OFFSHORE HELICOPTER SAFETY INQUIRY
November 24, 2009
Tara Place, Suite 213, 31 Peet Street
St. John's, NL

November 24, 2009

PRESENT:

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Anne Fagan.....Inquiry Counsel

John Andrews/Amy Crosbie. ..... Canada-Newfoundland and Labrador Offshore
..... Petroleum Board (C-NLOPB)

Ian Wallace/ ..... Hibernia Management and
Cecily Strickland..... Development Company (HMDC)

D. Blair Pritchett ..... Suncor (Petro-Canada)

Alexander C. MacDonald, Q.C./
John Hogan. ..... Husky Oil Operations Ltd.

Geoffrey Spencer..... Helly Hansen Canada Ltd.

Rolf Pritchard/
Laura Brown Laengle ..... Government of Newfoundland and Labrador

Michael Cohen ..... Cougar Helicopters Inc.

Jamie Martin..... Families of Deceased Passengers

Kate O'Brien. ..... Davis Estate (Pilot) and
..... agent on behalf of Douglas A. Latto for Lanouette Estate (Co-pilot)

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..... Local 2121

David F. Hurley, Q.C./
Karen Hollett..... Offshore Safety and Survival Centre, Marine Institute

TABLE OF CONTENTS
November 24, 2009

MR. ROBERT RUTHERFORD, MR. GREGORY HARVEY, MR. PATRICK DOHEY (PREVIOUSLY SWORN)

Page 1

November 24, 2009

COMMISSIONER:

Q. Good morning, ladies and gentlemen. The Panel is there. Are you ready, Ms. Fagan?

MS. FAGAN:

Q. Yes, Commissioner.

COMMISSIONER:

Q. Okay.

MR. ROBERT RUTHERFORD, MR. GREGORY HARVEY, MR. PATRICK DOHEY, PREVIOUSLY SWORN, EXAMINATION BY MS. ANNE FAGAN

MS. FAGAN:

Q. As I indicated yesterday, I'm going to have some questions and Mr. Rutherford is going to direct the questions as to the three witnesses and the first question is for Mr. Rutherford. You described a process for course changes through the Institute that a request comes in and then the change is vetted and it goes through various, you know, academic authorities and if it's approved, then the course change is made. We have heard from the offshore petroleum industry, they have safety committees. Each platform and rig has safety committees, and the safety committees meet with the C-NLOPB on an annual basis and the Commissioner and co-counsel, Mr. Roil and I,

Page 2

were invited to attend one of those meetings. So you wouldn't have been at one of the meetings, but a couple of issues were raised, and I don't know if you can provide comment or any insight on the issues that were raised, and if not, maybe you might have suggestion as to where we might go to find the information, and one of the issues raised was that these committees are of the view that they should be, and of the understanding that on occasion they are consulted with respect to changes to the safety courses. So the committees on the rigs are consulted with respect to any changes that are going to be made to a course, and there was a change to a course with respect to helicopter landing. Are you aware of the change and can you describe the change to the helicopter landing course?

MR. RUTHERFORD:

A. I certainly can. We have a helicopter landing officer course which we've been delivering for well over ten years at the Marine Institute. We were going through--we have a process internally where we, as I mentioned there yesterday, we do review our courses and we review them on the basis of courses that we're

Page 3

delivering most often or we review them on the basis of courses that perhaps there's been a regulation change or there's been some indication that there's a problem with the course. This course hadn't been reviewed for some years because none of those things--it wasn't a course we delivered very often and it wasn't a course that any issue had come to light, but when we looked at it to review it, we determined that there was a little bit of a--there was a gap in terms of over the years, the course had changed because of certain small things overtime had changed over the years, and there was a gap basically in some of the content and there was a gap in the duration required. The course, when it was originally developed, was based on a North Sea course and the helicopter landing operator in Canadian jurisdiction has certain different duties that have appeared since the course was developed. Pat can talk about this a little bit more closely, but basically the helicopter landing officer here in the Canadian jurisdiction doesn't deal with such things as weather forecasting and has not the TDG, Transportation of Dangerous Goods,

Page 4

responsibility.

So we, having identified there was a gap, the gap was in terms of the duration that we were delivering and the duration that was actually in our course outline was sufficient that we said we better stop delivering the course until we correct this, and as I mentioned there yesterday, our process for any courses within a regulatory jurisdiction such as CAPP would be that we make the change and we go to the regulator first to confirm that this is okay, and we bring a course to the Training Qualifications Committee by means of the change request form, which I mentioned yesterday. We did this in, I think it was December of 2008 at the meeting of the Training Qualifications Committee. It was brought to that meeting. It was general approval, I guess, to go ahead with the change at that time by all the members of the committee, but one person at that committee did not--hadn't been--it was a new person at the committee who hadn't been at the committee before, wasn't aware of it. So it was deferred and the problem that left us with was that we couldn't deliver the course and we

Page 5

needed to deliver the course and the training committee wasn't going to meet until a little bit later. So what we did, we discussed with the chair of the Training Qualifications Committee and said if we can get the approval of all of the committee members, can we move ahead and make the change, and that did happen. So we got the approval of the various committee members and Cougar and made the change.

Now from our perspective, our requirement is we get the signature of all the committee members. I know the committee members do consult with their JOHS committees and safety committees, but that's outside of our process, and I also know that CAPP, every year, does report every change that's been made and changes that are going to be made. So we know every year there's a report back to the committees, but I don't know what happens, as an individual company, how they deal with that.

MS. FAGAN:

Q. So with -

MR. RUTHERFORD:

A. I don't know if Pat wants to add anything to

Page 6

that.

MR. DOHEY:

A. Just two points really I'd like to make on that. One is from an historical perspective, there's been 52 courses delivered by the Marine Institute over a ten-year period from March of '97. I could be off on the dates by a year or so, but March of '97 until December of 2008, there was 52 courses, and of that courses, not one of them went the full two-day time span and effectively, all of the information would have been covered in those courses. To add to that, ongoing, previous to the request for change, I canvassed all of the operators who are using the service, the helicopter company that's providing the service offshore, as well as the other training institution in Nova Scotia, and everybody was of a similar mind set, that the timeframe allowed was disproportional to the information.

MS. FAGAN:

Q. And the question and issue is twofold. One was this group was interested in why the course was changed, but what was of--you know, that's an information issue. What was of real

Page 7

concern was that they had not been consulted. Now when you--well, they say they hadn't been consulted. Now when you speak of committee members, are you speaking of the individual safety committees for each one of these platforms? Do you have any connection or any knowledge of that consultation period? When you talk of committee members and regulator and CAPP, it's the regulator, it's CAPP and the committee members are--it's a different committee? Is that fair?

MR. RUTHERFORD:

A. Our involvement is with the Training Qualifications Committee, which is the committee which is set up under CAPP, and so we don't have any direct involvement with the individual safety committees. I would like to mention, I think there's been some talk on this course that we reduced it from two days to one day. I think it's worth making a note of the fact that there are prerequisites for this course. You can't take the course until you've had six months service on a helideck. You can't take the course without a BST, a five-day safety training, and you can't take the course with offshore fire team training,

Page 8

which is another five days. So basically, you got six days plus offshore fire team, plus BST before you're allowed to come and do this particular course. So it's not like it's only--we're only giving people one day of training to operate a helideck. That's not entirely true.

MS. FAGAN:

Q. Okay. Well, appreciate that, and the issue seemed to be that they hadn't been consulted as much as--and then, of course, they had a lack of knowledge as to why this had gone on, and that's being investigated, but I just thought I would ask you, since you're here, what was the change and if you had any involvement in that consultation process.

There was a second issue that was raised, which we thought was interesting and one of the attendees at this Joint Occupational Health and Safety meeting, and it's this annual meeting of all the safety committees, one of the members had indicated that on a number of times, he had asked that the training for the offshore workers include a component that dealt with landing on ice or dealing with an icy situation, landing when

Page 9

the water is slushy and it's broken ice or landing on a solid ice platform and according to these travellers, who are, you know, seasoned workers, that there is quite an extensive period of time when they're travelling back and forth, you know, a long period, a number of months, when they're often travelling to the rigs and they're travelling over ice, and they wanted to know if the training institute was aware of this request and secondly, is it possible to deal with that type of issue? So I don't know who wants to handle that one.

MR. RUTHERFORD:

A. Well, I'll take that first and then I'll pass it to anybody else wants to comment. I would say we weren't aware of--the request hasn't been brought to us. It has been, from our perspective, something that we have been thinking about and is a concern to us. That is actually one of the reasons I mentioned yesterday that we have this large conference of training associations coming to St. John's. It's not until 2012, but the subject of that is fundamentally related to Arctic hostile environments and one of the topics we're

Page 10

trying to get presenters on was specifically that. So trying to figure out how we deal with--how do we deal with ice and specifically slush ice, because that is a major problem. So we would like to--I think it needs investigating, but does anybody else want to comment on that one? No.

MS. FAGAN:

Q. You weren't aware that -

MR. RUTHERFORD:

A. We weren't aware of the specific request, no.

MS. FAGAN:

Q. And you would not generally take requests directly from a worker or a member of a safety committee? That's not the protocol?

MR. RUTHERFORD:

A. No. I mean, the protocol for any change to the regulated training is, as I mentioned yesterday, is this change request form goes to the Training Qualifications Committee and it gets approved at that committee and the change gets implemented from that.

MS. FAGAN:

Q. But who fills out the change request form?

MR. RUTHERFORD:

A. It can be any of the committee members or it

Page 11

can--I don't know if they accept them--I haven't seen them being submitted from outside, but generally speaking, it will be one of the committee members will provide a change request form to the committee.

MS. FAGAN:

Q. The Training Qualifications Committee?

MR. RUTHERFORD:

A. Yeah.

MS. FAGAN:

Q. Not the individual rig's safety committee?

MR. RUTHERFORD:

A. No, but I don't think there's anything--there's nothing in the--as far as I'm aware, and CAPP would be better positioned to answer this one, but I don't think there's anything in the Terms of Reference that would preclude that, I think if somebody wanted to bring something to the Committee, I think--I don't think so, but it's probably a question better left for CAPP.

MS. FAGAN:

Q. Okay, thank you. I have one or two questions on the breathing device. Mr. Rutherford, in your presentation yesterday, you said that the Canadian Association of Petroleum Producers,

Page 12

CAPP, established a task force comprised of operators, regulators and trainers to consider the emergency breathing system in early 2005, and in December 2008, recommendations were made with respect to training. That in 2007, you had changed the facilities and geared up in order to provide that training. But we heard from CAPP that the investigation and consideration for a breathing device started in 2000. So when did the Offshore Survival Centre become involved in the deliberations, let's say, over a breathing device?

MR. RUTHERFORD:

A. We weren't members of the Training Qualifications Committee in 2000. That didn't happen until 2005. We were first aware of the issue, that it was being looked at, was a letter from CAPP which came to us from that committee in 2002 indicating that they were starting to explore the issue. Soon after that, I think it was then that they commissioned this consultant, Ian Denness, I believe, to do a study of the system and he came back with a recommendation to utilize a rebreather type system. But it was soon after that, again, that it got taken away from the

Page 13

Committee. I think the operators took it back to consider again.

We didn't find out that the decision had been made to go with a pressurized system until late 2004, and I got back in touch with the--I was in touch with CAPP at that time and said, look, we need to--this changes for us. It has implications for us in terms of training and risk management. So we did get in touch with CAPP on this issue at that time, 2005, and had a meeting with CAPP early 2005 on the issue. I think then the Task Force was set up to look at it. So as of 2005, we were actually actively involved in looking at the issues and we had a participation in a committee.

MS. FAGAN:

Q. We had a good demonstration from Mr. Harvey yesterday on the complexity and the risks associated with the HUEBA which he said had a proven track record with the Navy, I believe, since 1990. So Mr. Harvey, you can correct me if I'm wrong, but I believe that was your evidence, that this particular device went through three generations, but it had been used since 1990? Is that fair?

Page 14

MR. HARVEY:

A. Yes, in relation to the Aqualung product, yes.

MS. FAGAN:

Q. And CAPP took nine years to implement this device. Mr. Rutherford, it's probably best for you, but you can direct it to whoever. From your perspective, based on the knowledge that you have and the trainers have, could the breathing device have been implemented quicker?

MR. RUTHERFORD:

A. I think they could have implemented a rebreather device fairly quickly. That was being commonly used in the offshore industry. I think the selection of the compressed air system is no doubt the best system, but it did come with a number of challenges, and I think the--you know, the issue is, I guess once we got into 2005 and we were participating in the process, I think things started to move reasonably well, except there was still issues relating to the medical. There was no--the fundamental issues related to medical advice, I think, and that was the reason, in late 2008 they decided to step back and there was a review of all of the systems again in Europe.

Page 15

There was a task force that went across to Europe to look at all the systems and that's why everything was put on hold later on in 2008, and it wasn't until later that we moved ahead with it again. But there's significant challenges associated with the device and I think it--I know it's like a SCUBA system, but when people scuba dive, they self select to go scuba diving. They're generally young. When you're putting a system like this with a pressurized breathing system in place, we're dealing with, you know, just people that generally are normal--I know offshore workers do require a medical. They're generally fitter than the average population, but it is a general workforce and they're not self selecting. You're basically being required to undertake training which has potential, you know, risk to your health. So it has to be very, very carefully managed. So I think that was what caused some of the issues. I don't know if anybody else wants to speak on that. No.

MS. FAGAN:

Q. Okay. I have a few questions now on the HUET and I'm going to need an exhibit in a couple

Page 16

of minutes, so I'm going to give this to the Registrar so that she can work on tracking it down. Mr. Rutherford, you had explained yesterday that it's good to have a HUET or a simulator that has physical features that are similar to reality, and you talked about the three different types of fidelity and, you know, there's a balance and one of the focuses is the task, but another focus of those three is the physical reality, and the reality for our workers right now is the S-92, and I understand that the S-92 has a stroking seat. Can you explain how a stroking seat is designed to work, and if you can't, if it's not a fair question, just let me know, but if you know how those seats work, could you inform us?

MR. RUTHERFORD:

A. All I can say is that they are--they're designed to absorb energy on impact and that on an impact up to, I think--if a helicopter does come down with several Gs of impact, there will be some movement on the seat which as the energy is absorbed, the seat will move downwards.

MS. FAGAN:

Page 17

Q. Okay. Do you know how far it moves down? Do you know if it's inches or -
MR. RUTHERFORD:
A. I can't answer that one, I'm afraid, no.
MS. FAGAN:
Q. Okay. Fair enough. There's lots of more evidence to come. We'll find someone who can tell us how far the seat drops. Mr. Harvey, I have a couple of questions for you on the placement of the window. Mr. Rutherford had indicated that the placement of the window on the S-92 is higher than the window in the HUET that's used at the Centre and we had a photograph shown yesterday, it came out of Exhibit 18, and in Exhibit 18, it showed the height and perhaps the Registrar could bring up Exhibit 18, which is from yesterday? I know I have her jumping around a little bit but I won't be too long. I only have a few questions, so it'll be all right.
REGISTRAR:
Q. 13?
MS. FAGAN:
Q. 18.
REGISTRAR:
Q. 18.

Page 18

MS. FAGAN:
Q. And it's page 11. There. And if we could just leave that photograph up for a couple of minutes? Thank you. Mr. Harvey, do you know the difference, the height difference between the seat and the ledge of the window in the S-92 versus the seat and the ledge of the window in the HUET?
MR. HARVEY:
A. I can't tell you the height from the seat to the window, but I can tell you the height from the deck or the floor to the window.
MS. FAGAN:
Q. Okay.
MR. HARVEY:
A. And the difference between the two, our windows in the HUET, our lowest window, the difference is 28 inches between--that's the lower ledge of the window on the S-92 as compared to the lower ledge of the window in our HUET. So there's a 28-inch difference there.
MS. FAGAN:
Q. And there's a medium size window in the HUET.
MR. HARVEY:
A. Yes.

Page 19

MS. FAGAN:
Q. Do you know approximately where that is? Because the medium size window is about the same size as the window in the S-92?
MR. HARVEY:
A. It's fairly close.
MS. FAGAN:
Q. Fairly close, and so if there's a 28--when you mention the 28-inch difference, you're looking at -
MR. HARVEY:
A. The larger window.
MS. FAGAN:
Q. - the larger window?
MR. HARVEY:
A. Yes, that's correct.
MS. FAGAN:
Q. But the window that's often used is the medium window, which is the same size, or very, very close -
MR. HARVEY:
A. Yes.
MS. FAGAN:
Q. - millimetre in size. Do you know how that ledge to the floor compares to the ledge to the floor?

Page 20

MR. HARVEY:
A. It's about 21 inches.
MS. FAGAN:
Q. About 21 inches?
MR. HARVEY:
A. Yes.
MS. FAGAN:
Q. Okay. Now we know that the stroking seat will cause the seat to drop a little more, but we don't know exactly how much.
MR. RUTHERFORD:
A. It will depend on the gravity or the force at which the helicopter hits the water. So it's a progressive--it will be a progressive, but what the full travel is, I can't answer that one.
MS. FAGAN:
Q. Okay. So as trainers, would the location of the window--and I mean, maybe this helps. I don't know, because if the helicopter is upside down, you're dealing with a different scenario, but we know that the location of the window, it's about the same size, but we know the size of the window is the same, but the location is really in a different position. How does training, you know, in reality, is

Page 21

there--would you comment, does this difference make any difference in preparing people?

MR. HARVEY:

A. Well, there is a bit of a disconnect between our HUET and the S-92. So for example, when we're doing our lecture, for the most part, we'll put the emphasis on the S-92. So for example, the slide that we have up here now, we'll talk about the seats and the positions and the auxiliary fuel tank and just generally point out the features and what they would need to know in that situation. But then, at some point during our presentation, we have to go over and we have to say, okay, now I'm going to show you how to get out of our unit, because there would be some differences.

MS. FAGAN:

Q. Okay. What about the auxiliary fuel tank? You can see that there in the photograph, and part of the training involves knocking out the window and reality, unless the windows blow out of the helicopter on their own, would involve knocking out that window. As trainers, I mean, you guys are training people to do this day in, day out, what's your view? Would that have any impact on a person's

Page 22

ability to egress the window or punch out the window?

MR. HARVEY:

A. Well, a couple comments there. First of all, you know, when you're not next to the window, it means you now have to travel from your position, in this case, it would be in the aisle seat, over the auxiliary fuel tank to the window. So any time you're moving in the water, it becomes very difficult because of the floatation of the suits. So it requires a hand over hand or a coordinated movement. It would certainly slow down your exit, just for the fact that you have to move. If you lost your handhold, then you would, in all likelihood, lose your orientation. So it would--it would make it more difficult to get out.

