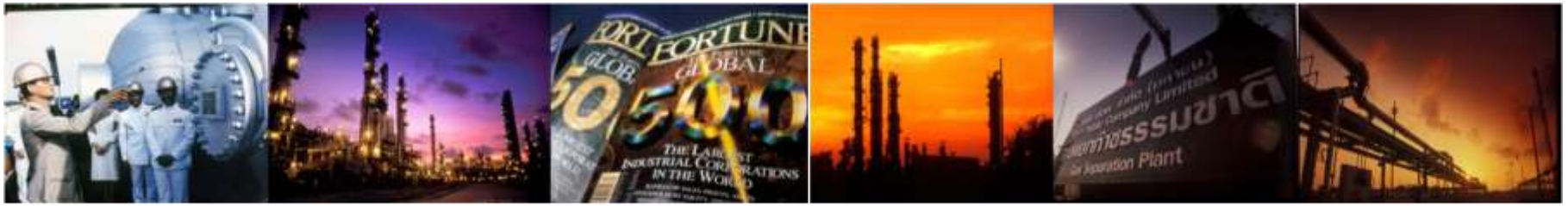
Gas Separation Plant



Management of Change System

OPERATIONS EXCELLENCE MANAGEMENT SYSTEM

INTRODUCTION TO OEMS FRAMEWORK

MOC PTT Group Principle & Definition

- 12.1 Approval & Authorization
- 12.2 Technical Review
- 12.3 Implementation
- 12.4 Acceptance and Close out

12 EVOLVE: MANAGEMENT OF CHANGE

TEMPORARY OR PERMANENT OPERATIONAL CHANGES TO PTT GROUP ASSETS, PROCEDURES AND SYSTEMS ARE MANAGED TO ENSURE SAFE, RELIABLE, SUSTAINABLE AND COST-EFFECTIVE OPERATIONS WHILE MINIMIZING IMPACT ON COMMUNITIES AND ENVIRONMENT.

12.1 **Approval and authorization:** Level of authority with clear roles and responsibilities are defined to approve permanent and/or temporary changes. Changes are recorded and managed through a transparent workflow process to allow tracking of status and future reference.

12.2 **Technical review:** Competent individuals review operations integrity implications of the change to assure that risks are at an acceptable level. Competent individuals also assure that changes are compliant with regulations and approved standards. Risks associated with the implementation are identified and quantified.

12.3 **Implementation:** Changes are clearly communicated. Status of changes are documented and tracked. Unexpected changes that arise during implementation follow the Management of Change process.

12.4 **Acceptance and close out:** Changes are reviewed and signed-off when they are implemented according to plan. Handover process, including handover of operating procedures and documentations, is established.

GSP CHANGE DEFINITION

Any action that make any item as below change.

1. P&ID
2. Plant Lay-out Plot Plan
3. Equipment Drawing
4. Hazardous Classification Zone
5. Process Safety Set point (Exp. Pressure Switch/Temp Switch)
6. Overide Interlock Signal more than 72 hrs.

Remark : Item as above include permanent and temporary Change

GSP MOC SYSTEM OVERVIEW

STEP 1 (Concept Approve)	STEP 2 (Technical/Safety Review)	STEP 3 (Approve for Change)	STEP 4 (Implementation)	STEP 5 (Result Conclusion /Close Job)
1. Initiate Problem/ Improvement concept 2. Identify Loss Effect (TPM) 3. Estimate Benefit By : User 4. Review Concept By : User Div. Mgr. 5. Approve Concept to detail study. By : 3 VP and 1 Div. Mgr. - Operation VP - Eng&MT VP, - Prod. Planning & Technical VP, - GSP QSHE Mgr. 6. Register Plant Change item By : Eng. Div.	1. Process Feasibility Study By : Process Div. 2. Roughly Cost Estimate By : Eng. Div. 3. Approve / Priority Ranking By : Plant Changed Committee 4. Basic Design By : Process/Eng. Div 5. Safety /Environment /Operability Review By : All Concern party - Eng. Div - Operation Div - Process Div. - Safety Div.	1. Budget Estimation By: Eng. Div. 2. Review Concern Issue & Budget By : Eng&MT VP. 3. Approve for Change By : EVP. Natural Gas Processing	1. Project Schedule Planning 2. ITB Preparation By: Eng. Div. 3. Equip/ Mat /Contractor Procurement By : Eng. Div/ Procurement Div. 4. Modify/ Construction/ Inspection & Testing By Eng. Div. 5. Pre-Start up Safety Review(PSSR) By : Eng. Div. /Process Div. /Oper. Div./Safety Div. 6. Approve for Commissioning By : Eng&MT VP.	1. Review Operating Instruction & Training By : Operation Div. 2. Review As built Dwg updated to Document Server By : Eng. Div. 3. Evaluate result of project (Cross check by 3 Div.) By : Oper. Div/Eng. Div/Process Div. 4. Fill all data in KM System By: Eng. Div. 5. Approve for close job By : Chief of Plant Changed Committee