



Document No.	GP 82-13
Applicability	Lubricants
Date	November 2004

Guidance on Practice for the design, installation and operation of Bulk Lubricant Storage Tanks at customer sites

GP 82-13

BP GROUP
ENGINEERING TECHNICAL PRACTICES

Foreword

This is the first issue of BP Lubricant Supply Chain Guidance on Practice GP 82-13, which gives recommendations and requirements for the safe bulk loading and unloading of lubricants to/from tank vehicles. It includes reference on parts of heritage documents from the merged BP companies as follows:

British Petroleum

RP 12-16	Electrical Systems and Installations Earthing and Bonding
RP 30-2	Selection and Use of Measurement Instrumentation
RP 4-1	Drainage systems

Revision History		
Rev	Date	Comments
1	08/10/2004	Initial draft by AH edited with revised format and additional material by RM
2	30/11/2004	Final version submitted to ETP, incorporating comments from Network

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Introduction

Many customers use bulk tanks for storage of lubricants and other products on their premises, either for dispensing directly into vehicles in service workshops, or to supply fixed machinery and plant. Although ultimate responsibility for these installations remains with the customer, these guidelines are intended to support discussions with such customers to ensure that their installations comply with the requirements and expectations of BP. In particular, guidance is given on the correct tank design and installation to minimise the risk of overfill spillage, contain this or any other spillage, and ensure safe access. Guidance is also given on correct procedures for vehicle unloading, and on the required action in response to emergency.

1. Scope

This document refers to bulk storage tanks permanently installed at customer premises, which are supplied by tanker vehicles (usually road vehicles, but the requirements will also apply to railcar loading). It applies mainly to external tanks, but should be applied to smaller tanks located within a building where this is appropriate and feasible.

2. Informative References

The following BP ETP Documents are referred to in this GP:

- GP 82-11 Horizontal and Vertical Cylindrical Atmospheric Storage Tanks
- GP 82-12 Bulk Loading and Unloading of Lubricants
- GP 82-53 Site Drainage and Containment

3. Location and installation of bulk tanks

- a. Storage tanks shall be located away from potential source of ignition or areas vulnerable to fire, and spaced to minimise the possibility of knock-on radiation from any fire in an adjacent area.
- b. Tanks shall be sited on an impervious base of concrete or impermeable blocks, on secure ground or supports, with well-supported connecting pipework.
- c. Tanks shall be surrounded by bund/dike wall to collect product spillage, which shall be routed to collecting pits or oil interceptors. The capacity of the containment shall be at least 110 percent of the capacity of largest tank within the bund/dike.
- d. Bitumen surfacing shall not be used within the bunded compound. The concrete used shall be of a type resistant to oil penetration. The floor of the bund/dike should be sloped to prevent minor spillage remaining around the tank and allow collection of surface water and spillage in a sump.
- e. The bund/dike drainage system shall ensure that water discharge is controlled by a valve or suitable pump on the outside of the bund/dike wall. If valves are used, a procedure should be in place to ensure they remain locked closed, except when water is being drained off.
- f. No combustible material and equipment shall be stored on the bund/dike or against bund/dike wall.