The other point is to remove these windows, it calls for a striking action, so a knocking. Typically we say in any of the corners, maybe a solid edge of the window, and give it a knock. That works very well on the surface, but when you're under water, the water is a lot denser than the air, so it takes a lot more effort to swing your arm and

Page 23

strike the window, and that is difficult to do under water, and typically, a better way to do it under water is by just applying a steady force, and to do that, you really have to be next to the window and you have to be supporting yourself because you're buoyant in the water. So right here now, you know, I can put 200 pounds of force--I can lean my whole body weight into the window, but that's not an option I have under water.

MS. FAGAN:

Q. Okay. Do you--and I don't know if anybody trains with a box that would simulate the tank between the seat and the window. I mean, I've been in your HUET and unless it changed in the last month or two, I didn't notice anything that simulated a box, and I've also been in Nova Scotia and I've seen their HUET and I didn't see any box in theirs either. So I don't know if anybody trains with this, but tell me if I'm wrong. Does anybody train, as far as you know, with the box?

MR. RUTHERFORD:

A. I can answer that one, I guess. I'm not aware of anybody that's actually using this in training. I think perhaps one of the other

Page 24

issues that might want to be raised, I guess, is there's no real direct line--when changes are made to a helicopter, any configuration, although we do find out information because we are in communication with Cougar quite regularly, there's no formal line of communication between the training institution and Cougar relating to reporting any changes that take place in terms of configuration and what's happening, and I think that tends to go through a safety committee and maybe come back to the Training Qualifications Committee, may come to us, but there's no--you know, if they make a change in the configuration of their seats, you know, where we want to try and put that into the training courses, it's not formally--there's no formal line of communication. Basically we find out about it, people will tell us about it, and we'll find out. But that may be something to look at.

MS. FAGAN:

Q. And as I understand it, right now, the configuration has changed from this photograph. Right now, as I understand it, the seats--and we heard that as recent as last

Page 25

week, and I believe I've seen it in one of the helicopters, they've moved the seats that are along the side of the auxiliary tank over on the starboard side. So now there is no seats butted up against the fuel tank, and -

MR. RUTHERFORD:

A. I'll pass that one to Pat, because he's familiar. He's seen the helicopter recently and he can answer that for sure.

MR. DOHEY:

A. Yeah, I travelled offshore recently and the tank has indeed been moved to the starboard side, but there's also a configuration in the S-92 that would allow two tanks, two auxiliary tanks to be used, depending on the distance of travel.

MS. FAGAN:

Q. Okay.

MR. DOHEY:

A. That may be another--that is not the case right now, but that may be something for future.

MS. FAGAN:

Q. For future consideration and -

MR. DOHEY:

A. Absolutely.

Page 26

MS. FAGAN:

Q. - and perhaps that's something that should be looked at and then some connection with the training institute so that you may be able to train for it, or at least simulate the situation. The next area I want to go to has to do with the review, and we didn't really spend any time on that yesterday. CAPP entered exhibits last week and they are Exhibit 55 and it's at Section 3.3. 490 is the review for the Offshore Safety and Survival Centre, and same exhibit, 55, Section 3.4, page 505 is Survival Systems. So I don't intend to spend too much time on this review, but there's a couple of areas which deal with the suits and with the HUET and there was a comparison made by the reviewer on behalf of CAPP and both reviews are there. So I've reviewed these documents and I've been to both centres. You were good enough to host me at one of your training sessions and I have to say, I've appreciated the trainers. They at least made you feel you were going to get through it, but I didn't see the need to do it a second time in Nova Scotia, and so I just watched their session from the deck.

Page 27

Many of the things that I saw are the same that's in these reports, and I'm only going to go through a couple of them, and one has to do with the HUET, and not everybody does everything the same and CAPP has said that what they--or you have said that what is the focus is the trainer, not necessarily a prescriptive very, very detailed do this, do that. The training institute itself is certified and they review their processes. So on the HUET, we have heard from you, Mr. Rutherford, on why you don't put two trainees in the HUET side by side, because of the fear that the trainee on the inside may very well get kicked in the face by those large boots. However, when you look at the two processes, one, the Survival Centre puts more than two in the HUET and your centre puts two in the HUET. Okay, so is the reason why you only put two, would you consider changing that? I'd just like you to comment on why they have more in their HUET trying to escape at the same--than you guys.

MR. RUTHERFORD:

A. There's a couple of issues, I think, associated with it. The reason we don't is

Page 28

basically related to risk management in our own specific HUET. Now it may be that the trainer that's utilized in Survival System is a newer model. It has open ends, which does allow a little bit more, I think, flexibility in the event somebody gets into trouble. You'd be able to get a diver into them. So that might change the risk profile a little bit if we had a new HUET. So we would look at it again.

But I think we also need to look at the-- it is, we do feel as trainers that it's very important that we deal with people individually and we go through processes step by step. When we put in--if we were to put in additional cross training, we have to go through a number of roles and we start adding roles. Now the question is, if we're going to make everybody get into the HUET, everybody do every exercise, which is where it should be, they could land up with doing it a number of additional roles in the course of the training. So we'd have to look at that because as I mentioned before, we are--you know, to increase the time we have in the pool is challenging for us because we're

Page 29

constrained by the pool is basically utilized full time. So it would add to the cost and duration of the exercise.

So yes, it's worth--it could be worth looking at. There are some things to look at to determine, you know, whether it would increase the duration and whether we can manage the risk, but I don't think we can do it until such time as we change out our simulator.

MS. FAGAN:

Q. Yeah. Well, I did notice that the HUET in Nova Scotia has a very, very large exit.

MR. RUTHERFORD:

A. Yeah.

MS. FAGAN:

Q. So there's means of escape, but you wouldn't feel as closed in. The HUET at your Centre simulates that tucked in, enclosed feeling. So I'll leave it to the experts to assess. There is another issue where they change seats. At the Survival Centre, do you guys--you know, the Safety and Survival Centre, your Centre, do you change seats or do you keep the trainee in the same seat for all the roles or do you move them around so that they can use--

Page 30

get used to the left and the right? And I don't know, maybe the trainees, I don't know who can answer that question as to what you do and why you do it that way.

MR. HARVEY:

A. Typically we'll keep them in the same seats, unless the student requests to try another seat or another window, another exit, in which case, we'll give them that option, and I guess the main reason for doing that is we have them for a very short period of time. You know, it takes about 20 minutes to put two students, because we take them in two at a time, through our exercises. So that's how much time we have with the student in the HUET. What we find is when we move them from--even when a student asks, so if they ask, "okay, can I try the window over on the other side?" well, it's almost--it's back to square one again. They get all confused and disoriented, as you would, and the problem, I think, with that is they've almost forgotten now everything they've--the process they've learned. It throws them off, and we don't have time to deal with it. So we can do that, but then when they leave, I'm not sure if they've

Page 31

learned some of the more important details we want to pass on to them.

MS. FAGAN:

Q. Okay. So if you do it in the same--I have to tell you, after my fourth roll, I felt pretty good, you know, because you got into a routine.

MR. HARVEY:

A. Yes.

MS. FAGAN:

Q. But the workers have no control over where they're going to sit. You know, they're not assigned--you know, they're not assigned a port seat or a starboard seat then for the rest of their tours of duty. So would it be beneficial for them to have, you know, more time? I understand getting that feeling of proficiency, but would it be helpful to have more time so that they can get proficient on the other side?

MR. HARVEY:

A. More time is always helpful.

MS. FAGAN:

Q. I guess teachers and trainers, I should have known what answer I was going to get.

MR. RUTHERFORD:

Page 32

A. You know, there is extensive--I mean, the offshore petroleum industry does spend more time training its personnel than any other industry I'm aware of. So there is a cost, operational cost to it. We're quite happy to--as long as we got facilities and capabilities to respond to it, we're more than happy to provide the training, but there is practicalities that come into play, unfortunately.

MS. FAGAN:

Q. Okay. I noticed that at the Survival Centre, they have a--they use waves and we have a wave tank at MUN. Has consideration ever been given to doing the training or some of the life boat exercises in the wave tank at NRC or is consideration being given to have waves at the Centre or are waves unnecessary?

MR. RUTHERFORD:

A. We're certainly--we actually in our proposal for our facility's development, the addition of a new pool is in that proposal and that would be an environmental tank, including waves. With respect to using the wave tank at the National Research Council, that wave tank is there for purposes of conducting research

Page 33

and we actually do work in that tank many times with the researchers, but it's not a tank that's designed for training purposes. It's not chlorinated and managed in purposes related to training exercises, and to rent that tank would be prohibitively expensive. It's a very, very expensive tank. So yeah, we think there's a value in having an environmental tank, but it really needs to be under the control and direction of the training institute, so we can manage the risks.

MS. FAGAN:

Q. Okay. What about the use of fans to create wind and rain? You know, you put black hoses with holes in them in your ceiling, turn it on, almost like a sprinkler system, you've got rain. Couple of big fans, you have your wind. Sound system, you can create thunder and those sorts of realism. Are they unnecessary? Are they helpful? Have you given any consideration to any of those types of features?

MR. RUTHERFORD:

A. Well, again, these are part of our plans for the new centre. We do have capability to

Page 34

provide wind and rain within the pool we have, and we do utilize it for marine courses where we're providing the training to the people going into the marine industry, but they don't do the sea day. Where we deal with the issues relating to environment, et cetera, is during our sea day in our exercises, but if we had--you know, really the time again, it comes down to what can be reasonably achieved in the time you have available to do the training. We do the--we go through the steps, the necessary steps in training people how to--in the basic training course where we're basically focusing on very basic skills and how to utilize pieces of equipment, and then we take them out into the sea day and go into this in more detail. In the recurrent course, again a very short period of time in which to do this, so we do a very short pool exercise and again out into the sea exercise. So it's certainly worth looking at, but I think we would need to have a look at our facilities a little bit more.

MS. FAGAN:

Q. You had indicated that the Centre was considering using high-back seats and four-point harnesses because the four-point harness

Page 35

would be different than the lap belt. As trainers, is there a difference in trying to get out of a four-point harness versus a lap belt? Would that be a challenge?

MR. RUTHERFORD:

A. We have been requested to look at this. From our perspective, the seat configuration and the belt is--you know, it's not a major fidelity issue. As I mentioned before, most people in various types of seats, I mean, whether it's a high-back seat or a low-back seat doesn't really matter. You know how to sit down in it. Whether it's a belt that you latch from there or latch from there, it's not--I think most people are generally comfortable with a range of belts and know how to open a belt up. So it doesn't--what we do with respect to belts is basically make sure people become familiar with the particular belt that they have in their helicopter when they go offshore. However, we have been asked to look at this and to do the change out. So we do have currently a prototype, which is being developed at the University and we're working on that. One of the things we want to make sure of is we've got a seat like that and

Page 36

we can--again, as I mentioned yesterday, we have emergency releases for divers so the seat can get out--if we need to get somebody out of the HUET quickly, we can do that. We get into four-point harnesses, you get into situations where possibly people get tangled in the belt and from a training perspective, we want to make sure that there's no additional risk being introduced. So it's being looked at and we'll test it out. We've been asked to do it. It's not something that we would have necessarily driven. However, we do feel the bigger issue, from our perspective, is that the location of the windows, we think is something that's a little bit of a bigger issue and a little bit more of a challenge that should be looked at. I don't know if Greg wants to comment.

MS. FAGAN:

Q. Greg, as a trainer, having to get the belt off your shoulders, or even is the suit so buoyant, does it slip off anyway in the water? I have no idea.

MR. HARVEY:

A. Well, like, the windows, the more realistic we can be, I think, the better, and the four

Page 37

point harness does introduce more difficulties for some of the students, I think it will, as opposed to the lap belt and it would be good if we can have them experience that in training. If they are going to have problems with it, I think it's better for them to have it in the training environment than in a real life situation. So, yes, you know, the four point harness would be beneficial.

MS. FAGAN:

Q. Now we have the report here on Survival Systems. They're not here. We received information from them, and I don't intend to go through it in detail, but I did note that there was, and you don't need to go to it, but there was a comment that the suits were in poor repair, you know, they were missing pillows and gloves, whistles, and, you know, some of the flotation devices hadn't been used. The Centre is getting their suits leased and repaired by Helly Hansen. Did you experience problems with missing gloves and the suits not being in repair because there's no comment -- there's no comment like that in your report, in that, you know, the suits, there appears to be no issue for the suits at

Page 38

the Centre, and both institutions are using the same suit. So do you know why there's any difference or has Helly Hansen -- you know, are they doing a better job for you, or do you know if they're involved in the other suits or not?

MR. RUTHERFORD:

A. Our service -- lease service contract with Helly Hansen requires them to fully service. After every use, they are fully serviced and returned to us in "as new" condition. So we basically have a contract in place to do this, but as you might see from the exhibit, I don't remember which one it was now, but I showed an exhibit yesterday, it's really quite expensive for us to do that, so that impacts -- that's one of the -- Helly Hansen service costs are quite expensive.

MS. FAGAN:

Q. And you haven't had any issues with Helly Hansen servicing?

MR. RUTHERFORD:

A. No.

MS. FAGAN:

Q. So you wouldn't know if Helly Hansen was servicing the Nova Scotia suits or not?

Page 39

MR. RUTHERFORD:

A. I can't comment on that, another training institution.

MS. FAGAN:

Q. But you weren't experiencing -- you're not experiencing the same problems?

MR. RUTHERFORD:

A. No.

MS. FAGAN:

Q. Okay. Are there any other differences between the two training facilities or any other comments that you'd want to provide on the review? I don't have any other questions. I have another couple of questions on vessel rescue. That was another issue raised by the joint meeting of the Safety Committees last week, but on the review itself of on the HUET, I don't have any other questions. Do you want to have any comments on the review or the training facilities?

MR. RUTHERFORD:

A. I can say, I think, the review identified that both of the training institutions were meeting the requirements of the Training Qualifications Committee, the Guide 2008. So we're in compliance. There was a number of

Page 40

recommendations made which we'll look at. In terms of the different training providers, I think both of our training providers, as well as Survival Systems and ourselves are very cognizant of industry needs and responsive to industry, and do our best to serve industry as well as we possibly can. You know, there's a difference in the organizations. Survival Systems is a private company. We're a public organization. We have a lot of depth and breadth in terms of the types of training we provide. Survival Systems tends to focus more on -- they're focused on the offshore petroleum industry, a little bit of marine business, but their associated company does develop and build helicopter escape trainers. So they are in a position of always being able to keep that type of equipment up to date very much easier than we are. On the other side, we have a very, very rigorous -- I guess, our academic processes are quite solid, which ensures that we maintain that side. So there's checks and balances, and I think both -- as with everything in life, there's pluses and minuses to both.

MS. FAGAN:

Page 41

Q. And when I looked at the review, there were many pluses along the lines that you had said; student ratio, and many of the instructional aspects, and it's in as an exhibit everybody can read and do their own comparison. On the -- but you're right, they were both certified and both appear to be doing a good job. Now the vessel rescue, when the Commissioner and Mr. Roil and I attended the meeting of the Occupational Health and Safety Committees last week, one of the concerns was the ability of the supply vessels and rescue crafts to retrieve people from the water in high seas, and it's been explained to us that the protocol for when a helicopter is landing is that a supply vessel must be close by. The idea being if the helicopter missed its approach, or if the helicopter ditches basically close to the rig, there's a supply vessel there to pluck the passengers and people out of the water, but if the sea state is too high, then the rescue is going to be difficult, and Mr. Rutherford, you said yesterday that there was work being done on crew performance aimed at standby vessels and standby rescue crafts, and you said that the

Page 42

Centre was trialing new safety equipment. You said there's work being done and you were trialing. Can you explain what that work is, what is that equipment, what's it designed to do, when would we likely see something like it being used?

MR. RUTHERFORD:

A. We have contracts each year with Husky Energy and with Petro Canada, who are now Suncor. Those contracts require us -- as the Marine Institute, we go out and run trials, recovery trials, utilizing each of their supply support vessels with each different crew, and we run every year every supply vessel with a different crew, we run through a variety of scenarios and a variety of recovery scenarios with the crew. As part of those trials, we also look at trying to piggyback onto the trials some aspects of research so that we can look at new methods of recovery. We actually have a contract in place with PRAC, Petroleum Research Atlantic Canada, to look at recovery utilizing Dacon Scoop, which is a tug scoop system which we can recover personnel from the water. We're looking to see whether we can recovery life boats from the water and some of

Page 43

the aspects of that particular recovery device. We also try out smaller pieces of rescue equipment, various types of rescue hoops, and we train the crew with a number of mannequins, we put them in the water and train the best way to recover them. Having said that, we do believe there are concerns, I think, of the offshore operators relating to the performance in high seas that are probably well founded, I think. Very much so these supply vessels, these support vessels, do require or do rely on fast rescue craft to do most of the recovery. So the Dacon Scoop would be a device that wouldn't require deployment of the fast rescue craft, but I think it is a concern if we have high seas, a very high sea state, that the recovery would be very, very challenging. That's the reason, I guess, I raised a couple of the issues there yesterday with the proposals that we have in place and one of them relates to this autonomous rescue craft which has been trialed very successfully in the North Sea. In fact, this was a craft that was utilized to recover -- a there was a helicopter that came down and actually landed on the surface, but this was

Page 44

the first craft on the scene in that instance. I don't know if -- Greg's Presentation has a picture of it -- in your presentation. Do you know what number -- if you can bring up Greg Harvey's presentation, I can show you a picture of that one.

MS. FAGAN:

Q. It might be 97.

MR. RUTHERFORD:

A. I think we have raised that and we put a proposal in to PRAC. As a result of that, they did have a workshop there a few months ago and they brought across the project team leader for that project to give a presentation to industry here because I think there is -- there's a real need to have a much more capable vessel -- now we can find slide 5.

