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Established in Malaysia, TASAS EMC is one of the leading International Electro Mechanical Company, with projects and activities in Malaysia, KSA, Qatar, and U.A.E. and with very wide experience in Electro Mechanical Engineering, TASAS EMC has a track record in the field of Electro – Mechanical work in all industry sectors.

The Company applies its advance approach to both small and large projects.

TASAS EMC is registered in; The Ministry of Planning, the Supreme Petroleum Council, GASCO, ADCO and ADWEA to execute projects and to provide services in the following fields:

A. Supply, Install, Test & Commission the following:

### 1.0 Electrical Works:

- 1.1 MDB's, SMDB's, & Final DB's
- 1.2 Main Bus-bar
- 1,3 The S/C wire & all kinds of cable
- 1.4 Telephone, Data & CATV Systems
- 1.5 Access Control System (ACS)
- 1.6 CCTV Systems
- 1.7 Fire Alarm System
- 1.8 Master Clock System
- 1.9 Public Address System
- 1.10 Earthing System
- 1.11 Video & Audio Intercom System
- 1.12 Isolators & Cable Trays

### 2.0 Electrical Substations which includes:

- 2.1 Medium Voltage (M.V.) Transformers
- 2.2 O.H.L (M.V. Over Head Lines) 33KV / 11KV
- 2.3 M.V. Indoor & Outdoor Switchgears and all accessories
- 2.4 M.V. Cables and all termination & joint kits (underground & above ground)
- 2.5 Earthing Systems, Lightning Systems, Cable Trays & all related works

### 3.0 Electrical Low Voltage Services:

- 3.1 Power & Lighting Systems
- 3.2 Panel Boards
- 3.3 Cables & all related works
- 3.4 Street Lighting System



- 3.5 All electrical works related to mechanical equipment (Pumps, Chillers, Air Handling Units Machines...etc)
- 3.6 Airfield Ground Lighting

### 4.0 Electrical Low Current Services:

- 4.1 Instrumentation System
- 4.2 Telephone & Data System
- 4.3 CCTV & CATV System
- 4.4 Fire Alarm System
- 4.5 Fiber Optic Works
- 4.6 Emergency Response System
- B. Supply, Install, Testing & Commission the following:

### 1.0 Industrial Mechanical Equipment / Works:

- 1.1 Pumps & Piping System
- 1.2 Water Treatment Plant System
- 1.3 Fire Fighting System (Water, Foam & Pro-Inert, Inergin, Gases ...etc.)
- 1.4 HVAC System

### 2.0 Domestic System:

- 2.1 Water Supply System
- 2.2 Drainage System
- 2.3 Fire Fighting System

TASAS EMC has embarked on a quality management system in order to provide and maintain the highest level of quality, which facilitate the company to operate in a proactive method.

TASAS EMC's success depends on the employees. Our dedicated team provides high quality services by meeting key objectives and deadlines.



### **Pre-Construction**

Preconstruction Estimating – Providing project estimating and a reliable, timely cost model drawn from a deep database.

Feasibility Studies - Analyzing life cycle costs for building system alternatives.

Scheduling - Developing a complete team schedule showing who and

what goes where and when.

MEP Review - Evaluating evolving mechanical, electrical and plumbing

system concepts and coordinating engineering services.

Constructability Review - Determining ease and speed of the building process.

Risk Management - Controlling cost, schedule and owner objectives to mitigate

risk.

Market Analysis - Understanding the unique requirements of your project in

the context of market conditions and trends.

Cost Control - Providing the most efficient design and construction

methods to achieve value.

Quality Control - Monitoring methods, procedures and checks from start to

finish with the goal of meeting established standards.

