

PETRONAS TECHNICAL STANDARDS

DESIGN AND ENGINEERING PRACTICE

TECHNICAL, PROCEDURAL AND SPECIFICATIONS

PUMP MODELING

PTS 20.27.10.41

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PTS Title:	Pump Modeling

This new PTS 20.27.10.41 – Pump Modeling (January 2010, Revision 0) has been developed to standardize the correct method of pump modeling in steady state process simulation.

This PTS also includes PETRONAS Lessons Learnt and PETRONAS Best Practice for the subject matter Pump Modeling.

Document Approval

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1. INTRODUCTION

1.1 SCOPE

This PTS specifies requirements and gives recommendations for the preparation of Steady-state simulation model for pumps. The party responsible for the process design and process optimization work prepares these simulation models.

The requirements and recommendations in this PTS are independent of the tools with which the simulation models are produced. However, it is advised that iCON (PETRONAS Process Simulation Software) is used to generate the steady-state model to aid models accessibility. If other process simulation software is used, it shall be endorsed by GTS Process Optimization Group and a copy of the software shall be made available to PETRONAS.

Standards for dynamic simulation models for pumps will be discussed in a separate PTS.

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This PTS is intended for use in oil refineries, gas plants, chemical plants, exploration and production facilities and where applicable, supply/marketing installations. When PTSs are applied, a Management of Change (MOC) process should be implemented. This is of particular importance when existing facilities are to be modified.

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