board Act,
and the Regulations made thereunder; and
IN THE MATTER of an Inquiry by the National Energy
Board into Stress Corrosion Cracking on Oil and
Natural Gas Pipelines.
RELATIVEMENT à la Loi de l'Office national de
l'énergie et ses règlements d'application; et
RELATIVEMENT à l'enquête publique sur la
fissuration par corrosion sous tension des
oléoducs et gazoducs canadiens menée par l'Office
national de l'Énergie.

Hearing held at Calgary, Alberta, on Tuesday,
April 23, 1996.
L'audience tenue à Calgary, Alberta, le mardi,
23 avril 1996.

PANEL:
K. W. Vollman               Chairman/Président
A. Côté-Verhaaf             Member/Membre
R. Illing                   Member/Membre
II
APPEARANCES/COMPARUTIONS

N. J. Schultz  Canadian Association of Petroleum Producers

J. B. Malone, Q.C.  Canadian Energy Pipeline Association

D. H. Rogers, Q.C.  Canadian Gas Association

D. Friesen  Alberta Natural Gas Company Ltd.

J. Lutes  Foothills Pipe Lines Ltd. and Westcoast Energy Inc.

C. Havers  NOVA Gas Transmission Ltd.

W. M. Moreland  Interprovincial Pipe Lines Inc.

C. B. Woods  Mobil Natural Gas Canada Ltd.

R. C. Youell  Novagas Clearinghouse Ltd.

R. J. Smyth  Petro-Line Upgrading Services Ltd.

J. M. Murray  TransCanada PipeLines Ltd.

M. W. P. Boyle  Trans Mountain Pipe Line Company Ltd.

A. Reid  Alberta Department of Energy

C. Ward  British Gas Research & Technology

C. M. Fowler  CAPCIS Ltd.; Harris Scientific Products Ltd.; and CML Real Time Corrosion Management Ltd.

B. de Jonge  Board Counsel

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THE CHAIR: Good morning, everyone.

Mr. Schultz, did you have a
preliminary matter?

MR. SCHULTZ: Yes. Thank you, Mr.
Chairman.

I have two matters, a Response to an
Undertaking given by Dr. Woodward at Transcript page
703 of yesterday's Transcript.

I provided copies to your Clerk and
Staff, and there are copies at the back.

THE CLERK: That will be Exhibit No.
B-2-11.

--- EXHIBIT NO. B-2-11:
CAPP Response to an Undertaking given
by Dr. Woodward (Tr. 6:703) re
Membership List.

MR. SCHULTZ: Thank you.

I also have one Transcript correction,
at page 689, line 16, where Mr. Scott is talking about
the database that CEPA is developing and the intention
of the Association to distribute it to its members to
get the members of the association engaged in the
process.

He said at line 16:
"-- and it has not been provided to us --"
It has been provided to us. We simply have not had a chance to circulate it to the members.
I wonder, Mr. Chairman, given that we are likely to conclude the Hearing sometime this morning and I do not yet have the Response to the Undertaking given by Dr. Krishnamurthy, if we might just reserve a number for that, and then when I get it, I will mail it around to everybody.
THE CHAIR: That would be suitable.
THE CLERK: That will be Exhibit B-2-12.
--- EXHIBIT NO. B-2-12:
CAPP Response to the Undertaking given by Dr. Krishnamurthy.
MR. MURRAY: Good morning, Mr. Chairman, Members of the Panel.
I have a Response to an Undertaking given by Mr. Basaraba to Mr. McCarthy at Transcript Volume 6, page 754, which was:
"To advise as to the breakdown of Youngstown and Welland Tube used on the Montreal Line".
THE CLERK: That will be Exhibit B-3-26.
--- EXHIBIT NO. B-3-26:
TCPL Response to an Undertaking given by Mr. Basaraba to Mr. McCarthy (Tr. 6:754) re pipe used on the Montreal Line. (Renumbered. See Tr. 872)
MR. MURRAY: Then I have a Transcript correction at Volume 6, page 758, line 29, where Mr. MacFarlane hopefully misspoke himself when he said: "210 percent of SMYS" -- which would be a pretty fantastic test pressure.
Mr. Chairman, it should be 110 percent of SMYS.
Thank you.
THE CHAIR: Good morning, Mr. Malone.
MR. MALONE: Good morning.
I have several Undertakings to respond to.

First of all, an Undertaking given by Mr. Delanty to Mr. McCarthy at Transcript Volume 1, page 49; and Undertakings given by Mr. Argument to Mr. McCarthy at Transcript Volume 1, pages 50, 54 and 56.

Could that be the next exhibit, please.

THE CLERK: That will be Exhibit No. B-3-29.

--- EXHIBIT NO. B-3-27:
CEPA Responses to Undertakings given by Mr. Delanty and Mr. Argument (Tr. 1:49, 50, 54 & 56) to Mr. McCarthy.

MR. MALONE: Also, I have for filing the Opening Statement of Ronald J. Turner, Chairman, CEPA Policy Panel, that is assembled for this morning.

Could that be exhibited, please.

THE CLERK: That will be Exhibit No. B-3-28.

--- EXHIBIT NO. B-3-28:
Opening Statement of Ronald J. Turner, Chairman, CEPA Policy Panel.

MR. MALONE: Mr. Chairman, Members of the Panel, the members of CEPA Panel No. 5 will deal with policy issues on CEPA's behalf. The Panel members are Ronald Turner, Robert Vergette and John Walker.

I would suggest, Mr. Chairman, that Mr. Vergette and Mr. Walker need not be re-sworn.

By way of introduction, on the far left, is Mr. Vergette, who appeared with Panel 2; next is Mr. Turner, Vice-President, Facilities Provision, NOVA Gas Transmission, at the centre of the Panel. He will be Chairman. And finally, Mr. Walker, of the TCPL Panel from yesterday.

R.J. TURNER, Sworn:
J.G. WALKER, Recalled:
R.D. VERGETTE, Recalled:

EXAMINATION-IN-CHIEF BY MR. MALONE, ON BEHALF OF CEPA:
Q. Mr. Turner, could you tell us your
present occupation and your area of responsibility at NOVA?

MR. TURNER: I am the Vice-President of Facilities Provision at NOVA Gas Transmission. I have broad responsibility for engineering procurement, construction and maintenance planning on the NOVA Gas Transmission system.

Q. Would you advise the Panel as to your academic and professional background, please?

MR. TURNER: I am an engineer. I have a Bachelor of Engineering degree from the University of Canterbury, New Zealand.

Q. Your cv is found at Tab 15 of Exhibit B-3-8. Could you please confirm its accuracy?

MR. TURNER: Confirmed.

Q. What role did you play in the CEPA Submission and its Responses to Information Requests?

MR. TURNER: I was a member of the Steering Committee -- in fact its Chairman, through this Inquiry process.

Q. Are there any changes or additions that you wish to make to the CEPA Submission or the Responses to Information Requests?

MR. TURNER: No.

Q. Is all of this material accurate, to the best of your knowledge, information and belief?

MR. TURNER: Yes, it is.

Q. Do you adopt this material as your evidence in these Proceedings?

MR. TURNER: Yes.

MR. MALONE: Mr. Chairman, as you know, Mr. Turner filed an Opening Statement this morning. Copies are available at the back of the room. Would you care for him to read it at the beginning, or would you prefer that we simply move on?

THE CHAIR: I think, in light of the
fact we have just received it, Mr. Malone, it might be
appropriate for Mr. Turner to take us through the
statement.

MR. MALONE: All right.

MR. TURNER: Thank you, Mr. Chairman.
I will read from the Opening Statement we filed this
morning.
OPENING STATEMENT OF CEPA PANEL NO. 5 (POLICY):
During the course of this Inquiry, CEPA has provided an extensive amount of information on
SCC and has made a number of commitments.

We believe it would be helpful at this
time to review, in summary form, CEPA's commitments to
this Board as to how it is and will be addressing the
SCC issue.

All thirteen CEPA member companies
participated in the development of our Submission, and
they are committed to the following initiatives:

1. CEPA formed a Steering Committee
reporting to the CEPA Board of Directors to manage all
aspects relating to this Inquiry. A senior committee
will remain in place after the Inquiry to manage the
ongoing strategic aspects of pipeline safety and
integrity.

2. In 1994, CEPA established its SCC
Working Group to share SCC experience and create a
proactive program to investigate, mitigate and prevent
SCC on Canadian pipelines. This Working Group will
remain in place after the Inquiry to implement CEPA's
commitments.

3. Informal risk assessment has been
used in the pipeline Industry for many years. We
believe that it is important to bring more structure to
risk decisions and, as such, CEPA is committed to
continuing its membership and active participation in
the Pipeline Risk Assessment Steering Committee, or
PRASC.

4. The CEPA members have developed,
and are committed to using, the SCC Integrity
Management Program, which provides companies with a
road map for decision-making and action.

5. CEPA commits to the continued
development of a set of "Recommended Practices",
documents intended to provide member companies with
guidance on methods to prevent and mitigate SCC on
pipelines, both new and old. Recommended Practices
will be available to non-CEPA members.

6. CEPA and its members are committed to ongoing research and development to further our understanding of, and ability to mitigate against, SCC. As an example of this commitment, CEPA is funding $1.4 million of the development costs of the next generation of in-line inspection tools, that we expect to be operational by 1998.

CEPA will monitor developments with other in-line inspection technologies and is not necessarily wedded to one product.

CEPA has identified additional research required to fully understand SCC initiation and growth. A proposal entitled "Material Factors Influencing the Initiation of SCC on Canadian Pipelines" has been approved by the Alberta Department of Energy for co-funding.

7. CEPA will continue the development of its SCC database, which will be compatible with other major international initiatives. Reports of data trending analyses will be made available to regulatory agencies, participating companies, the public and research organizations on an annual basis.

8. If invited, CEPA is prepared to actively participate in any public information meetings which may be sponsored by the National Energy Board after the release of this Panel's recommendations with respect to this Inquiry.

Notwithstanding these commitments, CEPA acknowledges that it does not speak for all pipeline companies in Canada, and that there is a need to find a mechanism to promote broader participation by all interested parties.

To address this issue, CEPA would be prepared to work with the National Energy Board to create a multi-stakeholder forum modelled on PRASC. Such a group might be called something like the "Environmentally Assisted Cracking Steering Committee" and would have similar membership to PRASC.

CEPA would propose that such a committee would have as an objective that it be absorbed into PRASC at an appropriate time in the future.
Overall functions for the committee would include:
-- Coordination of research and development;
-- Coordination of information sharing;
-- Promotion of recommended practices;
-- Identification and recommendation of possible changes to CSA codes;
and
-- Coordination of database development.

Based on the breadth of our Submission and the Witnesses provided, CEPA has clearly demonstrated its interest in finding pragmatic and early solutions to mitigate the SCC challenge.

The Canadian pipeline industry has an excellent safety record in an industry that is not risk free. We invite comparison with all other methods of hydrocarbon transport, be it by road, rail or water.

We believe that the Industry's excellent safety record will continue, and that SCC can be effectively addressed by CEPA and the pipeline industry.

MR. MALONE: Mr. Chairman, this Panel is ready for cross-examination.