### Construction

LEED ™ Certification

 Meeting sustainable design and construction criteria for Leadership in Energy & Environmental Design certification and recognition

**Progress Monitoring** 

- Monitoring actual versus forecasted schedule/ budget

Change Order Management - Limiting need for revisions

Quality Control and Testing - Validation of actual to specifications

Labor Relations

- Proactive resolution of potential issues

### Post-Construction

Commissioning - Ensuring that building systems are designed, installed and

activated according to owner's operational needs

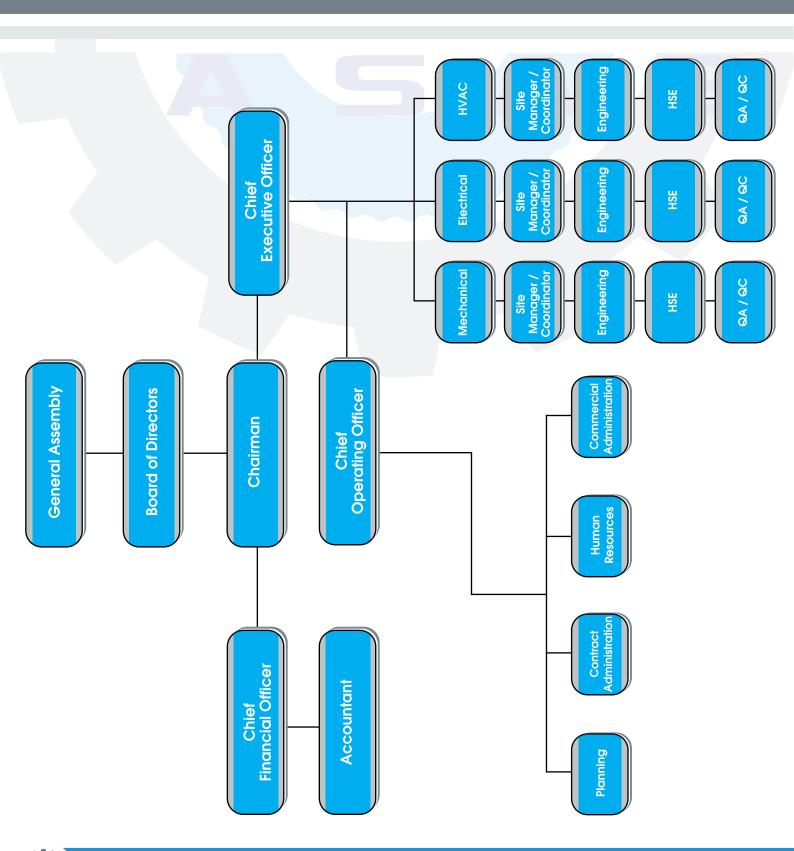
Lien Releases – Severing of contractual ties to vendors

O&M Manuals - Development of operations and maintenance instructions

Final Closeout - Completion of punch listed items

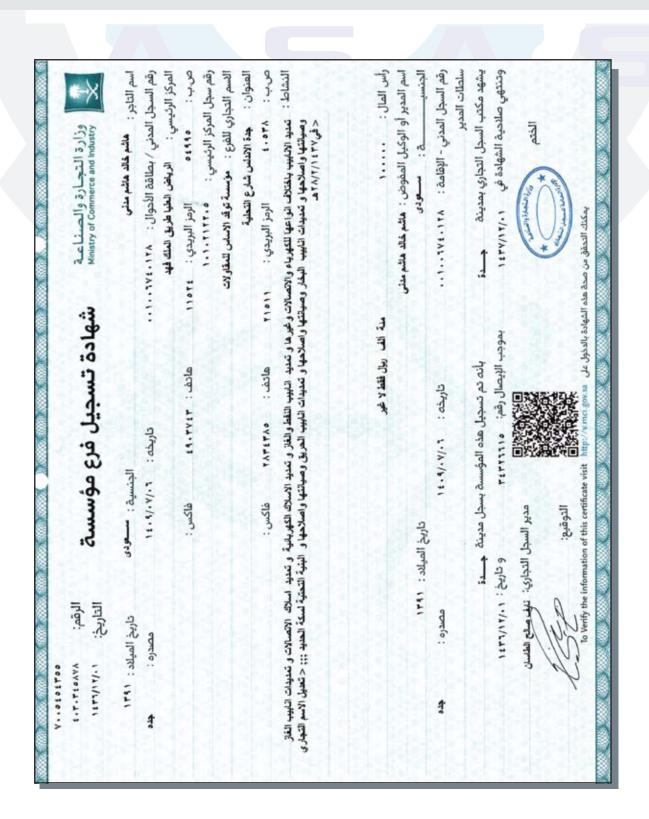
One-Year Walkthrough – Final verification of operational status

# SECTION 2 Organization Chart





# SECTION 3 Registration Certificate



## SECTION 4 Nature of Business

## ENGINEERING CAPABILITIES AND NATURE OF BUSINESS

Backed by years of experience as contractor in Mechanical and Electrical engineering installation works, our management team, technical staff and substantial skilled personnel at work sites poise to produce the best work performance and quality of work.

