

Application for the Registration of a Skid Design

Information Paper IP-2016-07-04

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1. Scope

This information paper details an option for skid manufacturers to register their skid designs with TSASK Codes & Standards Compliance. The process of skid design registration is much like the fitting registration process already in place.

Once the skid is registered, manufacturers are allowed to fabricate several of the same skids without re-registering the design. Registered designs expire after 10 years – just like a fitting.

Please return to [Policy Paper TSASK-2016-07-01 Application for the Registration of a Pressure Piping Design](#) for detailed information on other submission requirements once you have finished reading this paper

2. Background

Often manufactures make equipment skids that are identical. All that changes are the serial numbers on the vessels.

When reviewing designs, manufactures are required to submit the same information to TSASK Codes & Standards Compliance for every pressure piping design that has their skid as part of the design. TSASK has recognized, that in many cases, these stand-alone skids should not have to be reviewed again.

3. Design Registration Requirements

If the manufacturer would like to avoid submitting the skid design information each time the skid is registered as part of a pressure piping package, the manufacturer shall register the skid package as a separate pressure piping design. The skid package shall be assigned a unique TSASK registration number.

Once registered, the manufacturer shall provide the designers of pressure piping systems with the TSASK registration number for the skid for future new or altered pressure piping design registrations. No more information shall be required.

4. Application Requirements - General

The application shall include:

- A completed [TSK-1011 – Application for the Registration of a Pressure Piping Design](#). Under Part IV(B), check box 3 that states:
“Skid design submission. See IP-2016-07-04.”
- Three copies of the completed, stamped and signed [TSK-1003 – General Engineering Requirements for Design & Construction of Pressure Piping Systems](#).
- Two complete sets of design drawings and design documents such as line lists. A third copy may be added if the Client/Manufacturer requires a returned stamped copy. An additional fee shall apply.
- If applicable, the registration number of the Owner’s Pressure Relief Path (PRP) Stop Valve Control Program or QMS registration number if the PRP Stop Valve Control program is part of the Owner’s QMS ([TSK-1011 Part III](#)).

5. Information Required as Part of the Submission

Please ensure that the design drawings and design documents include the following:

- P&ID depicting the general arrangement of all boilers, pressure vessels, pressure piping systems and/or fittings on the skid;
- Pressure piping line lists detailing the piping specifications and design conditions (size of the line, material specifications, schedules, maximum pressures and temperatures, MDMT if applicable, corrosion allowance, radiography, test medium and pressure, and PWHT time and temperature) for each pressure piping system on the skid unless you have your piping material specifications registered with TSASK as part of the QCP/QMS option. If the piping material specifications are registered, provide the piping material specification registration number in

Part II of *TSK-1011 Application for the Registration of a Pressure Piping Design*. Ensure that the line list is very clear which specification covers each line. Maximum pressures and temperatures, and line sizes as well as any other information not specified on the piping material specification shall be included on the line list;

- A list of pressure relief devices (PRD) to be used on the skid including their capacities and set pressures (indicating the equipment each PRD is protecting is beneficial);
- A detailed description of the pressure test/leak test procedure (depending on Code of Construction) if different from the procedure within the QMS/QCP manuals;
- A signed letter from the owner of the pressure piping system acknowledging specific lines designated as **Category D** fluid service if applicable;
- Any other information that the TSASK Design Reviewer may require to ascertain that the design is suitable for registration;
- Design drawings and piping line lists **shall be** stamped, dated and signed by a Professional Engineer as defined in *The Engineering and Geoscience Professions Act* of Saskatchewan; and
- Complete and sufficiently detailed drawings so that Design Reviewers will not have to assume anything and the same drawings and specifications could be used to build the exact system and have it meet the code.

Refer to *IP-2016-07-05 - Pressure Piping Registration Submission Package Checklist*.

6. Nameplates for Registered Skids

Every manufacturer shall attach to each skid fabricated to a registered design a nameplate that identifies the skid. As a minimum, the nameplate shall include:

- Manufacturer's name;
- Manufacturer's identification number/serial number for the skid; and
- TSASK skid design registration number.

The nameplate shall be:

- attached securely to the skid;
- located where the information on the nameplate shall be easily read;
- large enough to be read but not so large that it interferes with the skid components; and
- attached by the manufacturer upon final acceptance of the fabrication.

For skids that will be subjected to harsh environments, the nameplate may be located within a protective housing.

7. Expiration of Registration

Registered designs shall expire 10 years from the registration date. At that time, all fabrication of skids using the expired design shall cease.