THE CHAIR: Thank you, Mr. Malone.

Are there any Parties other than the Board that wish to question this Panel?

--- (No Response/Pas de réponse)

THE CHAIR: Mr. McCarthy, please.

EXAMINATION BY MR. McCARTHY, ON BEHALF OF THE NEB:

Q. Good morning, gentlemen. I want to start off by talking to you about the environment. I want to try and get a sense as to what, in your view, has changed since the last Inquiry, since the Board issued its Decision in the last Inquiry, which was in August of 1993.

What has changed?

MR. TURNER: I think quite a bit has changed, Mr. McCarthy. The CEPA companies have continued to address this issue of SCC. We consider
industry knowledge to have been advanced quite significantly.

The actual formation of CEPA, in the context of the Canadian pipeline industry, I think is a fairly significant event, in providing industry leadership on issues such as this.

We feel that the majority of companies in the Industry have been actively working on furthering their knowledge of SCC and working with their Integrity Management Programs to mitigate the issue of SCC.

For example, in 1992, approximately 50 percent of the current CEPA Board members were actually in different stages of developing soils models. We now have 11 of 13 companies actively using soils models.

In the area of research, a significant number of the CEPA companies participate in either PRCI or GRI and have been able to facilitate ongoing research into stress corrosion cracking.

I think what should be very obvious to the Board, with the information filed in this Inquiry, is that the two largest companies in the pipeline Industry -- and here we are talking about natural gas -- TransCanada and NOVA, were very active in this issue of SCC mitigation prior to the 1992 Inquiry, and have continued that high level of activity.

As we have demonstrated in our Submission, the rest of the members of the CEPA organization have also, to varying degrees, initiated Integrity Management Programs in their own right.

MR. WALKER: Perhaps I could add a couple of details regarding the activity that has taken place, Mr. McCarthy, since the last Inquiry.

First of all, I would reference Transcript pages 718, 719, and 720, from yesterday, where Mr. Burdylo described the activities that have taken place. That is with specific regard to TransCanada, for reference.

In general, the CEPA member companies -- and as Mr. Turner has mentioned, NOVA and TransCanada have been quite involved in this area prior to and since the last Inquiry.

Just to give you an idea, since the last Inquiry, there has been over 30 kilometres of pipe replaced as a result of discrete replacements for SCC.
That is basically NOVA and TransCanada.

There have been a number of hydrostatic retests that have been conducted. And actually 94 retests have been done during this period, covering 2,134 kilometres of pipe.

There are a number of SCC-specific investigations that have been conducted. There has been in the order of 306 digs based on the soils model, which accounts for 12.6 kilometres of pipe that has been inspected.

There have been a number of SCC-related investigations conducted in association with other maintenance activities, which have been talked about over the last few days. Actually, there have been 1,044 investigations done, which covers about 6.8 kilometres of pipe that has actually been inspected.

There are a number of pipe segments that have been cut out and inspected. That pipe has been cut out for other reasons. There have been 23.3 kilometres of pipe inspected for SCC over that period of time.

So there has been a total of about 43 kilometres of pipe that has been examined since the last Inquiry.

That is just to give you some idea of the activity, the actual in-field activity, that has gone on since that time.

Q. Is it the view of the CEPA organization that SCC has been identified on more systems than it had been back in 1993?

MR. TURNER: Yes.

Q. Your information has also indicated that there have been eight further failures: two on TransCanada, two on Rainbow, one on NOVA, one on Pacific Northern, one on IPL, and I understand a leak ---

Those were ruptures; and a leak on Federated since 1993.

Is that fair?

MR. TURNER: Yes.
Q. So the problem has not gone away.

Is that what we are saying?

MR. WALKER: That is a fair statement.

Q. You talked about the research

that was conducted.

In your view, what is the most
important understanding that has been developed with
respect to research and SCC since 1993?

--- (A Short Pause/Une courte pause)

MR. TURNER: It is a fairly complex
question, Mr. McCarthy, but probably the two areas of
most significant advancement would be in-line
inspection and understanding of crack growth.

Q. Maybe you could elaborate on the
"understanding of crack growth" aspect.

What is it that we understand that we
did not understand back in 1993?

MR. TURNER: You are beginning to test
the technical limits of this Panel's ability here, Mr.
McCarthy!

Probably the early-stage crack growth,
where research is finding that crack growth rates
appear to be independent of stress level within a
meaningful range of stresses.

Q. That is something that has been
determined since 1993?

MR. TURNER: Yes.

Q. I am wondering if there is
anything that we have learned from the research
initiatives that have gone on in the last three years
that has been implemented into the activities that the
CEPA member companies have undertaken.

MR. TURNER: Sir, once again I need to
perhaps refer back to the Transcript page where Mr.
Rothwell was preconditioning his responses.

It would appear to us that the areas
that have impacted what we do would be in-line
inspection, the steadily increasing frequency of
in-line inspection in pipeline systems, and the
increasing reliance on that technology; the research
into crack growth and the development of frequencies
for retesting programs, the impact on retesting
programs; and, of course, the ongoing development of
predictive models, soils models.

Q. What do you see in the area of
research?

You spoke about two areas, ILI and
understanding crack growth.

What do you see as being the next
important question to be answered, either within those
areas or outside those areas, that will help to solve
the issue of SCC?

MR. TURNER: Sir, once again, this a
fairly complex question.

I think there is a need for research
in a number of areas. The CEPA Working Group is
working on prioritizing those research needs.

The one area of research we have
initiated in the last couple of months is this one on
material factors influencing the initiation of SCC.

So initiation is a high priority area
for increased understanding.

And of course, as is demonstrated by
CEPA's commitment here, ongoing development of in-line
inspection technology we see as being pretty important.

I do not think that that is,
necessarily, a very comprehensive answer to very large
areas. It is a very complex problem.

Q. We certainly appreciate that after
the last seven days.

You commented earlier that one of the
key learnings from research in the last few years has
been that pressure and crack growth is not related.

Is that how I am to understand what
you said earlier, Mr. Turner?

MR. TURNER: I think you have
summarized the position I have stated with respect to
what we call "early-stage crack growth", not initiation
or not the final stages of crack growth.

Q. Has that been resolved to the
satisfaction of the CEPA member companies; that that issue has been resolved through research and development?

MR. TURNER: I am not too sure you consider any issues ever resolved. But we have significant research indicating that within the range of normal operating pressures, early-stage crack growth does not appear to be dependent on stress level. It is one set of extensive experiments or research in the lab, and we have a lot of confidence in that research.

MR. WALKER: Mr. McCarthy, just to continue on with what Mr. Turner was saying regarding the crack growth, we still need to do more research and more work in that area. As long as we are using the crack growth rates as fundamental to the hydrostatic retest frequencies, we need to continue on with understanding as much as we can regarding the growth rates, as it is fundamental to the development of the retest frequencies.

As you said, that is an area we have a good understanding on, but I think we are going to have to continue. I am not going to say we are definitely there.

Q. So the correlation between stress level and crack growth rate is not fully resolved, as far as ---

You are tying it closer to hydrostatic retest frequencies.

Is that what I am to understand you to be suggesting, Mr. Walker?

MR. WALKER: As Mr. Turner said, it is ongoing. You never get to the end.

I think we have a high confidence level in where we are at right now. But I think our field experience will help confirm that the research is there. Really, the fundamental and the primary proof of it all is what is happening in the field.

I think we have a very good understanding of where we are now. I am just saying that I do not think we can ever say we are finished with crack growth rate. I think we have to keep that on the list.

Q. I want to touch briefly on your Opening Statement here.
You listed a number of commitments. And these are commitments to initiatives as you see them.

Is that a fair understanding?--The initiatives that are undertaken by CEPA.

MR. TURNER: Yes. Some of those are relatively new in the context of this Inquiry, and some of them are a reinforcement of ongoing CEPA activities.

Q. Which ones would you characterize as being "relatively new"?

MR. TURNER: I think, Mr. McCarthy, there is a mixture of things here. I could go through the full list.

Fundamentally, if I start with No. 1, the formation of the Steering Committee was driven by this Inquiry.

There was an Engineering/Operations Standing Committee of CEPA, but the decision was made to form a committee of more senior participants.

To a certain extent, that is both a new commitment and a reinforcement of an existing one.

There is an Engineering/Operations Standing Committee as part of CEPA. But the Steering Committee that the three of us belong to has been formed as a response to this Inquiry.

We now see that this has been of significant benefit to the CEPA member companies in terms of sharing information and moving forward together.

We now see ourselves migrating those two committees together. While it is the reinforcement of an old practice -- "old" in the terms of CEPA being three years old -- it is a new commitment in the context of this Inquiry.

If you go through the rest of the document, it is reasonably self-evident that the Working Group has been in existence for several years; risk assessment has ---

Q. Could I just stop you there, with respect to the Senior Committee. I want to ask you about that one.

There was an SCC Working Group that was focused on SCC, but it was at a technical level.
Is that what I am to understand you to say?

And then there was a new committee formed afterwards, as a result of the Board calling the Inquiry?

MR. TURNER: No. CEPA's committee structure involves several committees reporting to the Board. That would be in the Articles of the Constitution of CEPA. There is the Engineering and Operations Standing Committee.

When this Inquiry was called, a decision was made by the Board of CEPA, senior representatives of all the member companies, that it was appropriate to create a Steering Committee of senior level executives from across the Industry, as it says here, to manage all issues relating to this Inquiry.

As we look to a path moving forward, the CEPA member companies have seen the benefit of this higher level Steering Committee being in place, and the basic plan now is to bring those two committees together.

Separately, under the Engineering/Operations Committee, there are a number of subcommittees. There is one working on research priorities for the Industry; another one working on SCC.

That SCC Group is what we are now calling the SCC Working Group. It has been in existence since 1994. It is the committee that will now implement CEPA's findings. We have restructured that committee. On our way through this Inquiry, we have very clearly given it some very significant commitments to deliver on. We have given it a stronger mandate than it had in the past.

It was moving forward at a slower pace. We would expect to have gotten to the same general point, but certainly not in the same timeframe that we are now challenging that committee to meet.

Q. The SCC Working Group, as I understand it, which reports to the Engineering Standing Committee -- which will be recast, I imagine, into a more senior level committee.

First of all, by "senior level", do you mean the Vice-President level?
MR. TURNER: Yes, essentially; officers of the company.

Q. Officers of the company. Okay.

So this SCC Working Group will be continued and focusing on the implementation of a number of these initiatives?

MR. TURNER: Yes.

Q. Is that Working Group focused solely on SCC, or is it more broadly focused?

MR. TURNER: At this point, it is solely SCC.

It was created in 1994. It was created in the same broad timeframe as PRASC as a response to a need. The members wanted a forum to discuss SCC.

But in terms of our preliminary discussions of how this will move forward, we feel its most logical path forward will expand its role to one of pipeline integrity in general.

We have not actually done that at this point, but it appears to us, with the type of people we are pulling together and the type of commitments they are making, that it is only logical that they expand their mandate to cover pipeline integrity in general.

Q. Why would that be? Why do you no longer see a need for a special SCC-focused Working Group?

MR. TURNER: It is not that we think we do not see a need for an SCC-focused group. It is simply that the bigger issue is pipeline integrity in general.