Our engineering capabilities as a contractor and nature of business include, but not limited to the following:

- 1. Transmission & Distribution Substation's Installation Works.
- 2. Power Generation.
- 3. Turbo, Diesel & Hydro Generating Power Plant.
- 4. Chemical, Refinery & Power Plant Elect. Control & Instrumentation Installation Works.
- 5. Supply, Installation, Testing & Commissioning of HV/LV Dist.
  Substation for Commercial Buildings, Factories, Water Treatment Plants & Electric Utilities.
- 6. Power Transformer Installation & Oil Purification.
- 7. Steel Structures & Pipe-lines, Tankages & Pressure Vessels.
- 8. Other Allied Industrial Plants.

In summarizing our area of experiences and activities, it can be said that our proven and experienced personnel are always in the position to service projects of varied nature and magnitude, through well-coordinated team effort, proper planning and quality control.

You can be assured that all works carried out are in the most efficient and economical manners.

OUR WORK MOTTO - "YOU CAN RELY ON US" -



ITEM	PROJECT	CLIENT	CONTRACT VALUE	YEAR OF COMMENCEMENT	YEAR OF COMPLETION
1	PRAI POWER STATION, STAGE 3 3 X 120MW Steam Boiler	BHEL – INDIA	1,500,000.00	1977	1980
2	PASIR GUDANG POWER STATION, PHASE 1 2 X 120MW Steam Boiler	BHEL – INDIA	1,000,000.00	1980	1982
3	KEMAMAN POWER STATION 3 X 2MW Diesel Generating Sets and 11kV Switchgear	Meidensha & Fuji Denki Japan	78,350.00	Apr- 82	Jul - 82
4	BERSIA HYDRO-PLANT 3 X 24 MW Generators & Auxiliary Elect. System	Siemens- Germany	384,753.40	Jun - 82	Dec - 83
5	PRAI POWER STATION, STAGE 3 6 units Circulating Water Pump	Kubota– Japan	550,000.00	1982	1983
6	PASIR GUDANG POWER STATION, PHASE 1 ASEA 132 kV Switchgear & Auxiliary	Plant Sweeden	300,000.00	1982	1983
7	TEMENGOR POWER STATION Repair Hydro Turbine Wicket Gates (4 units)	Hitachi– Japan	150,000.00	1982	1982
8	RAKYAT KETENGAH OIL MILL 2 X 40,000 kg/hr water tube boiler	Yoshimine Boiler	135,000.00	Jan - 82	Jul - 82
9	FELDA TENGGAROH OIL MILL 18,000 kg/hr water tube boiler	Yoshimine Boiler	135,000.00	Nov - 82	Jun - 83
10	KAMPUMG LAMJUT SUBSTATION 33/11kV switchgear & cabling work	Fuji Electric	49,149.00	1983	1983
11	BERSIA HYDRO PLANT 3 X 30 MVA Power Transformer	Mitsubishi Electric	82,600.00	Jan - 83	Jun - 83
12	KENERING HYDRO PLANT 3 X 40 MW Generators & Auxiliary Elect. System	Siemens- Germany	397,375.00	Jan - 83	Jun - 84
13	PANJI ALAM OIL MILL 2 X 40,000 lb/hr water tube boiler	Yoshimine Boiler	138,000.00	Sep - 82	Jun - 83
14	FELDA SELANDANG OIL MILL 18,000 kg/hr water tube boiler	Yoshimine Boiler	139,000.00	Mar - 83	Jul - 83
15	SEH SDN.BHD Water purification system	Kubota– Japan	120,000.00	1984	1984
16	SEH SDN.BHD Water treatment plant	Kubota– Japan	80,000.00	1984	1984
17	J.K.R TERENGGANU Water pumping station	United Engineer	200,000.00	1984	1984
18	GAS PANTAI TIMUR, KOTA BAHARU Airseparaton & acetylene plants	Nippon Denso	175,000.00	1984	1984

