BRITISH COLUMBIA

28 January, 2003

Jordair Compressors Inc.
101 - 7950 Huston Rd.
Delta, B.C. V4G 1C2

Attn: Jeremy Rowand
Managing Director

Dear Sir:

Re: Your Fax 03/01/09 - Requirements for Compressed Air Systems
Your email 03/01/15 - Boiler Safety Program Jurisdiction

Your Jan. 15, 2003 email detailed a number of comments and questions pertaining to the regulations for compressed breathing air systems. This letter deals with the regulations and codes within the jurisdiction of the Boiler Safety Program. It does not address the administration of codes or standards beyond the jurisdiction of the Program and it is recommended that any inquiries about the policies and procedures of the WCB be directed to that organization.

The Boiler Safety Program is responsible for the approval and registration of the design construction and installation of pressure piping systems and associated components.

The piping and components, as detailed in your fax, in a high pressure breathing air system from the compressor discharge to the cylinders being filled, would classified as a pressure piping system in accordance with the interpretations of the Power Engineers and Boiler and Pressure Vessel Safety Act (the Act). A pressure piping system is defined as:

> "pipes, tubes, conduits, gaskets, bolts and other components making up a system, the sole purpose of which is the conveyance of an expansible fluid under pressure and the control of the flow of an expansible fluid (any vapor or gas or any liquid that will change to a gas or vapor at atmospheric conditions) under pressure between 2 or more points"

Components such as valves, separators, filters, safety relief valves, tube connectors and gauges used in a pressure piping system are fittings, the design of which are required to be registered with a CRN valid for British Columbia. Larger vessels, such as air receivers with a diameter more than six inches, would require registration as a pressure vessel and be issued a CRN. The design of the entire piping system must also be registered with the Branch.

Ministry of Community, Aboriginal and Women's Services

Boiler, Gas and Railway Safety Branch

Suite 400 88 - 6th St. New Westminster, B.C. V3L 5B3

Phone: (604)660-6228
Fax: (604)660-3460

Website:
http://www.gov.bc.ca/marh/

The Act has no exemptions pertaining to specific applications or industries and therefore would include air systems in dive shops, fire departments and fish farms. The requirement for the registration of designs for all piping systems was incorporated into the Power Engineers, Boiler, Pressure Vessel and Refrigeration Regulation in 1999. Prior to this, only the design of piping systems in steam plants, refineries and pulp mills required registration. Consequently there may be many compressed air systems in use, the design of which is not registered or which utilize unregistered components. It has not been the Branch's practice to make regulations, codes and standards retroactive provided equipment remains as originally installed. If altered or repaired, such equipment would have to be upgraded to the current requirements. The design of any alterations would require registration and fittings registered with a CRN must be used in these upgrades .

In accordance with the Act, assembly, installation and repair of pressure piping systems must be done by a contractor with a license issued by the Branch. The minimum requirement for pressure piping is a A_p contractor license. To be registered as an A_p contractor, a company must have an approved quality control manual.

CSA Z180 Compressed Breathing Air and Systems and NFPA 1901 are not standards that have been adopted by the Act and therefore their requirements are not enforced by the Boiler Safety Program. CSA Z180 does have sections which require conformance to CSA B51, a standard which has been adopted by the Act and these requirements would be enforced by this Branch.

In summary the jurisdiction of this Branch is the regulation of the design, construction, installation and repair of compressed air piping systems. The Act does not have specific regulations for nor does it adopt any codes or standards with requirements for the operation, air quality tests etc. of breathing air refill centers.

If you require additional information please contact me at (604) 660-6228

Yours truly

Ed Hurd
Codes and Standards Engineer
Boiler, Gas and Railway Safety Branch