National Electric Power Regulatory Authority
Islamic Republic of Pakistan

2nd Floor, OPF Building G-5/2, Islamabad
Tele: 9206500, Fax: 9210215
E-Mail: info@nepra.org.pk

Registrar

No. NEPRA/R/LAG - 78/ 3292 - 93 21-06-2006

President
Saif Power Ltd.
3rd Floor Kulsum Plaza,
42-Blue Area,
Islamabad.

Subject: **Grant of Generation Licence IGSPL/04/2006**
Licence Application No. LAG-78
M/s. Saif Power Ltd. (SPL)

Please refer to your application No. SG/SPL/2006/02 dated 01.02.2006 to NEPRA for a Generation Licence.

2. Enclosed here is Generation Licence No. IGSPL/04/2006 granted by the Authority to M/s. Saif Power Ltd. The Licence is granted to you pursuant to Section 15 of the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997).

3. Please quote above mentioned Generation Licence No. in your future correspondence with the Authority.

DA/as above.

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
REGISTRAR
NEPRA

21.06.06.
(Mahjoob Ahmad Mirza)

Copy for information to Director General, Pakistan Environmental Protection Agency, 44-E, Office Tower, Blue Area, Islamabad.

National Electric Power Regulatory Authority (NEPRA)
Islamabad – Pakistan

GENERATION LICENCE

No. IGSPL/04/2006

In exercise of the Powers conferred upon the National Electric Power Regulatory Authority (NEPRA) under Section 15 of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (XL of 1997), the Authority hereby grants a Generation Licence to:

M/s Saif Power Limited
(Installed Capacity: 225 MW ISO Gross)

For its Plant at Sahiwal, Punjab

Incorporated under the Companies Ordinance, 1984
Under Certificate of Incorporation

No. 0000004080/20041101 Dated November 11, 2004

to engage in generation business subject to and in accordance with the Articles of this Licence.

Given under my hand this 21st day of JUNE, Two Thousand & Six, and expires on 30th day of JULY, Two Thousand & THIRTY EIGHT.

Registrar

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
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Article 1
Definitions

1.1 In this Licence

(a) "Act" means the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (XL of 1997);

(b) "Authority" means the National Electric Power Regulatory Authority constituted under section 3 of the Act;

(c) "Licensee" means M/s Saif Power Limited

(d) "Rules" mean the National Electric Power Regulatory Authority Licensing (Generation) Rules, 2000.

1.2 Words and expressions used but not defined herein bear the meaning given thereto in the Act or in the Rules.

Article 2
Application of Rules

This Licence is issued subject to the provisions of the Rules, as amended from time to time.

Article 3
Generation Facilities

3.1 The location, size (capacity in MW), technology, interconnection arrangements, technical limits, technical functional specifications and other details specific to the power generation facilities of the Licensee are set out in Schedule-I to this Licence.

3.2 The net capacity of the Licensee's generation facilities is set out in Schedule-II hereto.

3.3 The Licensee shall provide the final arrangement, technical and financial specifications and other details specific to generation facilities before commissioning of the generation facilities.

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Article 4
Term

4.1 The Licence is granted for a term of 30 years after the commercial Operation date.

4.2 Unless revoked earlier, the Licensee may ninety days (90) days prior to the expiry of the term of the Licence, apply for renewal of the Licence under the Licensing (Application and Modification Procedures) Regulation, 1999

Article 5
Licence fee

After the grant of the Generation Licence, the Licensee shall pay to the Authority the Licence fee, in the amount and manner and at the time set out in National Electric Power Regulatory Authority (Fees) Rules, 2002.

Article 6
Tariff

The licensee shall charge from its consumers only such tariff which has been approved by the Authority.

Article 7
Competitive Trading Arrangement

7.1 The Licensee shall participate in such measures as may be directed by the Authority from time to time for development of a Competitive Trading Arrangement. The Licensee shall in good faith work towards implementation and operation of the aforesaid Competitive Trading Arrangement in the manner and time period specified by the Authority. Provided that, any such participation shall be subject to any contract entered between the Licensee and another party with the approval of the Authority.

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NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
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7.2 Any variation or modification in the above-mentioned contracts for allowing the parties thereto to participate wholly or partially in the Competitive Trading Arrangement shall be subject to mutual agreement of the parties thereto and such terms and conditions as may be approved by the Authority.

Article 8
Maintenance of Records

For the purpose of sub-rule (1) of Rule 19 of the Rules, copies of records and data shall be retained in standards and electronic form and all such records and data shall, subject to just claims of confidentiality, be accessible by authorized officers of the Authority.

Article 9
Compliance with Performance Standards

The Licensee shall conform to the relevant NEPRA rules on Performance Standards as may be prescribed by the Authority from time to time.

Article 10
Compliance with Environmental Standards

The Licensee shall conform to the environmental standards as may be prescribed by the relevant competent authority from time to time.

Article 11
Provision of Information

11.1 The obligation of the licensee to provide information to the Authority shall be in accordance with Section 44 of the Act.

11.2 The licensee shall be subject to such penalties as may be specified in the relevant rules made by the Authority for failure to furnish such information as may be required from time to time by the Authority and which is or ought to be or have been in the control or possession of the licensee.

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NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
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SCHEDULE-I

The location, size (capacity in MW) technology, interconnection arrangements, technical limits, technical functional specifications and other details specific to the Generation Facilities of the Licensee.

