

Offshore Helicopter Safety Inquiry**CAPP Response, December 2009, to Undertaking to Mr. Earle****Transcript November 16, 2009 page 251 lines 11-18****Re: HUEBA Meeting Minutes of CAPP Atlantic Canada Safety Committee and CAPP HUEBA Task Force**

At transcript November 17, 2009 page 251 lines 11-18 Mr. Earle asked for the following:

ROIL, Q.C.:

*12 Q. Just so I understand, Mr. Earle, it's from
13 2000 to 2004 you're looking for the minutes of
14 the safety committee that dealt with the issue
15 of the breathing device?*

16 EARLE, Q.C.:

*17 Q. That's right, and going forward from 2004 to
18 2009, the subcommittee.*

CAPP is filing two sets of documents:

1. Attachment 1: Extracts of minutes of meetings of the CAPP Atlantic Canada Executive Policy Group (AC EPG), CAPP Atlantic Canada Committee (ACC), and CAPP Atlantic Canada Safety Committee (ACSC) regarding HUEBA from 2000 to 2009 and
2. Attachment 2: Minutes of the meetings of the HUEBA Task Force and related task force meetings from 2005 to 2009.

The HUEBA Task Force was established following the initial decision of the AC EPG in June 2004 to implement the compressed air device. We do not have minutes of the early meetings of the HUEBA Task Force in 2004 and into 2005. It is not known from the record of minutes that we do have how many meetings of the HUEBA TF occurred in that time period or whether the work of the task force was recorded in minutes or whether, if minutes were made, they were not retained. The Task Force was active in this time period, for example, addressing 'train the trainer' requirements and undertaking a risk assessment. We are continuing to examine our files. The minutes that are available from 2005 to 2009 are being provided now and do provide a good sense of the work of the HUEBA TF and the issues.

Mr. Earle asked for minutes of the ACSC only to 2004. However, the ACSC reported to the ACC which in turn reported to the AC EPG. The HUEBA matter was before the ACSC as well as the ACC and AC EPG after 2004 so CAPP is providing the minutes of the ACSC, ACC, and AC EPG from 2000 to 2009.

The ACC was later merged with the AC EPG.

Also, as is seen in the attached minutes, in earlier years the term “East Coast” rather than Atlantic Canada was applied to some committees. A reference to the East Coast EPG is the same as a reference to the AC EPG and likewise for any other committee with an East Coast designation in early years.

The HUEBA Task Force minutes have been redacted to remove personal identifying information.

The AC EPG, ACC, ACSC minutes have been redacted to remove personal identifying information and to remove items that do not mention HUEBA.

To assist in following the attached documents from 2000 through to implementation in the Spring of 2009 CAPP is providing a summary of the issue and a chronology. The summary and chronology are found below. Documents referred to in the summary are found in Exhibit 53.

SUMMARY

HUEBA stands for Helicopter Underwater Emergency Breathing Apparatus. HUEBA is also sometimes referred to as emergency breathing system (EBS).

Scope: Helicopter Underwater Emergency Breathing Apparatus (HUEBA) is a new piece of safety equipment carried by all offshore workforce personnel on flights to and from offshore installations in Atlantic Canada. This is a compressed air device which was implemented in April 2009 in Nova Scotia and in May 2009 in Newfoundland-Labrador (NL). Industry has been discussing, researching and reviewing the use of HUEBA for ten years. The concept of such a device was raised with industry in 2000 by the offshore Newfoundland-Labrador regulator (C-NLOPB).

Background: Information had been coming to the attention of industry and the offshore boards regarding HUEBA. In 2000 the C-NLOPB requested that industry consider examining research indicating that escaping a ditched and submerged helicopter in cold water could be aided by the use of an emergency breathing device. From 2000 to implementation in 2009 industry considered all aspects of the implementation of a device. As the issues were examined in more detail, there were points at which the additional, more detailed information that had been injected into the issue led to a re-examination of decisions previously taken. The review included the following:

- review of various device options (hybrid, rebreather, compressed air)
- a process hazards assessment (PHA) of the compressed air device

- workshop with international expertise to discuss technology options and implementation considerations – outcome: compressed air confirmed as best technology, gap in understanding medical risk in training identified
- expert medical opinions regarding use of compressed air device in training
- development of implementation plan (logistics) concurrent to development of medical screening procedures and training protocol (industry medical, legal, safety, risk and leadership/executive consultation)
- review of training options in light of continued concern with medical risk in training
- regulator/industry team review implementation in other jurisdictions, recommendation to proceed with compressed air with training at surface
- industry development of training plan, communications plan and implementation plan for use by operators to support recommendation
- communication with device manufacturer regarding training plan
- industry review and discussion of implementation plans, CAPP approval process – support for moving forward to development of full implementation plan (December 2008/January 2009) with final approval of implementation April 2009
- implementation: NS by ExxonMobil in April 2009 and by NL operators in May 2009

