

Inspection and Technical Services

Pressure Vessels Built With ASME SA-212 Material

ITS 22-005

Inspection and Technical Services (ITS) will not consider any changes, additions, alterations or repairs to a pressure vessel made of SA-212 materials. Manitoba does not allow a vessel manufactured from SA-212 to be placed into a new service, or allow any vessel built with SA-212 to be lifted or moved to a new location.

SA-212 material has been manufactured in accordance with a coarse grain practice and as such is highly susceptible to brittle fractures, even at ambient temperatures. This specification was withdrawn from the ASME Code and replaced with SA 515 which is also a coarse grain structured material. The intent of the code is for this material to be used at intermediate and higher temperature service where resistance to creep is the desired criterion.

Maintenance is permitted to keep existing vessels in safe operation provided that no welding or other repair is performed to the pressure vessel boundary^[1]. Permitted maintenance that may occur are as follows:

- Bolting to an existing flanged joint for the purpose of adding new pipe and/or valve replacement, and
- Attachment of valves, fittings and/or hoses to existing threaded connections.

The intent of this bulletin is to inform owners of pressure vessels built with SA-212, which requires work beyond the scope of the permitted maintenance, that these vessels are to be replaced.

[1] The Pressure Vessel Boundary is the end of the first connection point of a threaded nozzle/coupling or flange face of a nozzle. See figure below of where welding is not permitted. No changes, additions, alterations or repairs are allowed.