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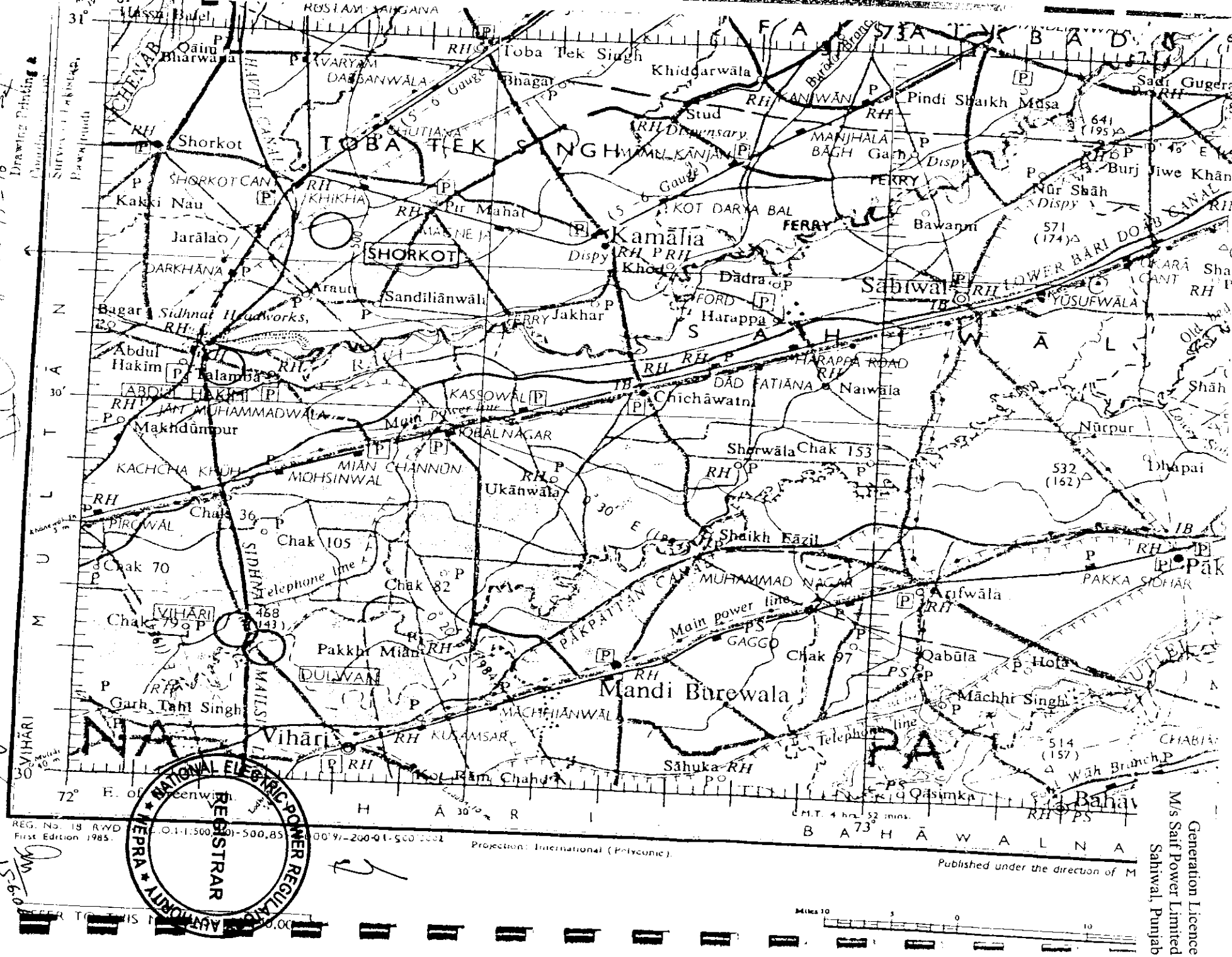
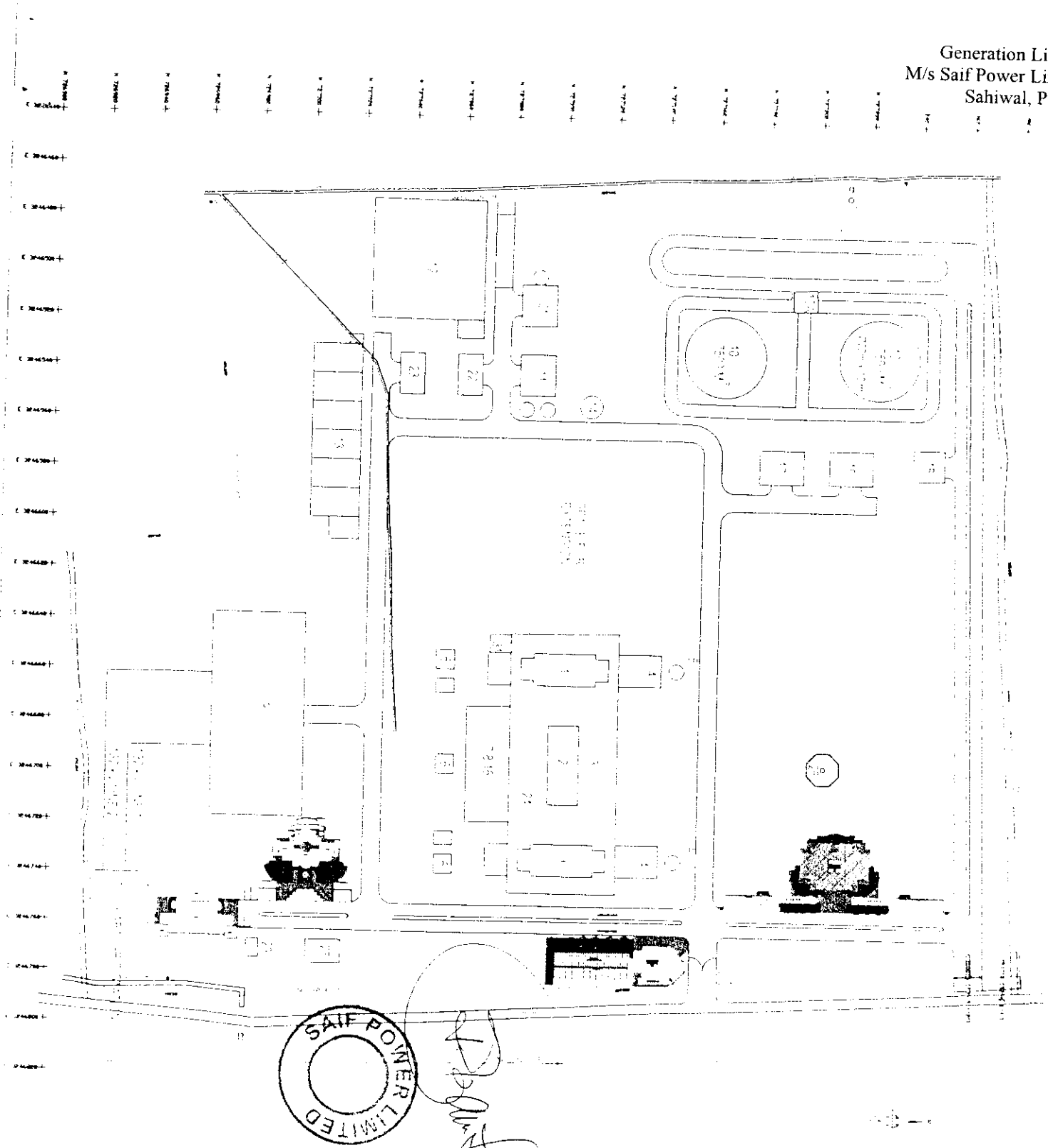