ITEM	PROJECT	CLIENT	CONTRACT VALUE	YEAR OF COMMENCEMENT	YEAR OF COMPLETION
19	PORT KLANG POWER STATION, PHASE 1 4 units circulating water plant	Kubota – Japan	536,740.00	Jun - 84	Apr - 85
20	PORT KLANG POWER STATION, PHASE 1 Electro-chlorination plant	Daiki Engineering – Japan	172,490.00	1984	1985
21	KENYIR HYDRO PLANT Auxiliary Mechanical System	Raunaq Inter'l	189,500.00	1984	1985
22	DAMANSARA HEIGHT S/T 33/11 kV switchgear & cabling work	Fuji Electric	49,149.00	1984	1984
23	RAUB OIL MILL 40,000 lb/hr water tube boiler	Yoshimine Boiler	63,000.00	Jan - 84	Mar - 84
24	KUCHING WATER BOARD – SARAWAK Water treatment plant	Kubota – Japan	165,040.00	Aug - 84	Jul - 85
25	TEE THE OIL MILL 40,000 lb/hr water tube boiler	Yoshimine Boiler	60,000.00	Jan - 84	Apr - 84
26	CHIN TECK OIL MILL 30,000 lb/hr water tube boiler	Yoshimine Boiler	60,000.00	May - 84	Aug - 84
27	HEAVY OIL MILL 25,000 lb/hr water tube boiler	Yoshimine Boiler	90,000.00	Sep - 84	Dec - 84
28	PAKA POWER STATION 6 units circulating water pump	Kubota – Japan	530,811.00	1985	1986
29	KL NORTH AND CENTRAL TRANSMISSION DEVELOPMENT 132/33 kV and 33/11 kV transformer	Takaoka & Fuji Electric	148,000.00	Sep - 85	Feb - 86
30	SEONG THYE OIL MILL 12,000 kg/hr water tube boiler	Yoshimine Boiler	163,000.00	Apr - 85	Sep - 85
31	MALPOM OIL MILL 13,600 kg/hr water tube boiler	Yoshimine Boiler	172,000.00	Apr - 85	Aug - 85
32	SRI LINGGA OIL MILL 6,000 kg/hr water tube boiler	Yoshimine Boiler	83,700.00	Sep - 85	Dec - 85
33	M.P.MATHEW OIL MILL 20,000 kg/hr water tube boiler	Yoshimine Boiler	285,600.00	Mar - 86	Jul - 86
34	FELDA ADELA OIL MILL 2 X 40,000 lb/hr water tube boiler	Yoshimine Boiler	73,200.00	Oct - 86	Mar - 87
35	FELDA TENGGAROH OIL MILL 2 X 40,000 lb/hr water tube boiler	Yoshimine Boiler	73,200.00	Oct - 86	Mar - 87
36	FELDA SELANDANG OIL MILL 2 X 40,000 lb/hr water tube boiler	Yoshimine Boiler	73,200.00	Nov - 86	1987