CAPP role:

- facilitate industry discussions of several CAPP committees and task forces: HUEBA TF, TQC, Medical TG, ACSC, ACC, EPG
- role in communication with regulators (status updates) and other stakeholders
- commission/facilitate issue identification and issue analysis/information
- obtain medical advice
- obtain consultant support in implementation planning
- coordination of and participation in review team overseas trip (2008)
- coordination of final implementation package (communications plan, training plan, logistics information) and CAPP/industry approval process

CHRONOLOGY OF ACTIVITY:

Date	Action
2000	In a Feb 25,2000 letter to CAPP, the C-NLOPB noted research which indicated probability of successfully exiting an overturned helicopter in cold water is low and noted some decisions in the North Sea to implement escape breathing devices and requested CAPP to discuss such devices in their Safety Committee
2000/2001	Ongoing review of issues regarding the use of HUEBA for a civilian workforce travelling to and from offshore work sites. June 19, 2001 letter from CAPP to C-NLOPB attaches a research summary identifying the issues identified.
2002/1H2003	Preparation of the Emergency Breathing Systems Discussion Paper (completed

	<p>in Sept 2002). The paper makes several recommendations including: industry should agree to implement a device as soon as all critical issues resolved; a hybrid-rebreather is recommended subject to the cautionary note that all devices have pros and cons and hybrid device is limited to use in shallow water conditions (3m), formation of a task force comprised of multiple stakeholders to implement; training on device should become a module within basic safety course. Industry review of recommendations through fall, early 2003; update planned for Boards in early 2003.</p> <p>C-NLOPB letter to CAPP February 12, 2003 indicating disappointment in lack of industry consensus around HUEBA implementation</p> <p>CAPP letter March 20, 2003 to C-NLOPB providing overview of industry action on the review of HUEBA, outlining several areas that need to be considered in the decision-making for implementing any such device (training, health and hygiene, use in cold Atlantic Canadian water); letter suggests a need to establish an implementation committee to review these issues and work towards a goal of resolution of critical issues by the end of 2003</p> <p>C-NLOPB April 8, 2003 letter supports the proposed approach to implementation</p>
2H2003/1H2004	<p>Re-examination begins in second half 2003 of type of device with focus on two device options: hybrid-rebreather and compressed air HUEBA</p> <p>There is initially no industry consensus on which type of device is better. Industry understands C-NLOPB to be seeking a guideline or standard and that C-NLOPB consider there should be one common type of device used offshore. Consensus on compressed air device reached in June 2004 with a decision to proceed and the goal is to have devices in use by early 2005.</p>
2H2004/1H2005	<p>CAPP / Industry begin implementation plans (formed HUEBA Task Force consisting of operator reps), reviewing aspects such as logistics of procuring equipment, costs, training needs; discusses with training establishments & Petroleum Boards, expectation originally for Jan implementation</p> <p>Industry identifies need to undertake a risk assessment of introduction of the devices with focus on training and implementation of training.</p> <p>Helicopter Emergency Breathing System Process Hazard Analysis (PHA) Risk Assessment is conducted and February 28, 2005 document "Helicopter Emergency Breathing System Risk Assessment" is issued -- scope: HUEBA training and implementation of HUEBA training; participants: industry, CAPP, regulators, training establishments, Atlantic Canada Offshore Medical Services, Safety First Consultant – 14 recommendation made, two main points/concerns identified: review wet-training and whether medicals need to be augmented to reflect wet-training on HUEBA in light of medical risk to person being trained</p> <p>Risk of introduction of HUEBA is discussed in subsequent months. Medical</p>