Latitude 30°-42'
Longitude 73°-16'

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY REGISTRAR

Generation Licence
M/s Saif Power Limited
Sahiwal, Punjab

Page 2 of 10 of Schedule-I



SURVEY BY P.E.S. – ONLY ARCHITECTURAL FOOTPRINTS HAVE BEEN INSERTED INTO THIS DRAWINGS BY H&H A.

NOTES
1- COLONY/AMENITY BUILDINGS ARE NOT TO
2- ALL DIMENSIONS ARE IN METERS
3- MAGNETIC BEARING TAKEN FROM
MD-01 TO MD-0218P-00'-00".
4- COORDINATES OF THE BASE STATION
MARKED ESTABLISHED BY E 2311640(m) N 1143821(m)
ELEVATION 710(m)
5- TOTAL AREA = 2700000 (0.0Sqm)

LEGEND

SAIF POWER PVT. LIMITED

200MW CCPP SAHIWAL

LAYOUT PLAN

PAKISTAN ENGINEERING SERVICES (PVT.) LTD.
88 - COMMERCIAL AREA, PHASE-II
D.H.A. LAHORE.

SAIF POWER LIMITED

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
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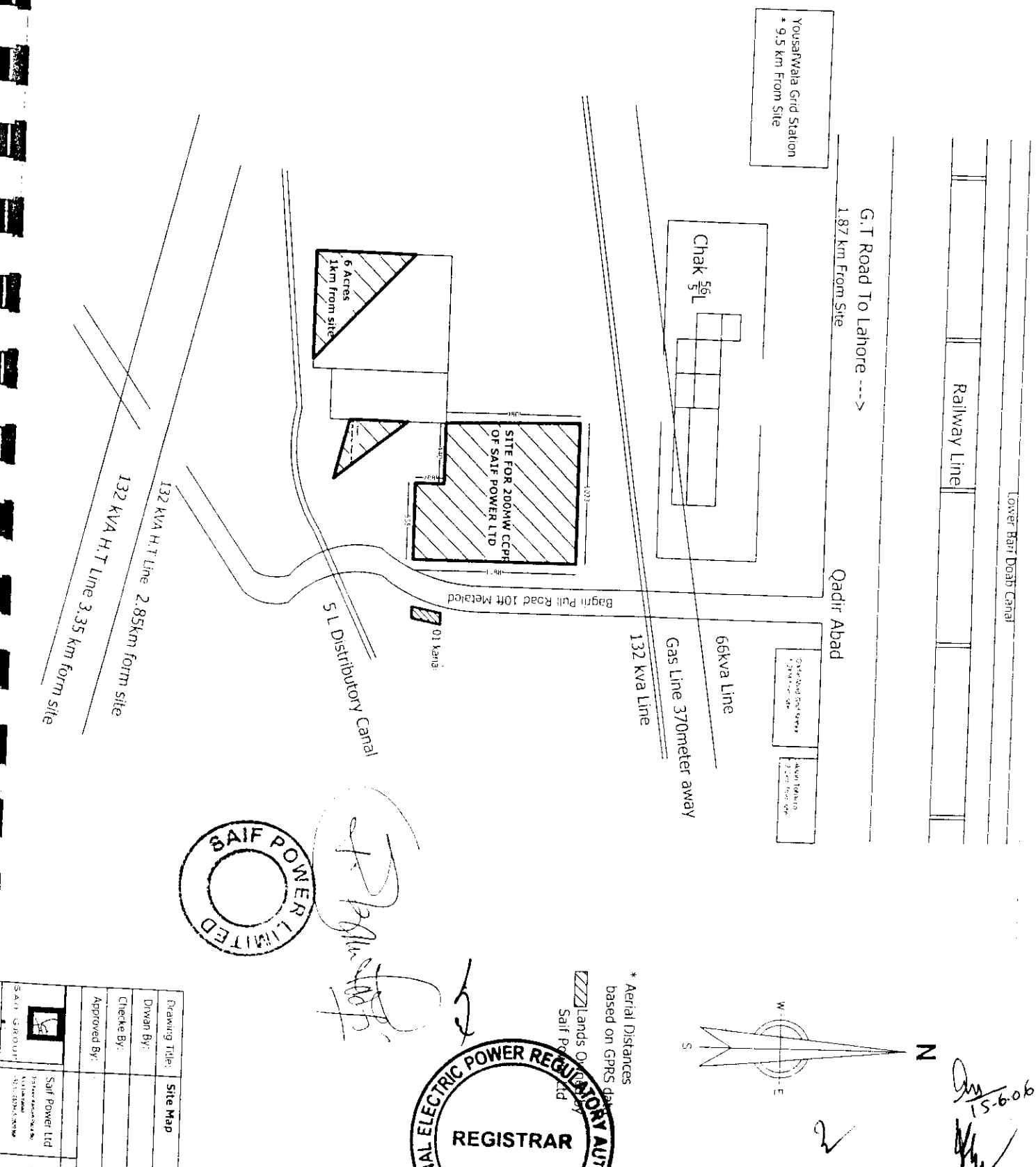
FIG. 8.21


