

GP 03-05-01	Fill and Discharge Lines, and Auxiliary Piping for Storage Tanks and Vessels	June 2004
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Fill and Discharge Lines, and Auxiliary Piping for Storage Tanks and Vessels

GP 03-05-01

Scope

[I] This Global Practice (GP) covers the design and layout of piping, and the location of associated equipment, for storage tanks and storage vessels.

[I] Requirements for Foam Systems or Cooling Water Deluge and Spray Systems are not covered by this GP.

[I] An asterisk (*) indicates that additional information is required. If a job is contracted, this additional information is furnished in the Job Specification.

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1. Required References

[I] This Section lists Standards that are generically referenced and assumed to be a part of this document. Unless otherwise specified herein, use the latest edition.

1.1. ASME–American Society of Mechanical Engineers

ASME B31.3	Process Piping
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2. Additional Requirements

[R] The following Practices shall be used with this GP as specified by the Owner's Engineer.

2.1. Global Practices–ExxonMobil Engineering Practices

GP 03-02-04	Pressure Relieving Systems
GP 03-12-01	Valve Selection
GP 09-04-01	Atmospheric Storage Tanks
GP 19-01-01	Paint and Protective Coatings

3. Piping Auxiliaries and Connections

- 1) [M] All tank nozzles, except those on the roofs of fixed roof storage tanks, shall be valved, using block valves per [GP 03-12-01](#) located at the tank nozzles.
- 2) [S] Protection against liquid thermal expansion shall be per [GP 03-02-04](#).
- 3) * [S] A valved bypass to an API Low Type or Regular Type nozzle shall be provided around elevated inlet nozzles or jet mixing nozzles to permit initial filling without splashing or spraying.
- 4) [R] All inlet lines shall be equipped with a check valve.

3.1. Additional Requirements for Refrigerated Storage Vessels

- 1) [S] The block valve adjacent to the vessel in the main process piping (fill and discharge lines) shall be motor actuated. The valve actuator and leads shall be fireproofed. An emergency OPEN–CLOSE pushbutton control shall be located outside the dike in the control center.
- 2) [S], [M] All connections below the liquid level shall be provided with a block valve, installed as follows:
 - a) For single wall vessels, the block valve shall be located adjacent to the shell insulation.

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