



Document No.	GIS 60-501
Applicability	Group
Date	22 December 2005

Guidance on Industry Standard for Chemical Dosing Package

GIS 60-501

BP GROUP
ENGINEERING TECHNICAL PRACTICES

Foreword

This is the first issue of Engineering Technical Practice (ETP) GIS 60-501. This Guidance on Industry Standard (GIS) is based on parts of heritage documents from the merged BP companies as follows:

BP

GS 140-2	Chemical Dosing Package
RP 60-1	Cooling Water Treatment
RP 6-1	Corrosion Monitoring
GS 126-1	Shell and Tube Exchangers

Amoco

A A FE-CTWR-00-E	Fabricated Equipment-Cooling Towers-Engineering Specification
A FE-CTWR-00-G	Fabricated Equipment-Cooling Towers-Guide
A PN-PLT-UTIL-G	Piping Plant Utility Guide
RE-PUMP-73H-P	Rotating Equipment-Pumps-ASME B73.1 Horizontal Centrifugal Procurement Specification
A RE-PUMP-73V-P	Rotating Equipment-Pumps-ASME B73.2 Vertical Centrifugal Procurement Specification

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1. Scope

- a. This Guidance on Industry Standard specifies BP's general requirements for chemical dosing packages comprising storage tank(s), dosing pumps and associated pipework, for use on hydrocarbon production, processing and exporting facilities.
- b. The requirements detailed within this document are applicable irrespective of final location. Details which are site specific, e.g., tank capacity, environmental data will be provided by the purchaser.
- c. Verification of the supplier's quality system is normally part of the pre-qualification procedure, and is therefore not specified in the core text of this specification. If this is not the case, clauses should be inserted to require the supplier to operate and be prepared to demonstrate the quality system to the purchaser. The quality system should ensure that the technical and QA requirements specified in the enquiry and purchase documents are applied to all materials, equipment and services provided by sub-contractors and to any free issue materials. Further suggestions may be found in the BP Group RPSEs Introductory Volume.

This GIS is intended for use in conjunction with a functional specification and associated data sheets and drawings which give specific project requirements.

2. Normative references

The following normative documents contain requirements that, through reference in this text, constitute requirements of this technical practice. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this technical practice are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies.

American Petroleum Institute (API)

API 675 Positive Displacement Pumps - Controlled Volume

BP Engineering Technical Practices (ETP)

GP 6-60	Guidance on Practice for Onshore and Offshore Paints and Coatings
GP 12-20	Guidance on Practice for Motors
GIS 12-201	Guidance on Industry Standard for IEC Low Voltage Induction Motors
GIS 12-202	Guidance on Industry Standard for NEMA Low Voltage Induction Motors
GP 12-45	Guidance on Practice for Electrical for Packaged Systems
GP 18-01	Guidance on Practice for General Requirements for Welded Fabrication
GP 30-25	Guidance on Practice for Field Instrument – General
GP 30-35	Guidance on Practice for Control Valves and Pressure Regulators
GP 30-65	Guidance on Practice for Control Panels
GP 30-70	Guidance on Practice for I & C in Vendor Packaged Equipment
GIS 30-402	Guidance on Industry Standard for Programmable Logic Controllers (PLC) Procurement
GIS 34-212	Guidance on Industry Standard for Control Volume Pumps (API-675)
GP 36-10	Guidance on Practice for Engineering Guidance on Materials Selection
GP 40-10	Guidance on Practice for Structural Skids and Skid Mounted Units



GP 42-10	Guidance on Practice for Metallic Piping Systems ASME B31.3
GP 43-22	Guidance on Practice for Above ground Facilities - Onshore PLs
GP 52-10	Guidance on Practice for Thermal Insulation
GP 60-50	Guidance on Practice for General Issues – Equipment Packages

British Standards Institution (BSI)

BS 799 Part 5	Specification for Oil Storage Tanks
BS 2594	Carbon Steel Welded Horizontal Cylindrical Storage Tanks
BS 4994	Design and Construction of Vessels and Tanks in Reinforced Plastics

International Electrotechnical Commission (IEC)

IEC 51	Direct Acting Indicating Analogue Electrical Measuring Instruments and their Accessories
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3. Symbols and abbreviations

For the purpose of this GIS, the following symbols and abbreviations apply:

NPSH Net Positive Suction Head

4. Design requirements**4.1. General**

- a. For each chemical the main equipment of the facility shall normally consist of a tank and dosing pump(s). However, there may be instances where tote tanks will be used in lieu of dedicated tanks within the package; any provision to be made for this event will be identified within the data sheets but in all cases pump(s) will be required.
- b. The overall design should recognise that where the package contains dosing facilities for more than one chemical and where the chemicals require dilution there is a possibility of contamination of one chemical by another and that spillage / leakage of one chemical could affect the facilities of another. The design therefore, should minimise the potential for contamination etc. and recognise that there may be a high level of operator involvement in the operation of the dosing facilities.
- c. In case of conflict between this document and inquiry or requisition, the order of precedence shall be:
 1. Local Authority or Statutory Regulations
 2. The Equipment Requisition and Data Sheets
 3. This GIS
 4. Other Industry and National Standards and Specifications.
- d. The supplier shall co-ordinate the design and ensure the satisfactory functioning of the complete package, i.e., tanks, dosing pumps and, if applicable, controls and other ancillaries. In cases where the supplier supplies equipment that he has not manufactured, the supplier shall ensure that the designs of these are compatible with each other and with his own equipment in all respects. The satisfactory functioning of the complete package shall form part of the supplier's guarantee.
- e. The location of the package and the applicable hazardous area classification will be specified by the Purchaser. The package shall comply in all respects with the requirements of the specified classification.