Yousafwala Grid Station
* 9.5 km From Site
G.T Road To Lahore --->
1.87 km From Site
Qadir Abad
Railway Line
Lower Bari Doab Canal
Chak 56/5L
6 Acres
1km from site
SITE FOR 200MW CCPP
OF SAIF POWER LTD
Bagrri Puli Road 10ft Metalled
01 kanal
5 L Distributory Canal
132 KVA H.T Line 2.85km form site
132 KVA H.T Line 3.35 km form site
132 kva Line
Gas Line 370meter away
66kva Line
* Aerial Distances
based on GPRS da
Lands O
Saif Po
Ltd
N
W
S
E
SAIF POWER LIMITED
NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
NEPRA
REGISTRAR
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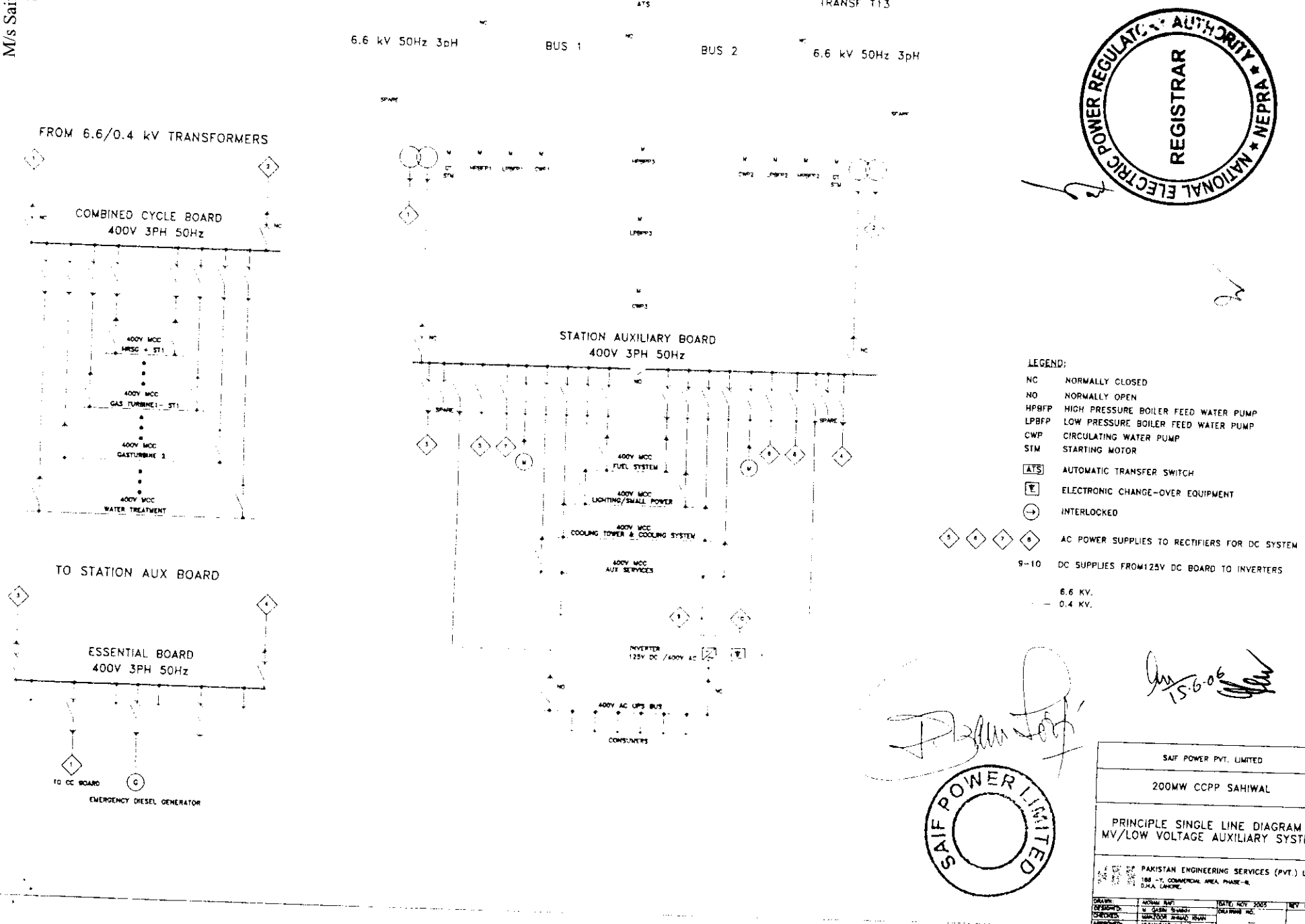
Drawing Title:
Site Map
Drwan By:
Checke By:
Approved By:
Saif Power Ltd
200 MW CCPP
Sahiwal
Project:
SAIF GROUP

