



PHARMA DEVILS

ENGINEERING DEPARTMENT

Title: Energy Efficient Procurement & Design

SOP No.:

Revision No.:

00

Effective Date:

Supersedes No.

Nil

Review Date:

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1.0 OBJECTIVE:

To lay down a procedure for Energy Efficient Procurement & Design.

2.0 SCOPE:

This SOP is applicable to all supply chain partners and all equipment purchases and procurement of the organization.

3.0 RESPONSIBILITY:

1. Purchase department is responsible for the energy efficient procurement in the organization.
2. Project department & Engineering department are responsible for the energy consideration in design.

4.0 ACCOUNTABILITY:

1. Head of Purchase department
2. Head of Project department
3. Head Department : Approval, ensuring training and implementation of SOP

5.0 ABBREVIATIONS:

SOP Standard Operating Procedure
LCC Life Cycle Cost

6.0 Operation procedure of Nitrogen Plant (30 NM³/Hr.)

6.1 Identify the facilities, equipment, systems and processes involved in this design effort that can significantly impact energy performance and identification of procurement of energy services, products and equipment that have, or can have, an impact on significant energy uses.

6.2 Identification of some or new technology and other options for improving energy performance.

6.3 To define and documented energy efficient purchasing specifications, engineering team provide specification of the equipment or product or item, If it is not possible, then, purchase department may consider inclusion of specifications given by suppliers with their offer in the purchase order.

6.4 In the procurement, consideration to be given to the following:

6.4.1 Energy Efficiency Eco label & Certification : Identification of a product with superior energy efficiency performance is to look for those that are certified as energy efficient by independent third party, such as Energy Star by Bureau of Energy Efficiency.

Economical & Eco-friendly alternative Energy Source: Procuring products and services that have a minimal negative impact on the environment.

6.4.2 Life Cycle Cost: While making a decision for procuring an item or equipment, consideration should be given to the costs generated by the equipment over the whole useful life of the equipment not only purchase price of it.



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While considering LCC analyses in the energy efficient procurement, it should consider following information.

6.4.2.1 Purchase costs and all associated costs, such as delivery installation commissioning.

6.4.2.2 Longevity and warranty time frame of the item.

6.4.2.3 Operating costs, including utility costs such as energy, maintenance & repairing cost.

6.4.2.4 End of the life cost, such as removal, recycling or refurbishment and decommissioning.

6.4.2.5 Multiple manufacturers (generally a minimum of 3) must be able to meet the efficiency requirements with currently available models.

6.4.2.6 The technology used in the manufacturing process or product to meet the requirement must be available from multiple sources.

6.5 While considering the energy considerations in design Project and Engineering team shall take into account legal requirements and other requirements, significant energy uses and opportunities to improve energy performance, as identified in the energy review. Project and Engineering team shall also consider its financial, operational and business conditions, technological options and the views of interested parties.

6.6 Project and Engineering team shall incorporate the results of the energy performance evaluation where appropriate into the specification, design and procurement activities of the relevant project(s).

7.0 ANNEXURES:

Not Applicable

ENCLOSURE: SOP Training Record

8.0 DISTRIBUTION:

- Controlled Copy No. 01 Quality Assurance
- Controlled Copy No. 02 Engineering
- Master Copy Quality Assurance

9.0 REFERENCES:

Operation Manual



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10.0 REVISION HISTORY:

CHANGE HISTORY LOG

Revision No.	Change Control No.	Details of Changes	Reason for Change	Effective Date	Updated By