As we have heard in this Inquiry, SCC is a big challenge to us right now. It is very high profile. It is an issue that the Board felt strongly enough about to call an Inquiry. It is an issue of significant concern to the pipeline community.

Nevertheless, in the bigger-picture level, it represents somewhat less than 20 percent of the ruptures that we experience, and we need to keep that in mind. There are other problems we have or
other challenges that we have that are also very important.

When this SCC Working Group might actually change its name to "Pipeline Integrity Working Group", I am not sure, Mr. McCarthy. That would be a matter of that Group's priorities and how they move forward.

Q. You are talking about Item 2 here. I want to go through the initiatives. We started off with which of the initiatives were new and which ones were not.

You were talking about No. 2 and the fact that a Working Group has been in existence for a long time. Do you want to continue on with your answer to my previous question, Mr. Turner?

MR. TURNER: Move on to No. 3?

Q. Certainly. But let's talk about No. 2 for a second ---

MR. TURNER: Okay. Yes. To repeat what I think I have just said, the SCC Working Group was formed, in response to the need of CEPA's members, several years ago.

It was a subcommittee to the Engineering and Operations Standing Committee of CEPA.

Moving forward, with this Inquiry one of the things the Steering Committee has done is to reconstitute that group, to ensure a full participation by all CEPA members. That group is currently comprised of a senior engineering or manager-level person from each of the CEPA member companies who has accountability for pipeline integrity in their respective organizations.

Q. Many of the membership, I would imagine, would be similar to the people that are involved in the CSA process. Is that fair?--On that technical working group level.

MR. TURNER: To some extent.

Q. How do you see it interacting with the CSA initiatives that are ongoing? Or is it separate and apart?
MR. TURNER: In some ways, it is potentially part of the same process. But at this stage, that group is not focusing on CSA.

Q. The third item you have here is the matter of informal risk assessment.

MR. TURNER: Yes. I think we are all aware of the background of the statement we are making here: that the Industry, as a whole, does believe that it is important to bring more structure to risk decisions facing the Industry. This identified need precipitated the formation of PRASC a few years ago.

Separately, for example, those CEPA member companies which are active in PRCI are involved in a larger forum discussing the same issue, beyond Canada.

In fact, some of those are heading down to Columbus this afternoon to attend a meeting of PRCI.

Risk assessment is on the agenda in that forum -- which I think, as we referred to earlier, is comprised of some thirty to thirty-five gas transmission companies from around the world.

The use of risk assessment in the Industry is steadily increasing.

Q. This initiative is not focused on SCC particularly, is it?

MR. TURNER: No. Once again, this is a broader issue.

Q. With respect to No. 4, did you have any comments with respect to that?

Mr. Vergette and I discussed this when he appeared on Panel 2.

MR. TURNER: From the point of view of the broad CEPA membership, this is a new initiative. Companies like TransCanada and NOVA have had similar programs in place for some time. But what we have done here is to create a model that all of the CEPA companies can use.

Q. That is similar to what we talked about in Figure 6.1 in the ---

MR. TURNER: Yes.

Q. I think we had discussed the idea,
Mr. Vergette, of having that more formalized and having
put out in more of a detailed form what exactly an SCC
Integrity Management Program is.

MR. VERGETTE: Yes. As I recall, Mr.
McCarthy, we discussed at quite a length whether people
were going to follow the three major blocks that were
listed on the previous page, or whether they would
follow Figure 6.1, and we agreed that the companies
would follow Figure 6.1; and further, that the
Integrity Management Program would be incorporated,
probably, as a Recommended Practice, or a document like
that that stands alone, as opposed to being
incorporated within the existing Submission, so that it
could be readily available to people.

Q. Is it CEPA's view that this
Recommended Practice be solely focused on SCC? Or is
it into the area of general integrity management?

MR. VERGETTE: At the current time,
the model has been developed for SCC. One could argue
that many of the elements that are included in that
could be used for other integrity issues. But at the
present time we have contemplated it to be primarily
for SCC.

Q. What is the commitment of CEPA
member companies to following a document that is
prepared by CEPA itself, entitled: "An SCC Integrity
Management Program"?

Are those separate commitments, Mr.
Turner?

MR. TURNER: Sorry. "Separate
commitments" in what sense?

Q. If CEPA itself, as an
organization, adopts and supports a particular
Integrity Management Program, what is the obligation of
the CEPA member companies to adopt the same program?

MR. TURNER: At this stage, the member
companies of CEPA have committed that they will use the
CEPA-developed SCC Integrity Management Program and
will follow the Recommended Practices.

It is an interesting point, as we talk
about moving forward. The companies absolutely have
committed to making use of those documents.

In some ways, that commitment will, in
my mind and in the mind of this Panel, be
self-fulfilling.

There is not much doubt they provide a
strong guideline for action by the CEPA member
companies, and the intent of all companies is to follow
those Practices.

But for example, should some company
perhaps not be quite as committed as we currently think
it is, it would be our view that within a short period
of time here it will be in a position where it is
perhaps not following the accepted standards of the
Industry, and that leads into a whole new area of
concern for the companies involved.

It would be our view that this
represents a very significant commitment by the CEPA
member companies and one which they will be bound to
follow.

Q. You mentioned that by not
following these Recommended Practices and the Integrity
Management Program, a particular company might be seen
as not following Industry standards.

Is that how I should characterize it?

MR. TURNER: In any engineering
endeavour, one has a responsibility to society to be
aware of the reasonable standards of the Industry. On
this issue, where there has been a dearth of guiding
documents available before, as a minimum for the CEPA
companies ---

That shortage of information is not
going to exist in the short term.

Q. But CEPA does not speak for all
pipeline companies in Canada?

MR. TURNER: No.

Q. So in that CEPA prepares a
Recommended Practice, that does not necessarily mean
that that is the standard by which all pipeline
companies should be compared.

Is that fair?

MR. TURNER: I think that is true,
although each company in Canada will have to take
account of the type of system they operate and the
types of problems they understand they have and whether
or not they should be making use of the CEPA practices.

We have talked in this Inquiry in earlier days that if one were to get into all of the pipeline companies in Canada, there are certain segments of the Industry that do not appear to have the problem the way that some of the larger gas transmission companies do.

It is a matter of engineering judgment, I think, for each individual company.

Q. So it would be sort of "the Industry Practice, as applicable"?

MR. TURNER: Yes.

Q. And it would really be up to the individual companies, I suppose, to decide whether it is applicable to them, or not?

MR. TURNER: Yes. We should just emphasize that we are talking of the non-CEPA companies. All the CEPA companies have committed to following these Practices.

Q. You mentioned that there are 13 member companies of CEPA. I understand that there are a number of associate members as well.

How many associate members are there?

MR. TURNER: I think we --

Q. I think there was only one on the list.

MR. TURNER: Okay. My broad understanding, Mr. McCarthy, is that there are actually three classes of members. There are full members -- and that is the 13; there are technical members -- and I think that is probably the list that you were given.

 Those companies may pay a smaller fee and have access to technical documents of the organization but obviously do not have a vote.

Then there is a class of membership that I understand is called "associate member" membership. And there are a significant number of associate members -- I think 30 or 40 members. They pay a much smaller fee, and basically participate by way of receiving the Annual Reports of CEPA.

We are generally talking here of legal firms, banks, people who are affiliated with the Industry itself but are not necessarily owners and
operators of pipeline systems, although I understand
that one or two very small pipelines have chosen, at
this stage, to take up associate membership. But that
does not give them access to the technical activities
of CEPA.

Q. Do the obligations on CEPA members
extend to the technical members and the associate
members? Or does it stay with only the full members?

MR. TURNER: Sorry, the obligation...?

Q. Sorry, the commitment. You have
said that the CEPA members are committed to these
initiatives.

You are speaking solely about the full
member companies.

Is that correct?

MR. TURNER: Yes, my understanding is
that that is correct.

Q. From your perspective, there is no
obligation on either the technical members or the
associate members to follow these Guidelines and
Recommendations, Recommended Practices, or the SCC
Integrity Management Program?

--- (A Short Pause/Une courte pause)

MR. TURNER: Mr. McCarthy, the debate
here is whether the technical members have made that
commitment. I think by reference to the Appendices to
our Submission we might be able to check with respect
to -- I think it is Alberta Energy Company and whether
they have made the same commitment as the full members.

The other technical member, Pembina
Pipelines, has just very recently joined CEPA and has
not effectively been a part of this Submission. But it
does have access to all the documentation in the
Technical Committees and very clearly joined for that
reason.

Does that answer your question at this
stage?

Q. That is fair. Perhaps you could
confirm whether they have undertaken the same
commitment.

MR. TURNER: I am just saying that it
is either in the Submission or it is not; in that
Appendix which contains the list of individual
companies.

If it includes one from Alberta Energy Company, then, yes, they have.

Pembina certainly have not been asked to. They have just joined in recent weeks.

Q. Could you just give me the reference for that, Mr. Turner.

MR. TURNER: That is Appendix C. And in fact, the very first entry is the technical member we spoke of, Alberta Energy Company.

Q. I understand a number of these companies have subsidiaries which are also pipeline companies.

Do you see the commitments and obligations flowing through the parent company into the subsidiary?

MR. TURNER: I could not really speak on behalf of those companies. The organizational arrangements vary from company to company.

In some cases, overall planning and engineering is done by the parent company; in other cases, it is done by the affiliate or the subsidiary.

Where we do not have those affiliates or subsidiaries as full members of CEPA, we have not requested their position on this matter.

Q. That is fair. Thank you.

Speaking a little bit about No. 5 now, where you state that CEPA "commits to the continued development of a set of 'Recommended Practices'", my understanding, from the previous discussion, is that these Recommended Practices will be developed by CEPA members but will be made available afterwards to non-CEPA members.

Is that how I am to understand it?

MR. TURNER: Yes.

Q. So there is no intent by CEPA to sort of broaden the consultation in the development of these Recommended Practices beyond that of the CEPA member companies?
MR. TURNER: I think it is fair to say that as these Practices are developed and begin to be used by different companies, whether they be CEPA or not, if people have suggestions to improve the quality of those documents, those comments will be taken on board.

It is one of the areas we have recommended come under the broad jurisdiction of the Steering Committee we have proposed might be formed -- the promotion of the Recommended Practices.

But at this stage, clearly the Working Group of CEPA, which is the full CEPA members and the technical members, would be the people actively developing these procedures and would be the ones that we know for sure will be using them and will form the nucleus of the group. But I think it stands to reason that any improvement that we have suggested to us from any source would be taken on board.

Q. Thank you, Mr. Turner.

This is a new initiative, is it?

MR. TURNER: Yes.

Q. Would you say it is something that was developed in response to the Inquiry?

MR. TURNER: I think broadly, yes, it would be fair to characterize it like that.

The SCC Working Group had been in existence for a year or so; but there is no question that it has been given a much stronger mandate coming out of this process.

As they have moved forward to identify how they can contribute and what they need to meet their objectives, the development of this suite of Recommended Practices became a thing the Working Group felt we should do.