MS. FAGAN:

Q. So what is an autonomous rescue craft?

MR. RUTHERFORD:

A. You can see that picture there. This is -- in lieu of the fast rescue craft, this is a 37 metre vessel which can deal with very high sea states and travel at high speed in high sea states. It can -- I think it's got a capability of doing about 30 knots up to sea

Page 45

state 5, sea state 6. The concept of the autonomous rescue craft is that after the Piper Alpha Inquiry in the United Kingdom which I talked yesterday, there was -- one of the recommendations or one of the outcomes of that is there has to be a system whereby people can brought to a place of safety. Now what that place of safety is is what has to be defined. Generally speaking, if you're bring brought on board a support craft or one of your supply vessels, that will be considered as you're now in a place of safety, you're out of the water and in a place of safety, whereas if you are in a fast rescue craft, an open boat, or in a life boat, you're not really in a place of safety. The intent of this particular vessel is that this was designed so that it was accepted by the regulator as being once you were on board there, you are considered as safe because on board -- that ship is configured in such a way that you have all of the resources, medical resources, medical support. It's a very, very sophisticated. It doesn't look much on the outside, but very, very sophisticated vessel, and I think, you know, it's certainly

Page 46

something we think is worth looking at and worth considering. So obviously what we were looking at is saying, okay, the people who have developed this are willing -- this is developed by BP and they're quite willing to share their knowledge with us and with the industry here, but obviously it would need to have -- you know, to look and see what the Canadian environment, if there's anything different that would require changes to the vessel, but it is something being discussed and, I think, something that may well be looked at in the future. The other proposal which I said we put in at the moment really relates to -- again it relates to the rescue support capability, but it's more a software planning tool for strategic and for tactical planning of where your rescue support assets should be in certain situations, and put that -- basically, what we're looking at is -- it's three aspects to the proposal. One is evacuation, creating a reasonable reliable evacuation scenario. So a helicopter down would be one of them. Man overboard would be another, but depending on the size of the rigs, the number of platforms, how many people

Page 47

would reasonably likely end up in the water. This part of the work would be what we were proposing to undertake with BMT Fleet Technology, who is a company that's been involved in a lot of evacuation research for a number of -- for the Caspian Sea, for the Sakhalin Island, for Shtokman in North Russia and other. So that's what we're looking at there. We're looking at the survival aspect. You know, at the moment the predictions of survival are based on a report that was done by Magellan, a company in Ottawa, about 20 years ago and it's based on North Sea conditions. There is -- I think there is a need to relook at -- there's a lot of new information about survival that's taken place in the meantime. So another part of that proposal was looking at, you know, what are the realistic times that somebody in the event of an evacuation, what should be the realistic time that people should be able to be recovered from the water, based on the equipment, et cetera, they're supplied with here offshore. The third part is really the area that we've been involved in quite a lot is the whole issue of rescue and rescue

Page 48

capability, the type of assets that are there to provide that rescue capability. The end idea was all this would come together as data which would be utilized in a -- work with a software development company, develop a tool which can be used for somebody reasonably quickly to be able to determine -- you know, the people operating offshore, or people who have responsibility for search and rescue to determine what assets have you got relating to different types of sea conditions, different types of -- whatever conditions you got out there, what should be where. It just takes -- people do this already offshore, but we think that there is a possibility for further development in that area to ensure that this can be done more readily when things change, so that you could have a tool that's available to respond to changes. So that's the other proposal that's currently around at the moment, so we'll see. Where it goes, I don't know, but I think they're the concepts of things that we think need to be looked at, so we can certainly provide more information on that to the Commission, if you wish.

MS. FAGAN:

Page 49

Q. Thank you. On - just another one or two more questions, and that's it. When -- and this has to do with the brace position and a couple of other little things on cold water shock and training. We had heard that Mr. Decker held the seat in front of him instead of the brace position that had been taught, and I believe, Mr. Harvey, you showed us the brace position, you explained why you use the brace position. However, he reacted differently than as taught. I'd just like you to comment on that as to why that might have occurred, and in particular, breaking sort of a human nature reaction or response. I mean, you train someone a certain way and then in an emergency, they don't necessarily react that way. Is there any explanation for that or any comment you'd like to provide on that brace position?

MR. HARVEY:

A. Well, I know in relation to the training and why he didn't do as trained for, or as instructed, I can't really comment on that, but I do know that the research shows that people in emergency situations are more likely to respond as trained than if they weren't.

Page 50

If they had received no training, then the likelihood of them responding in an appropriate way would be very low as compared to somebody who has been trained and had an opportunity to practice, then you would expect them to respond in a more appropriate way. Why Mr. Decker didn't, I wouldn't be able to comment.

MS. FAGAN:

Q. But at least his arms weren't flailing around, as you had described as being one of the reasons for the brace?

MR. HARVEY:

A. Yes, there's a number of reasons why we teach the brace position that we do. I think early on in helicopter transportation, lap belt was the common restraint, and if I can refer to Clifford's, which was a study I referred to -- an author I referred to in my presentation, he had a look at UK Navy helicopter ditchings, and what he found was the majority of major injuries were the result of -- were spinal injuries, and I think he has a number something like 70 percent of the major injuries were, in fact, spinal injuries, and one of the things that came out of that study

Page 51

was the four point harness. By using the four point harness, we can minimize those type of injuries. We also know that by restraining somebody with the four point harness and getting in the proper brace position, we can minimize flailing injuries, as we talked about yesterday. Also disorientation is a big issue when you roll somebody, as we talked about yesterday. By being restrained in a seat with the four point harness, you're more likely to be -- you're going to know where you end up when you're upside down as opposed to if you weren't, you could be off to the side or you could be tucked up over -- under the seat or what have you. Also as the helicopter rolls, there's going to be a considerable in-rush of water. By being in the proper position, and, of course, with the four point harness, that's back in your seat with the straps locked in, then you're going to -- your profile to the in rushing water, assuming it's coming in through the window, is going to be minimized. So there's lots of advantages to being in the proper brace position.

MS. FAGAN:

Q. You also talked about cold water shock, and

Page 52

different ways that people can avoid cold water shock. I mean, basically have the least amount of skin as possible, you know, touch or receive that cold water. Is there anything that people or workers can do to either avoid cold water shock, prepare themselves for cold water shock, and anything that travellers on the helicopters could do between the training sessions? Like, I mean, as a trainer, we've heard, you know, they do it every three years, we're training more than anybody else, but there is a view out there that there should be more. So what can we do in between?

MR. HARVEY:

A. The passengers themselves, I think, you know, have to take a certain amount of responsibility, and if I can just relate it to what happened just recently to me in a HUET exercise. I had students come in and it was on a recurrent course and they had mentioned that the last time -- well, they had done their BST, so it was their first recurrent course, and that they had a lot of difficulty in the HUET component in that course, and they had to repeat, I guess, a couple of the exercises over because they weren't successful

Page 53

getting out and they were very nervous about it. This student had mentioned to me that I've been to the pool every night for the last so many weeks preparing for it, and when that student came in and went through the HUET, it was a non-event for them. So, you know, when that student left, the suggestion was, well, you know, you're getting a lot more comfortable in the water now, you want to keep those skills up. So maybe, you know, you want to continue going to the pool and staying in practice and getting even more comfortable with it. So I use that as an example that, you know, what some people can do, right.

MS. FAGAN:

Q. So swimming or being comfortable in the water. Is there anything else that would be a good suggestion?

MR. RUTHERFORD:

Q. If I could just add something to that. I guess, with respect to the gasp reflex, there is some evidence, I think, that people can become conditioned to be able to respond to this so they don't involuntary respond to the gasp reflex, and that really requires -- as Robert Decker himself said, you know, he feels

Page 54

one of the reasons he survived and others didn't is that's very used to having his face in cold sea water. It may be something that people need to think about, you know, swim in cold sea water because there is evidence -- Dr. Michael Tipton, I think, has done some work in this regard, they do climatize yourself to this, and it's something to be considered.

MS. FAGAN:

Q. Thank you. I don't have any other questions, and, I guess, Commissioner, it's now time for you to start leading the group through the question session. Thank you.

COMMISSIONER:

Q. Thank you. We'll start with counsel for the party being examined, so Mr. Hurley, if you have question, or Ms. Hollett?

HURLEY, Q.C.:

Q. If we could wait until after the other questions to see if we have any.

COMMISSIONER:

Q. All right then. Thank you. I'm going to do as I've done before, and ask people rather than go through every person, every counsel, who expects to be asking questions. Three.

Page 55

All right then, thank you. You're first on the list, it would seem, Mr. Earle, unless somebody else would like to -- or you'd like to change with somebody else, but if you're ready, I would ask you. Oh, wait a minute, we would normally take the break in about ten minutes. If you're ready, though, we'll start and we can break in about ten minutes.

ROBERT RUTHERFORD, GREGORY HARVEY, PATRICK DOHEY - EXAMINATION BY RANDELL EARLE, Q.C.:

EARLE, Q.C.:

Q. Good morning, gentlemen. Dr. Dohey, Mr. Rutherford, and Mr. Harvey. I'm Randell Earle and I represent an awful lot of the people you've trained over the years, the members of CEP Local 2121, which is the bargaining agent for the large number of employees at the Hibernia Platform and the Terra Nova FPSO. The first question I have for you is, if you will, a rather general question, but I think it is important in terms of understanding the overlay of things, and the question is, in this area, and when I say "this area", I mean offshore east coast Canada, who has the expertise, and I mean genuine expertise, I think we all have an understanding of someone

Page 56

we understand to be an expert, who has the expertise in the area of survival in cold water environment and survival training?

MR. RUTHERFORD:

A. That's a very good question. Obviously, we have a number of instructors who have expertise in this particular area. We have several instructors, including Mr. Harvey here. There has been certain work was done within the National Research Council in the certain aspects of survival, but to say there's any one particular expert who is the person who you would come to and say is the person that knows everything, I'm not sure I could necessarily answer that -- answer that question.

EARLE, Q.C.:

Q. So we're looking at your organization?

MR. RUTHERFORD:

A. We're looking at our organization for sure, the collective knowledge that's within our organization, as well as Survival Systems in Nova Scotia, who has also considerable expertise in this area.

EARLE, Q.C.:

Q. So it is far to say that the offshore oil

Page 57

industry does not have expertise in this area, that they rely on people like yourselves and like Survival Systems, and you mentioned NRC, for expertise in this area?

MR. RUTHERFORD:

A. I would say it's fair to say they rely on us. To say that they don't have any expertise, I don't think is entirely fair. I think there's a lot of people that have had previous expertise as Survival Systems trainers and been involved in survival training who have gone on to become part of operators and become part of their HSE groups. I think that -- so there is, there is some expertise within the operators, but fundamentally the organizations that really focus on it are the Offshore Safety and Survival Centre and Survival Systems.

EARLE, Q.C.:

Q. But, Mr. Rutherford, wouldn't you agree that by definition, somebody who has gone on to another job runs the risk of not being current?

MR. RUTHERFORD:

A. Yeah, but if they've gone on to a job that doesn't involve the same aspects, yeah.

Page 58

EARLE, Q.C.:

Q. Now another question, and this might seem a rather simple question, and I think there are a number of people in this room who know the answer to this question, but I think we need it on the record. Would one of you explain for us the protocol, if you will, for exiting a helicopter that has downed, is in the water, because my impression was that Mr. Decker described a specific regime, a specific way of doing it, so could one of you explain, and if I'm wrong and there's not a recommended way of doing it, tell us, but if there is, could one of you -- I guess, it would probably be Mr. Harvey or Mr. Dohey, could explain to us what the technique is?

MR. HARVEY:

A. Well, in the training, we deal -- we break things down into steps. So the first step once -- well, the first step would be to recognize there's a problem. Once you recognize the problem, whether that's you, yourself, you recognize there's something wrong with that helicopter or the pilots come on and notify you, the first step is to get watertight. How you get watertight will

Page 59

obviously depend on the type of suit you're wearing. Right now, everyone is wearing the Helly Hansen suit here, so that would be the hood up, the zipper up. If you have time, you would put the dive mask on to complete getting watertight. The next priority would be to brace for impact. The pilots might notify you of that, or you might have to figure it out for yourself. Depending on where you're sitting will depend on the type of brace position you get into. If you're in a forward facing seat, the brace position would be with your arms crossed across your chest like this. If you're in one of the rear facing seats, the brace position is slightly different. On impact, we instruct the students, their priority would be to clear their exit. That would depend on the type of exit. Right now, there's three different exits on the S-92. There's the knock out windows, there's three emergency exits, and there's the door. We don't necessarily go into detail -- we'll go through each one in class, but we won't go through the details. That would be the responsibility of the passenger when they got on the helicopter to determine where they're

Page 60

sitting, what exit they're sitting by, and whether it's referencing the safety cart in the helicopter itself and reviewing that to determine how that particular exit works, then that would be the process. Depending on what happens to the helicopter, if it stays upright, then there would be an orderly evacuation hopefully out into one of the rafts. If it turns - if the helicopter capsizes, then obviously the procedure would be a bit different. It would be about orienting, looking, holding something solid in the direction they have to go. Depending on where they're sitting -- so, for example, if they're by the window, they could be holding or referencing the window; if they're not by the window, they're in an aisle seat, then they would hold their reference something solid in the direction they want to go. That might be auxiliary fuel tank, that might be the seat next to them. So there's a number of variations there, and at some point the passenger will have to review that themselves with regard how things are going to work for where they're sitting, and the operation of the piece of equipment that's beside them.

Page 61

EARLE, Q.C.:
Q. So would I be correct in saying, Mr. Harvey, that if someone finds themselves in a submerged or semi-submerged helicopter and they're sitting by a window, the process, having gone through those earlier stages that you described, the process is push the window out; if possible, desirably hold the frame of the window, then release your seat belt?
MR. HARVEY:
A. That's correct, yes.
EARLE, Q.C.:
Q. Now, well, Mr. Commissioner, I think the next question I'm going to ask is going to take a few seconds to answer, and I see we're at --
COMMISSIONER:
Q. Oh, yes, all right. Okay, we'll take the break now, fifteen minutes.
(RECESS)
EARLE, Q.C.:
Q. Thank you. Probably again for Mr. Harvey, the four point harness, would that give you a better lateral restraint than the lap belt in terms of side to side movement?
MR. HARVEY:
A. Yes.

Page 62

EARLE, Q.C.:
Q. So I want you to visualize an individual in the four point harness sitting in a seat inboard of this auxiliary fuel tank. How difficult is it going to be for them to get that window out, get their hand on the frame, release themselves from their seat belt and exit that helicopter?
MR. HARVEY:
A. Are we talking on the surface or inverted?
EARLE, Q.C.:
Q. Underwater.
MR. HARVEY:
A. Underwater. I think it would be very difficult, if not impossible.
EARLE, Q.C.:
Q. When did you gentlemen find out that this tank had been installed in the helicopter?
MR. HARVEY:
A. Me, personally, it probably would have been shortly -- I'd be guessing, I'd say a couple years.
EARLE, Q.C.:
Q. Couple weeks ago?
MR. HARVEY:
A. Couple years ago.

Page 63

EARLE, Q.C.:
Q. Couple years ago.
MR. HARVEY:
A. I'm trying to envision a trip I had to the heliport where I first saw it.
EARLE, Q.C.:
Q. So it was installed at that time?
MR. HARVEY:
A. Yes.
EARLE, Q.C.:
Q. Did anybody ever ask you before this thing went in place, "what are your views", and I say you, personally, and I'd also care to hear from the rest of you in the sense of the "you" being the Offshore Safety and Survival Centre, whether this thing would present any impediment to exit from the helicopter?
MR. RUTHERFORD:
A. I can respond that certainly we were not consulted on this. As I mentioned before, there is no direct line of communications to changes to the helicopter to us. We find out about changes generally by our instructors taking a visit to the heliport and seeing what is happening and what has changed, but there's no direct line of communication.

Page 64

EARLE, Q.C.:
Q. So you fellows find out about these changes in the helicopter after the fact?
MR. RUTHERFORD:
A. Yes.
EARLE, Q.C.:
Q. When the offshore platform went in place, the first one, the Hibernia Platform, I believe the aircraft that was being used at that point in time was the Super Puma. At some point in time there was a change to the Sikorsky. Was there any process that said, okay, we're switching to the Sikorsky now, you know, what is the impact of this change in unit for the HUET at your Centre? Is there any process of exchange of information, evaluation of consequences, anything of that nature?
MR. RUTHERFORD:
A. No, there was nothing formal. As I said, there's no formal process in place. We become aware -- we're aware of the change and we were asked by operators, offshore operators, to include the changes into our classroom, into your presentations, that the change had taken place, but this would be a letter from an operator. It didn't -- I can't remember that

Page 65

coming from the Training Qualifications Committee because I don't think -- that happened before we were part of that committee, but basically when the change took place, we would be advised of the change and to incorporate into our -- into our training.

EARLE, Q.C.:

Q. So you'd change your pictures, point out the differences, things of that nature, again after the fact consultation?

MR. RUTHERFORD:

A. Yes.

EARLE, Q.C.:

Q. I'm speaking of after the fact consultation. Did I hear you correctly in saying that the first time anyone came and spoke to you about the helicopter transportation suit, the 452, was in 2008, after the decision to use it had been made?

MR. RUTHERFORD:

A. That is what I said, and I believe that to be true. I don't know if Greg can comment on that.

MR. HARVEY:

A. Yes, that is correct.

EARLE, Q.C.:

Page 66

Q. Mr. Rutherford, I certainly heard you say in your evidence that you felt you had a fair bit that you could say, again I use "you" in the collective sense, a fair bit that you could say about this suit which you thought might be helpful. If you could answer orally, because the transcript is never going to get a nod.

MR. RUTHERFORD:

A. Yes, indeed, yes.

EARLE, Q.C.:

Q. Now you talked about fidelity issues, and my friend, Ms. Fagan, asked you a fair number of questions about that, so I won't spend a lot of time, but it seems to me that in any area of fidelity there is the issue of window size, and that window size, although everybody seemed to be thinking about it, and were thinking about escape, that window size issue seems to me to ring the bell in two ways. One is getting somebody out of it, and I must say I looked at those pictures and I said, thanks be to God that it's not Randell Earle that's trying to get out through that window with my shoulders, but there's also the issue of the weight of water ingress in a submerged helicopter, right. I see you nodding. So

Page 67

that's a fidelity issue for you, right, and you have already touched on the window height as being an issue, and the belting system, and we don't have the same seat belts in the HUET that we have in the helicopter that the overwhelming majority of your students will be riding in, correct?

MR. RUTHERFORD:

A. Yeah.

EARLE, Q.C.:

Q. And there are issues, I suggest to you, in terms of fidelity of the position vis a vis the window, the position of the seat. The tank discussion we just had, but also the two seats side by side. As I understand what you've been telling us, that in terms of the HUET, the seat is next to the window, correct?

MR. RUTHERFORD:

A. Yes, sir.

EARLE, Q.C.:

Q. And when we have issues of the number of people in the trainer as compared to what one might expect in an actual helicopter, is that correct?

MR. RUTHERFORD:

A. Yes, sir.

Page 68

EARLE, Q.C.:

Q. Now what about the force required to get that window out, is that a variable, other than the variable it seems to me that would come with the size of the window? If you've got a window that's submerged and you're trying to get it out, the forces might be different at different points on different sizes of windows. Mr. Rutherford, you're the engineer, and I've got high school physics, maybe I'm wrong, but is that -- is there a variation in force that's involved there?

