

# C-NLOPB Review of Diving Support Vessel Crewing Practices

January 2020

## Introduction

In 2018, the Canada-Newfoundland Offshore Petroleum Board (the “Board”) engaged an independent diving consultant (Wet Work Marine Ltd.) to conduct a review project and provide analysis and recommendations regarding the potential for employment of Newfoundland and Labrador and other Canadian residents for dive crew positions for air and saturation diving programs conducted in the Canada-Newfoundland and Labrador Offshore Area from Diving Support Vessels (DSV). The diving consultant was tasked to undertake consultations with operators and major subsea contractors, Board staff, and representatives of the diving community to inform their analysis, and to offer recommendations for evaluating and enhancing the utilization of qualified Canadian dive crew.

The Board’s goal in engaging the diving consultant was to improve Board review and oversight of operator compliance with Benefits Plans, and to ensure Operators and their diving contractors optimize local benefits during diving programs, without compromising safety. It is also intended to further inform operators and their contractors as they endeavor to meet the expectations of the Atlantic Accord Acts and the Operator’s Benefits Plans as approved by the Board. The consultant’s recommendations, as summarized in this document, form the basis for the Board’s position on the **potential** for recruitment of divers and associated supervisory and support positions for offshore diving operations.

## Commentary

While this review utilized the diving consultant’s research into the current numbers of divers certified by the Diver Certification Board of Canada as of 2019, it is recognized that the number of certified and experienced individuals in the various occupations will change over time.

All hires must meet the basic qualifications (education, relevant experience, certifications, etc.) of the specific job requirements. However, there is an expectation that when Canadian residents have met these qualifications, they should be provided the opportunity for training and employment, with first consideration for NL residents. The overall number of Canadian residents that can safely replace incumbent crew will depend upon the nature and duration of the program and availability of qualified applicants.

Ultimately, the operator and its diving contractor are responsible for the safety of a diving program and must manage risk appropriately. There is no expectation to compromise safety in favour of local content.

Before approving any Diving Program, the Industrial Benefits Department of the Board will engage in discussions with the Operator on the proposed crew rosters and recruitment efforts necessary to ensure consistency with Benefits Plan expectations. Operators should be prepared to discuss their contractor's rationale for recruitment efforts and the selection (or rejection) of candidates and how this is consistent with the principles in the Accord Acts and the Operator's Benefits Plan. There is no expectation that protected personal information of specific applicants be shared with the Board, however, there may be a need to share anonymized information to resolve a particular issue or complaint.

Operators and diving contractors should recognize that, similar to other jurisdictions with local content considerations, mobilization for diving programs in Canada could entail additional time and effort due to the Atlantic Accord's employment principles. For instance, time should be built into the schedule to conduct a comprehensive recruitment and competency assessment effort. Operators should consider a reasonable period of training and/or familiarization be built into the campaign schedule. The Board also recognizes that some diving campaigns may have unique circumstances which will reduce the potential for hiring or training of resident diving crew (e.g., urgent dive programs, very specialized equipment or tasks, etc.). Early engagement with the Board should be undertaken to clarify the duration and nature of the diving program and intended employment and training practices.

Recruitment efforts should be started as early as practicable. Contractors (either directly, or via the Contractor's contracted recruiting/personnel service providers) should post online job ads on their corporate website, popular job websites, as well as websites typically frequented by the offshore diving community. Websites should include details of documents, training and experience required, and accurate HR contact information. Contractors should use appropriate human resource practices in the advertising, screening and selection of applicants.

Upon evaluating the entire pool of applicants, Contractors should consider offering applicants with limited experience a lesser position (or a training/mentoring opportunity) in order to give Canadians experience with the specific vessel and diving systems. However, overall program safety should not be compromised and it is not expected that this would be advertised as a certainty to potential job applicants.

## Air Diving Positions

### Air Divers

At the end of 2018, there were over 500 Diver Certification Board of Canada (DCBC) certified Canadian Air Divers, with six schools producing 100 – 120 new divers each year. Of these certified divers, over 300 have renewed certificates, indicating they possess between two and five years of diving experience. Individuals certified as Air Supervisors, Bell Divers, Bell Supervisors and Dive Safety Specialists (DSS) would also qualify for these roles, provided in-water proficiency can be demonstrated. Based on these numbers, recruitment efforts should be undertaken for all air diver positions.

### **Offshore Air Supervisor**

At the end of 2018 there were more than 140 DCBC certified Canadian Offshore Air Supervisors. Individuals certified as Bell Diving Supervisors and DSSs should also qualify for these roles. It is recognized that an Offshore Air Supervisor must be familiar with the vessel and dive system's operation, condition, capabilities and limitations. A qualified and experienced Canadian Offshore Air Supervisor could become familiar with an air diving system during mobilization. Based on the above, recruitment efforts should be undertaken for these positions.

### **Offshore Air Diving Safety Specialist**

At the end of 2018 there were four DCBC Certified Offshore Air Diving Safety Specialists (Air DSS). In addition, there were 10 of individuals certified as Bell DSSs who may also be qualified to fill these positions. It is recognized that this is a senior position and the Air DSS should have considerable experience diving and supervising similar air diving operations.

The Contractor Offshore Air DSS is a senior person onboard the dive vessel and must be fully fluent in the Contractor's policies and procedures. The Contractor Air DSS should be very familiar with the present condition of the vessel and dive system, and their capabilities and limitations, and have experience with the Contractor, including daughter craft experience.