Q. Moving on to No. 6, which is a committment to "ongoing research and development to further our understanding of, and ability to mitigate against, SCC", as I understand it ---

First of all, I think we had a discussion with Mr. Anderson yesterday, or a few days ago, wherein it was said that the funding for the inspection tools is not $1.4 million but $1.2 million.

Is that fair?
MR. TURNER: If you want the full story, the commitment by CEPA is to a certain percentage of an estimated research budget, which, at an exchange rate effective on a certain day in April, was something like $997,000 (U.S.), which is where the $1.4 million (Cdn.) comes from.

So it is actually a commitment to a percentage of the research project budget.

We have been in ongoing discussions with CGA and CAPP as to our mutual interests in research collaboration. As Mr. Anderson referenced, the LDC members of CGA have agreed to contribute $200,000 (Cdn.) which would be applied against the $1.4 million CEPA commitment.

So CEPA has made the commitment with GRI and PRCI and British Gas to the actual research.

We are pleased to report that the LDC members of CGA have come forward and volunteered to contribute $200,000 of that $1.4 million.

Q. So the commitment of the CEPA member companies is $1.2 million? Is that what I understand?—subject to exchange rates.

MR. TURNER: Broadly speaking, yes.

Q. Is this a new initiative?

MR. TURNER: There are two answers to that: "yes" and "no".

The initiative itself, as Mr. Anderson I think explained, is fundamentally not new.

When CEPA decided that this was one of the concrete examples of moving forward in this area that would meet the needs of our members, as Mr. Anderson referenced, we did adjust the scope of the research project somewhat, and that adjustment of the objectives of the research program allowed us to come in with this level of support.

So no, the research program itself in general was not new. Certain aspects of it were. But yes, the commitment by CEPA absolutely is new.

Q. New as of when, the latter part of 1995?
MR. TURNER: Yes, broadly speaking.

Q. Has the funding distribution or allocation been resolved within the CEPA member companies?

MR. TURNER: Yes.

Q. The $1.2 million funding obligation would be distributed amongst, not all the CEPA member companies, but a number of them; a few of them.

Maybe you could tell me a little bit more about that.

MR. TURNER: I think it has been prorated back to all of the full CEPA member companies.

If I am not mistaken, there is a contribution from the technical membership as well. But not the associates, no.

Q. Is it prorated on a one-over-thirteen ratio, or is it prorated on some other mechanism?

MR. TURNER: It is a more complicated mechanism than that. It broadly relates to the size of the company involved, with several qualifiers.

Q. So basically the big companies would pick up the major share.

Is that fair?

MR. TURNER: Yes.

Q. Can you tell me a little bit about the funding? Or would it be indiscreet to tell me how that is being allocated?

MR. TURNER: I'm not quite sure what CEPA's position would be on that, Mr. McCarthy. It is not particularly top secret, I do not think. The funding mechanisms of the CEPA companies comes up for debate at the Board level.

There is a CEPA membership fee structure that is in place. That structure was debated at the Board and modified slightly for the purposes of funding this Project.

I am comfortable saying that it broadly relates to the size of the company that is
providing the funding. But beyond that, I am not too sure ——

Commitments like this to funding get to be a little bit sensitive within certain companies.

Q. That is fair. I will leave it to our Board to decide whether they want to pursue it further.

With respect to the other project that you talked about, the project entitled "Material Factors Influencing the Initiation of SCC on Canadian Pipelines", that is a recent initiative?

It has just received funding, as I understand it.

Is that fair?

MR. TURNER: Yes, coming out of a meeting with Minister Black about four to six weeks ago.

We were generally aware of this research fund here in Alberta. She indicated to us that she felt that some of our research priorities fit within the scope of that research fund.

Within an extremely short period of time, we had prepared a submission. We have been before the Board of the Energy Research Council, and our understanding is we have been given co-funding in the order of $128,000, which will be matched by the CEPA companies and other participants.

Q. Did CEPA approach the Alberta Department of Energy with the proposal, trying to understand whether SCC research would be within the scope of their program?

MR. TURNER: Sir, once again, the answer is "yes" and "no".

In my capacity on the Board of another research company, I was familiar with this fund; I was aware of its existence. The Staff Vice-President of Technology of CEPA was also aware of the fund, through his dealings with the Alberta Provincial Government.

And then yes, we made a formal submission, a significant formal submission, requesting funding for a specific project, and that funding has been granted.
Q. This is only in the last four weeks?

MR. TURNER: Yes. One of the things you always do in the research environment is you try to tie a cost to benefit delivered, and you try to get people involved who can contribute to the process.

Research funding is a pretty complex commercial area.

In this case, we felt we had a responsive organization in CEPA and a responsive organization or funding mechanism in the Energy Research Council of Alberta.

I am pleased to report that in a very, very short time frame, we have been able to get funding for what our Working Group had prioritized as the next project they wanted to get on with.

Q. Can you tell me the level of funding by CEPA for this project?

I know it is in the Evidence. I have seen it. I just do not have it handy.

MR. TURNER: Sir, the estimated budget for the project is slightly in excess of $250,000. The Energy Research Council has committed to funding 50 percent of that amount.

The way we are proposing to fund this project by the CEPA members is for the individual companies to step forward and indicate their preparedness to share funding. We have been joined by at least one, if not more, CAPP companies in committing to co-funding this research, and on an equal basis, probably.

Q. The whole program is $250,000?

MR. TURNER: Yes.

Q. The CEPA portion is roughly half of that, $125,000?

MR. TURNER: Yes.

Q. And part of that will be funded by other parties.

Is that what I understand?
MR. TURNER: Yes. We at CEPA have committed that we will find the funding amongst pipeline companies for half of the budget of the research program. The Energy Research Council has committed to funding half.

We are now talking to industry participants as to who is interested in contributing to this project.

I think the project is essentially fully subscribed now.

The broad intent is that there will probably be equal funding per company, which will be in the order of $10,000 per company.

So it is not a significant commitment.

Q. You said $10,000 per company?

MR. TURNER: In the order of $10,000.

Q. In the order of.

MR. TURNER: We are at the point where the program is definitely moving forward. The actual detail "I"-dotting and "T"-crossing on the funding mechanism has not been landed at this stage. We have just been soliciting intent to participate from various companies.

I am pleased to say we have the majority of CEPA companies and several CAPP companies actively agreeing to participate.

I should point out, as I think members of the Board Staff would be aware, that there are other research initiatives underway across Canada and there are other ways in which this funding takes place.

There is quite a lot of collaboration among Industry and with Government agencies in the funding of this sort of research.

Q. So the CEPA commitment is somewhat less than $125,000, and it would be basically, I guess, by the number of CEPA member companies that sign on.

Is that how I understand it?

MR. TURNER: Yes. I think I would frame it more positively than it sounded, Mr. McCarthy. We have committed to $1.4 million estimated funding for this British Gas project. We have had a contribution now from the LDCs of CGA of $200,000 towards that.
That was December.

We have identified through the Working Groups some priority projects they would like to initiate in the short-term. We have successfully initiated those in a one- or two-month period -- which I think is quite spectacular for research funding.

Notwithstanding that -- and I make this point to drive home the fact that this is part of a continuum. Most of the major CEPA companies are very active members of the Pipeline Research Committee International and have significant influence on the research part of that organization. Stress corrosion cracking is one of the highest priority research areas for that organization.

And just to keep playing my Gramophone record here, with GRI, once again, several large CEPA companies are active participants. We have significant influence on the funding priorities of that organization as well, and several SCC-related initiatives are underway there as well.

So there is a lot of research underway.

Q. Would this project have been initiated without the funding from the Alberta Department of Energy?

MR. TURNER: That is a fairly hypothetical question -- but I can give you a hypothetical answer, I guess.

There is a Research Subcommittee of the Engineering and Operations Committee of CEPA, and they were actively working on opportunities for collaborative research across Industry.

That research group had been in place for over a year or so.

This is the type of project they would have been looking to co-fund across industry, to extract maximum value from this type of research.

So to answer your hypothetical question, I can hypothetically say: Probably, yes.

Q. The next point you have is No. 7, which is dealing with the SCC database. The statement is:
"CEPA will continue the development of its SCC database which will be compatible with other major international initiatives."

Is the database a new initiative?

MR. TURNER: Yes. In the context of CEPA, it is. It has been an identified need for some time. There are a number of other initiatives around the world.

I think we heard from Dr. Beavers that he is working for PRCI on a similar type of activity.

We were aware that the Board was very interested in this activity, and the SCC Working Group has said that this is a priority for the Industry; that this is needed.

So absolutely, the SCC database, as we have put it forward in our Submission, is a new initiative that has come out of this Inquiry.

Q. When did this idea get off the ground?

MR. TURNER: After the calling of this Inquiry, as we reviewed what actions should be ongoing and we spoke to the SCC Working Group and the experts in the various companies that dealt with SCC as to what the priority issues were, this very quickly became a priority issue.

I think in discussions with the Board and other Parties, it was obvious from everybody's point of view that there was a need for this database to be established. The issue was: In what forum and with what sort of mandate, and who pays for it. This type of thing.

So fairly early on, after the calling of this Inquiry, CEPA agreed that we should commit to trying to manage this database as a minimum for CEPA member companies, but all the while keeping it compatible with other international initiatives, so that we were not out on a limb with a database that was not as usable as it could be.

Q. How is it funded?

MR. TURNER: At this stage, the work done to date has either been contributions-in-kind by
the member companies, although there have been fees paid to external Parties.

It is one of the issues that we have to address, moving forward: just what the costs are going to be of managing this database. Likewise, with the Recommended Practices.

The Recommended Practices have a pretty obvious way of ongoing funding. The documents can be sold for a fee. That can help to recoup development costs in some sort of viable way.

Also, the database itself, I do not think we have a real feel on the long-term costs of maintaining that yet, and whether it is small enough that it can be just carried by the member companies as we move forward or whether some other mechanism will be needed.

We do not have a position at this stage on what that cost might be.

Q. I understand that the database is populated as we speak. Is that fair?

MR. TURNER: Yes.

Q. But there is the intent to develop the trending analysis capabilities of the database. Is that correct?

MR. TURNER: I think, as I stated earlier, we are hoping by the end of this year to publish our first set of trending analyses.

Q. Who specifies the trends that are going to be evaluated, or analyzed?

MR. TURNER: That will be developed by the SCC Working Group, with reference, I think, to other players who may be able to contribute to the quality of the process.

I think in the CEPA companies, and in the other organizations that the CEPA companies are members of, we have a pretty good pool of talent to call on in terms of trying to identify what we should be looking at in terms of trend.

I suspect we will be looking at a range of things to trend. We are looking for trends that are meaningful to us. Typically, you will have a range of things you will look at.
Q. Would it be set up in sort of an open format, so that people could ask for correlations that maybe weren't part of the initial package?

MR. TURNER: I think we are probably getting into the detail that the Policy Panel cannot really speak to much at this stage. I do not see any reason why the issue of what types of trends we search for would not be a very open process.

Q. That would be developed by the CEPA member companies: the initial package, the types of trends?

You would rely on your experts and expertise within the CEPA member companies for that.

MR. TURNER: That is our basic intent -- although, if we jump ahead a few paragraphs, if we were to become members of some sort of Steering Committee, it might be possible that that Steering Committee would have input into the type of trends as well.