MR. RUTHERFORD:

A. There will be, but it's an extremely difficult thing to quantify because that variation in force is going to depend on the depth of water, how much water has come inside the helicopter, outside the helicopter, and a whole range of -- so I think whilst I can say, yes, there may be a variation in force, how we would quantify that would take a significant amount of research, I would suspect. What we try to do in training is have a window that's reasonably hard to remove, so again it's -- there is a force required to remove the window and that's fundamentally what we can train

Page 69

against, but I think if you wanted to really look at -- I don't know if Sikorsky has done any research on their particular windows at particular depths of water, and what the actual force is. I haven't seen anything, but that may be something we should be looking at.

EARLE, Q.C.:

Q. And I take it that there's probably a specification set by the aviation people that in a certain specified -- there is a maximum force that need be applied to get a window out. Let me phrase it another way. So that if the required force in these circumstances were 60 pounds and you had a limit of 40 pounds, which I understand is actually what people are told they need is 40 pounds, then a window that required 60 pounds to take it out wouldn't be acceptable. You have that kind of regulated standard, right?

MR. RUTHERFORD:

A. Yeah.

EARLE, Q.C.:

Q. Are there variations, though -- because this is a minimum standard, are there variations between helicopters?

MR. RUTHERFORD:

Page 70

A. There is -- I mean, there's wide variations between helicopters, wide variations between helicopters and the type of exit. Some require you to push out, some exits require handles to be turned, some -- I think we go through in the presentation the types of different exits that are available. So there is very much a wide variation. I know that Pat maybe can talk to --

MR. DOHEY:

A. In the case of the Super Puma that was used here before, you would have to remove a tab first and then push out the -- I guess, it's per specs glass type window, it's a very light -- it's a lighter material, would take considerably less effort perhaps to push out that window. So from helicopter to helicopter it is different.

EARLE, Q.C.:

Q. So it was a two stage operation to remove the window?

MR. DOHEY:

A. I take out the seal.

EARLE, Q.C.:

Q. In your HUET, is it a single stage operation, just push the window out?

Page 71

MR. DOHEY:

A. I'd best refer to Greg. I don't train in survival.

MR. HARVEY:

A. When we were doing the Super Puma, when the Super Puma was flying here, it was a two stage operation. We had beading set in around the window, so the students would have to remove the beading and then knock the window out. The S-92 doesn't have the beading, so we don't use it any more.

EARLE, Q.C.:

Q. So you modified the HUET?

MR. HARVEY:

A. Yeah.

EARLE, Q.C.:

Q. Okay, the other set of things that touch on fidelity, it seems to me, are the environmental ones, as you put it. I mean, that's everything from wind, rain, sea state, temperature. Are there any others?

MR. HARVEY:

A. Light and dark, I suppose.

MR. RUTHERFORD:

A. Yes.

EARLE, Q.C.:

Page 72

Q. In terms of fidelity, I mean, you do this in a pool, but do we have any idea of how far off the mark the pool condition is? I mean, do you people have data on the model sea state, for instance, for offshore Newfoundland?

MR. RUTHERFORD:

A. We have information on the sea state, but I think in terms of our training, again I come back to the fact we have a limited time to provide training. What we are focusing on is providing people with basic, very basic knowledge and skills, and if we were to provide training to make use of anything else in terms of additional fidelity, we would have to be training for a significantly longer period of time for everybody coming through, and we would have to very much look very, very carefully at the risks that we expose people to. To there is a limit to what can be done in training, and I reference you back again to what is going on in the UK. It's only recently that OPITO has actually allowed windows to actually be used in helicopters because of the issues relating to, you know, training personnel offshore is a very stressful process. The HUET is quite

Page 73

stressful for many people and we have issues that -- so, you know, we go as far as we possibly can within the time scales allowed, but I think we have to recognize there's limitations, and those limitations are quite significant.

EARLE, Q.C.:

Q. Yes, I understand that, absolutely, but, I mean, again it's layman's observation, but I look at one of these helicopters, and as I believe Mr. Harvey said, they are top heavy, they have the engines on top, they have these great big rotors, and they may be suspended by a deployed flotation system, but it would seem to me that it would be important in terms of the training that you have and the emphasis where you -- to have some understanding of the forces and the likelihood of the capsizing of a helicopter, even if it has made a controlled descent.

MR. RUTHERFORD:

A. That is provided in the training, the likelihood of capsizing is part of our presentation. I think, as Greg mentioned there yesterday, there's the likelihood of capsizing on impact or shortly after impact is

Page 74

60 percent as it stands at the moment, that's the current knowledge, which means 40 percent of the time it won't capsize, but there is a likelihood. That's why we provide the training, but the issue is how far do we take the training when this happens. We're always looking to push the envelope as far as we can, but again taking into account managing risk and managing other aspects.

EARLE, Q.C.:

Q. A fair statement, but, of course, those figures are not east coast Canada figures, are they?

MR. RUTHERFORD:

A. No, they're not, but I don't think we've got enough data on east coast Canada. I mean, one of the challenges you have with this type of data is, fortunately, I mean, helicopter incidents and accidents are relatively rare. That means you don't have a whole lot of data on which to base any -- all types of helicopter are different, every incident is different, so you really don't have very, very sound data on which to build an case. You can only do what you can in terms of trying to provide the best solution on that basis.

Page 75

EARLE, Q.C.:

Q. Well, Mr. Rutherford, I get a feeling that with data on sea state, and the dynamics of the helicopter in terms of weight and center of gravity and all those things, your friends who have the pool with no chlorine in it, the NRC, could give you a pretty good estimation of the likelihood of capsizing in our conditions, don't you think?

MR. RUTHERFORD:

A. Well, perhaps they could if a controlled study was undertaken of the particular helicopter and those particular sea states. I think what we can do, as a training provider, is indicate that in the event that you do have a controlled landing on the water, that still may be an unsurvivable incident or it may still have issues relating to capsize because of the sea conditions in which you're landing. So, yes, I can answer they may well be able to, but that would be a study that would have to be undertaken under controlled conditions. It's not something we can do.

EARLE, Q.C.:

Q. Because this brings me to where I'm going on this thing. No doubt you've been sitting

Page 76

there wondering what the heck is he up to, asking us all these questions, but, you know, I'm aware, for instance, of some of the other technology that the Marine Institute has, and it's purely wonderful, for instance, your bridge simulator and the ability to input all the variables by means of a computer program, and I look at your HUET and I say to myself this is a fairly crude simulation, and the question I have for you, and I think the important question in terms of the kinds of considerations that this Inquiry has got to look at, is what is the process by which you evaluate the significance of these fidelity issues? Is it a judgment thing, is there a committee, is there an overall set of parameters, is there indeed a computer program somewhere? That's the question, what is the process by which you weigh the significance of these fidelity issues?

MR. RUTHERFORD:

A. What we -- in terms of a training provider in our particular situation, we will weigh issues relating to training with the purely judgmental opinions of instructors and what we're able to do, but I think you need to go

Page 77

back to what I mentioned there yesterday, as a training provider, we are a small unit of the Marine Institute, we are a cost recovery unit, we deliver training -- any facilities and other types of development that take place need to be externally funded in some way, and we are looking -- we are aware that there are some issues that need to be looked at in terms of the helicopter underwater escape trainer, and those are part of our funding that we're looking at at the present time. Yeah, they're all very, very good questions and open to research. We haven't -- we haven't engaged particularly in helicopter underwater escape research primarily because we haven't got involved in that area. We've only recently got involved in research at all, and because we only have the HUET we have and the pool we have, which is in full use, it's not something that we have actively engaged in. We've just been involved in providing the training, but certainly that was one of the intentions when we were looking at upgrading our facility is having two pools with two HUETs, and creating a research unit that could look at those very things.

Page 78

EARLE, Q.C.:

Q. So I hear you saying that there is no formal process of evaluating fidelity, that you're doing what you can within a cost structure that exists?

MR. RUTHERFORD:

A. I would say we do the best we can, yes.

EARLE, Q.C.:

Q. Now let's move to the HUEBA. Am I correct in understanding that you say that you're advised that the compressed air system had been selected in late 2004?

MR. RUTHERFORD:

A. That is correct, yes.

EARLE, Q.C.:

Q. And you were here, Mr. Rutherford, for Mr. Barnes evidence, correct?

MR. RUTHERFORD:

A. I was, yes.

EARLE, Q.C.:

Q. Were you surprised to hear that a conference in Halifax for providers, it certainly appeared on paper that the selection of a system was still up in the air in 2006?

MR. RUTHERFORD:

A. Yes, but -- yes and no. I guess, because of

Page 79

the selection of the compressed air breathing apparatus, there as some significant issues which needed to be addressed, and I think that selection was still up in the air, in fact, as late as 2008 when there was a task force went across to look at numbers of different providers in the UK, Norway. So there was still issues that needed to be addressed at that time.

EARLE, Q.C.:

Q. Well, how long, Mr. Harvey, because I believe you're a diver and, in fact, you were at one point in time certified to train people as scuba divers, how long have recreational scuba divers, which you mentioned, been using a bottle similar to the Aqua-Lung as an emergency backup?

MR. HARVEY:

A. I can't give you an exact date, but certainly for recreational divers, certainly in the early mid 80s when it probably would have started with the Spare Air System that I mentioned in my presentation, and we started seeing that made available on the market.

EARLE, Q.C.:

Q. And I take it those people, those recreational

Page 80

divers, albeit self-selecting, as Mr. Rutherford said, they had to be trained?

MR. HARVEY:

A. Yes.

EARLE, Q.C.:

Q. And the evidence is that the P-STASS has been used for ordinary passengers since 1993?

MR. HARVEY:

A. This would be military related passengers, I believe.

EARLE, Q.C.:

Q. But we're not talking pilots now, we're talking people being transported in military helicopters, right?

MR. HARVEY:

A. Yes.

EARLE, Q.C.:

Q. And presumably they had to be trained?

MR. HARVEY:

A. Yes.

EARLE, Q.C.:

Q. Surely then the message is that the training methodology for the use of these devices was well known long before CAPP was told by the Offshore Petroleum Board to look at these things? That's the message, isn't it?

Page 81

MR. RUTHERFORD:
A. That would be the message that training methodologies were in place, but basically it comes down to, I guess, the offshore operators here needing to protect their own workforce during training and I think the medical advice that was being given at that time was that the risks needed to be managed, and needed to be managed very carefully.
EARLE, Q.C.:
Q. Yeah, but there's also the balancing of the protection of the offshore worker --
MR. RUTHERFORD:
A. There is, but --
EARLE, Q.C.:
Q. Once they're in a helicopter.
MR. RUTHERFORD:
A. There is, but when we -- you got to consider, I guess, from a training perspective, and you take a worker and put him into a training environment, people don't expect to come out of a training environment with serious injury, and I think what would happen if somebody did come out of a training environment with serious injury, what would happen would be the training would basically be shut down. I

Page 82

mean, that's the reality of it. So we're talking balance here. We cannot put people in way of serious harm during training.
EARLE, Q.C.:
Q. I think that's always a very important guiding principle, but don't you think these other users accepted that principle as well.
MR. RUTHERFORD:
A. I really -- I can't comment on that. All I can comment on is that, you know, once all the risks were managed and we received guidance to go ahead, we were comfortable with moving ahead with the pressurized system as long as the various risk management, we kept issues below one metre, and we were comfortable to move ahead with it. However, there were still concerns, and, I guess, the concerns were not concerns necessarily raised by it. There was a task force that still went to Europe to have a look at various other training devices in place, and that would have been concerns that would have been raised by operators or by the medical community. So I can't really answer that question. All I can say from our perspective, once we were able to put it in place in a managed environment, we were

Page 83

comfortable with moving ahead, and we did move ahead with it once we had the approval to go.
EARLE, Q.C.:
Q. Mr. Rutherford, surely the issue is simply one of medical screening, that there were some people you would say it's too risky to train you on this by actual practice, we'll tell you how to use it because if you're underwater in a helicopter, you're not going to asking yourself, well, which risk do I think is greater, an air embolism or drowning, you're going to use the thing, and surely the thing was simply to do as it was done with recreational divers, to screen medically and say these people, yeah, we've got medical clearance on them, they can do the demonstration training, these people over here, they don't have medical clearance and we'll just have to instruct them by example.
MR. RUTHERFORD:
A. That's not a decision, I think, that we can make as a training provider. We can put our own standards in place to prevent people coming through training, but I think that that would be another issue -- raises another issue as to people going offshore; some people would

Page 84

be trained, and other people would not be trained. I think that that issue really has to be decided by the offshore operators, so I don't really want to respond to that.
EARLE, Q.C.:
Q. But, Mr. Rutherford, aren't you the proper people to advise on this, aren't you the survival training experts?
MR. RUTHERFORD:
A. We advise on certain aspects of it. We're not medical -- we're not medical practitioners, we're not the people who can advise on medical risk. We can certainly on types of training activity and training systems that are in place, we can certainly advise on ways to manage the risk related to training activities, and we can certainly be part of that process. Yes, I think that is true.
EARLE, Q.C.:
Q. Now you made the point, Mr. Rutherford, that you felt under OPITO, it would have taken longer to put the compressed air system in place, that under the UK regime --
MR. RUTHERFORD:
A. I don't think I made that point at all. What I said in the UK regime, that they've adopted

Page 85

a different type of system. What I said, I think, that they have not as yet adopted a pressurized air system, they have adopted a rebreather system, and fundamentally the reason for that is because of risk management.

EARLE, Q.C.:

Q. I'm glad you clarified that because I certainly heard you differently. So, I mean, that has been the way the risks have been managed in the UK, isn't it, they opted by the hybrid rebreather and they managed to have it in place?

MR. RUTHERFORD:

A. They did, yes.

EARLE, Q.C.:

Q. Prior to 2005, correct?

MR. RUTHERFORD:

A. They did, yes.

EARLE, Q.C.:

Q. Now, on the process of getting ready to provide this training, when did you start developing training?

MR. RUTHERFORD:

A. I mean, we were developing the basic early stages of training very early on, I guess, but we didn't develop the specific courses until

Page 86

such time as we knew which system was going to be selected, because a specific course --

EARLE, Q.C.:

Q. So when did you start developing -- when did you say, okay, we need a course outline with course objectives, outcomes, all the sort of stuff you've got in your documentation, when did you say we've got to start doing that?

MR. RUTHERFORD:

A. We were developing our training courses through 2005, 2006, and 2007, but we couldn't finalize them until such time as we had the approval from CAPP that this was the system they were going to go with. We had the background information, background documentation, but we didn't have what was our approved course outline until such time as we received that notification, or that was not approved. We had it developed. We were developed in 2007.

EARLE, Q.C.:

Q. So you were waiting on CAPP essentially?

MR. RUTHERFORD:

A. We were waiting -- what caused the delay was the decision to step back late in 2008 when they decided to -- we received a letter that

Page 87

they were stepping back from the process to re-evaluate again, and there was a task force that was sent to the Europe to re-evaluate all the systems, so that basically we were on hold as of that time, yes.

EARLE, Q.C.:

Q. That was 2008?

MR. RUTHERFORD:

A. Yeah.

EARLE, Q.C.:

Q. We heard that there was another pull back from CAPP from 2004 to 2005. Were you aware of that?

MR. RUTHERFORD:

A. We were aware that it pulled back from CAPP and it went back to the operators, I guess, to reconsider. They were looking at it at that time and it was 2005 that the task force -- they decided the end of 2004, we heard that they were definitely going to go with the pressurized breathing system, and early 2005 there was a task force that was set up, yes.

EARLE, Q.C.:

Q. How long -- if you had had a go ahead, how long would it have taken you to develop your training?

Page 88

MR. RUTHERFORD:

A. Go ahead, as of when, as of 2005?

EARLE, Q.C.:

Q. 2005?

MR. RUTHERFORD:

A. It would have been 2007. We had to get equipment acquisition, we had to do design of the change of the pool, which took place. We had to -- so it would have been -- we were basically ready with all the equipment and everything in place by the end of 2007.

EARLE, Q.C.:

Q. Yes, but you didn't have the same urgency because you didn't have the final approval from CAPP, though. I'm asking you if you had an approval in 2005, and I want to break this out, how long would it have taken you to develop your training plan?

MR. RUTHERFORD:

A. The training plan would have been six months, but I think it would have taken, in terms of the equipment and equipment acquisitions, and the various training of our technical and technical support, we would have been -- it would have probably been a year at best to put everything in place.

Page 89

EARLE, Q.C.:
Q. A year.
MR. RUTHERFORD:
A. Assuming we had everything, the approval was there, and assuming we had all the necessary funding, et cetera, et cetera, et cetera.
EARLE, Q.C.:
Q. Assuming somebody had said to you, we're going to do this, we want this done, an absolute, you know, destroy every other priority in your organization basis, but on the basis of a decision has been made, we want this implemented as quickly as reasonably possible, you would say a year?
MR. RUTHERFORD:
A. It would take a year, yes.
EARLE, Q.C.:
Q. And I take it things like the seat, I mean, that was something you had fabricated in your own technical services support organization, right?
MR. RUTHERFORD:
A. Yes.
EARLE, Q.C.:
Q. And the shallow end, I mean, it's really a platform that's fabricated, dropped into the

Page 90

pool, is that --
MR. RUTHERFORD:
A. Yes.
EARLE, Q.C.:
Q. Not particularly fancy.
MR. RUTHERFORD:
A. No, but it has to be designed, engineered, and constructed.
EARLE, Q.C.:
Q. Now why was it that in the process of this, you end up going to PRAC looking for money?
MR. RUTHERFORD:
A. We did get an indication early on in the process that we were going to receive some funding from the operators. There was -- we received an indication that they were going to buy the units, but then it came back, I guess, we got advised that it was going to have to come out of training revenues. For us, that's a little bit of a challenge. We did go to our executive and said this is what it's going to cost, this is what we have to do, and to move forward, but I indicated to our executive I would try and find other sources of revenue to try and pay for it. So we went to PRAC and tried to defray the cost. That's what

Page 91

basically we do as a public organization, we try and find ways to fund everything we do, and basically we always have to go out and find ways to do it.
EARLE, Q.C.:
Q. With respect, Mr. Rutherford, you've trained 1300 people, you had a cost of about $270,000.00, and you're going to train a lot more people yet to come, but they will all be people who will be working for these oil companies. Why they not simply say we've got to recover the cost, Mr. Barnes, tell your members this is what the training is going to cost per unit?
MR. RUTHERFORD:
A. Well, that was discussed earlier on and I think it was the -- my understanding, but you're better off to ask the oil companies this, I mean, their concern was that they'll be creating a non-competitive environment by providing funding to one training operator or another training operator, but that's something better answered by the oil companies. I can't -- we were asked to put training in place, we put training in place as best we could.

