DEP SPECIFICATION

POSITIVE DISPLACEMENT PUMPS – CONTROLLED VOLUME (AMENDMENTS/SUPPLEMENTS TO API STD 675)

DEP 31.29.12.31-Gen.

February 2016

DESIGN AND ENGINEERING PRACTICE

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These views are based on the experience acquired during involvement with the design, construction, operation and maintenance of processing units and facilities. Where deemed appropriate DEPs are based on, or reference international, regional, national and industry standards.

The objective is to set the standard for good design and engineering practice to be applied by Shell companies in oil and gas production, oil refining, gas handling, gasification, chemical processing, or any other such facility, and thereby to help achieve maximum technical and economic benefit from standardization.

The information set forth in these publications is provided to Shell companies for their consideration and decision to implement. This is of particular importance where DEPs may not cover every requirement or diversity of condition at each locality. The system of DEPs is expected to be sufficiently flexible to allow individual Operating Units to adapt the information set forth in DEPs to their own environment and requirements.

When Contractors or Manufacturers/Suppliers use DEPs, they shall be solely responsible for such use, including the quality of their work and the attainment of the required design and engineering standards. In particular, for those requirements not specifically covered, the Principal will typically expect them to follow those design and engineering practices that will achieve at least the same level of integrity as reflected in the DEPs. If in doubt, the Contractor or Manufacturer/Supplier shall, without detracting from his own respons bility, consult the Principal.

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3) Contractors/subcontractors and Manufacturers/Suppliers under a contract with users referred to under 1) or 2) which requires that tenders for projects, materials supplied or - generally - work performed on behalf of the said users comply with the relevant standards.

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All administrative queries should be directed to the DEP Administrator in Shell GSI.

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PART I INTRODUCTION

1.1 SCOPE

This DEP specifies requirements and gives recommendations for reciprocating controlled volume pumps for use in oil refineries, chemical plants, gas plants and, where applicable, in exploration, production and new ventures.

This DEP is based on API STD 675, Third edition Errata: June 2014; Errata 2: April 2015 "Positive Displacement Pumps - Controlled Volume for Petroleum, Chemical, and Gas Industry Services". Part III of this DEP amends, supplements and deletes various clauses of API STD 675. Part III follows the clause numbering of API STD 675 for easy reference.

All clauses of API STD 675 not modified by this DEP remain valid as written.

For reciprocating positive displacement pumps based on API 674, see DEP 31.29.12.30-Gen.

This is a revision of the DEP of the same number dated February 2013; see (1.5) regarding the changes.

1.2 DISTRIBUTION, INTENDED USE AND REGULATORY CONSIDERATIONS

Unless otherwise authorised by Shell GSI, the distribution of this DEP is confined to Shell companies and, where necessary, to Contractors and Manufacturers/Suppliers nominated by them. Any authorised access to DEPs does not for that reason constitute an authorisation to any documents, data or information to which the DEPs may refer.

This DEP is intended for use in facilities related to oil and gas production, gas handling, oil refining, chemical processing, gasification, distribution and supply/marketing. This DEP may also be applied in other similar facilities.

When DEPs are applied, a Management of Change (MOC) process shall be implemented; this is of particular importance when existing facilities are to be modified.

If national and/or local regulations exist in which some of the requirements could be more stringent than in this DEP, the Contractor shall determine by careful scrutiny which of the requirements are the more stringent and which combination of requirements will be acceptable with regards to the safety, environmental, economic and legal aspects. In all cases, the Contractor shall inform the Principal of any deviation from the requirements of this DEP which is considered to be necessary in order to comply with national and/or local regulations. The Principal may then negotiate with the Authorities concerned, the objective being to obtain agreement to follow this DEP as closely as possible.

1.3 DEFINITIONS

1.3.1 General definitions

The **Contractor** is the party that carries out all or part of the design, engineering, procurement, construction, commissioning or management of a project or operation of a facility. The Principal may undertake all or part of the duties of the Contractor.

The **Manufacturer/Supplier** is the party that manufactures or supplies equipment and services to perform the duties specified by the Contractor.

NOTE: In API STD 675, the term **Vendor** is used. In this DEP, the term **Vendor** shall be understood to mean the Manufacturer/Supplier.

The **Principal** is the party that initiates the project and ultimately pays for it. The Principal may also include an agent or consultant authorised to act for, and on behalf of, the Principal.

NOTE: In API STD 675, the term **Purchaser** is used. In this DEP, the term **Purchaser** shall be understood to mean the Principal.

The word **shall** indicates a requirement.

The word **should** indicates a recommendation.

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1.4 CROSS-REFERENCES

Where cross-references to other parts of this DEP are made, the referenced section or clause number is shown in brackets ( ). Other documents referenced by this DEP are listed in (Part IV).

1.5 SUMMARY OF MAIN CHANGES

This DEP is a full revision of the DEP of the same number dated February 2013. The following are the main, non-editorial changes.

Section/Clause	Change
Part III	The standard being amended is a newer version of API STD 675, This DEP uses API STD 675:2012 Third Edition; Errata: June 2014; Errata 2: April 2015
Part III, 1	Restriction of diaphragm pumps
Part III, 3.70	Revised definition
Part III 6.4 through 6.7	Added requirements
Part III 7.2, 7.3	Added requirements

1.6 COMMENTS ON THIS DEP

Comments on this DEP may be submitted to the Administrator using one of the following options:

Shell DEPs Online (Users with access to Shell DEPs Online)	Enter the Shell DEPs Online system at https://www.shelldeps.com Select a DEP and then go to the details screen for that DEP. Click on the "Give feedback" link, fill in the online form and submit.
DEP Feedback System (Users with access to Shell Wide Web)	Enter comments directly in the DEP Feedback System which is accessible from the Technical Standards Portal http://sww.shell.com/standards. Select "Submit DEP Feedback", fill in the online form and submit.
DEP Standard Form (Other users)	Use DEP Standard Form 00.00.05.80-Gen. to record feedback and email the form to the Administrator at standards@shell.com.

Feedback that has been registered in the DEP Feedback System by using one of the above options will be reviewed by the DEP Custodian for potential improvements to the DEP.

1.7 DUAL UNITS

This DEP contains both the International System (SI) units, as well as the corresponding US Customary (USC) units, which are given following the SI units in brackets. When agreed by the Principal, the indicated USC values/units may be used.

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1.8 NON NORMATIVE TEXT (COMMENTARY)

Text shown in italic style in this DEP indicates text that is non-normative and is provided as explanation or background information only.

Non-normative text is normally indented slightly to the right of the relevant DEP clause.

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PART II GENERAL

Part III of this DEP is written as amendments and supplements to API STD 675:2012, Third edition, Errata: June 2014; Errata 2: April 2015. Wherever reference is made to API STD 675, it shall be understood to mean API STD 675:2012, Third edition, Errata: June 2014; Errata 2: April 2015 as amended/supplemented by this DEP.

For ease of reference, the clause numbering of API STD 675 has been used throughout Part III of this DEP.

Clauses in API STD 675, which are not mentioned in this DEP, shall remain valid as written.

1. Reciprocating controlled volume pumps shall conform to API STD 675, as amended or supplemented by this DEP.

2. A bullet (•) in the margin against certain clauses in API 675 indicates that a decision by the Principal is required.

    a. These decisions shall be indicated directly in data/requisition sheet DEP 31.29.12.93-Gen., when provisions are made for them;

    b. If no provision is made for these decisions, they shall be indicated in the data/requisition sheet(s) under the heading 'Additional Requirements', or stated in the purchase order.

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