TSASK may suspend the registration of a design if:

- the manufacturer makes a significant change to the design;
- TSASK determines the manufacturer is not complying with the registered design or the obligations of having a registered skid design;
- legislative or code changes make the design obsolete; or
- any other circumstance that may require the suspension of the design.

8. Drawing Updates to Registered Skid Designs

If a manufacturer makes a change to the registered design, the manufacture shall notify TSASK of the revision change on the drawing and explain the change that was made. This notification may be by email, letter or fax.

Once Codes & Standards receives the notification of the drawing revision change, the Design Reviewer shall either:

- accept the change and index the revision number on the registered skid design with no further requirements; or
- require the manufacturer to treat the revision as a new skid design.

Manufacturers shall keep TSASK apprised of any changes or risk losing the ability to register the skid design.

9. Inter-connected Pressure Relief Device Common Discharge Header Piping

There shall be no interconnected pressure relief device common discharge header piping between the skid, other skids and/or the distribution pressure piping system. All skid designs registered shall be stand-alone packages.

10. Fabrication of Skid Packages

10.1. TSK-1002 Construction Data Report for Pressure Piping Systems

Refer to information paper [IP-2014-03-001 Guide for Completing Form TSK-1002 Construction Data Report for Piping Systems](#) for guidance on completing *TSK-1002*. Ensure you are using the most recent copy of IP-2014-03-001 by checking the footer which should have Rev.1/2016.

Manufacturers shall ensure that each skid fabricated shall have a TSK-1002 form completed. The form shall be submitted to TSASK Codes & Standards Compliance with the skid design registration number included in Part 1. A unique Manufacturer's identification number or serial number shall also be included.

Manufacturers shall ensure that pressure piping lines are clearly identified so that any inspector can easily match the lines on *TSK-1002* with the lines in the field. Additional information may be required to ensure the materials can be verified such as Mill Test Reports, Purchase Orders and/or delivery information.

As per the QMS/QCP manual being followed, TSASK shall be notified prior to the commencement of fabrication. If the pressure piping system is to be fabricated for inventory, the fabricator shall inform the TSASK Inspector that there is no owner inspector.

10.2. Welding

10.2.1. *Fabrication inside Saskatchewan*

All welding shall be performed in accordance with ASME Section IX to a qualified welding procedure registered with TSASK in conjunction with a TSASK registered Quality Control Program (QCP) or Quality Management System (QMS). Refer to CSA B51-14 *Clause 4.5.1 & 4.5.2*.

10.2.2. *Fabrication outside of Saskatchewan but within Canada*

Fabricators shall follow the requirements of the jurisdiction of record and the owner's requirements. Refer to CSA B51-14 *Clause 4.5.1 & 4.5.2*.

10.2.3. *Fabrication outside of Canada*

Fabricators shall follow the guidance of CSA B51-14 *Clause 4.5.3* for fabrication outside of Canada.

As a minimum, fabricators shall provide TSASK with the:

- name and qualifications (specifically National Board Number or equivalent) of the inspector or third party authorized inspection agency employing the inspector;
- Code of Construction (ASME or equivalent);
- owner's requirements; and
- evidence of an approved quality control program (or equivalent).

Fabricators are strongly advised to seek TSASK acceptance prior to starting any work.

10.3. Pressure Test/Leak Test

All pressure piping skids shall be subject to a pressure test/leak test (depending on the Code of Construction) as described in the fabricator's QCP or QMS manual (or jurisdictional equivalent) and notification shall be given to the appropriate inspector with as much lead time as possible so the required inspector may make arrangements to witness the test.

11. Additional Information & Questions

11.1. Design of Pressure Piping Systems Inquiries

If possible, applicants should contact their Design Reviewer directly with questions. Be sure to include the TSASK reference number or provide enough detail that the Design Reviewer will know which application is being referenced.

For all other design inquiries, please contact TSASK Codes & Standards Compliance:

- By email at CodesandStandards@tsask.ca ;
- By phone at either (306) 787-4567 (Regina) or Toll Free (866) 530-8599. Please ask to speak to either a TSASK Design Reviewer or the Manager, Codes & Standards Compliance; or
- Visit the TSASK website at www.tsask.ca for more information.

11.2. Quality Program and Inspection Inquiries

For additional information or if there are any further questions or concerns, please contact TSASK:

- By email at info@tsask.ca;
- By phone at either (306) 798-7111 (Regina) or Toll Free (866) 530-8599. Please ask to speak to a TSASK inspector or the Manager, Boiler and Pressure Vessel Safety; or
- Visit the TSASK website at www.tsask.ca for more information