Page 92

EARLE, Q.C.:
Q. You talked about accreditation, and you talked about your Centre being accredited by CAPP. Now I presume because you're associated with the academic world that you're familiar with the accreditation of programs in the university?
MR. RUTHERFORD:
A. Very much so, yes.
EARLE, Q.C.:
Q. Now isn't it fair to say that when a program at the university is accredited, you have an accreditation team made up of experts from equivalent types of organizations who come in and they evaluate and checklist and benchmark and all these things, your program?
MR. RUTHERFORD:
A. That is true, yeah.
EARLE, Q.C.:
Q. And if we have an accreditation of a hospital in the health care system, what we have happened is a bunch of health care professionals from other hospitals in other locations, people who are disinterested, well recognized for their standing and expertise, they will come in and they will look at the

Page 93

hospital, whether it is one of the hospitals of Eastern Health or any hospital, and they will evaluate it against a set of criterion and issue or deny accreditation.

MR. RUTHERFORD:

A. That is true.

EARLE, Q.C.:

Q. When you're dealing with CAPP, you're not dealing with that kind of accreditation, are you?

MR. RUTHERFORD:

A. No, it hasn't been in place under the CAPP Training Qualifications Committee. Basically, what they did when they established it was approve training providers to do certain courses and that was really -- I think, initially when we were set up under the -- it's a reasonably new industry, I guess, the offshore petroleum industry here, although it's starting to get a lot older now, but when they were first set up, we were the training providers, and the Offshore Petroleum Board came through and approved us as providers, but there hasn't really -- I guess, CAPP's first attempt would be the review they did of the BST and the BST-R to actually review the

Page 94

courses and to do some form of accreditation, but it's not -- what it was, just basically a review of the course.

EARLE, Q.C.:

Q. It's essentially the customer coming in and saying this product is acceptable to us?

MR. RUTHERFORD:

A. Absolutely, yeah.

EARLE, Q.C.:

Q. Now Ms. Fagan asked you about the helicopter landing officer training, and it's good to see that the Inquiry Counsel are finally talking to the same people I'm talking to. In respect of the helicopter landing officer, as I understand it, the course was shorten from two days to one day?

MR. RUTHERFORD:

A. I believe it's 14 hours to 8 hours.

MR. DOHEY:

A. Yes, that's correct.

EARLE, Q.C.:

Q. Which is, for all intents and purposes, two days to one, and that was initiated by Marine Institute?

MR. RUTHERFORD:

A. It was. We review our courses and sometimes

Page 95

we'll recommend a course is extended and sometimes we recommend that it's shortened, yes. We did recommend that, yes.

EARLE, Q.C.:

Q. Now I understand that the length of the course in the UK is four days.

MR. DOHEY:

A. Two days.

EARLE, Q.C.:

Q. Two days?

MR. DOHEY:

A. Yes.

EARLE, Q.C.:

Q. And what about off the coast of Africa?

MR. DOHEY:

A. Off the coast of Africa -- it depends on who the operator is.

EARLE, Q.C.:

Q. Okay. So did you actually make the change request or was this a request formally that came from the committee?

MR. RUTHERFORD:

A. We made the change request and it was submitted to the committee for their December, 2008, meeting.

EARLE, Q.C.:

Page 96

Q. And in terms of this going back to the Occupational Health and Safety Committees, you just take the "say so" that that's been done, do you?

MR. RUTHERFORD:

A. Yeah, we do. That's the process we have, is to take it from the Training Qualifications Committee and to get their approval before we move ahead. That's the system we currently have at the moment, yes.

EARLE, Q.C.:

Q. And it's your understanding, is it, that any change under the -- I think it's a Standards and Qualifications Committee, actually.

MR. RUTHERFORD:

A. Uh-hm.

EARLE, Q.C.:

Q. That that also has to be approved by C-NLOPB?

MR. RUTHERFORD:

A. Changes are ratified by the C-NLOPB. The C-NLOPB sits as part of that committee, yes.

EARLE, Q.C.:

Q. Yes, and you're on that committee by invitation?

MR. RUTHERFORD:

A. That is true. We're not formally recognized

Page 97

within the Terms of Reference of the committee, no.

EARLE, Q.C.:

Q. Can you see any difficulty in the body that is requesting the change and the body that probably has the large bulk of the expertise, albeit being by invitation, being on the approval committee?

MR. RUTHERFORD:

A. Not at all. I think any of the committee members or anybody can request a change. I mean, obviously, if you're going to request a change, it's something that you want, but it has to go to -- you know, the committee operates by a consensus, and so unless the rest of the committee members were to agree to it, then that change would not be implemented. So I think any of the members -- many changes take place in terms of training requirements brought to by various members and they're sitting on the committee, but the idea of the committee is there's consensus reached on whether that is an appropriate change or not.

EARLE, Q.C.:

Q. If there was an issue came up -- Ms. Fagan brought -- yes, the ice landing training, and

Page 98

your response was that no request for training had come to the Offshore Safety Survival Centre, you just hadn't heard that request, is that correct?

MR. RUTHERFORD:

A. Oh, the -- okay, I thought you meant Icelandic training. I was trying to --

EARLE, Q.C.:

Q. Icelandic?

MR. RUTHERFORD:

A. No, we haven't done that. We haven't received any request. Hasn't come to me for any request for training in ice landing, but, you know, it's something that we are certainly aware just because we're aware of the conditions, that it's something that should be looked at.

EARLE, Q.C.:

Q. And you then went on to say that you would expect such a request to come to you through the operators. You wouldn't hear that through the workers or through the Occupational Health and Safety committees, correct?

MR. RUTHERFORD:

A. Again, such a request of any change or change requirement to a course would come to us

Page 99

through CAPP and the Training Committee. So that would be the formal way we would hear about it.

EARLE, Q.C.:

Q. Given again that you're the people with the large expertise, do you see any problem with the rigidity in the way information is flowing here? That, you know, a request such as that or the idea that maybe that's a good idea has to come from the operators. Helly Hansen brings the suit in after it's been approved. You find out about the tank in the helicopter when it's in place, and so on and so forth. Do you see any room for improvement in the way information flows here about these crucial issues of safety?

MR. RUTHERFORD:

A. I certainly think there is some room for improvement and I think--I mean, one of the things, I guess, to consider is the offshore industry is growing. When it was first set up, it probably worked quite well with only one or two operators. That it was fairly--the communication lines were fairly--were there in place and it was not so much a problem. But I think as the offshore grows and as more and

Page 100

more operators come in, then I think the processes really need to be looked at and tightened up to ensure that the right people are being consulted on the right issues at the right time, yes.

EARLE, Q.C.:

Q. What sort of involvement do you have with C-NLOPB?

MR. RUTHERFORD:

A. Well, they do sit on the Training Committee, so we do meet members of the C-NLOPB at Training Committee meetings. Involvement with them, we also will meet with them occasionally to discuss issues like if we have a research proposal to put in place that we want to discuss with them, we'll meet with them on that basis, and they have the right to come in and to look at our training and our training institute and see that we're meeting regulatory requirements or their requirements. So our involvement is--you know, we have an involvement with them. It's not a direct involvement. Our direct involvement relating to training is generally through the CAPP committee.

EARLE, Q.C.:

Page 101

Q. Um-hm. With respect to the 452 suit, why is it that the suit, which after all is supposed to serve people in the water, is not used in any of the sea days?

MR. RUTHERFORD:

A. Well, there's a couple of reasons for that. I mean, the helicopter passenger suit is used within the exercise with it--that we actually utilize it, in the helicopter passenger transportation exercise, which takes place in the pool is where we utilize that suit. When we undertake the sea exercises, we're basically looking at our evacuation, mass evacuation exercise, where we utilize the immersion suit. There's another aspect to it is that the cost of the Helly Hansen suit is significantly more to service than the other suit we have. So that's another consideration. We would have to increase the price to utilize it.

The other thing is that the suit, I think, as it stood at the present time, the suit was quite uncomfortable. I think it's not as comfortable as the Fitzwright suit. We already have enough challenges in relation to our sea day exercise, making sure that people

Page 102

are reasonably comfortable and they're focusing on the training within the exercise. So we don't want to add additional stresses to that situation. So basically that's the situation we have is we utilize that suit and we've used it successfully and we manage the risks of our training utilizing a suit that we know well and works well. So number of reasons, but the primary one is that we do the helicopter passenger transportation exercise in the pool with the HUET and we utilize the suit that's associated with that exercise.

EARLE, Q.C.:

Q. Now, we know the suit is tested, as it is designed, in a salt water environment. Don't you think it would be a potential source of data and information about how these suits would perform over the long term if you were using them in your sea days?

MR. RUTHERFORD:

A. It may well be, but it wouldn't be--I think it would be probably--you'd set something like that up as a structured research project, just to ensure that we gather the information back. But you know, it may well be useful, but at the present time, our role is providing

Page 103

training, use of suits and how to use suits and I think when we change equipment and utilize different equipment, we have to look at all the impacts of that change and they are impacts not only in our managing possibly a risk, it also has an impact on cost of our training.

EARLE, Q.C.:

Q. With respect to the question Ms. Fagan asked about the deploying of the supply vessel when a helicopter is about to land and I think you brought--or clarified it somewhat to indicate that this supply vessel is also equipped with a fast rescue craft and there are issues of deploying that rescue craft. Is it then your understanding that there are conditions of sea state where a helicopter would be flying, but it would not be safe to deploy the fast rescue craft?

MR. RUTHERFORD:

A. It would be unsafe to deploy a fast rescue craft in certain sea states, yes.

EARLE, Q.C.:

Q. And that these are conditions in which helicopters -

MR. RUTHERFORD:

Page 104

A. I couldn't answer whether helicopters are flying in those sea states, but I can answer you that in certain sea states, it's not safe to -

EARLE, Q.C.:

Q. And finally, I wanted to ask you about the set up that we have here versus OPTI (sic). I thought I heard you said that--and believe me, some of us down in the back did have trouble picking you out yesterday, so I'm not being cagey. That OPTI (sic) is funded by a sinvention? Was that the word you used?

MR. RUTHERFORD:

A. Are you referring to OPITO, the Offshore Petroleum Training Organization?

EARLE, Q.C.:

Q. Yes.

MR. RUTHERFORD:

A. Yeah, OPITO, they're funded through training revenues. Basically, it's a non-profit organization and they're funded--when they approve or accredit a training organization for delivery of a particular course, you pay an accreditation fee to them. You pay an annual accreditation fee to them based on the number of courses you're actually delivering.

Page 105

So every time you deliver a course, there's a certain amount of money goes back to OPITO as the accreditation agency, yes.

EARLE, Q.C.:

Q. Okay, so this is--they basically are not in a commercial market. They're a designated provider and there's a form, a funding formula in place?

MR. RUTHERFORD:

A. There is indeed, yeah. They're not commercially--they're not a commercial provider. They're a non-profit. They're set up as a non-profit organization, which is an organization fundamentally, you know.

EARLE, Q.C.:

Q. Strictly speaking, you're a non-profit organization?

MR. RUTHERFORD:

A. Not only strictly speaking, we are.

EARLE, Q.C.:

Q. Yes, and no doubt you're often -

MR. RUTHERFORD:

A. And I hear about that many times.

EARLE, Q.C.:

Q. In absolute terms, you are always a not-for-profit, but when you use that phraseology that

Page 106

they're a non-profit organization, you are differentiating them from yourselves, aren't you?

MR. RUTHERFORD:

A. Oh yeah, it's basically set up, there's--within the United Kingdom, I guess your--as with here, you see, you set yourself up as you are a company or you're set up as an independent organization which can engage in contractual aspects of various other, but it is not--it's not set up to generate profit. It's set up under certain different guidelines.

EARLE, Q.C.:

Q. Yeah. Unlike--I guess I got the acronym wrong, but unlike the UK organization, you could literally be faced with Survival Systems, Holyrood, doing exactly what you're doing and telling the oil companies, "yes, and we will do it for ten percent less"?

MR. RUTHERFORD:

A. That's absolutely true, yes.

EARLE, Q.C.:

Q. And I notice that a tremendous amount of what you said you'd like to do is tied to seeking grants and project funding from the oil

Page 107

industry.

MR. RUTHERFORD:

A. From the oil industry and/or from government or other funding agencies, but as I noted, the way we're structured is that any capital investment or any major equipment acquisition, we have to look for funding in some way, yes.

EARLE, Q.C.:

Q. Yes, and you seem to look to the oil industry for most of the time, right?

MR. RUTHERFORD:

A. I don't think that's entirely true. We would like to look to the oil industry most of the time, I think, but when we did things like spinning out our facility in Stephenville to create additional capacity so we could serve the offshore oil industry, that funding came from government, and we often look to government and various other sources for funding.

EARLE, Q.C.:

Q. You have a group of courses that are designed to cater to the offshore industry and then you have some other courses that cater to the offshore industry and other industries. For instance, I understand that a student can get

Page 108

a tanker endorsement from your organization, and that's very valuable to an organization like CanShip, which is engaged directly in the offshore industry, but that same tanker endorsement is also valuable to Kent tanker lines, the Irving company, and that sort of stuff. But in those areas where you are essentially catering to the offshore industry, what percentage of your revenue comes from that industry?

MR. RUTHERFORD:

A. The percentage of revenue we take from the offshore petroleum industry, you're saying?

EARLE, Q.C.:

Q. What percentage of your revenue -

MR. RUTHERFORD:

A. Total?

EARLE, Q.C.:

Q. - related to those areas that are strictly to the offshore, like the BST, what percentage of your revenue -

MR. RUTHERFORD:

A. Well, the percentage of revenue for courses which are delivered to the offshore industry is 100 percent of the revenue comes from the offshore industry.

Page 109

EARLE, Q.C.:
Q. So 100 percent?
MR. RUTHERFORD:
A. Yeah.
EARLE, Q.C.:
Q. So bottom line, you're sitting up here talking in front of your customers.
MR. RUTHERFORD:
A. Absolutely, yes.
EARLE, Q.C.:
Q. Now you should not take this as a personal insult, but don't you think a reasonable person might be, you know, of a view that you're, in your position, somewhat constrained in your ability to be critical of the approach that industry has taken to safety issues?
MR. RUTHERFORD:
A. It's possible. I don't constrain that easily, but -
EARLE, Q.C.:
Q. As I said, it's -
MR. RUTHERFORD:
A. - but you know, they're our clients and obviously we have to treat them with the general respect that they--and they, from where we sit, they're a good client and they

Page 110

do provide very, very--I mean, their approach to training is, I think, very proactive, generally speaking, compared to other industry sectors. So, you know, that is a fair comment, I think.
EARLE, Q.C.:
Q. And the UK system, and you've criticized it because you feel that they're risk overt to a point of fault. The UK system of funding does, and reporting to government, that doesn't eliminate that issue, does it?
MR. RUTHERFORD:
A. It does provide an additional independence of the training provider from the industry. It doesn't mean the training provider can't deliver specific client request courses to industry, but in terms of the general base line training or the training standards, it is maintained independent of the direct involvement of the operator, yes.
EARLE, Q.C.:
Q. Thank you very much, Mr. Rutherford, Mr. Dohey and Mr. Harvey.
MR. RUTHERFORD:
A. Thank you.
COMMISSIONER:

Page 111

Q. Now the next on the list, Mr. Martin, would be you as counsel for the families.
MR. ROBERT RUTHERFORD, MR. GREGORY HARVEY, MR. PATRICK DOHEY - EXAMINATION BY MR. JAMIE MARTIN
MR. MARTIN:
Q. Thank you, Mr. Commissioner. Good afternoon, gentlemen. As Commissioner Wells indicated, I represent the families of several of the deceased passengers of the March '09 Cougar helicopter crash, and I guess fortunately following Mr. Earle, he's covered some of the areas that I was proposing to cover, and I certainly won't duplicate in that area. So I really have about four or five lines of questioning and four or five topics that I just want to get--seek clarification on or seek an answer for the first time.
The first point that I want to raise with you, and I want to just focus on the sea days for a minute, and in particular the question that Ms. Fagan asked you yesterday about Mr. Decker's evidence about seeking exemptions. His evidence, I believe, was that because of the weather conditions at the time, he was--he got an exemption from the formal sea day component of the program. You clarified that

Page 112

and said it was deferral and that I think it was 90 days he had to--or that person, whoever is most affected, whoever is directly affected, would have to try to do the course again. Is that correct?
MR. RUTHERFORD:
A. That is correct, yes.
MR. MARTIN:
Q. Okay. Now is the--and you've indicated, I believe, in your evidence yesterday that there was approximately 20 training sessions per year that get postponed because of weather.
MR. RUTHERFORD:
A. Yeah, there is from year to year, depending on the weather conditions. As we know, offshore Newfoundland can be quite variable, but we do tend to--there's at least ten percent of our exercises get cancelled or postponed and it can be as high as 15 percent.
MR. MARTIN:
Q. So are you saying then that there's never an exemption? There's always a deferral? What I'm dealing with is if that person who had to be deferred the first time also had to be deferred the second or third time, do you at any time ever grant an exemption from that

Page 113

particular piece?
MR. RUTHERFORD:
A. We're not permitted to grant exemptions. They have to come back and do their sea day training and we work very, very hard to get people back in again to ensure that they get their sea day.
MR. MARTIN:
Q. Okay.
MR. RUTHERFORD:
A. We will--in the event we can't do it within the 90 days, if people have registered, we'll let the Board know and we will bring them back--it's very rare. We bring people back and we'll get them through in their 90 days, because they're aware that if they don't come back in and do that, they've got to redo the course. So that's what we're allowed to do.
MR. MARTIN:
Q. Okay. My next line of questioning, and just very briefly, you alluded to first aid training yesterday and indicated that that's not a responsibility of your Centre.
MR. RUTHERFORD:
A. I don't think -
MR. MARTIN:

Page 114

Q. Or did I--maybe I mistook -
MR. RUTHERFORD:
A. I don't think. No, we provide first aid training. It's not--the first aid training is not included in the basic survival training. So we can provide a whole range of first aid training and we do provide a whole range of first aid training.
MR. MARTIN:
Q. Oh, you do. I had understood that that was separately contracted for with the operators. It's not, is it?
MR. RUTHERFORD:
A. Well, the operators can go to anyone. There are a number of providers of first aid training. So they can go to--there are other providers providing it, but they can certainly come to us for it, yes.
MR. MARTIN:
Q. It is a component of your program?
MR. RUTHERFORD:
A. We have first aid training on our courses, yes.
MR. MARTIN:
Q. I just wanted to clarify that. The third issue I just want to touch on is the