Q. The CEPA member companies would have the data.

I understand that there have been some discussions with both CAPP and CGA to have their members contribute to the database as well.

Is that fair?

MR. TURNER: Yes.

Q. Could you tell me a little bit about those discussions?

Let's start with CGA first.

--- (A Short Pause/Une courte pause)

MR. TURNER: Mr. McCarthy, we are not quite sure of the status of those discussions, but we think we gave an update of the status in an I.R. We are just going to look for that. Certainly, there have been discussions with both of those organizations.

--- (A Short Pause/Une courte pause)


MR. TURNER: The Response to I.R. 24.1 gives the current status, which is that meetings have been held with the Pipeline Committee of CAPP and the
Corrosion Control Committee of CGA. It goes on to state that both organizations have expressed support for the concept, and that we are presently arranging for our Working Committee to meet with the CGA and CAP Committees to identify participants, and that it is expected that only those non-CEPA companies who have inspected for SCC in their pipeline systems will initially participate in the database.

Q. Do you have a sense of how many companies that would be? How much broader than CEPA member companies will this database be, as far as input is concerned?

MR. TURNER: I think there are several CGA members and several CAPP member companies -- meaning two to four, at this stage.

Q. So it is very preliminary as far as the commitment on behalf of both CAPP and CGA to participate in the database?

MR. TURNER: Yes. It is preliminary in the sense that we, as CEPA, focused on what we needed to do to get this SCC database up and running. The issue of participation by others is, necessarily, a secondary issue to us.

We are addressing it. We have met with the two other major industry associations in Canada.

That issue is moving forward, as demonstrated in our I.R. Response.

Q. As I understand it, CEPA's position is that the information in the database would be available upon request by the Regulators, for example.

MR. TURNER: I think broadly we are talking of publishing trending analyses on an annual basis. Basically, we are open to discussing what the Regulators' needs are.

Q. Does that include the Transportation Safety Board?

MR. TURNER: We have not really discussed that at this stage -- whether they are interested or not. We have not spoken to them. There could be a lot of data involved here.
Q. I understand, also, that if researchers were interested in the data, they would have access to it as well.

Is that a correct understanding of the position of the CEPA member companies?

MR. TURNER: Yes.

Q. You do not know exactly where this database would be housed. It could be either within one of the companies or it could be a stand-alone?

I guess that decision has not been taken yet?

MR. TURNER: No, not at this stage. To the extent that it is electronic, I am not sure there is a home, sir.

Q. Someone has to be in charge of putting the data in and maintaining its integrity, and debugging programs and that sort of thing.

MR. TURNER: From that point of view, this is the responsibility of SCC Working Committee of CEPA. It is one of many detailed working issues they will be addressing as they move forward.

At this stage, we have gotten to the point where the database is populated. The issue of how it is maintained is one of the next items on the agenda for that Committee.

Q. Moving on to No. 8, it says: "If invited, CEPA is prepared to actively participate in any public information meetings which may be sponsored by the National Energy Board after the release of this Panel's recommendations with respect to this Inquiry."

Are you referring to community sessions or press conferences?

Is that what your suggestion is here?

MR. TURNER: I think the primary intent of this answer is to respond to the issue of our community sessions, yes.
Q. Just going back over the eight initiatives of which we spoke, which SCC initiatives started before August 1995?

MR. TURNER: Once again, I think there is a bit of a "yes" and "no" answer to most issues.

If I sort of follow through broadly, the Steering Committee has been established since the calling of the Inquiry. The SCC Working Group was in existence before, but it has been reconstituted since the calling of the Inquiry.

I presume that is what happened in August.

Am I right?

MR. McCARTHY: Pardon me?

MR. TURNER: The Inquiry was called in August. That is the ---

Q. I believe it was August, yes.

MR. TURNER: The matter of risk assessment has been moving forward independently of this Inquiry.

Although this Inquiry, both here and in the discussions the CEPA companies have had, has provided a good forum to discuss the whole issue of risk assessment, I do not think there has been much impact on the steady progress forward in that area. We are pushing quite hard in that area, anyway, and have been for some time. And SCC is not the only issue in the risk assessment area.

The sharing of the SCC Integrity Management Program across all of the CEPA companies is an activity that has taken place since August.

The Recommended Practices, per se, have been initiated since August.

The two specific research projects referenced in Point 6 have been initiated since August.

The other ongoing research programs, of course, have been going on for several years, with GRI, PRC, TransCanada and NOVA funding or executing research.

The SCC database has been specifically
initiated since the calling of the Inquiry; and, of course, No. 8 is since the calling of the Inquiry.

MR. VERGETTE: It is probably fair to say, Mr. McCarthy, that what took place before the calling of this Inquiry would be characterized more by individual efforts by companies.

As Mr. Walker, I believe, related to you, there was quite a bit of work that had gone on in the field level; individual companies doing research, doing this, doing that.

There was a certain amount of joint research done before that.

I think what we now are seeing is what you might characterize as much more joint effort.

The things that Mr. Walker has included in his statement are primarily joint efforts, where the Industry has come together.

It strikes me that this Board should not underestimate the importance of a Hearing like this to draw the Industry together. Certainly, CEPA has acted as the focus for that, in terms of the major pipelines in Canada.

There are a number of commitments that CEPA has made and will be continuing with as a result of this Inquiry.

So I think that the Industry is somewhat different.

I cannot think of a focus that we have had ---

I was involved in the work that went on with the sleeve failures that had occurred back in 1985, and the Industry worked very diligently as a group to make some changes for the betterment of the Pipeline Industry.

But I would characterize the effort that has gone into the SCC Inquiry Submission that CEPA has made in drawing the companies together as much larger, much more intensive and all-encompassing compared to what was done before.

I do not think we go forward the same as we were in the past as a result of this, on a joint basis.

Q. I want to touch on research initiatives, just in a very general sense.
We spoke about it a little bit when we were talking about Initiative No. 6. I want to go back and pick up on some of the points that you mention, Mr. Turner.

You mention that the research priorities would be established by the SCC Working Group.

I understand that CEPA has another group that is a Research Working Group.

Could you explain the difference between the research priorities established by the SCC Working Group and the Research Group within CEPA?

MR. TURNER: Yes. Broadly, under the Engineering and Operation Standing Committee there has been in place for some time a subcommittee working on the issue of collaborative research across the CEPA membership on issues of mutual concern or mutual interest. It is fair to say that we have elevated SCC to a higher level in terms of priority, and the SCC Working Group has clearly taken responsibility, at this point in CEPA's development, for identifying research priorities in the area of SCC.

Q. So it has taken over the role from the Research Group? Primarily, the SCC Working Group is taking over the role of establishing priorities?

MR. TURNER: With respect to SCC research.

Q. I want to get your comments on a statement made by Mr. Anderson earlier.

I am referring to Volume 2, page 142.

I will just read it aloud. We were discussing -- this was on Panel 1. We were talking about the prioritization of research.

Mr. Anderson says:

"We are trying to identify a prioritization list. But funding is the issue. What we are first of all focusing on is working with the various research organizations to see how we can get this funding, and see who can co-fund what."

Is that a fair description of how
research prioritization may be done?

I want to get a sense of how important that is in determining your priorities.

MR. TURNER: I think it is one of many issues. One has to manage, as you move forward, what I would characterize as non-proprietary research.

You are always looking to get the appropriate interested parties to the table to define the research need, and you are looking for a fair mechanism to share the cost.

This, naturally enough, is a fairly complex arrangement. There are a lot of participants in an industry like the Pipeline Industry, and a lot of interested parties.

If I were to perhaps highlight some of the areas where some of the funding mechanisms do exist, there is very clearly the individual companies themselves -- who, to varying extents, have research programs and research budgets.

Then there are the research organizations like PRCI and GRI, who have a different size of budget with different sorts of priorities. They have priority-setting mechanisms inside those organizations.

The Energy Research Council in Alberta is an organization focused on oil and gas research in the Western Canadian Sedimentary Basin.

A significant number of the CEPA companies are involved in research, with CANMET, where the Federal Government agency PERD is the co-funding mechanism.

We can get as far as the National Science and Engineering Research Council, NSERC.

So there are a large number of organizations who have both the need for the research, the capability of doing the research, and are able to contribute funding.

It is a fairly complex issue, and Mr. Anderson is characterizing that funding process as one of the issues that is quite significant in moving forward.
At this point it would be our position that we are capable of moving research forward at an appropriate pace.

You can push too hard. You can have what is characterized as "dollar-driven research", where a fund is created and there are some instructions to spend it.

It is normally not a particularly effective way of doing research. We do not think that that sort of approach would be constructive.

But the type of funding mechanism we have established with ERC, where there is a 50/50 funding with a government agency that wants the Western Canadian Basin to remain a key player in the North American marketplace, is the sort of funding that is good to have. It provides an umbrella for us to come together under.

Q. You mentioned that a lot of the CEPA member companies are looking at co-funding projects, or are involved in projects that are funded by GRI and PRCI -- which are primarily, I guess, governed by pipeline companies in the United States. Is that fair?

MR. TURNER: In the case of PRCI, that is basically not correct now.

I think that approximately 40 percent of the member companies of PRCI are non-U.S. I think it is fair to say that the Canadian companies -- NOVA and TransCanada, in particular; but also Westcoast, Union Gas, TransGas, Foothills -- have been leaders in helping to set and influence the research priorities of PRCI.

PRCI has a number of subcommittees, and it has a voting mechanism whereby research projects are prioritized and brought forward for funding.

GRI has a separate mechanism. It is true that the majority of GRI's funding comes from a voluntary tariff on interstate gas transportation in the U.S.

But there are Canadian companies that do contribute to funding. Although our company does not, an officer of our company is on a steering committee of GRI that helps to set their research priorities.
We are intimately involved with organizations such as those, and have significant influence.

Q. Do you have a concern that perhaps the issues that might be of more interest to Canadian pipelines -- for example, we have spoken a lot about low-pH SCC -- are not issues that are being shared and furthered by the PRCI or the GRI research programs.

MR. TURNER: I think in those organizations, they have to take their place with a significant number of other research initiatives.

I reiterate that, to date, on the broader issue of SCC, the issues of risk, the issues of database development, those are issues facing the global pipeline community.

When we get down to what you might characterize as the narrowest subset of specific low-pH SCC initiatives, that may not be applicable in a broader environment, I think that is where the CEPA member companies have to be prepared to move forward and set our own agenda in terms of establishing priorities.

I am not quite sure whether you would characterize this Alberta Research Project as being in the category of being focused on the needs of the local companies. But there are local mechanisms available for getting this research done, and there are local researchers.

Q. Do you see the role of CEPA in coordinating that local-focused research need?

MR. TURNER: With respect to low-pH SCC, I think that is what we have committed to.

We have indicated in our Opening Statement this morning that we would be prepared to talk in a broader forum, if one were established.

But in terms of overall research, research can be segmented into non-proprietary research that is of interest to a very broad community.

But most of us find, when we get down to the level of our company or our own systems, we do like to have control over certain research activities that are very committed to furthering our own needs.
within our systems.

So there is a hierarchy of research need. But for those issues that address the Canadian picture of low-pH SCC, I think CEPA absolutely will be playing a key role.