	<p>advice is sought.</p> <p>CAPP Medical TF considers medical issues. CAPP Medical TF asked to identify necessary requirements in medical procedures to address HUEBA and begins development of a HUEBA supplement to CAPP Medical Fitness to Work Guide</p> <p>Possibility of re-examination of hybrid-rebreather option identified.</p> <p>ACC directs a full training package be developed including training & medical protocol - directs further consultation with medical community</p> <p>Concurrently, HUEBA TF continues logistical implementation planning</p>
2H2005/1H2006	<p>CAPP Medical TF recommends a one-day workshop to discuss technical and medical aspects of HUEBA</p> <p>Coordination of workshop (held January 30 & 31, 2006)</p> <p>March 1, 2006 Helicopter Underwater Escape Breathing Systems Workshop Summary Report issued by CAPP.</p> <p>Purpose: <i>the objective of the workshop was to provide stakeholders with accurate medical, training, and operational EBS information that would allow CAPP members to make an informed decision on which type of device should be implemented in East Coast Canada. (excerpt from workshop report);</i></p> <p>Workshop included local and international participants with expertise in HUEBA and compressed air; pro and cons list for devices was produced (contained within CAPP March 1, 2006 workshop summary report)</p> <p>CAPP seeking information from MI-OSSC (Marine Institute in Newfoundland and Offshore Survival Systems in Nova Scotia) regarding HUEBA training implementation/capability at MI-OSSC</p> <p>After consideration of workshop results, HUEBA TF recommended to support compressed air implementation but subject to advice from independent medical expert regarding use of device in training</p> <p>Medical advice received outlined advice for training at two depths: depth to which trainees would travel within HUET¹ (1.8m) and a shallower depth, not in HUET (1.0m); advice that there need be no additional medical screening requirements to a depth of 1.0m, advice to add chest x-ray and spirometry to medical screening for a depth of 1.8m in-HUET; overall advice is to implement training within HUET</p>
2H2006/1H2008	<p>HUEBA TF expanded to include helicopter service providers, CAODC and training institutes in order to accomplish a full implementation training plan; CAPP hires consultant to support implementation planning; CAPP Medical TF tasked with completing a section of the CAPP Medical Guide to reflect the added requirement for medical screening.</p> <p>CAPP Medical TF cannot reach consensus regarding the medical screening</p>

¹ HUET: Helicopter Underwater Escape Trainer – simulation equipment used to train the offshore workforce in escaping a submerged helicopter

	<p>requirements for HUEBA – operators on the HUEBA TF meet to evaluate training options (i.e. no HUET 1.0m water depth; physical re-location of HUET to max 1.0m depth; use of 100percent oxygen in training bottles, etc). Methods for evaluating these options are discussed (potential for another risk assessment or phased in implementation – i.e. 1.0m followed by more review with aim of in-HUET). CAPP coordinates several meetings amongst operator legal and medical representatives.</p> <p>Fall 2007: new survival suits (HH E-452) are introduced offshore without the HUEBA attached (suits were designed to carry the compressed air HUEBA) CAPP obtains confirmation of medical advice that there would be no added medical screening required for training on devices to a depth of 1.0m.</p> <p>In Feb 2008 discussion continues on the medical risk. Operators on HUEBA TF propose a phased approach to the training with further risk assessment work to consider training at a depth of 1.8m in the HUET. Operators take matter away and consider the issues for several months.</p>
2H2008/1H2009	<p>Operators advise CAPP that a full review of all options available and training undertaken in other jurisdictions is required to complete decision-making – regulators invited to form a ‘review team’ with industry.</p> <p>HUEBA Review Team travels to North Sea countries (UK, Norway, Netherlands) to better understand decision-making and lessons learned with their approach to implementing HUEBA. Note, no other jurisdiction has implemented a compressed air HUEBA for offshore petroleum sector Use of emergency breathing devices is not universal. Those jurisdictions where HUEBA is in use, use a hybrid-rebreather or a simple rebreather although there is now interest in the compressed air option chosen for Atlantic Canada.</p> <p>HUEBA Review Team seeks and obtains confirmation of medical advice that there is “no practical difference” in the medical risk in the use in training of compressed air devices or hybrid-rebreathers or simple rebreathers.</p> <p>Training approach that allows wet training in shallow water resolves debate on medical risk.</p> <p>In December 2008 HUEBA Review Team recommends to CAPP (Safety Committee and AC EPG) implementation of compressed air device with surface training</p> <p>January 2009 AC EPG discussed recommendation and directs HUEBA TF to complete the development of implementation plans, including training and communication aspects, for final approval by AC EPG.</p> <p>HUEBA TF completes implementation plans building on work done previously.</p> <p>April 2009 AC EPG approves completed implementation plans.</p> <p>May CAPP issues final implementation package for use by members.</p>

	ExxonMobil commences training and use of device offshore in NS in April NL operators commence training and use of device offshore with return to flight service in May.
May 2009 - present	Continued CAPP support for lessons learned, issues which have arisen in implementation or training (i.e. refilling bottles offshore NS, gag reflex discovered in training, use of 'dummy' bottles in HUET, etc.)