



NATIONAL, PETROCHEMICAL COMPANY
STANDARDS

ENGINEERING STANDARD
FOR
FLARE STACK SUPPORTING STRUCTURE

NPCS-ES-ST--05

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FIGURE 1

FIGURE 2

FIGURE 3 a

FIGURE 3 b

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1 GENERAL

1.1 SCOPE

This standard covers the minimum requirements for the design and material of supporting structure for flare stacks.

1.2 REGULATIONS

1.2.1 The work shall be done in accordance with the national and local laws and regulations.

1.2.2 For subjects not covered by regulations or specifications, the design and material shall be based on good engineering and working practice and shall be subject to approval by client.

1.3 STANDARDS AND CODES

The latest edition of the following standards and codes shall constitute minimum requirements for this standard, where applicable.

a) Iranian Standards

- Iranian National Building Code Part 5, Building Materials and Products.
- ISIRI No.519, Minimum Design Loads in Buildings and Other Structures.
- Iranian Code for Seismic Resistant Design of Buildings, Standard No.2800.

b) ANSI

American National Standards Institute.

- ANSI A 58.1 Building Code Requirements for Minimum Design Loads in Buildings and Other structures,

c) AISC

American Institute of Steel Construction.

- Manual of Steel Construction.
- Specification for Structural Steel Buildings.
- Code of Standard Practice for Steel Buildings and Bridges.



- d) ACI American Concrete Institute.
- ACI 318-89 Building Code Requirements for Reinforced Concrete.
- e) UBC Uniform Building Code.
- f) ASTM American Society of Testing and Materials.
- g) NPCS National Petrochemical Standards.
- NPCS-ES-PV-04 Engineering Standard for Flare Stack.
- NPCS-ES-ST-01 Engineering Standard for concrete.
- NPCS-ES-ST-0X Engineering Standard for Steel structure.
- NPCS-ES-GN-03 Engineering Standard for System of Units.

1.4

UNITS

Units shall be in accordance with NPCS-ES-GN-03.

Length	Meter (m) and millimeter (mm).
Force	Kilogram force (kgf). & Tons (T).
Weight	Kilogram (kg).
Moment	Ton-meter (T-m).
Stress and pressure :	(kg/cm ²).
Loadings	(kg/m ²).

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