FIG. 8.19



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SAIF POWER LIMITED

SAIF POWER PVT. LIMITED	
200MW CCPP SAHIWAL	
PRINCIPLE SINGLE LINE DIAGRAM MV/LOW VOLTAGE AUXILIARY SYSTEM	
PAKISTAN ENGINEERING SERVICES (PVT.) LTD. 188 -Y, COMMERCIAL AREA, PHASE-III, D.H.A. LAHORE.	
DRAWN: MOMIN RAFI	DATE: NOV 2005
DESIGNED: M. QASIM SHAHID	DRG/PHASE NO.
CHECKED: MANZOOR AHMAD KHAN	
APPROVED:	

Plant Details

General Information

1.	Name of Applicant	M/s Saif Power Limited
2.	Registered Office	3rd Floor, Kulsum Plaza, 42-Blue Area, Islamabad
3.	Plant Location	Chak No. 56/5-L, Qadarabad, District Sahiwal, Punjab
4.	Type of Generation Facility	Thermal (Combined Cycle)

5. Plant Configuration

i.	Plant Size Installed Capacity Gross ISO	225 MW
ii.	Type of Technology	Combined Cycle Technology
iii.	Number of Units/Size	2x 76 MW (Gas Turbines) 1x73 Mw (Steam Turbine)
iv.	Unit Make & Model	Gas Turbine (G.E.)/ PG 6111 (FA) Steam Turbine (G.E.)
v.	De-rated Capacity at site conditions	216 MW
vi.	Auxiliary Consumption	7 MW
vii.	Commissioning date	July 2008 (Anticipated) *
viii.	Expected Life of the Facility from Commercial Operation Date	30 Years

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY ★ NEPRA ★ REGISTRAR

SAIF POWER LIMITED

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* as indicated by the Applicant in the Licence application.

6. Fuel Details

i.	Primary Fuel	Natural Gas
ii.	Alternative Fuel	HSD
iii.	Back-up Fuel	HSD
iv.	Fuel Source (Imported/Indigenous)	Indigenous
v.	Fuel Supplier	Sui Northern Gas Pipelines Company (SNGPL)
vi.	Supply Arrangement	Through an 18" Ø pipeline almost 50 meters away from the site of the plant
vii.	No of Storage Tanks	2
viii.	Storage Capacity of each Tank	8250 Tons/tank
ix.	Gross Storage	16500 Tons

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY ★ NEPRA ★ REGISTRAR

7. Emission Values

		Gas	HSD
i.	SO_x (Tons/day)	0.053	8.83
ii.	NO_x (µgm/Nm^3)	47	109
iii.	PM (µgm/Nm^3)	50	50

SAIF POWER LIMITED

8. Cooling System

i.	Cooling Water Source/Cycle	Well water/Closed Circuit (water used for make up only)

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9. Project Cost *

i.	Total (U.S. $)	188.23 Million
ii.	Debt (U.S. $)	150.58 Million
iii.	Equity (U.S. $)	37.65 Million

10. Plant Characteristics

i.	Generation Voltage	10.5KV-15KV
ii.	Frequency	47.5~52.5 Hz
iii.	Power Factor	0.8 Lagging-0.95 Leading
iv.	Automatic Generation Control	Yes
v.	Ramping Rate	The Complex load ramping rate is the steady rate at which the load can be raised. The maximum load ramping rates are shown below;
vi.	Time required to Synchronize to Grid and loading the complex to full load.	Hot (< 8 hours shut down) 80 minutes Warm (< 48 hours shut down) 180 minutes Cold(> 48 hours shut down) 280 minutes

Range	Cold Start	Warm Start	Hot Start
0<25	1%	1.5%	3%
>25<50	1.5%	2%	4%
>50<100	2%	3%	4%

Complex load percentages refer to the load at the generator terminal as a percentage of gross capacity.

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY REGISTRAR NEPRA

* as indicated by the Applicant in the Licence application.