Page 115

maintenance of your suits. You referred yesterday to the transportation passenger suits, in response to your questions from Ms. Fagan, and you have indicated that approximately $350,000 a year is dedicated to that as part of a blanket order. I think you referred to the term "blanket order" and you draw down on that?
MR. RUTHERFORD:
A. Yeah, it's a standing--yeah, a standing offer, we have.
MR. MARTIN:
Q. A standing offer with Helly Hansen, is that correct?
MR. RUTHERFORD:
A. Yeah, yeah.
MR. MARTIN:
Q. And how is that number determined? I mean, do you base it on the amount of training that you anticipate in any given year? Because you did indicate that you maintain your suits after every use.
MR. RUTHERFORD:
A. Yeah. Every year, we're required by our contracting procedures to go out and rebid all service contracts and the situation of someone

Page 116

like Helly Hansen who are the sole source supplier, we don't have--we don't bid it, but we all go out for a quotation every year, and what we'll do in that situation, we will provide an estimate of what we expect to utilize during the course of the year. They will provide the fees for all the aspects of the service and as the year goes on, we draw down so that once--every time a suit gets serviced, we'll just raise sort of a mini contract that goes away and comes back and it draws down on that figure.
MR. MARTIN:
Q. And do you normally draw down the full amount every year? I'm just wondering.
MR. RUTHERFORD:
A. It will depend. Generally speaking, on the training activity, I think quite possibly this year we may involve additional cost on the passenger transportation suit because of the additional HUEBA courses we've put in, which we weren't anticipating at the beginning of the year. So in that case, we'll make a contract modification. But generally speaking, we've been in this business, you know, a number of years, we're usually pretty

Page 117

close in terms of where we are.
MR. MARTIN:
Q. And if you're not close, where do you get the money from?
MR. RUTHERFORD:
A. Well, if we're not close, we have to raise a variation order, and so that money that pays-- this is all, it comes from training revenues. So this is where we are. We're cost recovery. The training revenues come in and the money goes out to pay, you know, our instructors' salaries. It goes out to pay consumables and it goes out to pay service companies.
MR. MARTIN:
Q. So if you had to pay more than $350,000, you can recover the cost from -
MR. RUTHERFORD:
A. Oh, it comes in, because we're doing more training, yes.
MR. MARTIN:
Q. And the immersion suit issue, I think you indicated it cost about $250,000 per year for that, maintenance of that suit? Is that correct?
MR. RUTHERFORD:
A. It's around that. We have a--we utilize the

Page 118

immersion suit both for pool exercises and for sea exercises. It is significantly cheaper, the service for that suit, yeah.
MR. MARTIN:
Q. Okay. Next line of questioning, I just want to relay a story passed on to me by one of our clients. When I was preparing for the Inquiry, I went through with several of the clients the itinerary, the agenda and who was scheduled to speak and what may have been the anticipated evidence at the time, and of particular interest to one individual in relation to your institute was--and I indicated to them that you would likely be covering general issues associated with training, your relationship with the operator, your relationship with the regulator and whatnot. But this particular individual indicated that her deceased husband was, you know, really, really frightened by the process of the training that you provide. No reflection on the Institute, but just it was a very--I think her words were, you know, it was a terrifying experience. He found it somewhat difficult, and I think that's consistent with what you were saying yesterday, and I know Mr.

Page 119

Harvey was saying today where he talked about people were confused and they were--when they do some of that HUET training and I think the word that she used was stressed. He would really get stressed over that, and I think that was a word that you used, Mr. Rutherford, as well.
What I'm getting at is what input do you receive from your--from the end users, the people who actually go on the rigs every day, in terms of understanding where they're coming from in terms of the stresses that they experience? Do you do evaluations? Do you encourage the people to be forthright in telling you or the Institute what problems, if any, they're experiencing with the training? I just want to get a better idea as to--you know, because they're separated. They're not part of the Training and Qualifications Committee and you're not either, and they're-- so what processes are available to them to make sure that their concerns, if any, are registered with you and if so, what do you do about it?
MR. RUTHERFORD:
A. I'll respond to that and then I'll pass over

Page 120

to my two instructors. I think it's a question that they may also want to respond to. The issue of the type of training that we do is the people that come into our training centre are widely, widely different in terms of some people can breathe through the training, they find it very, very easy. Other people are very, very highly stressed by what we do. That's one of the reasons why, you know, we take the training, we take it in very--you know, in slow steps to try and accommodate the people that are having problems and our approach in the event, particularly of basic survival training and the training where people are responsible fundamentally for themselves, is to if people do have problems with it, we will work with them. We'll have-- instructors will stay late and work with them. If we have people who have particular problems, we will bring them back individually and again, we'll work with them to go through this, because there is--it is a requirement that they complete all the exercises and complete the training. So we have to get that through. We do have--you know, occasionally there's people that will

Page 121

self select and decide that, you know, "this is not for me. This job is not for me. The stress is too high. We just don't want to do this" and there's people occasionally that we will say, you know, "this job is not for you. Don't do this" and we will not issue a certificate. So we will work with them.

So the information that the instructors, they will work closely with the instructors. They'll feedback information on this. They have an opportunity, there's an evaluation form which they will complete and they'll indicate those. Those sort of issues will come to us. We have a committee in house. We will look at that, as well as--so the feedback comes to us, if there are issues, but I think that's fundamentally, you know, is why we are where we're at. We've been in this business a number of years and we take that feedback and we try and push the envelope as far as we can without putting too much stress onto the individual. So yeah, I'll pass over, I think Greg might want to talk about that.

MR. HARVEY:

A. Yes. Certainly in particular to the HUET training, I guess, water work in general, but

Page 122

in particular, the HUET training, it's certainly not unusual for have a student come just prior to the exercise and maybe express that they haven't slept that night or in the last couple of nights, just for fear of doing the HUET. I think in some cases, it's fear of the unknown. So we would see that--I would see that more as an instructor in the BST course, where they haven't been through it before, as opposed to the recurrent course where they've been through it before and they've practised it, and maybe they're feeling a little more comfortable coming in, but it certainly is an issue for a lot of the students.

MR. MARTIN:

Q. If, for example, though some of the concerns raised were in terms of comfort level of suits or the practicality of wearing gloves and they registered these concerns to you at the training level, what, if anything, do you do in terms of dealing with the operators, dealing with the regulator? Is there any formal processes in place that you take their concerns and pass them along to the people who--you know, I'm thinking about that

Page 123

Training and Qualifications Committee, which you are an invitee on, do you do anything about that? Do you take these concerns one step further?

MR. RUTHERFORD:

A. The students also, not only do they provide us with an evaluation form on training, but I know that all of the operators, they also provide all of the operators with an evaluation. So I will get calls maybe that an operator will get in touch with me and say "we're having problems. Is this an issue?" So there is--whilst there's not necessarily a formal process, it certainly does take place. Recognize also that the same training that we deliver, the operators, their HSE people also come through this training and their management also come through this training. So when they come through, they become--you know, that sort of dialogue can take place, "we're having issues with this particular"--but -

MR. MARTIN:

Q. But who would you typically deal with? Because, you know, in response to Mr. Earle's questions, you know, he alluded to you're

Page 124

talking to Helly Hansen after the suit has been recommended. You're all of a sudden on this committee, this Training and Qualifications Committee in 2005. I assume that had to do with the underwater breathing device.

MR. RUTHERFORD:

A. Well, I don't -

MR. MARTIN:

Q. So how do you get the input received into a manageable form, in terms of dealing with the people who are actually making the decisions? That's--you know, do you deal with the operator? Do you phone up the operator? Do you phone up the regulator? Do you phone up the representative here for CAPP? I mean, what typically--if there's a legitimate concern raised by a person who's undergoing your training, where do you take it?

MR. RUTHERFORD:

A. Well, with a piece of equipment such as the suit, I mean, generally speaking, our first line of communication will be to the supplier of that equipment, because they're our--you know, we are their contractor. They're our supplier. So we can go back to them and say

Page 125

there's issues here. So we would have direct dialogue with our supplier, but the other issues, if there's other things, they go out to industry. Industry, the HSE people within industry are fully well aware of this and in an instance such as the suit, I think the C-NLOPB also become aware of it, and what will tend to happen is if there's an issue that does rise such as this, the industry will come in to our Centre and have a look to see it for themselves. The C-NLOPB will come in and see for themselves. So you know, that sort of dialogue takes place. There's nothing in form of a structured system whereby we report specific issues that relate to a specific piece of equipment, other than, you know, for something that was a safety issue for us, in terms of delivering our course. If we had a piece of equipment that was being provided to us and we considered it to be a safety issue for us to deliver that course using that piece of equipment, then that would go directly to the operator.

MR. MARTIN:

Q. Now I'll conclude on this point, and I think I will conclude my questioning for the

Page 126

proceeding. I just want to focus for a moment on issues relating to the length of the course, and I'm talking about your basic survival course, your refresher course and your one-day course, and I know you put up a slide, and I'm not asking that you put it up now, but it was slide 43 where you'd looked at an international comparison and you indicated that, in terms of the duration of your programs and the period of time that you had to seek renewal of that certificate are, you know, marginally better than Norway and the UK and that you're, generally speaking, relatively satisfied with the length of the course and the renewal of the certificate. However, there were times in your evidence and in response to questions from Mr. Earle and in response to some questions from Ms. Fagan, that you--it's something that, you know, you might want to look at at some point in time, and what I'm trying to determine is have you had any discussions with the operators on those particular issues? Because there's undoubtedly going to be a cost associated with if you increase the length of the training or if you cause an individual to come back

Page 127

earlier than three years to seek renewal, but are those issues that are under active consideration, in terms of assessing whether they're good or bad for the industry?

MR. RUTHERFORD:

A. They're issues -

MR. MARTIN:

Q. And the users, in particular.

MR. RUTHERFORD:

A. Yeah, I mean, they're issues that come to the table quite frequently and I think when CAPP did their presentation, they mentioned they did a survey of all the users relating to training, training frequency and the responses came back fairly mixed. Some people wanted to increase frequency, increase length. Other people wanted to reduce it. Generally speaking, I don't think there was any consensus that everybody--people wanted to necessarily increase the frequency of training. I think it was a little bit the other way. So that went out through CAPP to industry, but it's still something that comes up. Industry will bring that to the table. I think, certainly, the C-NLOPB certainly and the C-NSOPB here in eastern Canada have been

Page 128

very resistant to the change to extending the period from three to four years. There's been a lot of pressure from certain quarters to do that, but they have actually resisted that because they feel that the frequency is appropriate as it stands.

MR. MARTIN:

Q. Now in terms of the--where does that get formally discussed? You have a Training and Qualifications Committee, again, which you're an invitee, consisting of the drilling contractors, consists of CAPP and it consists of the operators, if my memory serves me correct. You're only invited to that meeting as requested.

MR. RUTHERFORD:

A. Well, no, we have a standing invitation.

MR. MARTIN:

Q. You have a standing invitation, so--but how do you become aware that there's an issue? I mean, do you -

MR. RUTHERFORD:

A. Well, an issue, if somebody wanted to extend or reduce that, that would be brought up at that table and discussed and, as I say, generally speaking, the pressure tended to

Page 129

look at trying to extend, reduce training, try to extend training times, but the C-NLOPB, who is the regulator, everything--every decision that's made, the Training Committee can only recommend and at the end of the day, the C-NLOPB or the C-NSOPB have to ratify those decisions and they have been resistant to any changes in that respect.

MR. MARTIN:

Q. And they're on that Training and Qualifications Committee?

MR. RUTHERFORD:

A. They're on that, yeah.

MR. MARTIN:

Q. So you say you have a standing invitation?

MR. RUTHERFORD:

A. Yeah.

MR. MARTIN:

Q. So can you just show up to a meeting and say -

MR. RUTHERFORD:

A. Well, every meeting that they have, we're invited to, yes.

MR. MARTIN:

Q. You're invited to it?

MR. RUTHERFORD:

A. Yeah.

Page 130

MR. MARTIN:

Q. Regardless of the issue?

MR. RUTHERFORD:

A. For the Training Committee, yeah. We're invited to all Training Committee meetings, yes.

MR. MARTIN:

Q. Well then, that begs the question, why wouldn't you be just formally part of the committee?

MR. RUTHERFORD:

A. The committee was structured, basically it was structured as an operator committee. It may well be that there's a change to the--that, you know, there may well be a change made to the Terms of Reference, but as the Terms of Reference stand at the moment, we're not formally part of the Terms of Reference, but I don't think--the only difference it makes really is that we're not ostensibly a voting member of the committee, you know.

MR. MARTIN:

Q. But would an approval of that suit have been looked at by that Training and Qualifications Committee?

MR. RUTHERFORD:

Page 131

A. The suit, that would come under the Safety Committee.

MR. MARTIN:

Q. It wouldn't have been looked at by that Training and Qualifications Committee?

MR. RUTHERFORD:

A. No. No, the Training and Qualifications Committee, the role of that is to look at the training and qualifications standard, that document that guides us, and I think I showed in my evidence and CAPP showed. It's the standard practice. So pieces of equipment, et cetera, do not fall under that committee, no.

MR. MARTIN:

Q. Those are my questions. Thank you very much.

COMMISSIONER:

Q. Thank you, Mr. Martin. Too late for you to start now, Ms. O'Brien, so we'll resume at 2:00.

(LUNCH BREAK)

COMMISSIONER:

Q. Okay, Ms. O'Brien.

MR. ROBERT RUTHERFORD, MR. GREGORY HARVEY, MR. PATRICK DOHEY - EXAMINATION BY MS. KATE O'BRIEN

MS. O'BRIEN:

Q. Good afternoon. Kate O'Brien, I'm here

Page 132

representing the families of both deceased flight crew. The first question I wanted to ask is does your Centre provide any training to flight crew? I mean, I know you don't license pilots, but I'm wondering do you provide any survival training to the flight crew that are operating in the Newfoundland and Labrador offshore?

MR. RUTHERFORD:

A. They come through and do a one-day HUET, the helicopter underwater escape training, and that training is basically designed--they don't do that training under any offshore regulation, but I think they do come and do the training. Every year, I think, most of the pilots come through and run through that one-day training.

MS. O'BRIEN:

Q. Okay.

MR. RUTHERFORD:

A. It's not the same as the OSI training. It only deals specifically with the HUET, helicopter underwater escape training.

MS. O'BRIEN:

Q. Okay, and who arranges--you know, who has made the arrangements for the pilots to come in and

Page 133

do that one-day HUET training?
MR. RUTHERFORD:
A. That would be arranged through Cougar, who would be in touch with our administration and they would book them in.
MS. O'BRIEN:
Q. And when did that begin? When did they start--when did Cougar start arranging that kind of training? When did their pilots start getting that training?
MR. RUTHERFORD:
A. As far as I'm aware, they've been doing it ever since they've been operating off the coast.
MS. O'BRIEN:
Q. Do they do any training for the underwater breathing apparatuses, the HUEBA?
MR. RUTHERFORD:
A. Well, they do now. Since it's been introduced, that will be part of their training, as introduction, but it wasn't prior to May.
MS. O'BRIEN:
Q. So you actually speak quite lowly.
MR. RUTHERFORD:
A. Okay.

Page 134

MS. O'BRIEN:
Q. If you could just speak up a little bit.
MR. RUTHERFORD:
A. It wasn't--I mean, it's introduced to that course. We have introduced the helicopter underwater escape breathing apparatus training into the HUET course, which they do. I should point out, that HUET course is really--it's not a course specifically developed for pilots. It's just a course that is offered. Primarily, that course is delivered to people operating in the marine industry and it's not one of the regulated courses under the CAPP guidelines, but it does cover off all aspects of HUET and helicopter underwater escape training.
MS. O'BRIEN:
Q. And did the--did you start offering the HUEBA training to the pilots at the exact same time as you started offering it to all passengers as part of the BST and the BST-R?
MR. RUTHERFORD:
A. We've included it in all of our helicopter underwater escape training now.
MS. O'BRIEN:
Q. At the same time?

Page 135

MR. RUTHERFORD:
A. Yeah, yeah.
MS. O'BRIEN:
Q. Are you aware of whether or not the pilots started using the HUEBA devices at the same time that passengers generally started using those devices?
MR. RUTHERFORD:
A. I wouldn't know when they--I don't even know now whether they actually use it in flight, but that would be best question for Cougar.
MS. O'BRIEN:
Q. Yes, okay, and you're saying they do a one-day HUET and helicopter underwater escape training, which is obviously much shorter than the five days for the basic survival training. So what elements are not taught to them that would be taught in the basic survival training that they do not get?
MR. RUTHERFORD:
A. The HUET training focuses specifically on helicopter underwater escape training and so they wouldn't cover any of the issues relating to offshore hazards. It wouldn't cover sea survival exercises. They wouldn't cover--so basically what they will do is just cover off

Page 136

everything associated with helicopter escape training.
MS. O'BRIEN:
Q. Okay. So that is how--if your helicopter goes down, how to get out of the helicopter and get to the surface. Does it include--because I'm sure as part of the basic survival training, part of what you cover, I know you called it enemies or survival or some terminology like that. You're giving people training on once you're there, hopefully out of the helicopter on the water, techniques to prolong your survival until rescue happens. Do the pilots get any of that type of training?
MR. RUTHERFORD:
A. I believe that's included in the course, but it's just within the one day. Within that one-day course they'll be covering off some aspects of that, yes.
MS. O'BRIEN:
Q. So some aspects, but less? Is that what you're saying, or do you not know?
MR. RUTHERFORD:
A. The HUET course is one that generally just focuses specifically on aspects of helicopter underwater escape and what happens after

Page 137

helicopter. So everything surrounding helicopter underwater escape would be covered in that course. That's basically what--so you know, what happens before, what happens after. It's a course--it's a general course we have that is taught to general populations. The pilots just avail of it.

MS. O'BRIEN:

Q. Okay. So to be clear, my question is in terms of the survival piece, once you get out of the helicopter, is the training for pilots--and perhaps the trainer there, Mr. Harvey, is better able to answer this question. Is the training that the pilots and copilots get the exact same as passengers get, in terms of the survival piece, once you're out of the helicopter, or is it less than what regular passengers get?

MR. HARVEY:

A. Less.

MS. O'BRIEN:

Q. Less. So I take it this course isn't developed through the--it is not developed through the Training and Qualifications Committee, no?

