

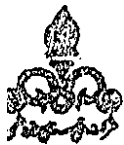


NATIONAL PETROCHEMICAL COMPANY
STANDARDS

CONSTRUCTION STANDARD
FOR
FABRICATION & ERECTION OF WATER PIPE LINE

NPCS-CS-GC-08

REVISION : 0



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SCOPE

This standard describes the fabrication and erection, installation of the pipes in trenches, coating and wrapping of Carbon Steel pipes, for water systems in an industrial complex. The work mainly involves following but not limited to.

- Fabrication of pipes, fittings, specials, etc., as per piping material standard.
- Transportation of pipes from client's store within complex.
- Coating and wrapping of the pipes.
- Earthwork in excavation for pipe trenches.
- Bedding.
- Lowering and laying.
- Jointing / welding.
- Flushing, testing & commissioning.
- Civil and other construction works.
- Backfilling of trenches complete in all respect.

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STANDARDS AND CODES

- | | |
|-----------------|---|
| - ANSI B 31.3 | Petroleum Refinery Piping. |
| - NPCS-CS-GC-04 | Earthwork Excavation and BackFill. |
| - NPCS-CS-GC-09 | Coating and Wrapping of Underground Piping. |
| - NPCS-ES-PI-02 | Piping Material Specification. |
| - NPCS-CS-PI-01 | Welding & Heat Treatment. |
| - NPCS-CS-PI-02 | For Piping Fabrication and Erection. |

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- NPCS-CS-PI-04 Testing, Flushing and Reinstatement of Piping.
- AWWA American water Works Association.
C206-62(AWS D7.0-62) AWWA Standard for Field Welding of Steel Water Pipe Joints.
- Piping Handbook by Crocker & King.

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WATER SYSTEMS

Normally water lines are pressurised lines which may be consist of following systems, for underground piping.

- Raw water system.
- Treated water system.
- Fire water system.
- Cooling water system.
- Service water system.
- Potable/ drinking water system

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MATERIAL OF PIPES

Mainly following materials shall be used for above mentioned systems.

- Carbon Steel pipes.
- Cast Iron pipes.
- Galvanized Carbon Steel pipes.
- PVC pipes.