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SCHEDULE-II

The net capacity of the Licensee's Generation Facilities

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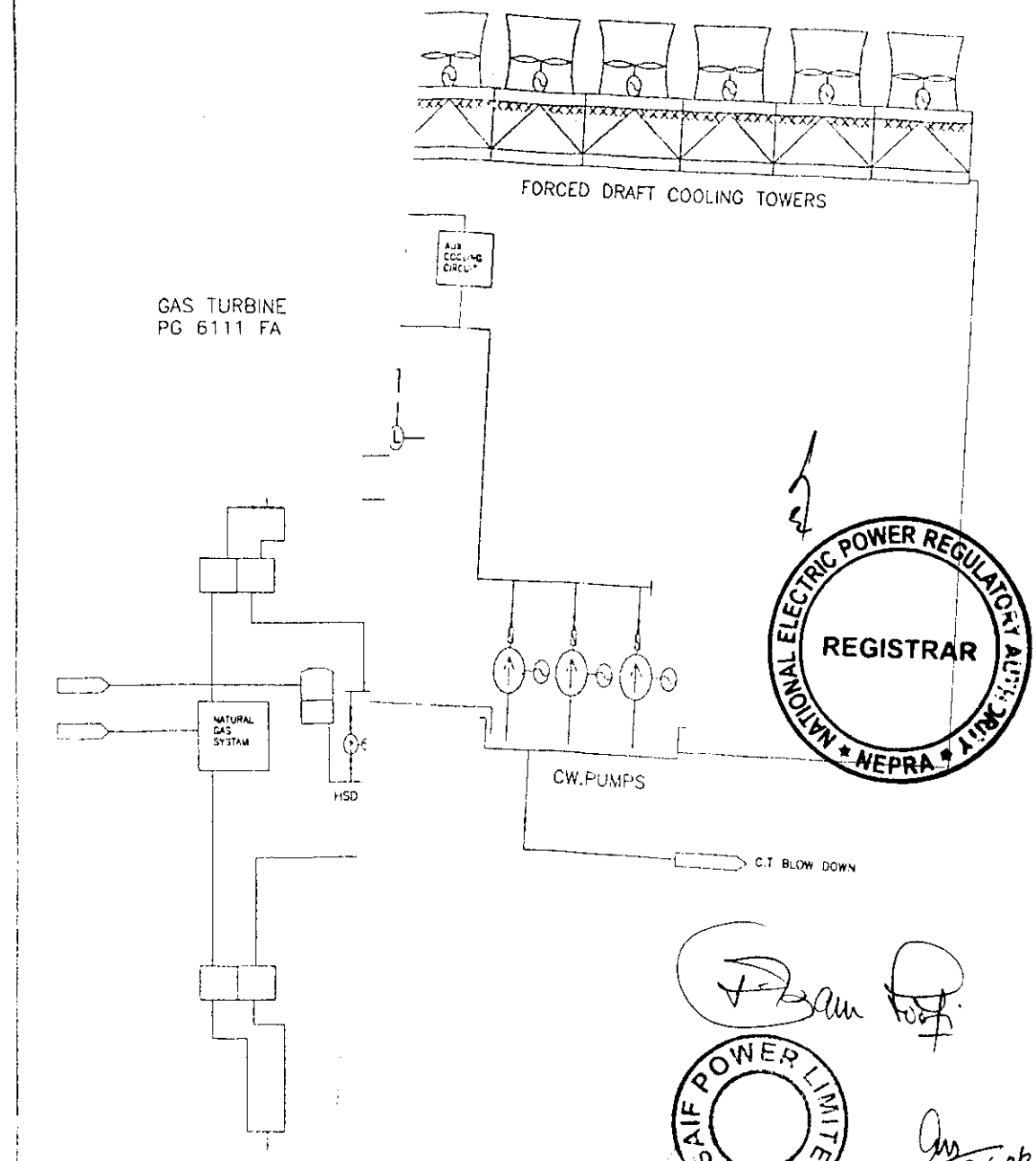

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REGISTRAR
NEPRA

SAIF POWER LIMITED

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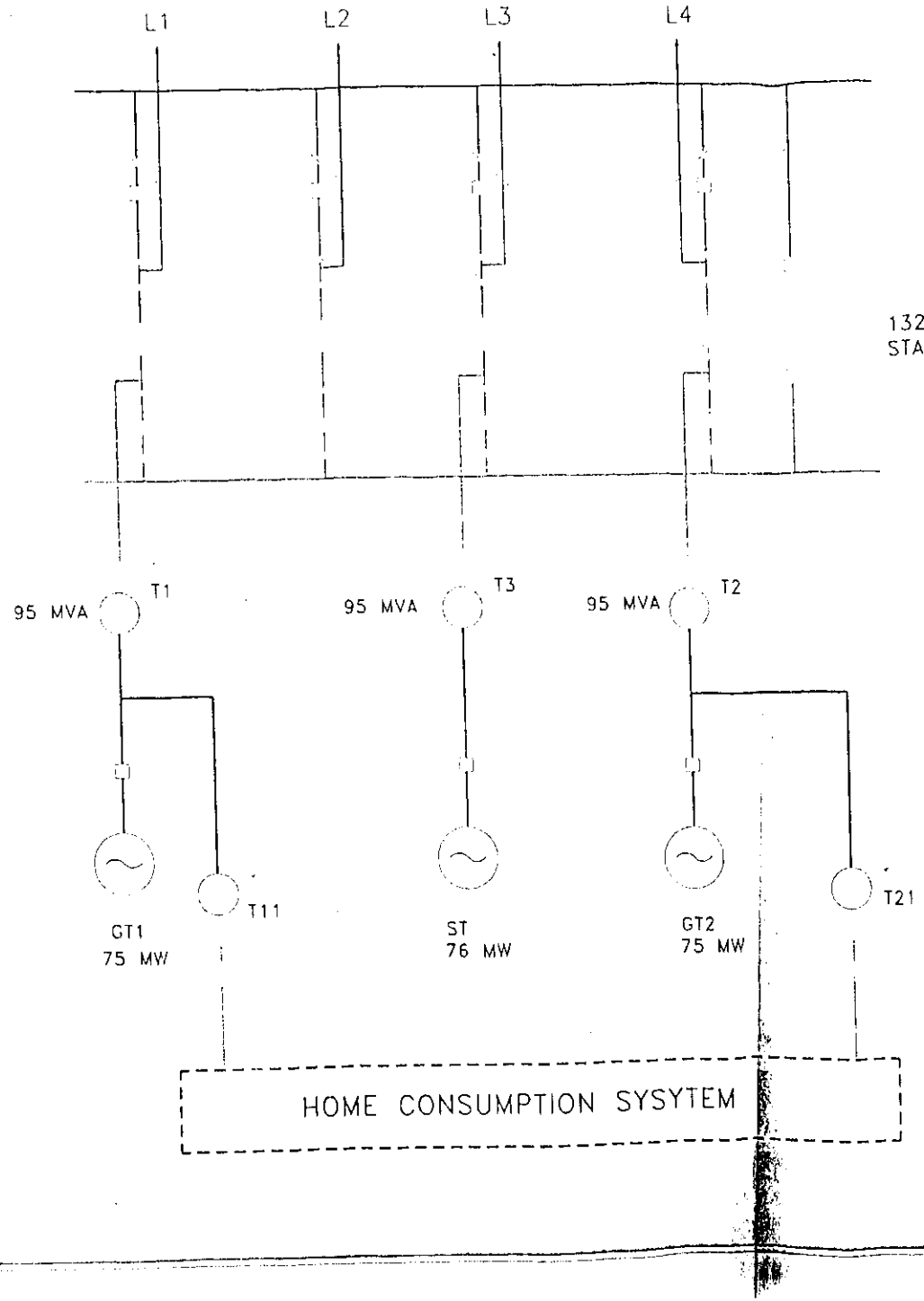
SAIF POWER PVT. LIMITED	
200MW CCPP SAHIWAL	
PRINCIPLE FLOW DIAGRAM	
PAKISTAN ENGINEERING SERVICES (PVT.) LTD. 168 -Y, COMMERCIAL AREA, PHASE-III D.H.A. LAHORE	
DRAWN: AKRAM RAFI	DATE: NOV. 2005
DESIGNED: M. QASIM SHAIKH	DRAWING NO. —
CHECKED: MANZOOR AHMAD KHAN	REV.
APPROVED: MUHAMMAD AHMAD	