MR. RUTHERFORD:

Page 138

A. No, it's not.

MS. O'BRIEN:

Q. Who is it developed by?

MR. RUTHERFORD:

A. This is just a course we have on our standard course list. Generally speaking, this course was developed for--primarily for people in the marine industry who are involved in transportation to and from vessels. So it's people that--so very often people like tanker operators may well take advantage of this course if they're going to have people travelling on a helicopter.

MS. O'BRIEN:

Q. Has Cougar had any input into the course design?

MR. RUTHERFORD:

A. No, they haven't. All they've done is taken a course that we have on our standard course list and their pilots avail of it.

MS. O'BRIEN:

Q. I don't know if you can answer this or not, but given that pilots and copilots spend more time in helicopters than presumably anybody else, so their chance of being in a ditching operation at sea is, of course, higher than

Page 139

anybody else's, do you think that the training that they're getting, in terms of the survival training that they're getting right now, is sufficient?

MR. RUTHERFORD:

A. I think we would certainly be very happy to develop a course specifically targeted to pilots if requested. I think the pilot training, you know, they do have certain actions that they have to undertake in the event of a ditching, which others don't. So it would make some sense for them to have a specialized training course which deals specifically with their requirements. So yeah, we could certainly do that.

MS. O'BRIEN:

Q. So from that, my question I had asked was, you know, whether you felt their current level was sufficient and you've come back and said "we could certainly develop a course for them." Is what you're saying that you think that they could benefit from more training than what they're getting?

MR. RUTHERFORD:

A. What they're doing at the present time is availing of a course that was designed for

Page 140

another purpose, so yes, I would say they could certainly--courses are always much better when they're specifically designed for the purpose intended, so I would say the answer would be yes.

MS. O'BRIEN:

Q. Okay. I only really have--you've already answered my questions on the HUEBA, so I really only have two other short questions to ask and they're both sort of follow-up questions from, you know, examination that's taken place earlier and I was sort of left with questions in my own mind. So just to tie up those loose ends. One is with respect to your choice not to do inboard training in the HUET and I know you spoke at length, you explained why you choose to only train people in an outboard or window side seat. I'm wondering in the other jurisdictions that I know that you're familiar with, is anybody doing that inboard training or are all other trainers that you're aware of, you know, choosing to go the same route that you are and only doing the window side training?

MR. RUTHERFORD:

A. There are jurisdictions that are undertaking

Page 141

inboard training. Again, it comes down really, a lot of this ties into the specific configuration of our own helicopter underwater escape trainer, which is quite confined. It makes it a little bit challenging in terms of undertaking this training, but I think other jurisdictions do do this training inboard. Although how rigorous it is and whether everybody gets a chance to do inboard, I would suspect that--whilst it's available, I suspect that knowing the number of ditches that people do within their helicopter training, I would be very surprised if everybody that goes through a course gets an opportunity to sit inboard and outboard. I think it would extend the duration of the training quite significantly.

MS. O'BRIEN:

Q. Okay. Given that we now know that certainly for the current configuration of the S-92 in use that they have moved that extra--that fuel cell, the fuel tank, so now really they have effectively increased the number of inboard seats. So every flight now, there's more people sitting on inboard seats than there were previously. I'm wondering, as you're--I

Page 142

know you have said you have plans to update and looking at a new HUET and there's things that you've mentioned earlier that training you're hoping to implement. Is that something you're going to be looking at again, doing more inboard training, inboard escape training or not?

MR. RUTHERFORD:

A. We certainly will take a look at it, if we can get the helicopter underwater escape trainer that I think we are better able to manage the risk and there's less likely of people getting injured in the course of using the trainer. So I think we continue to look at all our training courses on a regular basis. If there's a way we can improve and still manage our risk, we'll certainly do that, yes.

MS. O'BRIEN:

Q. Okay. Now I'm moving now, I want to move to the amount of force to remove windows. I know that we've heard that the windows right now on the Cougar helicopters, and please correct me if I'm wrong, they have a maximum pressure of 40 pounds per square inch in order to remove them? Is that correct? You're nodding.

MR. HARVEY:

Page 143

A. That's my understanding, yes, yeah.

MS. O'BRIEN:

Q. Okay, and I assume that is in dry air, not submersed?

MR. HARVEY:

A. Yes.

MS. O'BRIEN:

Q. Okay, and do you have any idea, for your windows on your HUET, the amount of pressure that's required to remove those, when it is submersed?

MR. HARVEY:

A. No.

MS. O'BRIEN:

Q. You don't know?

MR. HARVEY:

A. We don't remove our windows with the HUET submersed.

MS. O'BRIEN:

Q. Oh. Okay, I didn't understand that. So when you guys do the training, the escape training -

MR. HARVEY:

A. Yes.

MS. O'BRIEN:

Q. - people have to push out windows, but only in

Page 144

the above water scenario?

MR. HARVEY:

A. Yes.

MS. O'BRIEN:

Q. Okay, and when they go in the below water scenario, they don't have to push out a window?

MR. HARVEY:

A. No, the windows would be out.

MS. O'BRIEN:

Q. Okay, and I am assuming, Mr. Rutherford, that's because of the added risk and risk management?

MR. RUTHERFORD:

A. Yeah, I mean, basically. It would be that, as well as the fact that generally speaking, when a helicopter--on a normal controlled ditching, it will land on the water and that is what we'd normally be providing the training for is that in a controlled ditch, you're on the water. You got moments to get that window out and then she turns over. So she's out by the time she's turned over. So yes, but it also comes down to a management of risk activity too.

MS. O'BRIEN:

Page 145

Q. Okay, and even though that we know that 60 percent, according to the stats Mr. Harvey provided, that 60 percent capsize, what you are saying is in most of those cases, there's time to get the windows out first before it rolls?

MR. RUTHERFORD:

A. All we know is that capsize can take place in 60 seconds or less, but how much time you have would--I don't know for sure.

MS. O'BRIEN:

Q. Okay. Do you know, in your HUET then for the amount of force to get your windows out above water, do you know how much force it takes?

MR. HARVEY:

A. No, I wouldn't be able to put a number on it.

MR. RUTHERFORD:

A. It's fairly--they don't just push out easily. It's a fair--it does require a significant push, because we do have indications of people having problems in getting their--you know, we have to be very careful how we teach people how to do this, because people do land up with injuries to their hands, which is--so we do--so it's fairly significant. What exactly it is, I don't know. It would depend on where

Page 146

they hit the window.

MS. O'BRIEN:

Q. So you don't know where it is compared to the 40 pounds per square inch standard that the actual helicopters are using? You don't know if yours is more difficult, less difficult?

MR. RUTHERFORD:

A. I couldn't answer that precisely, no.

MS. O'BRIEN:

Q. Okay. I assume that your HUET would come with specifications. You know, your equipment would come with specifications by the manufacturer that would include those numbers, wouldn't it?

MR. RUTHERFORD:

A. The windows were retrofitted. I don't have those numbers when they were retrofitted into the HUET, when that was done.

MS. O'BRIEN:

Q. Okay. I should explain my--you know, the reason for this line of questioning is because when I'm sitting here listening, you know, to what people have to do to put out the windows and knowing what my own upper body strength is, which is low, I have real questions whether if I was put in that situation, I

Page 147

would have any hope of banging out a window, and certainly I would think that if I was in a case where I was submerged and so, of course, not only is my own movement going to be very restricted, but also the amount of force needed to get out that window is going to be much, much higher, I wouldn't have a chance. That's the feeling I get.

MR. RUTHERFORD:

A. Again, I go back, we had to put in place a special risk management procedure on our HUET training relating to getting windows out because we had so many problems with injuries. People were--depending on how they were hitting the window, they were injuring their hands and that's a problem for us. You know, from a safety provider under the Department of Labour, we have to respond to every incident and injury and that goes back to Occupational Health and they'll come down and close us down. So we know that we're at the limit of what we can really realistically do in the training exercise, because, you know, we had injuries and we had to put in place special procedures to make sure that it's done in the right way so that we weren't injuring people.

Page 148

So that's basically what I can do, from a training provider.

MS. O'BRIEN:

Q. I do understand what you're saying, but if I could put the question more directly maybe to Mr. Harvey. Would someone my size, in a real-life situation when the--if the helicopter was submerged, knowing what the force is on the S-92A's, would I have any chance of being able to push out that window?

MR. HARVEY:

A. I'm not prepared to say you wouldn't have any chance.

MS. O'BRIEN:

Q. Sure.

MR. HARVEY:

A. But certainly I would expect it to be more difficult than it was on the surface.

MS. O'BRIEN:

Q. Okay. I mean, what I'm wondering is--and I know there's lots of stats out there for what different size people can push. I mean, those are numbers that researchers are out there collecting all the time, and I'm wondering if, you know, if there is--if the case is that in a practical situation people of a certain

Page 149

size, statistically speaking, would be highly unlikely to be able to push out the window, wouldn't it be--I would think that perhaps those people would be advised, "look, in the case of an emergency, don't waste time trying to push out your window. Look for an alternate exit," or training like that. I'm wondering are you considering those kind of things in your training?

MR. HARVEY:

A. We discuss some of those issues with the students, so even in relation to our windows. If a student did have, you know, considerable difficulty taking out our windows above the surface, then a suggestion might be made, you know, you might want to consider where you're sitting. That might include having somebody next to you that could assist in taking out the window, or you know, sitting by one of the alternate emergency exits, something of that nature, sure, yeah.

MS. O'BRIEN:

Q. Okay. So I find that encouraging that you're telling people that. Do you know if there's any follow through when those people now are at Cougar and they're, you know, about to

Page 150

board the plane, if they've been advised by the trainer "look, you're having difficulty. Try to sit yourself near an emergency exit or next to someone who's stronger," do you know whether they have the ability, in practice, to carry out your instructions? I know Mr. Decker described jostling for position in line.

MR. HARVEY:

A. No, I wouldn't be able to comment on it.

MS. O'BRIEN:

Q. Do you think, as a trainer, it would be good for people to be able to, if they knew they were going to have problems because of their size or because of whatever happened during their training, to be able to request certain seating in the helicopter?

MR. RUTHERFORD:

A. That would be going well beyond the jurisdiction of a trainer to put somebody in a particular seat and not in a particular seat. That would have to be entirely up to the individual. We can't, as a trainer, tell someone to go in a particular seat and put someone else at possible increased risk.

MS. O'BRIEN:

Page 151

Q. No, no, I understand that, but would it be--do you think it would be, you know, carrying the training into practice, is that something that if that could be implemented with Cougar or whoever is making these decisions, would that be a positive step or not?

MR. RUTHERFORD:

A. I think it would be extremely difficult to put into practice. I think if you're going to treat people--we provide people with skills, knowledge to do their training and I think after that, they really have to be treated, you know, equally and consistently. We can't get in a position of recommending that somebody sits here or somebody sits there. That's just--that's beyond our jurisdiction.

MS. O'BRIEN:

Q. Even if one of the trainers has identified during the course of the training and said to a person you should consider, because of the problems you've had, sitting next to an emergency exit?

MR. RUTHERFORD:

A. We can tell the student that they could do that, and they can request it of Cougar, but I don't think it'll be up to the training

Page 152

provider to pass that information, because it'll be highly judgmental.

MS. O'BRIEN:

Q. Okay. So you're saying you don't want to get involved in the chain of communication, but it's -

MR. RUTHERFORD:

A. Not that I don't. It would be beyond--I think it would definitely be--we would be overstepping the limits of where we can go as a training provider to do that. We can't tell people where to sit in a helicopter. We will provide people with training and tell them, you know, that--make them aware of issues that they may well have, but then it comes onto--it would be up to the individual or the company. It's not something we can do.

MS. O'BRIEN:

Q. Up to the individual to move forward with that information?

MR. RUTHERFORD:

A. Yes, indeed, yeah.

MS. O'BRIEN:

Q. Okay. Really, you know, just to clarify, I wasn't suggesting that it should be your obligation to move forward with that. I was

Page 153

just wondering whether you thought it would be worthwhile that a passenger would have an avenue to take those concerns.

MR. RUTHERFORD:

A. Yeah, I mean, if we're going to do that, we'd have to base any such recommendations on a lot more solid information, knowledge, research than we have. I mean, basically what we have is judgmental. We're dealing with human beings and human performance and you know, with an interaction between the instructor and the student, but it's not something which you can base that type of decision on, I don't believe.

MS. O'BRIEN:

Q. Okay. All right. My final question is really that this morning, Mr. Rutherford, Ms. Fagan asked you about sort of the nine-year delay between the request or the initial thought of getting the underwater breathing apparatus to its implementation. She asked you if, from your perspective, the breathing apparatus could have been implemented more quickly. That was the question she put to you, from your perspective, could it have been done more quickly than this nine years, and you gave

Page 154

her--I mean, that's a yes or no question. You gave her a very lengthy answer, but I didn't hear an answer to the question yes or no. You know, do you think it could have been done more quickly than nine years? And my next, the follow-up question to that would be are there areas that you saw--because this Commission is looking forward. So we're not changing that time, but you know, for the next time a change has to be made, you know, are there areas where you thought the process could have moved more quickly so that, you know, next time round that information can--you know, we can learn from that and do it better next time?

MR. RUTHERFORD:

A. I think as with many things in life, it's always easy to look at things in hindsight. I think, you know, and very often things that take place with the very best of intentions have the worst of outcomes. I think, looking back, it would have gone much faster, I think if there'd been wide early consultation with all stakeholders in an open forum before we moved forward, but I guess people moving forward may think that because you take in

Page 155

consultation, it's likely to extend the time for the implementation. So it's easy to look back and say something should have happened much faster, but I think people making those decisions in the first place are looking for a quick solution and very often, you get caught up in a way because you haven't had wide consultation. So it's--I think given the fact that the issues we know related to the particular type of breathing apparatus and the issues that came back during the course of the process, it would have been, you know, much better to have had those wider consultations very early in the process, but that would be my suggestion.

MS. O'BRIEN:

Q. Okay. Those are all my questions. Thank you very much.

COMMISSIONER:

Q. Thank you. Now, Mr. Hurley.

MR. ROBERT RUTHERFORD, MR. GREGORY HARVEY, MR. PATRICK DOHEY - EXAMINATION BY DAVID HURLEY, Q.C.

HURLEY, Q.C.:

Q. Thank you, Mr. Commissioner. Mr. Rutherford, to conclude your testimony before the Inquiry, I would ask you if you have any insights which

Page 156

you could provide the Inquiry on possible improvements that could be made to offshore safety?

MR. RUTHERFORD:

A. Yeah, I've got a few suggestions, and I would make the proviso that these are purely my own personal suggestions. They're not suggestions that are from my employer or the training institute as a whole. Some of the suggestions, I guess, are things that have come out of this Inquiry anyway. I just want to consolidate some of them.

Number one, I'm just going to raise the issue, and I'm going to get right back to the Ocean Ranger Report, which was another incident, you know, that caused significant change, and there was a recommendation 107 from that report which indicated "Government and industry, without delay, establish performance standards regarding evacuation systems." I just raise this one because CAPP mentioned in their testimony we now have basically just been produced, we have a draft guide of EER standards, which is at the present time, just a draft guide. I would suggest that that--one, that needs to be

Page 157

finalized as soon as possible, but also, looking through that guide, it doesn't appear to address, at this time, helicopter passenger transportation. So it might be either that gets incorporated in the guide or we have performance standards for helicopter passenger transportation--and the reason I think why this guide is important, because this provides a sort of top framework for the necessary research that's going to take place underneath. So I think we need to take a look at that guide, see if it adequately covers helicopter passenger transportation and use that as--and put that, put something in place that covers that. So that's number one.

The second one I've got, I guess, comes out of the various discussions we've had of other jurisdictions and other training jurisdictions overseas. I think it's clear to everybody that there needs to be some form of change or improvement to the way that the training activity, the oversight of training activity is provided in this sector. I think the system we have in place worked very, very well for a jurisdiction that was just starting off, growing. It provided a framework to get

Page 158

things moving. But now we're moving into a situation where we have multiple, multiple offshore installations and more and more companies moving in. I think it is worthy of looking at ways that that could be improved and I would suggest something coming out of this Inquiry might be the striking of some form of committee to look at ways that that could be improved, and I think certainly coming out of some of the issues today, it should involve--any committee should certainly involve the helicopter supplier. I think they have a very important role to play in offshore safety.

Another one, I did mention before, I just want to consolidate it. I think that as training providers, I think we--I did note that we have the opportunity to experience not only safety and survival equipment firsthand day in, day out, but we do have the opportunity to observe the trainees and see how they're responding to the sort of situations we're putting them into. So I think it's very, very important that somehow or other we set up a little bit of a better formal framework for that consultation to be

Page 159

fed back.

Another thing that might be worth looking at is some form of training provider association which not only involves, I think, training providers such as ourselves, Survival Systems, may well involve the providers such as CONA who are providing technical training, but if such a committee were set up, I think it would have some value, but it would need to be looked at and funded in some way.

Another one, I think, capacity. Keep on eye on our capacity. The industry is growing. We need to be forward planning. We are all the time responding to limits of capacity, trying to find ways to work around issues and problems. We have new offshore developments taking place and every time a new offshore development comes on, there is an increase in capacity for training requirements. So we need to be thinking about that before it happens, rather than trying to react to it in the--react to it after it's happened.

And the last thing I'd like to say is a couple of equipment items that I think we really need to take a look at. I think obviously it's been raised the issue of

Page 160

gloves. It seems to me and as it seemed to Commissioner Wells there, that they really ought to--the types of gloves that are used on immersion suits and flight suits, there's got to be a better glove, because the glove is so important to survival activity. There's so much that takes place you can't do if you haven't got dexterity of your fingers. So I think we need to look at that, in terms of a research project, probably the National Research Council or somebody to look at that. As well as face masks, I believe that we haven't really -- we've always recommended goggles in our training. They don't really interact well with the new suit. I think the face mask is something that can help to reduce this cold shock, and I think that a properly developed face mask is something we want to look at. One, you know, is it -- there's a difference of opinion whether we should have them or not. We believe we should have it, but if we do have it, we need to have a proper mask that properly integrates with the suit. I said that was the last one, but I'm going to raise one other. When new pieces of equipment, new helicopters, whatever comes

Page 161

into service, it's really, really helpful for us as a trainer provider if we get; one, the sort of information/presentation, but also, like, pieces of, you know, models that we can use in a classroom or full scale information we can use in a classroom. For instance, when a new helicopter comes into service, if we were able to get hold of, you know, a mock-up of a fuselage so we could use that in our training, which has all the exits so that we can show people exactly how these exits, specifically how they work. It's something we can look at. I think it's much easier to get that when new pieces of equipment, when contracts are put in place, and new pieces of equipment are acquired, that as part of that equipment, we also consider that somehow that piece of equipment is going to have to be trained, or somebody's going to have to be trained on it, so think about the training when the acquisition takes place. I think that's enough, I think, for me. I'll pass over to --

HURLEY, Q.C.:

Q. Unless you have some clarification, that's all I have -- all the questions I have. Thank you.

Page 162

COMMISSIONER:

Q. Thank you very much, Mr. Hurley. I'm going to ask you a few questions or discuss a few things with you. What you said just a few minutes ago to Mr. Hurley was very significant, and it came to my mind last night actually, thinking about all this, and my question is has there ever been any discussion on forming a high level committee that would involve the operators at a high level, C-NLOPB, the suppliers like Helly Hansen of the suits, and perhaps other equipment that I don't know about, and yourselves, and maybe others, so that what's happening or going to happen once proposed can be discussed with everybody having an input, and the reason I ask that question is, yes, the operators are extracting oil and they're paying for the whole process of doing so, but as I said in my opening remarks of this Commission, it's also a community thing, the whole community, Canada and Newfoundland and Labrador is involved here, and it can't be forgotten, and, therefore, it seems to me a committee of that sort, funded perhaps by a shared agreement between Governments and the oil companies, I don't know to what extent the University or Marine Science Institute could fund something like that because you reliant on government funding, aren't you, through the university, but there should be something in place, I think, so that at the highest level where safety ought to be, right up there with production, there would be input on these safety issues? That's a round about way of asking the question, but has there ever been any suggestion that anything like that could be put in place?