ITEM	PROJECT	CLIENT	CONTRACT VALUE	YEAR OF COMMENCEMENT	YEAR OF COMPLETION
37	NEB NORTHERN DEVELOPMENT AREA 33/11 kV outdoor switchgear (9 sub-stations)	Siemens – India	200,000.00	1987	1990
38	SARAWAK ELECTRICITY BOARD Deshon S/T, Kemantan S/T, Engkelli S/T Takaoka Transformer installation work from 80 MVA to 1.375 MVA shunt reactor (12 units)	Fuji Electric	394,000.00	1987	1989
39	BOILER MAINTENANCE/REPAIR WORK FOR THE DURATION OF 1987-1989	Yoshimine Boiler Dah Yung Boiler Takuma Boiler Clarke Chapman Chiyoda Boiler	765,706.95	1987	1989
40	TUANKU JA'AFAR POWER STATION P.D Maintenance work on 120 MW & 60 MW steam boiler	TNB	249,737.92	Jul - 88	Jul - 89
41	PERMINT PLYWOOD, TERENGGANU Supply, fabricate & erect of 40,000 lb/hr boiler (H-6000C)	Yoshimine Boiler	237,998.00	May - 88	Feb - 89
42	KUALA LUMPUR EAST S/T 2 X 240 MVA & 2 x 90 MVA transformer	Osaka Transformer	54,000.00	Jul - 88	Sep - 88
43	KENERING HYDRO PLANT 3 X 50 MVA power transformer	Mitsubishi Electric	82,000.00	Apr - 88	Oct - 88
44	PERMINT PLYWOOD, TERENGGANU Supply, fabricate, & erect of 40, 000 lb/hr boiler	Yoshimine Boiler	237,998.00	May - 88	Feb - 89
45	Water Injection Project Habshan UAE, responsible for all Mechanical & E.C & I installation	Water Injection Project Habshan	90,000,000.00 USD	1988	1993
46	E.C & I, installation at Ryehouse, UK 750 MW Combined cycle power plant	Combined cycle power plant	£20,000,000.00	1988	1993
47	E.C & I, installation at Killingholme, UK 1100MW Combined cycle power plant	Combined cycle power plant	45,000,000.00 USD	1988	1993
48	M&E services, for a Japanese Ball Bearing Manufacturing Plant, Dodsworth. UK	Japanese Ball Bearing	£68,000,000.00	1988	1993
49	E.C. & I installation for experiential chemical plant, Merck Sharpe & Dhome, Enfield UK	Merck Sharpe & Dhome, Enfield UK	£2,000,000.00	1988	1993
50	M&E installation for corporation HQ (Cable & Wireless Ltd) Holborn, London UK	(Cable & Wireless Ltd) Holborn	£32,000,000.00	1988	1993
51	HOKUSHIN SDN.BHD, SHAH ALAM 2 X 2000 lb/hr robey boiler piping & machinery Installation work	IBAE Boiler	417,484.00	Feb - 89	Dec - 89
52	KARIMOKU RUBBER WOOD FACTORY, MALACCA 7,000 kg/hr water tube boiler	Takahashi Boiler	161,115.00	Jun - 89	Dec - 89

ITEM	PROJECT	CLIENT	CONTRACT VALUE	YEAR OF COMMENCEMENT	YEAR OF COMPLETION
53	BOILER MAINTENANCE/REPAIR WORK FOR THE YEAR OF 1990	Yoshimine Boiler Maxitherm Boiler Takuma Boiler B & W Boiler Mechmar Boiler Allen Ignis Boiler ISGEC John Thompson India	1,403,422.00	Jan-90	Dec-90
54	MALAYSIA FIBRE BOARD Supply, fabricate & installation of 15,000 kg/hr boiler	Yoshimine Boiler	602,502.00	Aug-90	Jul -91
55	TUANKU JAAFAR POWER STATION Maintenance work	TNB	210,792.00	Jan-90	Dec-90
56	SG.MATI SUB-STATION MUAR Installation of 2 x 30 MVA 132/33 kV Transformer	ABB Sweden	36,000.00	1990	1990
57	STULANG DARAT SUB-STATION – JOHOR BAHRU Installation of 2 x 60 MVA 132/33kV Transformer	ABB Sweden	40,500.00	1991	1991
58	SARAWAK ELECTRICITY SUPPLY BOARD Installation of 2 x 120 MVA, 30 MVA, 15 MVA, & 5 MVA Transformer & Shunt Reators for Bintulu & Sibu Oya Road Sub-station	Meidensha	221,820.00	1991	1991
59	CONNAUGHT BRIDGE POWER STATION Gas conversion project 2 x 100 MW Turbine	Siemens AG	266,648.00	Sep-91	Apr-92
60	TUANKU JA'AFAR POWER STATION Re-heater tube repair & fuel oil line replace work for boiler no. 5 & no. 2	TNB	59,285.00	May-91	Jul-91
61	BOILER MAINTENANCE / REPAIR WORK FOR THE YEAR OF 1991	Yoshimine Boiler Maxithern Boiler B&W Boiler ISGEC John Thompson India Mechmar Boiler	1,118,635.00	Jan-91	Nov-91
62	DAIEI KOGYO SDN.BHD.MALACCA Supply of 5,000 lb/hr boiler & machinery & piping system	Mechmar Boiler	363,953.00	Jun - 91	Jul - 91
63	GULA PADANG TERAP – KEDAH Supply, fabricate & install 80 ton/hr boiler, H2200	Yoshimine Boiler	591,912.00	Jun - 91	1992
64	TUANKU JAAFAR POWER STATION, P.DICKSON Power Plant rehabilitation & gas conversion Elect. Control & Instrument work	Siemens AG	3,000,000.00	1992	1995
65	TAITEC INDUSTRIES S/B – CHEMOR, PERAK Supply, fabricate & install wood chip firing Boiler KHT100	Takashi Boiler Japan	67,700.00	Feb - 92	1992