Q. You mentioned a concept earlier about non-proprietary research.

Is it CEPA's view that SCC research is non-proprietary?

MR. TURNER: I think, broadly speaking, yes.

Q. When does it become proprietary, or how does it become proprietary?

MR. WALKER: Research in general?

Q. I am talking about SCC research.

Are there elements of SCC research that are proprietary?

MR. TURNER: I am not sure I said that.

Q. No. You said: "Broadly speaking, yes, it is non-proprietary." Is there an area that you can see where it would be proprietary?

MR. TURNER: The only area I could perhaps think of quickly here would be, for example, some of the technology the developers of the in-line inspection tools are bringing to the table. There is very clearly some patented technology involved in some of those developments.

Q. I wonder whether you feel that it would be. To the benefit of the Industry, as a whole, rather than to one specific company.

Is that how you see it when you say it is "non-proprietary" research? Is that how you view it?

Maybe we should clarify the definition of what non-proprietary means.

MR. TURNER: I think when I use the term "non-proprietary" -- "proprietary", should I say -- I am talking more of research that could be useful in terms of competitive advantage, one group versus
another, one company versus another, one industry versus another.

In our Corporation, most of the petrochemical research we do is absolutely proprietary, for example; whereas, I think extremely little of the pipeline research we do we would consider proprietary: Not likely to provide any significant competitive advantage to us -- although I do have some ideas.

--- (A Short Pause/Une courte pause)

MR. TURNER: Sir, this August Panel can think of nothing, apart from perhaps aspects of in-line inspection technology.

Q. Would you be able to say, using that definition, that there is any SCC research or initiatives that are proprietary?

--- (A Short Pause/Une courte pause)

MR. TURNER: Sir, this August Panel can think of nothing, apart from perhaps aspects of in-line inspection technology.

Q. That is proprietary between the provider of the service, not necessarily for the Industry? Or how do you see it? Are you only talking about the fact that British Gas would develop a technology that it would not want to share with Pipetronix, say, or that sort of thing?

MR. TURNER: Yes. Certainly, they have technology that they are making money from selling. So they are unlikely to give us the plans so we can go and make a whole lot of in-line inspection tools tomorrow morning.

Q. Fair enough. Is it your view that since SCC research, with a very small area of exceptions, is non-proprietary, it would benefit from more input into the establishment of the needs?

If you drew from a broader industry segment than just the CEPA member companies, would that not perhaps improve the product?

MR. TURNER: Sorry, could I ask you to repeat the question?

Q. If you drew from beyond the CEPA member companies with respect to identifying the priorities for SCC research, would that not yield a better result?

MR. TURNER: I think we do. We
interact with the global research community, the sort of people that we brought to this Hearing.

We do interact in forums like the Pipeline Research Committee on setting priorities.

The CEPA member companies represent a large body of knowledge in themselves.

So the answer is that, yes, you always get potentially better ideas if you expand the pool of ideas, the pool of people from whom you get ideas. But at a certain point, the process may become more cumbersome and less value-adding than it could be.

One of the challenges that research priorities often face is too many leaders. If you are not careful, it gets hard to champion research priorities through to a completed research project, if you have too many people with a finger in the pie, so to speak.

The CEPA companies provide a pretty focused group, from our point of view, to drive that research forward.

But absolutely, we are always interacting with all sorts of bodies on what our research priorities might be.

Q. There was a suggestion in the Submission by CAPP for a meeting to discuss research priorities.

Does CEPA have a position on that sort of suggestion?

MR. TURNER: Sir, we would be quite prepared to participate in such a forum, in helping to set research priorities for the industry as a whole. I think that sort of forum is taking place in an ad hoc way, anyway, as we speak.

We have been speaking to the CAPP Pipeline Committee and those members of CAPP with significant pipeline assets about research priorities.

Certainly, we would be prepared to participate in such a forum or workshop, to the extent that it adds value to the process.

Q. What about the CGA? Would your comments also include the CGA? Would you include them in that group as well?
MR. TURNER: Yes. Of course, I think the majority of CEPA members are major members of CGA. I think the majority of the large LDCs, who make up the bulk of the membership of CGA, have an affiliation with the major transmission companies. So we are intimately involved with those companies as a matter of course.

Q. And regulatory community, do you feel that they have a role in helping to identify priorities?

MR. TURNER: Absolutely. I think the regulators bring a different perspective. They have a clear mandate in themselves as to what their role is in our society, and they can make a valuable contribution in helping to set research priorities.

I think organizations such as PRASC are a role model of the type of collaboration that can exist on technical issues like this.

Q. What about the public? Would you see them having a role in establishing research priorities?

MR. TURNER: Perhaps it might be better to say that we would view the public as being represented by the regulator. We have no significant objection to public participation, except that as the ring gets larger, you do start to diminish the likelihood of a significant contribution to setting research priorities. It might be better for the regulator to represent the public in bringing forward some of those priorities.

In the broader context, I know some of us do actually do what we call community surveys, where we are always testing how society views our company and what sorts of things they think are good and bad. And if issues like research were to come up in that sort of environment, we would pay heed to that signal. It has not to date.

Q. I want to take a look at I.R. No. 20, which details the research expenditures of CEPA member companies.

In Response to 20.1, there is a Table there identifying "Research Expenditures for CEPA Group of Companies". For 1995, SCC, we have roughly $3 million. Moving to 1996, SCC research, we have a total of $4.8 million.
MR. TURNER: Yes.

Q. One of the issues that we have identified was 2.4, which is: "What expenditures have been made and are projected to be made on research related to SCC?" And underneath that, when you get into more elaboration, there is a question here of whether funding for future research is appropriate.

Do you have any sense as to how the Board can look at these numbers and try and evaluate whether research is appropriate or not; whether that is an appropriate level of research for SCC?

MR. TURNER: I am not too sure there is a simple answer to that question, or even an answer that will be satisfactory. I think to some extent the Board can rely upon the judgment of the CEPA member companies represented here as to how they have set their research priorities moving forward.

I think there should be no doubt in the Board's mind as to the priority this issue has with the CEPA member companies, as evidenced by the CEPA Submission itself here.

I am not too sure what else can be done. We have historical spending patterns on research, and this is a specific area of research, within a broad range of research subjects we have before us as an industry.

Perhaps with the knowledge that has been put on the table here through the CEPA Submission, the Board would be capable of forming some sort of an informed opinion as to the level of the research moving forward and its adequacy.

I think it is fair to say the CEPA companies feel comfortable that we are giving SCC research a very high priority and that the level of research that is ongoing is appropriate.

Q. Was the increase in spending and research from $3 million to $4.8 million in one year appropriate, from 1995 to 1996?
MR. TURNER: Referencing the projects we have talked about -- for example, the British Gas Research Project -- there is a major increase attributable to that specific project.

Apart from that, broadly across CEPA membership, the level of research activity is increasing. I am not too sure what more we can say.

The range of numbers, $2 million to $5 million, is not out of line with -- it is a steady increase, but it is not out of line with research spending patterns in the last few years. Perhaps I could make one additional comment here, to put this a little bit, perhaps, in context. It is my understanding that, for example, GRI, a very major U.S. research organization, spends in the order of, I think, $14 million to $15 million a year on the total area of transmission research. In that context, this represents a fairly significant expenditure.

Q. The GRI spending you mentioned, was it in the order of $14 million?

MR. TURNER: Yes. Middle teens, I think, might be ---

Q. Middle teens?

MR. TURNER: Yes.

Q. And the PRC is about half of that?

MR. TURNER: Yes.

Q. As far as what they spend on integrity ---?

MR. TURNER: No. I am talking the total research budget.

Q. Total research budget for pipelines?

MR. TURNER: For pipelines, yes; for
gas transmission.

So against that backdrop, this is a very significant expenditure.

Q. I want to discuss with you the proposal that you are putting forward in your Opening Statement here.

You are suggesting that there be an environmentally-assisted Cracking Steering Committee established.

I note the jump from "SCC" to "environmentally-assisted cracking".

Could you explain the rationale for that? Why was that decision taken?

MR. TURNER: Just perhaps acknowledgment that the next layer of detail for low-pH SCC specifically would be environmentally-assisted cracking.

Some of the research, information sharing, Recommended Practices would be fairly similar.

Q. Is it the intent at this time to deliniate it from other integrity issues; for example, general corrosion, third-party damage? Those sorts of things.

MR. TURNER: I think the intent at this stage is to keep it fairly focused moving forward.

As we reference at the end of the paragraph, we would see that this organization might fold into PRASC at an appropriate time in the future.

Q. The PRASC Group is much broader, though. They are concerned with every risk that could be posed to a pipeline.

Is that fair?

MR. TURNER: Yes. In fact we initially wondered whether PRASC -- and I go back several months now.

The Steering Committee had been debating whether PRASC was the right forum to move forward collaboratively on this issue of SCC. I think the feeling, at this point, is that it is too big an
issue; that it would tend to swamp the PRASC Committee, per se; that it would be more appropriate to keep the issues separate at this point.

But yes, it does fit under a much broader umbrella that PRASC represents.

Q. How does this fit in with the concern you raised earlier about widening the circle too broadly?

MR. TURNER: I do not think the PRASC circle would be characterized as widening the circle too broadly. I think you were talking specifically about research priority setting.

That would be one area where this group could play a lead role in facilitating open discussion of research priorities and helping to set priorities. There would be value added from that view.

If we look at the membership of PRASC, you have participants there who could bring some good ideas to all of these areas: research, information sharing, Recommended Practices, et cetera. But we would still see the CEPA Working Committee being the primary working mechanism that CEPA uses to identify its research priorities. But we would obviously be prepared to debate them in this broadened forum.

Q. So this would not replace any of the CEPA Working Group?

MR. TURNER: No.

Q. Or the CEPA Steering Committee, the SCC Steering Committee, or as it may -- well, I suppose it is the Engineering and Operations Steering Committee, as it is more broadly classed.

This would not replace them all.

MR. TURNER: No -- just as PRASC has not. Those committees within CEPA are the committees we draw from to participate in PRASC.

Q. It sounds like there would be just another layer on top of what the CEPA Group is doing, as far as addressing the issue is concerned. Or maybe I am misunderstanding this proposal.

For example, you would have CEPA initiatives developed -- let's say for R&D -- developed by the Working Group, the SCC Working Group.
Would they have to go to this Committee before they initiated any of this work?

MR. TURNER: No. We at CEPA would still be applying most of our energy to the CEPA Working Committee. But as we say in the preamble to this paragraph, we acknowledge that we do not represent all pipeline companies in Canada, although we do represent the vast majority of large diameter transmission systems and we transport the vast majority of hydrocarbon product moved in Canada.

We also do not have some of the CGA or CAPP companies that have significant pipeline assets as full members of CEPA. We recognize, also, that the regulators have a role to play here as well, and they are also not represented on the CEPA Committee.

We think it is appropriate to promote a forum where those Interested Parties can come together.

THE CHAIR: Mr. McCarthy, we have reached the time when we would normally take our break. Do you have much more?

MR. MCCARTHY: I do not have much more. We could go perhaps another 10 minutes.

THE CHAIR: The Board members will have a number of questions of this Panel as well.

I think we will take our break now, Mr. Malone.

