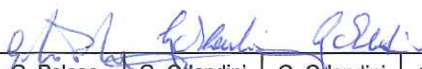




	<b>SITE CONDITIONS</b>	
Owner: <b>SADAF Chemical Co.</b>	Plant: <b>ESBR Bandar Assalouyeh - IRAN</b>	Tecnimont Project No. <b>3678</b>
Owner Identification Code <b>206-0000-PS-SPC-002</b>	Tecnimont Identification Code <b>3678-VZ-SG-0001</b>	Page 1 of 7   Issue 02

## SITE CONDITIONS



02	BEP FINAL ISSUE	 G. Polese	G. Orlandini	G. Orlandini	12-12-2012
01	GENERAL REVISION	G. Polese	G. Orlandini	G.Orlandini	28-09-2012
00	ISSUED FOR BASIC ENGINEERING	N. Harkare	G. Orlandini	G.Orlandini	02-02-2012
Issue	Description	Prepared	Checked	Approved	Date

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## 1 LOCATION

The subject PLANTS are located at Bandar Asaluye, North of Pesian Gulf and South of IRAN.

## 2 LOCAL CONDITIONS

### 2.1 Environment Quality

Environment is salty, corrosive, humid and contains traces of H<sub>2</sub>S and sulphur dust.

- Maximum presence of H<sub>2</sub>S: 10 ppm
- Maximum presence of SO<sub>2</sub>: 2 ppm

### 2.2 Other Data

- Frost line based on Not applicable
- Sea breeze To be considered
- Thunder and lightning To be considered
- Sandstorm To be considered

### 2.3 Elevation



Average height from sea-level 32 m

## 3 METEOROLOGICAL DATA

### 3.1 Air Temperature

#### Ambient Air Temperature

- Max./Min. recorded temperature 48 / 5 °C
- Max. Dry Bulb (summer) 48 °C
- Max. Wet Bulb (summer) 33 °C
- Min. Dry Bulb (winter) 5 °C
- Min. Wet Bulb (winter) 7 °C
- Max. Temperature 85 °C  
(for equipment exposed to sunlight)
- Max. Temperature (Design) 55 °C  
(for mechanical, civil and structure design)
- Soil Temperature for cable selection 30 °C
- Design Minimum Temperature 5 °C

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Design Air Temperature for Electrical Components

- Max. Outdoor 48 °C
- Max. Indoor 45 °C
- Min. Outdoor 5 °C
- Max. design temperature (for substation equipment) 40 °C

Design Air Temperature for Equipment using Ambient Air

Air temperature to be considered for design of air coolers, fans and compressors is 48°C (dry bulb).

**3.2 Barometric Pressure**

The barometric pressure at site varies between 990 up to 1100 mbar a.

**3.3 Relative Humidity**

Ambient Air Relative Humidity

- Summer (max) 65 % @ 48 °C
- Winter (max) 80 % @ 14 °C

Outdoor Ambient Air Relative Humidity for Design of Conditioned Space

- At Max. Temperature (summer) 65 %
- At Max. Temperature (winter) 100 %
- Value to be considered for design: 80% @ 48 °C

Ambient Air Relative Humidity to be considered for design of electrical equipment is 85%.

**3.4 Precipitations**

Design rainfall values



100 years rainfall rates at:

- 5 Minutes 40 mm
- 15 Minutes 71 mm
- 30 Minutes 93 mm
- 1 hour 109 mm (max)
- 24 hours 182 mm/day
- Rainfall value for sewer design 40 mm/h

Snow Load

- Design snow load: Not Applicable





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<b>LABORATORY BUILDING</b>						
Room	Summer		Winter		Fresh air Mini	Over pressure value pa
	Dry bulb Temp. °C	Relative Humidity %	Dry bulb Temp. °C	Relative Humidity %		
Laboratory	25 ± 2	50 ± 5	22 ± 1	45 ± 5	2 AC/hr *	<+50
Office	25 ± 2	50 ± 5	22 ± 1	45 ± 5	2 AC/hr	<+50
Hall / corridor	25 ± 2	50 ± 5	22 ± 1	45 ± 5	1 AC/hr	<+50

(\* ) This AC/hr shall be finalized after receiving laboratory equipment information.

<b>SUBSTATION BUILDING</b>						
Room	Summer		Winter		Fresh air Mini	Over pressure value pa
	Dry bulb Temp. °C	Relative Humidity %	Dry bulb Temp. °C	Relative Humidity %		
Cable basement/HV & LV switch gear	32	NC	NC	NC	10% SA	30
Office / capacitor bank	25 ± 2	50 ± 5	22 ± 1	45 ± 5	2 AC/hr	30
Battery Room	32	NC	NC	NC	10 AC/hr	-
Emergency desil / HVAC Room	32	NC	NC	NC	1 AC/hr	-

<b>ANALYZER HOUSE</b>						
Room	Summer		Winter		Fresh air Mini	Over pressure value pa
	Dry bulb Temp. °C	Relative Humidity %	Dry bulb Temp. °C	Relative Humidity %		
Inst. Analyzer Room	25 ± 2	50 ± 5	22 ± 1	45 ± 5	10% SA	<+50

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## 5 RADIATION LEVELS

- Flare Thermal radiation 16 m/s
- Continuous flaring (including solar radiation) 1.6 kw/m3
- Short duration emergency flaring (including solar radiation) 4.73 kw/m3
- Solar radiation (maximum) 1.04 kw/m3

## 6 TRANSPORTATION

- Max weight up to 96 tons
- Max load per axle 12 tons
- Max height 5.2 m
- Max width 5 m
- Max length 50m
- Transportation by sea No limitation by size/weight

## 7 POLLUTION

Surface and underground fresh water pollution shall be avoided.  
Any undue air pollution due to proximity of site to a major city shall be avoided.

## 8 DIRECTION OF MECCA

Direction to be considered is SW (South – West)