

GP 04-02-01	Auxiliary Structures for Operation and Maintenance	February 2005
-------------	--	---------------

Auxiliary Structures for Operation and Maintenance

GP 04-02-01

Scope

- 1) [I] This Global Practice (GP) covers the use, design, and layout of auxiliary structures and facilities provided for access and maintenance of plant equipment. The requirements for stacks, chimneys, and flares are not covered by this Practice.
 - 2) [I] An asterisk (*) indicates that additional information from the Owner's Engineer, or approval by the Owner's Engineer is required.
-

Downstream, Chemical, Downstream Imperial Oil	For ExxonMobil Use Only	Version 4.0.0
Page 1 of 15	©ExxonMobil Development Company	



Documents

Document Sharing Hub

GP 04-02-01	Auxiliary Structures for Operation and Maintenance	February 2005
-------------	--	---------------

Table of Contents

Table of Figures	3
1. Required References	4
1.1. Global Practices–ExxonMobil Engineering Practices	4
1.2. ASSE–American Society of Safety Engineers	4
2. General	4
3. Platforms	4
4. Stairways and Ladders.....	7
5. Permanent Handling Facilities	13
Record of Change	15
Attachment: Purpose Codes Definitions	17

DNST, CHEM, DIOL	For ExxonMobil Use Only	Version 4.0.0
Page 2 of 15	©ExxonMobil Development Company	 Documents Document Sharing Hub

GP 04-02-01	Auxiliary Structures for Operation and Maintenance	February 2005
-------------	--	---------------

Table of Figures

Figure 1: Typical Ladder Detail (Side-Step Access)	9
Figure 2: Ladder Cage Bar Extensions at Elevated Platform	10
Figure 3: Minimum Clearance to Obstructions	11
Figure 4: Handrail and Safety Gate Details	12

DNST, CHEM, DIOL	For ExxonMobil Use Only	Version 4.0.0
Page 3 of 15	©ExxonMobil Development Company	



Documents

Document Sharing Hub

1. Required References

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

1.1. Global Practices–ExxonMobil Engineering Practices

GP 04-01-03	Design Loads for Structures
GP 14-03-01	Fireproofing
GP 19-01-01	Paint and Protective Coatings

1.2. ASSE–American Society of Safety Engineers

ASSE/SAFE A14.3	Safety Requirements for Fixed Ladders
ASSE/SAFE A1264.1	Safety Requirements for Workplace Floor and Wall Openings, Stairs, and Railings Systems

* [I] Local codes and standards may be substituted for the ones referenced herein, provided the following provisions are met:

- 1) The resultant design meets the safety and serviceability criteria attained through this GP.
- 2) Substitution is accepted by the authorities where the facility is to be located and by the Owner's Engineer.

2. General

- 1) [I] The design and layout of platforms, and stairway or ladder access, serving equipment or facilities, not specifically covered by other practices shall meet the requirements given herein.
- 2) [R], [M] All structural steel members referenced in this Practice shall be coated or hot dipped galvanized per [GP 19-01-01](#). Hot dip galvanizing is preferred.

3. Platforms

- 1) [O], [M] Platforms shall be provided to the extent indicated in Table 1, unless the equipment or facilities described are accessible from grade or from other permanent platforms. Access to these platforms shall be by permanently installed ladders or stairs, unless otherwise specified.

Table 1: Requirements for Platforms

Equipment or Facility	Specific Requirements
Service and inspection openings	All which are located with the bottom of the opening more than 10 ft (3 m) above grade.
Instrumentation and controls, including associated manifolds and take-off connections	1. All which require operator attention, or which are otherwise observed, adjusted, or serviced, during plant operation. 2. Access to instrument take-off valves by permanent ladder is acceptable.
Control valves, pressure relief Devices, motor actuated valves (electric, pneumatic, or hydraulic operated), lubricated valves	All which are not located at grade elevation.
Emergency isolation valves (EBV)	1. All which are not located at grade elevation. 2. Permanent ladders shall be provided, as required, for direct access from grade.
Other operating valves, sample outlet valves	Individual or grouped (for convenience of operation) and which are not provided with chain operators or extensions.
Machinery	1. All machinery mounted on elevated foundations or not otherwise accessible for operation and maintenance from grade or floor level. 2. Floor grating shall be provided between adjacent cylinders of multi-cylinder compressors.
Vertical shell and tube exchangers	For maintenance access to covers, channels, or bonnets, where the flanges of such components are more than 12 ft (3.7 m) above grade.
Separators, basins (or tanks)	For operation of sluice gates, plugs, or similar control components.

- 2) [M] Platform size shall be governed by the following:
- a) Minimum clear platform width shall be 2 ft, 6 in. (750 mm) except for the services listed in Table 2.
 - b) * Clear length and width of platforms dedicated to special operation and maintenance tasks shall be specified. (Such facilities include: instrument maintenance, blanking of tower nozzle connections, removal and testing of pressure relief devices, servicing corrosion probes or retractable water sprays.)
 - c) * The space on platforms used for permanent or temporary storage of containers of catalyst, chemicals, and similar materials shall be specified.