During the break, perhaps we could resolve this matter of A-79, Mr. Murray, with Mr. de Jonge, and perhaps report after the break as to how we are going to handle it.

MR. MURRAY: Yes. We had spoken earlier with Board Staff, Mr. Chairman. We thought we might have to do that after the Hearing adjourned today. We will try to do it at the break as well.

THE CHAIR: Give it a try. Since we will be bringing the evidentiary portion to a conclusion sometime after the break, if any other Parties have matters that they wish to discuss today, perhaps you could speak to Board Counsel and apprise him of any concerns you have.
We will take our break now.

--- A Short Recess/Pause

--- Upon resuming/A la reprise

THE CHAIR: Mr. Murray, please.

MR. MURRAY: Mr. Chairman, firstly

there was an Undertaking filed by me this morning which

got a CEPA exhibit number. It should have been a

TransCanada exhibit number, B-34-16, I think.

--- EXHIBIT NO. B-34-16:

TCPL Response to an Undertaking given

by Mr. Basaraba to Mr. McCarthy (Tr.

6:754) re pipe used on Montreal Line.

MR. MURRAY: We did have a discussion

at the break with respect to Exhibit A-79, the Board's

Information Request No. 3, Question 10, with respect to

the analysis of data collected as a result of field

investigative excavations relating SCC severity to

operating stress levels.

We have reached an agreement with

Board Staff as to what is possible and what we can

provide in response to the Information Request.

I am a bit afraid to go into the

assumptions we are going to make, Mr. Chairman. Perhaps

we will have that articulated in the Response.

THE CHAIR: That would be

satisfactory, Mr. Murray. The Board is pleased an

agreement has been reached.

MR. de JONGE: I can confirm that, Mr.

Chairman.

The Board has received a letter from

the Canadian Gas Association dated April 19, 1996, in

fulfillment of an Undertaking given by Mr. Gordeau to

Ms. Côte-Vérhaaf at Transcript Volume 3, page 364.

That was under cover of a letter from

Rogers, Moore of the same date.

I would like to file that as Exhibit

--- EXHIBIT NO. B-7-10:

CGA Response to Undertaking given by

Mr. Gordeau to Ms. Côte-Vérhaaf (Tr.

3:364) re Interruptible Transportation
curtailment, filed under cover of Rogers, Moore letter to the NEB, dated April 19, 1996.

MR. MURRAY: Mr. Chairman, for Mr. MacFarlane's benefit, when I made the correction this morning I said he misspoke himself. He says he did not misspeak himself; that he said "to 110 percent". He, of course, knows that 210 is an inappropriate test pressure level.

Thank you.

MR. MCCARTHY: Mr. Turner, I understand you have a clarification to make.

MR. TURNER: Yes, Mr. McCarthy. I have taken on board some more learning during the coffee break here in reference to a couple of points in the development of the CEPA SCC Working Committee.

The Working Group, which I think we referred to, was formed in 1994.

It has been pointed out to me that by March 1995, that group had circulated to CEPA members and to other non-CEPA companies who are members of the group a Guideline on SCC Data Collection. A revised draft taking on board the comments of those participating was circulated in June 1995.

This, of course, references the initiation of the Recommended Practices process within CEPA.

I would just like to point out that that process had been initiated prior to August, although, absolutely, the process of this Inquiry has significantly accelerated the activity around Recommended Practices.

And separately, in the same forum, the issue of an SCC database was well established in early 1995, and the formatting of that database actually began in May of 1995.

So that is when activities were actually underway. They had been initiated before August -- although, of course, they have both been very clearly accelerated by the effort everybody has put into the activity around the Inquiry.

MR. MCCARTHY: Thank you, Mr. Turner.
Mr. Chairman, I was, over the break, able to optimize my questions, so I have no more.
---(Laughter/Rires)
THE CHAIR: That is the solution we are looking to for SCC, too, Mr. McCarthy!

EXAMINATION BY BOARD PANEL:
MR. ILLING: Panel, I am intrigued to find out what the meaning of the word "optimize" is. I guess it means doing nothing!
---(Laughter/Rires)
MR. ILLING: My questioning is general.

The CEPA Submission was filed, along with many other Submissions, in February; many of them on the 16th.

Of course, since that time, you have had the opportunity to see everybody else's Submissions, Answers to I.R.s, and then mostly, of course, in the last week and a bit, to be here and to hear what others say, to be interrogated by both Board Counsel and the Board Panel.

We have had the benefit, largely through CEPA, of having international expertise here. I am wondering, now that we have had these months pass and we have had this last week and-a-half pass, if you had to resubmit the Submission that was filed here on the 16th of February, whether you would not be considering, or preparing to consider, some changes to it.

It may be that those are things you will be addressing in Argument. I do not know.

I want to congratulate CEPA for being here, and being here in such a well organized way, and being so responsive. Obviously, CEPA is working as a very much worthwhile organization.

If I were to take an overall description that might come to my mind in a general way about your Submission, it would be that "The ship is on course. We have the various navigational devices working properly, and it is a fairly smooth voyage and we are going to get there. Steady as we go."

I am wondering, in view of the experience since the 16th of February and during this
Hearing, whether you still feel as comfortable with being "steady as we go" on that course, or whether there are some changes you might make to your Submission.

If the Board were to take CEPA's Submission and put it in a blue cover and say "it looks pretty good; these are the routes of action that make sense", do you think that the Board would be fully responsive to the other Parties' concerns in respect of the kinds of things we of course heard about in the Inquiry, the public concerns, and perhaps groups like OPLA, and so on -- but particularly public concerns?

Are you still feeling very comfortable with "steady as she goes", or maybe not quite so comfortable?

MR. TURNER: First of all, Mr. Illing, thank you for the kind words about CEPA's Submission.

It did take a lot of effort. It has been a good learning experience for the CEPA organization. It has been a significant step forward in the growth of that organization. The members of CEPA have, I think, all commented on the value they have got out of the process -- somewhat independent of the subject material, even. There is a lot of affinity of interests on issues like this within the pipeline community.

I think "steady as she goes" is the way we would characterize the appropriate path forward. I would note, I think, the OPLA has also congratulated CEPA for its participation in this Inquiry, in the way we have been open in addressing their concerns.

We have, of course, indicated that we are quite prepared to meet with groups such as OPLA, moving forward, to explain and frame up where the Inquiry has gotten to.

We are in a state of continuous improvement. If I were to highlight a couple of changes from mid-February, one would be that when we made the Submission our general plan was that in the area of research ---

For example, we were working forward to structuring CEPA appropriately, moving forward. Research was a priority, and by mid-year we should be able to work out where we want to move next and provide some influence in the development of research projects. But since February, we have identified an opportunity to move things forward faster than that. We have the Alberta Energy Department co-funding a project as an
example of how we have continued to move forward since the submission of the document.

I think I would characterize that as "steady as she goes".

This is a manageable problem in CEPA's mind.

The research project is an example of how we have continued to move forward.

Even just during the course of this Hearing, it is fair to say, on the issue that we had discussed previously within CEPA of a PRASC-like committee being structured to allow full participation, it has become perhaps more obvious to us, seeing the Board here and the other Interested Parties, that there is a forum missing to share information on SCC and to move forward together on what is essentially a common problem, with different priorities for different types of organizations.

We attempted to incorporate that learning in my Opening Statement this morning. We see that as a constructive suggestion to have made, to address one of the issues that has become more obvious to us in fact as this Hearing has progressed.

So "steady as she goes", I think, Mr. Illing, is the way CEPA views this issue at this time.

MR. ILLING: Would you be too surprised if the Board, after it has carefully considered all the evidence, maybe comes out with something that is not quite "steady as she goes"?

I have no idea what that might be at this point.

MR. TURNER: That would probably be a surprise to the Board!

MR. TURNER: CEPA has done its very best to make available to the Board the leading experts in the world on the issue of SCC. It is our position at this stage that there is no major gap in the way the industry is moving forward at this point.

I think we would be surprised if the Board were to find a major gap, having considered the evidence in this Inquiry -- not taking away the Board's prerogative to do as it sees fit.
MR. ILLING: Thank you very much.

MS. COTÉ-VÉRHAAF: I would like to discuss further your idea of an enlarged Steering Committee, as you have proposed at Page 2 of your Opening Statement.

As I understand it, you would include on that Steering Committee other associations, such as CGA, CAPP, and the NEB.

What kind of role would you see for the NEB?

MR. TURNER: At this stage, I think the most appropriate next step would be for CEPA and the NEB to meet to discuss the details of such a committee.

If I were to refer to the Pipeline Risk Assessment Steering Committee -- and we have modelled our proposal on that committee structure -- the membership, in alphabetical order, is: the Alberta Energy and Utilities Board, CAPP CEPA, CGA, CSA, MIACC, the National Energy Board, "and other members as deemed appropriate by the above".

That Committee is co-chaired, on behalf of Industry, by the National Energy Board and CEPA.

So loosely speaking, that is the type of framework we would see being appropriate for this Committee.

MS. COTÉ-VÉRHAAF: Do I understand that you were not enthusiastic about including representatives of pipeline right-of-way landowners?

MR. TURNER: I think it is fair to say that at that point you are getting into the level of constituency -- there may be a lot of other Parties that would also have a claim to being at the Table.

This would be primarily a technical forum.

I think at this stage, subject to further discussion, we would consider that some of the other organizations I have just listed effectively represent the public, notwithstanding the fact that
CEPA feels it does to some extent as well. But MIACC and the two Regulators referenced here very clearly have a public representation role in a committee like this.

MS. COTÉ-VÉRHAAF: Would you be absolutely opposed to having an association of owners being represented, such as OPLA, for example?

MR. TURNER: I think it is fair to say we would not be particularly comfortable. It is a very small group. I think in the order of a 120, 150 landowners in one particular region of one particular province.

You very quickly get into: "Who else has a similar claim to being represented?"

I think organizations such as the one that we are speaking of do have the opportunity to influence through other forums: through the Regulators or through MIACC. But even CEPA would be prepared to meet these organizations to explain what we are doing. My hesitation is just the contribution these parties would make to a technical debate.

If we start to include organizations like that, we create a very large forum, and at a certain point you might go backwards more than you would move forwards.

That is my primary concern.

MS. COTÉ-VÉRHAAF: Thank you very much.

THE CHAIR: Panel, I want to explore several areas, a number of which have already been touched on. The first of those is to talk to you about acceptable degrees of risk.

Mr. McCarthy, in his cross-examination, made the observation that since the last Inquiry, we have had eight additional failures due to stress corrosion cracking.

If we adopt this course which Mr. Illing has described, "steady as she goes", we may have two failures a year due to SCC in the future.

I know that in referring to past incidents, the Industry has been very careful to point out that no one has been injured. But on the public side, we have certainly heard the Press Reports: "Yes, and we have been bloody lucky that nobody has been!

There could have been people assembled near any of
...those incident sites."

What do you view as acceptable risk, and what commitment can be made to the Canadian public, if any, in terms of outcomes they should expect if your program is followed?

MR. TURNER: I think, Mr. Vollman, the way we would try and respond to your question is by referring back to the mandate of PRASC. In that forum, we are all working towards trying to answer the type of question you are asking.