LEGEND

132 KV.
11-11.5 KV.
6.6 KV.

SAIF POWER LIMITED

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NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
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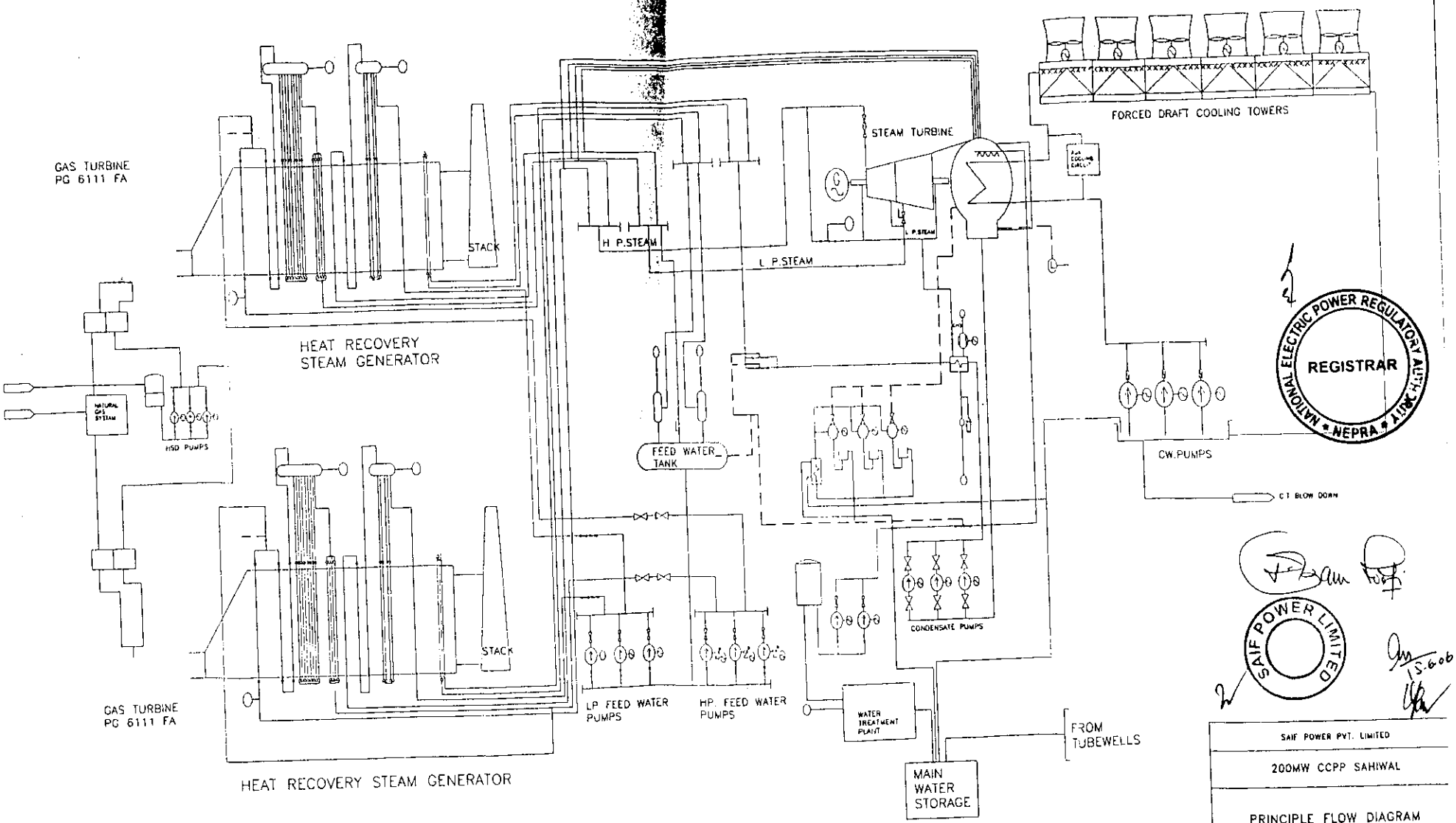
SAIF POWER PVT. LIMITED

200MW CCPP SAHIWAL

SINGLE LINE DIAGRAM

PAKISTAN ENGINEERING SERVICES (PVT.) LTD.
188 -Y, COMMERCIAL AREA, PHASE-III,
D.H.A. LAHORE.

