



Document No.	GP 44-32
Applicability	Group
Date	3 December 2008

GP 44-32

Protection of Personnel from Explosion, Fire, and Toxic Hazards on Offshore Facilities

Group Practice

**BP GROUP
ENGINEERING TECHNICAL PRACTICES**

Foreword

This is the first issue of Group Practice (GP) GP 44-32. This document supersedes EP-GP 04-30-1 on the topic of offshore occupied portable buildings. This is the first Engineering Technical Practice (ETP) to address the topic of offshore occupied permanent buildings. Revisions from EP-GP 04-30-1 were so extensive that they have not been identified by bars in the margin as is normal practice.

This GP provides requirements on the risk assessment approach offshore that directly supports the design of the systems which provide protection to personnel offshore from explosion, fire, and toxic hazards. These systems include occupied buildings, egress, refuge, and evacuation systems on offshore facilities.

This GP recognises a difference between onshore and offshore facilities in terms of emergency evacuation. Onshore, most personnel have the opportunity to immediately evacuate an incident using their own motive force. Offshore, most personnel require emergency evacuation via helicopter or boat. Thus, the focus offshore should be on reducing overall facility risk, as opposed to a focus on occupied building analysis. This GP is applicable to new projects, brownfield projects, and existing operations.

This GP is founded on the premise that there is no relevant distinction between occupied permanent and portable buildings in offshore applications and therefore such buildings should be treated in the same manner. Hence, there is no distinction made between the two in this GP.

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1. Scope

- a. This GP provides requirements on protection of personnel from explosion, fire, and toxic hazards on offshore facilities.
- b. This GP directly supports design and location of occupied buildings, egress, refuge, and evacuation systems locations, and evacuation facilities.
- c. This GP does not address overall facility structural performance or risks to personnel from natural hazards and transportation.
- d. This GP is applicable to new projects, brownfield projects, and existing operations.
- e. The focus of this GP is protection of personnel on the facilities. Thus, principles of inherently safer design are fundamental in the identification of potential risk reduction options.

This GP recognises a difference between onshore and offshore facilities in terms of emergency escape and evacuation. Onshore, most personnel have the opportunity to escape from an incident using their own motive force. The focus is therefore on providing buildings which protect occupants from the initial events. Offshore facilities are typically more compact and incidents can affect offshore buildings, and potentially compromise escape routes (to evacuation points) and evacuation facilities. Thus, the focus is on reducing overall facility risk. This includes a focus on the initiating scenario, as well as the potential for escalating scenarios.

This GP is founded on the premise that offshore occupied buildings whether permanent or portable should be treated in the same manner. Hence, there is no distinction made between the two in this GP.

2. Normative references

The following referenced documents may, to the extent specified in subsequent clauses and normative annexes, be required for full compliance with this GP:

- For dated references, only the edition cited applies.
- For undated references, the latest edition of the referenced document (including any amendments) applies.

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GP 24-20	Fire and Explosion Hazard Management of Offshore Facilities.
GP 24-21	Fire Hazard Analysis.
GP 24-22	Gas Explosion Hazard Analysis.
GP 48-50	Major Accident Risk (MAR) Process.
	MPep Engineering and Quality Guidance, Design Safety Guidelines.

3. Terms and definitions

For the purpose of this GP, the following terms and definitions apply:

Egress, refuge, and evacuation system

System of walkways and stairways that comprise the egress route from any location where personnel work or live to the muster location, including evacuation facilities.