A number of industries have addressed this issue of quantifying risk. Through PRASC, the Pipeline Industry is moving forward to see whether it wants to address risk in the same sort of fashion as other industries.

The Panel here is not expert in addressing matters of risk measurement, but the issue of the measurement and quantification of risk is one of the key subject areas being discussed in the PRASC forum.

THE CHAIR: I was not raising it so much as a measurement exercise as more of a policy matter.

What can we tell the public about safety? The public wants it in terms of absolutes. They want to know that pipelines are safe. Of course, anything built by man can fail. No matter how much money you have spent, pipelines will fail.

But what is an acceptable failure rate, in your view?

--- (A Short Pause/Une courte pause)

MR. TURNER: Without being able to address the issue in absolute terms, perhaps I could talk of the experience of some of the CEPA companies.

We do ask people who live in the vicinity of our pipelines whether they feel safe living near-to our pipeline facilities.

At this stage, the majority of the feedback we get is that people do feel safe. They understand we have high pressure vessels in the ground and that they are not things to be taken lightly. But they are comfortable with the track record of the Industry and are comfortable with our safety...
performance.

Now I think when we get into certain subsets of the public, certain groups in areas where there has been a rupture recently, they would probably have a slightly different view.

But in general, the feedback we seek from society and the feedback we get is that they view this as a safe industry, which we take to mean that although everybody can always get better -- and we are very actively working on getting better -- our track record is one that we feel fairly comfortable with; and our reading is that the public in general feels comfortable with the issue of our safety.

THE CHAIR: Let me move to a related area.

There was discussion -- I guess it was yesterday -- with the CAPP Witnesses about how they viewed their solution in economic terms.

I believe Mr. Woodward began his explanation by qualifying it as a "lowest cost solution".

Further discussion with the Board refined that to an "optimum cost solution".

I am wondering how you would describe the CEPA approach in economic terms.

MR. TURNER: If I could perhaps come at this in two generic ways, to try and create an impression of the CEPA position, sir, we would be closer to an optimum than low cost, obviously.

The other way I could perhaps try to describe it to you is to say that we expect value from our investment in safety, and "value" would be defined as the benefit we all receive minus the cost of receiving that benefit.

We are trying to optimize that equation. We are making a judgment, that many industries in our society have to make, as to where that balance point is.

But we are seeking to invest in safety to the extent that it is a valued investment by the society we live in.

At a certain point, we would have large pipelines at very low pressure, and almost no
commerce.

So it is an issue we consistently struggle with. It would be our feeling that we have struck, to date, a fairly good balance trying to find the point that we should be at in terms of expenditures on safety.

THE CHAIR: When the Board sits down in the weeks ahead and assesses the evidence, and if it were to apply the same yardstick -- and that is to find an optimal solution -- what factors would you commend to us to use in making that balance?

I guess I am looking for something more specific than "commerce" on the one hand and "safety" on the other.

MR. TURNER: That is a fairly difficult question that you ask and one that you will be facing in the next few weeks.

We would say that, in making any decision, you need to put the issue of stress corrosion cracking into the context of the total risks that this Industry manages.

If I recall the number, somewhere in the 16- to 18-percent range of the ruptures we have recorded have had SCC as a contributing factor. There are other ruptures. A lot of the third-party damage ruptures, that actually have the third party present when the rupture occurs, are very clearly a very high priority safety issue for us.

This SCC issue, which we consider to be manageable, needs to be kept in context.

If the Board were to consider any recommendations that would involve the spending of additional money, beyond that which is already proposed by, for example, the CEPA companies, that would have, I would think, to be able to be seen as an effective expenditure to an improved safety environment, that the community we live in would feel is a prudent investment.

Some of the ideas that have been thrown around in the Press, and so on, as we all know, involve extremely large amounts of money, and for
potentially negligible, if any, improvement in safety.

Also, I think feedback from all sources.

The views of our society need to be taken into account as we evaluate the risk that is actually posed by this particular situation.

The Board needs to very carefully consider the type of feedback it is getting: what feedback it has received from the communities near the sites where there have been SCC ruptures, the feedback that we get in general as pipeline companies, as I just mentioned before, that we are considered to be a safe industry by most people who live near our pipelines.

So I think feedback from Interested Parties needs to be taken into account very carefully and weighed.

And lastly, perhaps the Board needs to weigh the very significant commitments made by CEPA and its member companies, moving forward, as to what our plans are to continue addressing this issue.

THE CHAIR: I would like to turn next, Mr. Turner -- this is going to be difficult, I suppose, to express.

I see at least two important gaps in our constituencies, if I can use that term -- and the "constituencies" I am going to refer to are the public at large, firstly; the pipeline industry, secondly; and thirdly, the research community.

The public, I think, has become quite concerned about pipeline safety.

When high-pressure gas pipelines fail, they tend to do so in very spectacular fashion.

You referred to some of the media responses to those types of events, which look for simple and fairly dramatic solutions to those types of problems.

I think it is probably fair to say that the public is concerned about pipeline safety, and is looking to this Board for solutions.

If we move to the second constituency, you are really telling us things are under control.

I think the Board is aware that there
is a gap between the public perception, and what you
are telling us in this Hearing, and perhaps this
Inquiry is one tool to close that gap.

The other gap, I think, exists between
the pipeline companies and the researchers.

The pipeline companies do not want to
make imprudent investments. They want to make
investments in safety that are well founded.

But the researchers are telling us
that they do not really understand all the factors that
are responsible for stress corrosion cracking and how
they operate together in an environment today, and more
research is needed.

I think -- and your cross-examination

by Mr. McCarthy has brought this out -- that the need
for research is well recognized, and I have some
confidence that that gap is going to be closed.

But I do have a concern about that
other gap, between how the public views safety and the
expectations they have of this Board and what you are
telling us in this Hearing.

I would put the heading of "Risk
Communication" over that.

Other than this Inquiry, itself, do
you have any views on how this gap can be closed
between the public's perception of gas pipeline safety
and what you are telling us in this Inquiry?

--- (A Short Pause/Une courte pause)
MR. TURNER: Sir, I think that that
segment of the public that you are talking about, those
who feel there is perhaps a gap on this issue with the
Pipeline Industry ---
I am not quite sure of the extent of
that subset. It does exist. That is without question.

It is our feeling that we could be
doing more to communicate what Industry is doing to
address this issue, to demonstrate how important we
think it is.

As you mentioned, I think this Inquiry
will play a significant role in doing that on behalf of
Industry.

I would refer once again to the kind
words we have received from OPLA with respect to our
openness and our contribution to this Inquiry process:
one relatively small Intervenor, fairly active, representing a fairly small number of people; not too many over 100.

So the issue of communication, I think, is quite important. We need to have the public at large understand what these large companies are doing to mitigate this risk.

Of course, the best thing we can do is to demonstrate effective mitigative programs. We are hopeful that we are very close to that point now.

Our record over the last few years as an Industry has raised concerns, we acknowledge.

We have been moving up, I think, a very steep learning curve in terms of the mitigation aspect of this issue. We are hopeful that we are very close to having mitigated this problem to a level that the broad public will find acceptable.

THE CHAIR: Finally, I want to come back to this idea of information sharing, sharing research results and operating experiences, and mitigation programs, and so on.

This Inquiry has certainly been a catalyst, as Mr. Vergette summarized this morning, in bringing together a lot of people and sharing information. But the Inquiry will end and life will go on.

On an ongoing basis, do you see a role for this Board in providing some sort of mechanism for information sharing on SCC?

MR. TURNER: Sir, I think the two things that we would highlight in our Opening Remarks this morning would be the fact that if the Board is to go out from this Inquiry and communicate, via community forums, with those communities that are interested in hearing and understanding further, in more detail, the outcome of this Inquiry, then CEPA would be most pleased to participate.

Separately, I think the presence of the Regulators -- and I think the NEB and the EUB would be the major regulators in Canada with jurisdiction over significant pipelines.
If the Regulators were to participate with Industry in this PRASC-like forum, I think that would be a constructive process, moving forward, to allow the Board basically to have a window on what is going on without creating any sort of separate reporting structure -- which, in some ways, could lead to its own bureaucracy, given the amount of data that could be exchanged here.

And also, there is the fact that no one Regulator has a mandate over all of the Industry, et cetera.

I think it is an area where the interests of the regulatory community and the pipeline companies are pretty much aligned.

THE CHAIR: Thank you.

Let me go back to the "acceptable risk" question I was asking and put it more directly.

If I were a member of the public or a member of the Press and I approached you and asked "Will there be any more failures due to SCC?", what is the answer to that question?

MR. TURNER: I think the answer would be along the lines of: Although there cannot be any iron-clad guarantees, the Industry has taken significant steps to understand the problem and to mitigate the causes. We would be hopeful, looking forward, that any SCC rupture would be a rare event, indeed.

THE CHAIR: It would be less frequent than the two failures per year we have experienced since 1993?

MR. TURNER: We would certainly hope so.

THE CHAIR: Can you make that commitment!

--- (Laughter/Rires)

THE CHAIR: My wife is a professor at the University, and she is often beseeched by students who say: "I deserved a better mark than that. You have no idea how hard I worked."

The student has to be reminded that it is the measure of outcomes that is important, not effort.

MR. TURNER: Sir, I think that is absolutely CEPA's objective. When you get down to a
promise like that, maybe that is a company-specific
problem. I am not sure.

But as CEPA, it would be our intention
that the public would feel that the risk posed to the
public via SCC has been effectively mitigated.

THE CHAIR: Thank you. I think I will
leave it at that.

Thank you, Panel.

That completes the Board's
questioning, Mr. Malone. Do you have any Redirect for
this Panel?

MR. MALONE: No, I do not.

THE CHAIR: The Panel is excused, with
our thanks.

--- (The witnesses withdrew/Les temoins se retirent)

THE CHAIR: Before I close the
evidentiary portion of the Hearing, are there any other
last-minute matters?

---(No Response/Pas de reponse)

THE CHAIR: You have nothing,
Mr. de Jonge?

MR. de JONGE: No, Mr. Chairman.

THE CHAIR: Then, subject to any
outstanding Undertakings and Information Requests being
complied with, that completes the Evidentiary portion
of this Hearing.

As announced previously, the Argument
will be in writing. I remind Parties again that the
deadline for receipt of Written Argument is the 6th of
May; and for Reply, the 13th of May.

Also, as many of you know, the Board
maintains an electronic document system which provides
a searchable database for Decisions going back to 1985,
and Transcripts to 1991.

So that this Inquiry may be fully in
that database, the Board would ask that when you submit
your Written Argument, you attempt to provide an
electronic version on diskette. That would greatly
facilitate the Board's efforts in that regard.

On behalf of the whole Panel, I would
like to echo what Mr. Illing said earlier: that the
Board has been very impressed with the quality of
evidence and the effort that has been put forward in this Inquiry.

I would also like to congratulate the Board Staff for their role in conducting cross-examination on very highly technical matters.

In my years at the Board, I think this is the first time that the Board Staff has been active in cross-examination. Given the very specialized nature of this Inquiry, in my view, it certainly was a success.

We are adjourned. We will await Written Argument.

Thank you, everyone.

--- The Hearing Closed/La séance est levée