The Operator Offshore Air DSS is one of the senior Operator representatives onboard the dive vessel focused on the safety of diving operations. The Operator Air DSS should be fully fluent in the Operator's policies and procedures, and should also be familiar with the vessel and dive system condition, capabilities and limitations including DP system, Life Support, Emergency Procedures and Hyperbaric Evacuation.

Recruitment efforts should be undertaken for both of these positions.

## **Saturation Diving Positions**

### **Saturation Bell Diver**

At the end of 2018, there were approximately 80 Canadian Bell Divers certified by DCBC. Dozens of Canadian divers have more than 10 years of saturation diving experience, some of whom have experience with both major Contractors working in the Canada-NL Offshore Area. A diver with the requisite relevant experience would be fully interchangeable with the Contractor's existing crew. Depending on the vessel and the nature of the dive program, if enough divers with more than 10 years of relevant experience both internationally and with the Contractor are available, it may be possible to fill significant bell diver roles with Canadians. Therefore, recruitment efforts should be undertaken for saturation diver positions.

### **Bell Diving Supervisor**

At the end of 2018, there were approximately 10 Canadian Bell Diving Supervisors certified by the DCBC, and approximately another 10 DCBC certified Bell DSS's. The Bell Diving Supervisor must be

familiar with the Contractor's policies and procedures. A Bell Supervisor new to the vessel must be familiar with the particular dive system controls or those of a similar system, and must be given adequate familiarization prior to running a dive. In the past decade, the introduction of Programmable Logic Control systems (PLC) has introduced a new level of complexity to some newer dive systems.

Presently, there may not be a sufficient number of Canadians trained or sufficiently experienced to fill all Bell Diving Supervisor positions on a diving support vessel. As the Bell Dive Supervisor is a safety critical role, at least two of the four existing experienced Supervisors should remain with the vessel and overlap shifts with new replacements. If it is not possible to attain this ratio, Contractors should consider the addition of a fifth supervisor as a potential opportunity for technology/knowledge transfer.

### **Bell Diving Safety Specialist**

At the end of 2018, there were approximately 10 Canadians certified by the DCBC as a Bell DSS. The Contractor DSS should be a senior person onboard the diving support vessel, ideally the Offshore Construction Manager, and must be fully fluent in the Contractor's policies and procedures. The Contractor DSS must be very familiar with the vessel and dive system's condition, capabilities and limitations. Generally, the Board would not require the change-out of this position.

The Operator DSS must be familiar with the vessel and dive system condition, capabilities and limitations including DP system, Life Support, Emergency Procedures and Hyperbaric Evacuation. Generally, the Board would require this position to be recruited unless a permanent employee or long-term contractor is in place.

### **Assistant Life Support Technicians**

Assistant Life Support Technicians (ALST) perform routine duties around the saturation living chamber complex, as directed by the Life Support Technicians (LST) and Life Support Supervisors (LSS). Entry level saturation divers, experienced air divers, and non-divers such as respiratory / medical technicians, make good candidates for this entry level position which provides a pathway to LST and LSS roles. Therefore, recruitment efforts should be undertaken for all ALST positions.

### **Life Support Technicians**

At the end of 2018, there were two Canadians certified by the DCBC as Life Support Technicians (LST). Programmable Logic Control (PLC) systems have increased the complexity of newer life support systems. Any newly hired Canadian LST should have PLC training or experience, or overlap shifts with a regular LST from the vessel. A contractor could also consider a Canadian LSS or Dive Supervisor for the role of a LST. There may not be a sufficient number of experienced candidates to fill all LST positions on a diving support vessel, but recruitment efforts should still be undertaken.

### **Life Support Supervisors**

At the end of 2018, there were two Canadians certified by the DCBC as Life Support Supervisors (LSS). The LSS is a critical safety role and is responsible for the safe operation of the saturation living complex. Therefore, recruitment is not required. However, to improve future Canadian content potential, contractors should consider the potential for hiring a qualified Canadian Dive Supervisor for a LST role for an initial period, with potential to assume LSS responsibilities for future rotations.

### Saturation Diving Electrical and Mechanical Technicians

Currently, there are no Canadians certified for Saturation Diving Electrical and Mechanical Technician roles. Dive Technicians are vital to the maintenance and operation of the saturation dive system. For these reasons, recruitment is not required.

## Summary Table

As stated above, first consideration as a requirement of the Accord Acts is applicable for dive programs in the Canada-Newfoundland and Labrador Offshore Area. The review undertaken shows there is potential availability of certified Canadian diver personnel in the majority of dive roles and thus recruitment activities are expected to provide opportunity for certified and experienced personnel. The table below identifies current Board expectations concerning diving contractor efforts to advertise and recruit qualified and experienced divers from the local and Canadian workforce:

	# of Canadian certified*	Recruitment efforts should be undertaken
Air Divers	500	Yes
Offshore Air Supervisor	140	Yes
Offshore Air Diving Safety Specialist	4/14**	Yes
Saturation Bell Diver	80	Yes
Bell Diving Supervisor	10/20**	Yes
Bell Diving Safety Specialist (Contractor)	10	No
Bell Diving Safety Specialist (Operator)	10	Yes***
Assistant Life Support Technicians	N/A	Yes
Life Support Technicians	2	Yes
Life Support Supervisors	2	No
Saturation Diving Electrical & Mechanical Technicians	0	No

\*as of Dec 31, 2018

\*\*includes certified Bell DSS

\*\*\*Unless incumbent in place

Operators should rely on this table until such time as an update table is provided by the Board based upon updated findings.

## Questions/Comments

Please direct any questions or comments on this document to:

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