PART KG
GENERAL REQUIREMENTS

ARTICLE KG-1
SCOPE AND JURISDICTION

KG-100 SCOPE

KG-101 INTENT

The rules of this Division constitute requirements for the design, construction, inspection, and overpressure protection of metallic pressure vessels with design pressures generally above 10 ksi (70 MPa). However, it is not the intent of this Division to establish maximum pressure limits for either Section VIII, Division 1 or 2, nor minimum pressure limits for this Division. Specific pressure limitations for vessels constructed to the rules of this Division may be imposed elsewhere in this Division for various types of fabrication. Whenever Construction appears in this document, it may be considered an all-inclusive term comprising materials, design, fabrication, examination, inspection, testing, certification, and pressure relief.

KG-102 DESCRIPTION

Pressure vessels within the scope of this Division are pressure containers for the retainment of fluids, gaseous or liquid, under pressure, either internal or external. This pressure may be generated by
(a) an external source
(b) the application of heat from
   (1) direct source
   (2) indirect source
(c) a process reaction
(d) any combination thereof

KG-103 LAWS OR REGULATIONS

In those applications where there are laws or regulations issued by municipal, state, provincial, federal, or other governmental agencies covering pressure vessels, those laws or regulations should be reviewed to determine size or service limitations of the coverage which may be different or more restrictive than the rules of this Division.

KG-104 LOCATION

KG-104.1 Fixed Location. Except as provided in KG-104.2, these rules cover vessels to be installed at a fixed (stationary) location for a specific service where operation and maintenance control are maintained in conformance with the User's Design Specification and records retained during the life of the vessel by the User.

KG-104.2 Mobile Vessels. These rules also apply to pressure vessels that are relocated from work site to work site between pressurizations, and where operation and maintenance control are maintained in conformance with the User's Design Specification and records retained during the life of the vessel by the User.

KG-105 DIRECT FIRED

Pressure vessels which are subject to direct firing and are not within the scope of Section I may be constructed to the rules of this Division, except as excluded by KG-120.

The scope of this Division has been established to identify components and parameters considered in formulating the rules given in this Division. Laws or regulations issued by municipal, state, provincial, federal, or other enforcement or regulatory bodies having jurisdiction at the location of an installation establish the mandatory applicability of the Code rules, in whole or in part, within the jurisdiction. Those laws or regulations may require the use of this Division for vessels or components not considered to be within its scope. These laws or regulations should be reviewed to determine size or service limitations of the coverage which may be different or more restrictive than those of this Division.

(a) the welding end connection for the first circumferential joint for welded connections to external piping, valves, instruments, and the like
(b) the welding pad for attachment of an external jacket
KG-112 INTERNAL PRESSURE PIPING

Internal pressure piping, when failure of such piping will affect the integrity of the pressure boundary.

KG-113 NONPRESSURE PARTS

Nonpressure parts that are welded directly to the internal or external surface of a pressure vessel. For parts beyond this, and for stud-bolted attachments, see Articles KD-6 and KD-7.

KG-114 COVERS AND CLOSURES

Pressure-retaining permanent covers or closures, including seals and bolting, or other mechanical retainers, used in service for vessel openings (see Article KD-6).

KG-115 INSTRUMENT CONNECTIONS

The first sealing surface for small proprietary fittings or instrumentation, such as gages and instruments, for which rules are not provided by this Division (see Article KD-6).

KG-116 OVERPRESSURE PROTECTION

Pressure relief devices shall satisfy the requirements of Part KR.

KG-117 COMBINATION UNITS

When a pressure vessel unit consists of more than one independent pressure chamber, only the parts of chambers which are within the scope of this Division need to be constructed in compliance with its provisions (see Articles KD-1 and KG-3).

KG-120 CLASSIFICATIONS OUTSIDE THE SCOPE OF THIS DIVISION

The following classes of pressure-containing equipment are not within the scope of this Division:

(a) those within the scopes of other Sections of this Code
(b) fired process tubular heaters
(c) pressure-containing equipment that is an integral part or component of a rotating or reciprocating mechanical device, such as
   (1) pumps
   (2) compressors
   (3) turbines
   (4) generators
   (5) engines
   (6) hydraulic or pneumatic cylinders
where the primary design considerations and/or stresses are derived from the functional requirements of the device

(d) structures whose primary function is the transport of fluids from one location to another within a system of which they are integral parts (piping systems)

KG-121 STAMPING OF VESSELS OUTSIDE THE SCOPE OF THIS DIVISION

Any pressure vessel which meets all applicable requirements of this Division may be stamped with the Certification Mark with U3 Designator.

The Certification Mark is an ASME symbol identifying a product as meeting Code requirements. The Designator is a symbol used in conjunction with the Certification Mark for the scope of activity described in a Manufacturer’s Certificate of Authorization.

KG-130 ASSEMBLY AT FIELD OR INTERMEDIATE

A field site is a location of final permanent installation of the pressure equipment. An intermediate site is a temporary location under the control of the Certificate Holder. The location of an intermediate site is other than that listed on the Certificate of Authorization and other than a field site. All Code activities may be performed at intermediate or field sites by the Certificate Holder provided they comply with all Code requirements, and control of those activities is described in the Certificate Holder’s Quality Control System. Assembly and testing of vessels constructed to this Division at intermediate or field sites shall be performed using one of the following three alternatives:

(a) The Manufacturer of the vessel completes the vessel in the field or at an intermediate site.

(b) The Manufacturer of parts of a vessel to be completed in the field or at an intermediate site by some other party stamps these parts in accordance with Code rules and supplies the Manufacturer’s Data Report Form K-2.

The following pressure-containing components are not included in the scope of this Division:

(a) Vessels exclusively within the scope of other Sections of the ASME Boiler and Pressure Vessel Code.
(b) Fired process tubular heaters (see API STD 560 or ISO 13705).
(c) Code work at field or intermediate sites is completed by a Certificate Holder of a valid U3 Certificate of Authorization other than the Manufacturer. The Certificate Holder performing the work is required to supply a Manufacturer’s Data Report Form K-2 covering the portion of the work completed by his organization (including data on the pressure test if conducted by the Certificate Holder performing the fieldwork) to the Manufacturer responsible for the Code vessel. The Manufacturer applies his Certification Mark with U3 Designator in the presence of a representative from his Inspection Agency and completes the Manufacturer’s Data Report Form K-1 with his
(d) piping and piping components covered in the scope of the ASME B31 Piping Codes
(e) Components covered in the scope of other applicable ASME Codes and Standards.
component using U.S. Customary, SI, or local customary units. Units may be shown parenthetically (either primary or alternative). Users of this Code are cautioned that the receiving jurisdiction should be contacted to ensure the units are acceptable.

**KG-160 TOLERANCES**

The Code does not fully address tolerances. When dimensions, sizes, or other parameters are not specified with tolerances, the values of these parameters are considered nominal and allowable tolerances or local variances may be considered acceptable when based on engineering judgment and standard practices as determined by the designer.