DRAWN:	AKRAM RAFI	DATE: NOV. 2005	REV.
DESIGNED:	M. DASH SHAIKH	DRAWING NO.	
CHECKED:	MANZOOR AHMAD KHAN	-	
APPROVED:	MUHAMMAD AHMAD		



NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
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SAIF POWER LIMITED

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SAIF POWER PVT. LIMITED
200MW CCPP SAHIWAL
PRINCIPLE FLOW DIAGRAM
PAKISTAN ENGINEERING SERVICES (PVT.) LTD. 186 -T, COMMERCIAL AREA, PHASE-III D.H.A. LAHORE

DRAWN	AKRAM RAFI	DATE NOV. 2005	REV.
DESIGNED	M. QASIM SHAIKH	DRAWING NO.	
CHECKED	MANZOOR AHMAD KHAN	—	
APPROVED	MUHAMMAD AHMAD		

SCHEDULE-II

1.	Installed Capacity Gross ISO	225 MW
2.	De-rated Capacity at Site Conditions	216 MW
3.	Auxiliary Consumption	7 MW
4.	Net Capacity of the Plant at Site Conditions	209 MW

Note

All the above figures are indicative as provided by the Licensee. The Net Capacity available to NTDC for dispatch and other purchasers will be determined through procedures contained in the Agreements or Grid Code.

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INTERCONNECTION SCHEME FOR THE POWER DISPERSAL OF THE PLANT

The power of the power plant shall be dispersed to system directly within LESCO and MEPCO load center at 132 KV voltage level as follows:

1. A new 132 KV Grid station near the proposed site of Saif Power Plant grid station.

2. A new direct 132 KV D/C transmission line with an approximate length of almost 3.5 km on Rail Conductor from proposed Saif Power Plant grid station to New proposed 132 KV Grid Station.

3. Making In-Out arrangement (on Lynx Conductor with an Approximate length of 1.0 Km) of the existing 132 D/C Transmission Line from Yousafwala to Depalpur and Yousafwala to Okara Cantt at the new proposed 132 KV Grid Station.

4. A new direct 132 KV D/C transmission Line of Length 2 Km on Rail Conductor from the proposed Power Plant grid station to 132 KV Qadirabad Grid Station.

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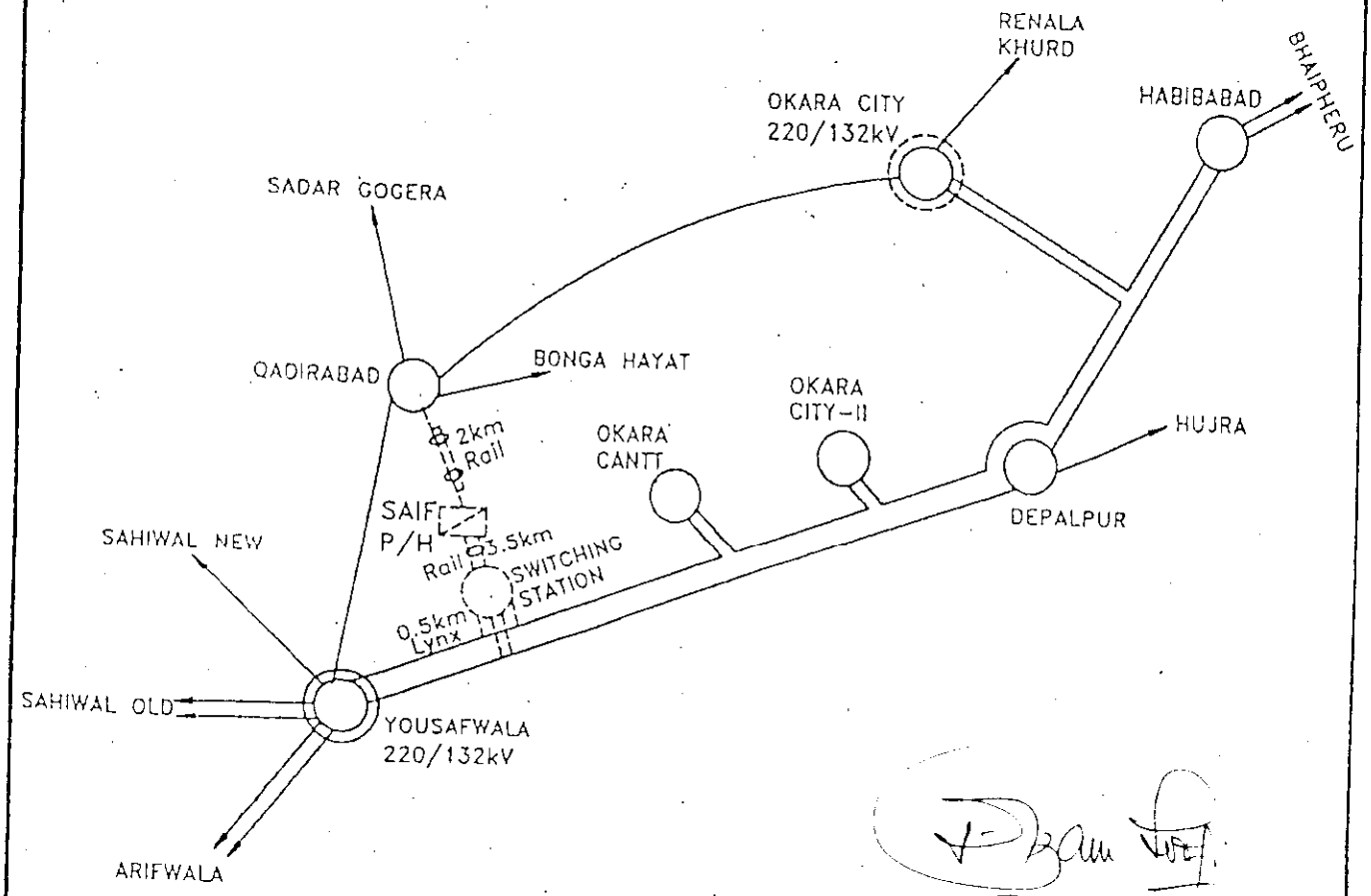
INTERCONNECTION OPTION



SAIF POWER LIMITED

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