Page 163

MR. RUTHERFORD:

A. Not that I'm aware of, Commissioner. It's certainly -- I think it'll be a very, very valuable way forward. I think communications should never be underestimated. Communication is extremely important for anything -- these sort of activities. Everybody tends to get -- you get caught up in your own world, doing your own thing, responding to the immediate day to day requirements, and often it's really important to have some means to step back and look at the larger picture. So, yes, I'm not aware of anything, but I would say it's a good idea.

Page 164

COMMISSIONER:

Q. Okay, well, I won't belabour the point, but it has occurred to me since we started this process, remember a few years ago they used to use the word in Canada, "two solitudes" in a quite different connotation, but somehow I felt that we have here several solitudes, and I don't think that's a good thing for safety, I don't think it's a good thing for the industry or for the community in the broader sense in which this is operating. Okay, we'll leave that. Coming back to the training, your organization trained me. It took more than one day, it was most of one day, including the most extensive medical, I think, I've ever had, which is a good thing, and then until 10 o'clock one night just about, and then a full morning the next morning discussing with a very knowledgeable lady ever so many aspects of safety, so that in a sense it was more than a day, but it was very valuable. I'm going to say that, you know, right up front. Coming to the actual business of the training -- all the discussion and lecture, if you like, because it was interactive, I thought was valuable, it

Page 165

opened new doors in my thinking. Coming to the actual training to get out of the helicopter, well, first there was the HUEBA or -- I want to say HUEBA, but --

MR. RUTHERFORD:

A. Yeah, that's what I say.

COMMISSIONER:

Q. Okay, the HUEBA, or HUEBA, had not long been introduced, so we were given some training in that, but we didn't use that in the mock-up of the helicopter, but I thought, and I still think, that the HUEBA is a most valuable thing, it's overdue, and that couple of minutes that you can get out of that could save your life. Is that a fair statement?

MR. RUTHERFORD:

A. It's a fair statement, yes.

COMMISSIONER:

Q. Okay. The window, one of the first things I was told was that, you know -- I was on the left hand side, so it would have been this way, to knock out the window by hitting it in the corner. When I hit it hard, that was the last I saw of it. I don't know if the window survived, but I haven't had a bill for it, at any rate, but that was no problem and the

Page 166

instruction was as soon as the helicopter dropped, the mock-up dropped and hit the water, you did that. The big surprise that nobody mentioned to me was how quickly the water comes up. It's almost instantaneous. I hardly had time -- didn't have time really to take a breath, and I remember reading a report since I've been involved in this for a US Navy helicopter pilot who described going into the water, and he said the effect when the windshield, if you like, was knocked out, was like being hit in the chest with a fire hose, and so even in the controlled conditions of the pool, that was quite a shock, how quickly the water -- the second time around, it wasn't a shock, I got a good deep breath and had no problem, but the hand hold on the window ledge was absolutely essential, in my mind. If I had not obeyed that instruction, you know, somebody would have had to pull me out probably. That is vitally important. As far as the suit is concerned, they said to me, whoever was there at the time, you probably take a medium. In fact, I should have taken a large because I was constricted in movement in the suit that I had, but I have to say that

Page 167

water poured into it, and afterwards thinking about that, I said to myself, well, the Training Centre, you know, has got a lot of suits and they get a lot of wear and perhaps I shouldn't be surprised that it leaked, but I was surprised yesterday to hear you say that they go back to Helly Hansen after every use, but the water poured into my suit and there was no question of air lifting my legs up, quite the contrary, because the suit was already pretty well full of water, you know. The other thing, I guess, this is to you, Mr. Harvey, I really enjoyed your presentation, as I did yours, Mr. Rutherford, I do take issue with you on one thing, and you're the expert, I'm not, but I don't believe the summer water off Newfoundland east coast ever gets up to 15 degrees. You may be right, and I'll admit it if I -- I take a lot of convincing on that. I really do believe our conditions are as bad as you're going to get for all this purpose anywhere, you know. Anyway, coming back to the training -- what was it I wanted to mention. I made a note here. Oh, yes, the air in the suits. Now you have a thing on top of your hood that is supposed to automatically

Page 168

bleed the air out, but if you go in, you can expect to turn over, I mean, the statistics prove that, don't they?

MR. HARVEY:

A. Yes.

COMMISSIONER:

Q. So then your legs and feet and the heavy boots, or the big boots, are up, so that the air that's trapped in them is up in the -- is up, it's not down, and then it's not until you get out that the air can bleed out through the top, as I see it. So when Mr. Decker said that when he was coming up, the air was coming, you know, in his face, it makes sense. Would you say that make sense?

MR. HARVEY:

A. I'd agree with that.

COMMISSIONER:

Q. Yeah, yeah, because my Inquiry Counsel, Ms. Fagan, did the training. Now I was so full of water that my feet didn't go up, you know, when holding onto the window, but in her case, I hope she doesn't mind my telling you this, her feet went up to the ceiling because of air trapped in the suit, and the other thing that I never quite understood why the immersion

Page 169

suit, the very name of it, is immersed, the wearer is immersed in water, an immersion suit, why that couldn't be used or adapted for use in the flight in the helicopter because I'm told that immersion suits can keep a person dry and fairly comfortable for a fairly -- for a lengthy period, long enough to be rescued, put it that way. Would you like to talk about that?

MR. HARVEY:

A. Well, first of all, you know, when we wear the immersion suit, we're not under water with it. I suspect if you took the same immersion suit and put it in the HUET, you would have been just as wet, if not wetter, because it still doesn't have a continuous seal, it still has the split seal. The other issue is with the immersion suit, when you -- if you would have used it, the gloves would have been on. Before you went in the water, the gloves would have been on, and they're an important feature for getting the seal around the other opening in the suit because the face seal is the biggest opening. The next openings are your wrist seals. By putting the gloves on, those wrist seals are closed up. So the likelihood

Page 170

of getting water in is pretty well eliminated with the immersion suit. With the flight suit, we don't put those gloves on until after you're out and on the surface, and by that time, you know, there's an opportunity for water to get in through those seals.

COMMISSIONER:

Q. I see.

MR. HARVEY:

A. So I don't think it's fair to say that, you know, the immersion suit would be better. We're doing different things with it.

COMMISSIONER:

Q. So it's a compromise really, isn't it, or is it?

MR. HARVEY:

A. I'm not sure --

COMMISSIONER:

Q. Well, the flight suit?

MR. RUTHERFORD:

A. The flight suit is designed for multipurpose, but the particular Helly Hansen suit that was in place, the 452, was actually tested above standard, so it may be that -- obviously, the standards need to be looked at. One of the issues in the standard in terms of water

Page 171

immersion, they require, and I'm going this from memory, is that as it stands at the moment, you do a three metre jump in the water, the water that's contained that you gather in the suit of that is taken, and you do a 1000 to 1200 metre swim on your back for an hour. A number of people do all this and the water that's taken in that is measured, and the formula that takes the amount of water in the current standard is the amount of water from that three metre jump, added to three times the amount of water you gain in the swim, and that's what used in the thermal testing of the suit. So there is -- I think when I looked at Helly Hansen's presentation, they were looking at about around half a litre of water. So the thermal testing of the suit assumes a certain amount of water. The challenge is that that three metre jump is probably, when you're dealing with a helicopter incident where you're being forced under water, you're being turned upside down, that's probably not an appropriate standard to test a suit to, I suspect. So that's something that needs to be looked at, and I believe that's one of the things they're

Page 172

looking at in the standards at the present time.

COMMISSIONER:

Q. I see. Okay, then the other thing that was mentioned by one of you this morning was this business of rescue craft and fast rescue craft. Does it make sense on that route, which at the moment to Hibernia which is the nearest platform is, I think, 315 kilometres, if I remember correctly, is there a role for sea borne rescue in all of this, along with, of course, first responders?

MR. RUTHERFORD:

A. Yeah, I -- the approach that BP took up in the Hebrides when they were looking at a number of platforms sort of widely dispersed, was to provide the appropriate response for helicopters transiting, taking off, landing, transiting between installations, was to come up with a combination approach. So you've got a helicopter as a search and rescue available, but certainly in the area perhaps up in the Grand Banks, to have a very highly capable craft that's capable of getting people out of the water, capable of operating in the very severe states that we've got, I think

Page 173

certainly a combination, I feel, would be very, very, very valuable, and it may also be valuable to have a combination take place even in the coastal, so if you got a craft that can move 30 knots, you know, in very high, several metre sea states, which basically they can, then you have a craft that -- you can get quite a distance. If you know where the helicopter is transiting, you might have a possibility of getting there well before a helicopter gets on -- you know, depending where the incident takes place. So I think all those things are things that we need to look at in the bigger picture, what is out there, what sort of assets are available for rescue support, what makes most sense from a cost perspective and from the perspective of actually being capable of responding to particular situations, I think is certainly worth investigating.

COMMISSIONER:

Q. When really listening to you, it comes back again to this concept of the high level group in which all the disciplines are represented dealing and discussing and analysing these approaches.

Page 174

MR. RUTHERFORD:

A. And again going way back again to the Ocean Ranger Report where they're talking about integration of search and rescue and the various support -- I mean, the only way you could integrate support is really to have everybody who is involved or every stakeholder dialoguing, putting the information on the table, figuring out what is the best way to pull all this together. So, yes, I would agree.

COMMISSIONER:

Q. Okay, thank you, and I hope, you know, and I'm speaking now to the representatives of the industry, that this discussion on such a committee to examine things, I'd like a reaction and I'm sure I will get it from the industry on something like that because it seems to me, as a newcomer to the safety thing in the offshore, that it would be -- that it could be a very, very useful approach that would involve all of the stakeholders, including the union, and representatives of the workers, because a lot of good things can come out of that sort of discussion, I feel, and the other thing is, you know, coming back

Page 175

to my original remarks when this process started back on the 19th of October, if I remember the date correctly, and I was saying this is a collaborative effort, in my mind it should be very much a collaborative effort, we're not seeking to rectify anything in the past, but we're prospective, we're looking toward the future, and, you know, I notice that the representatives of the industry are here with their counsel, but you all have taken very little part so far, and I would hope that you would rethink that approach because you have so much knowledge and background and skills in a thing like survival training and the suits, which are very much part of the industry's role, and I would very much appreciate what I refer to and offered as the collaborative approach and I know that you will have things to say sooner or later, but perhaps consider sooner in the form of questions and bringing things to my attention and things to Inquiry Counsel's attention that we can work on. I hope you don't mind my bringing that to your attention. Okay, is there anything else this afternoon?

MR. SPENCER:

Page 176

Q. Mr. Commissioner, in the spirit of your last comment, you had some questions about water going into your suit during the training.

COMMISSIONER:

Q. Yes.

MR. SPENCER:

Q. I'm wondering if I could ask just a couple of follow-up questions?

COMMISSIONER:

Q. Absolutely.

MR. SPENCER:

Q. Which might help shed some light on that.

COMMISSIONER:

Q. Yes, absolutely.

MR. SPENCER:

Q. And I don't mean to belabour the point, Mr. Commissioner.

COMMISSIONER:

Q. No, no, no, it's -- well, you heard what I just said.

MR. SPENCER:

Q. Yes, I did, and there are a couple things I'd like to explore with Mr. Rutherford, if I could.

COMMISSIONER:

Q. Yes.

Page 177

ROBERT RUTHERFORD, PATRICK HARVEY, PATRICK DOHEY - EXAMINATION BY MR. SPENCER:

MR. SPENCER:

Q. I thought I had heard you say earlier today, or perhaps it was yesterday, that the suits are subject to heavy use in chlorinated water, and can you explain what you meant by that?

MR. RUTHERFORD:

A. Yeah, the suits are used day in and day out in chlorinated water, but what happens we do send them back for servicing after every use. If the -- the chlorinated water can cause deterioration in the cuffs and various other things on the suits.

MR. SPENCER:

Q. Yes.

MR. RUTHERFORD:

A. But the intent of us sending back to the service agent, it would be that, you know, you would identify something that has gone outside of the specifications, so in the event it has gone out of specification, it gets replaced. That's what we have it in our contact for replacing that.

MR. SPENCER:

Q. Before I go on, I've been asked to identify

Page 178

myself. I am Geoffrey Spencer, I'm the solicitor for Helly Hansen.

MR. RUTHERFORD:

A. Yeah.

MR. SPENCER:

Q. I know the suits are sent for servicing by Helly Hansen after usage. On the back of each suit, you said there's "training" written on each suit, is that correct?

MR. RUTHERFORD:

A. That is correct, yes.

MR. SPENCER:

Q. So after the suits are serviced by Helly Hansen, the same suits are returned to you?

MR. RUTHERFORD:

A. That's right, yes.

MR. SPENCER:

Q. So you have one pool of training suits that are used specifically for training and nothing else?

MR. RUTHERFORD:

A. We only use suits for training purposes, yes.

MR. SPENCER:

Q. And when you say they're used in heavy use, is it fair to say that these suits take, I guess, a bit more abuse than they normally would in

Page 179

terms of in the training process, they're subject to repeated dunking into the pool?

MR. RUTHERFORD:

A. They do -- in the usage, yes, we certainly will be dunking people many times, particularly when we're doing the helicopter underwater escape breathing apparatus training. People are under water for extended period of time. So there is -- that is one of the -- you are going to take in water in those suits. I don't think there's any question about that. Now whether -- that's very hard -- that's what makes it hard for us as a training institution to say this suit is good or this suit is bad because those suits will take on water. In the course of the training that we provide, water will be taken in, so, you know, that's just the way they are.

MR. SPENCER:

Q. Yes, because people take -- people have to do repeated dunkings into the pool and have to stay underwater for a specific period of time?

MR. RUTHERFORD:

A. Yeah, the only thing we can reliably say as a training institution, if we can do all those exercises and they take on no water, we can

Page 180

tell you that that suit is tight and it's a secure suit. If we do particular exercises and we take on water, we can't tell you whether that suit meets the necessary standards or not, that has to be done under research conditions. We can tell you -- all we can tell you is, you know, during training that suit is taking on water.

MR. SPENCER:

Q. Sure, and I think -- did I understand you to say as well yesterday that you're not concerned with personal fittings of these suits in terms of you're not concerned with making sure everyone has a tight fitting suit, you just have a rack of suits that they choose from?

MR. RUTHERFORD:

A. It's not that we're not concerned. The practicalities of a training institution, I have a limited a number of suits and we have a very large number of people, so what we have to do is to basically find a reasonable size suit that allows a person to undertake the training exercises. People in training are not being exposed to the risk of hypothermia, so there's no real -- the only reason we have

Page 181

the suit is basically to provide training on the use, what it looks like, how to put it on, et cetera, et cetera. So we will try and find a reasonable size suit, but it won't be a precise size suit, no.

MR. SPENCER:

Q. Okay. So with all these factors in mind, I guess, the fact that a suit may take on water during a training exercise isn't necessarily indicative of whether it would take on water during an actual scenario?

MR. RUTHERFORD:

A. It's not -- I mean, it's indicative that it will take on some water during an actual scenario, but whether that water will exceed what the test standard of that suit is, I wouldn't be able to tell you, but if we're taking on some water in training, then I would say it's pretty indicative in real service, you will take on some water, but the standard allows for taking on some water.

MR. SPENCER:

Q. Sure.

MR. RUTHERFORD:

A. So that's all we can say.

MR. SPENCER:

Page 182

Q. That's right, and this suit passed those thermal standards during its testing?

MR. RUTHERFORD:

A. That suit has passed standards, is my understanding, yes.

MR. SPENCER:

Q. Okay, those are my comments, Mr. Commissioner.

COMMISSIONER:

Q. Okay, thank you, Mr. Spencer. Well, ladies and gentlemen, in light of the discussion, is there anybody that would like to ask any follow-up questions. No, okay then, thank you. We'll adjourn now to tomorrow morning at 9:30.

ROIL, Q.C.:

Q. Commissioner, a small housekeeping detail and perhaps for the members of the public who would not be aware, tomorrow we have two presenters. We have Williams Parsons, who is a retired labour leader, who will be doing a presentation in the morning, and then we have Jack Harris, MP, who will be doing a presentation in the afternoon. Mr. Parsons will be here at 10 o'clock tomorrow morning rather than at 9:30. That was a little secret that he and I apparently held, which we

Page 183

shouldn't have held, but in any event, he will have lots of time to be able to present his brief. It's a short brief. It's already on the file bridge system for those that are in the room to access. Mr. Harris has not provided me with a brief, but he'll be in at 2 o'clock, he tells me. He's flying in from Ottawa tomorrow morning.

COMMISSIONER:

Q. I see. Okay, then, thank you. So 10 o'clock tomorrow morning.

ADJOURNED TO NOVEMBER 25, 2009 AT 10 AM

Page 184

CERTIFICATE

We, the undersigned, do hereby certify that the foregoing is a true and correct transcript of a hearing heard on the 24th day of November, 2009 at Tara Place, 31 Peet Street, Suite 213, St. John's Newfoundland and Labrador and was transcribed by us to the best of our ability by means of a sound apparatus.

Dated at St. John's, NL this
24th day of November, 2009
Cindy Sooley
Discoveries Unlimited Inc.
Judy Moss
Discoveries Unlimited Inc.

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