PRESSURE PIPING REGISTRATION

This circular details the requirements for the registration of pressure piping systems for use in British Columbia. Pressure piping systems are piping systems containing an expansible fluid which may be any vapour, gas or may be a liquid that will change to a vapour or gas at atmospheric conditions (14.7 psig and 70^0F). Pressure piping systems shall be registered in accordance with CSA B51 "Boiler, Pressure Vessel and Pressure Piping Code". Registration submissions must be sent to the attention of Design Survey, Engineering and Standards Department.

The standards governing the design and construction of pressure piping systems are the ASME Pressure Piping Code, B31 series (B31.1, B31.3, B31.5 and B31.9). Sufficient documentation to verify that the design conforms to the applicable B31 code shall be submitted. As a minimum the following information and documentation shall be submitted:

i) A completed British Columbia CRN application form
ii) Design data such as ASME code specification, material specifications, pressure ratings, temperature ratings and type of service
iii) PI & D or schematic drawings showing the specific lines to be registered, diameters, line lists and approximate lengths of the piping system (two copies required)
iv) ASME code calculations for expansion, flexibility and support for pipe diameters exceeding 3 NPS (piping 3 NPS and less is considered to be field run piping and therefore calculations are not required)

The drawings should be identified by number and revision and indicate ASME code of construction (edition and addenda), non-destructive examination requirements, maximum allowable working pressure, minimum and maximum design temperatures, fluid service, heat treatment, impact testing, corrosion allowance, dimensions, flange, valve and fitting standards, CRN's for boilers, pressure vessels or fittings in the system and ASME material specifications.

The drawings and calculations shall contain sufficient information to verify that all applicable requirements of the specified ASME code have been complied with. The calculations shall show the formulas used or reference the code section, which is the source of the appropriate formula. Where computer programs have been used for piping design a complete program report is not required and only the name of the program utilized, input data and output results should be submitted.

The registration submission will be reviewed to verify that all applicable code requirements have been considered in the design and the calculations made. Upon satisfactory review of the piping system registration documentation, the system shall be assigned a British Columbia registration number (P number). A design registration letter indicating the registration number, date of registration, description of the piping system, location, drawing numbers, registration fee and any other pertinent information will be sent to the applicant. A separate invoice will be forwarded for the registration fee. No other documents will be stamped or returned to the applicant.