DIRECTIVE

No: D-B6 070105 2

STAFFING REQUIREMENTS UNDER SECTION 6(F) OF THE POWER ENGINEER, BOILER, PRESSURE VESSEL AND REFRIGERATION SAFETY REGULATION

This Directive is being issued by a provincial safety manager pursuant to section 30 of the Safety Standards Act.

Date of Issue: January 5, 2007

General Details

This directive is being issued to clarify Section 6 (f) of the Power Engineer, Boiler, Pressure Vessel and Refrigeration Safety Regulation (PEBPV&RSR). This directive clarifies when a certificate of qualification is or is not required to operate an unfired plant.

Specific Details

Section 6 (f) of the PEBPV&RSR states that unfired plants with 150m2 or less of boiler capacity are exempt from certificate of qualification requirements. The reference to "boiler capacity" in the section refers to the heat receiving surface of the unfired plant component. How to calculate "boiler capacity", as defined in the PEBPV&RSR, is specified in Section 46 of that regulation. Section 46 (see below) details how to calculate the heat receiving surface of the unit receiving heat from gas, steam, or vapour without combustion of a solid, liquid or gaseous fuel taking place on the premises. Thus to determine if certified staffing is required for unfired plants, the heat receiving surface of the unit must be calculated using Section 46 of the PEBPV&RSR.

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FRM-1126-00 (2007/02/07)

Relevant Legislation

Power Engineers, Boiler, Pressure Vessel & Refrigeration Safety Regulation

2 (1) Definitions and Interpretation for this regulation

"boiler capacity" means the heat receiving surface of a boiler as specified in section 46;

"unfired plant" means a plant where heat from gas, steam or vapour or other heating medium is supplied to heat exchangers or used directly for the purpose of heating a facility or a process without combustion of a solid, liquid or gaseous fuel taking place on the premises;

Exemption from authorization requirement to operate certain equipment

6 An individual is not required to hold a certificate of qualification to operate any of the following:

(f) an unfired plant not exceeding 150 m^2 of boiler capacity;

Determination of boiler capacity

46 (1) In this section, **"extended surface"** does not include the area of a superheater.

(2) The heat receiving surface area of a boiler must be stated in square metres (m^2), must include the extended surface and the heating surface must be computed as follows:

(a) a heating surface, as part of a circulating system in contact on one side with water or wet steam being heated and on the other side with gas or refractory being cooled, must be measured on the side receiving heat;

(b) a boiler heating surface and other equivalent surface outside the furnace must be measured circumferentially plus any extended surface;

(c) a waterwall heating surface and other equivalent surface within the furnace must be measured as the projected tube area (diameter x length) plus any extended surface on the furnace side, but in computing the heating surface for this purpose only the tubes, fireboxes,

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shells, tubesheets and the projected area of headers need to be considered, except that for vertical firetube steam boilers only that portion of the tube surface up to the middle of the gauge glass is to be computed.

(3) The heat receiving surface area in square metres (m^2) of an electric boiler is the number obtained by dividing the maximum kilowatt input by 10.

(4) The heat receiving surface area of a coiltube or a fintube boiler includes the extended surfaces.

(5) For the purposes of sections 51 (f), 55 (1) (b) (iv), 56 (1) (d) and 88, if two or more refrigeration systems are interconnected on the refrigerant side, the refrigeration plant capacity is the sum of the prime mover name plate rating capacities of each of the systems.

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