ITEM	PROJECT	CLIENT	CONTRACT VALUE	YEAR OF COMMENCEMENT	YEAR OF COMPLETION
66	BOILER MAINTENANCE/REPAIR WORK FOR THE YEAR OF 1992	Ibae Boiler Mechmar Boiler Yoshimine Boiler Cochran Boiler Scotland Meidensha & Nigata	596,375.40	Jan - 92	Nov - 92
67	MALAYSIA SHEET GLASS, PASIR GUDANG 2 X 2500Kw Diesel generating plant c/w Associated equipment & piping system	Meidensha & Nigata	177,000.00	Sep - 92	Mar - 93
68	TUANKU JA'AFAR POWER STATION, P. DICKSON, PASIR GUDANG POWER STATION, JOHOR CONNAUGHT BRIDGE POWER STATION, KLANG Maintenance work	TNB	619,706.00	Mar - 92	Nov - 92
69	HUALON TEXTILE, NILAI Supply & constructing 3 units of Chimney 50M Yoshimine Boiler for boiler	Hualon	110,340.00	Jun - 92	Aug - 92
70	GULA PADANG TERAP BHD, KUALA NERANG To supply necessary steel & cast iron materials, fabricate, install & commissioning of one unit of Yashimine Boiler H2200	Kumpulan Cheminner Eng. S/B	1,846,680.00	Jan - 93	Sep - 93
71	MAJLIS PERBANDARAN KUALA TERENGGANU Retubing work for one unit 9 MW boiler	Yoshimine Boiler	63,000.00	May - 93	Jun - 93
72	TEE THE PALM OIL MILL H-375 Boiler retubing work	Yoshimine Boiler	53,000.00	Aug - 93	Sep - 93
73	DAIEI KOGYO (M) SDN.BHD Fabrication & installation of one unit of mild steel vulcanizer	Daiei Kogyo	57,000.00	Mar-93	Apr-93
74	PROTON NOISE LAB. SHAH ALAM Installation of Dynamometer & compressor air system	Meiden Electric	133,300.00	Nov - 93	Feb - 94
75	SULTAN SALAHUDDIN ABDUL AZIZ POWER ST. Extension of ash slurry pipeline, Port Klang	Sukitronics S/B	203,740.00	1993	1994
76	METRO PACIFIC SDN.BHD, KUALA TERENGGANU Supply necessary steel & cast iron material, fabricate, installation and commissioning one unit of water tube boiler H600	Kump, Cheminner Eng. S/B	376,578.00	1993	Sep - 93
77	PRAI POWER STATION Power plant rehabilitation & gas conversion Elect. Control & Instrument work	Siemens AG	1,500,000.00	1993	1996
78	Responsible for Independent Power Producer, Sabbah execution of Building works, installation of M&E Equipment and E&I installation for the 120 MW open Cycle power plant, East Malaysia	Open Cycle power plant	130,000,000.00 RM	1993	1997
79	Responsible for E&I installation for Segari Power Plant, Lumut (1300 MW) Malaysia	Segari Power Plant	20,000,000.00 RM	1993	1997

ITEM	PROJECT	CLIENT	CONTRACT VALUE	YEAR OF COMMENCEMENT	YEAR OF COMPLETION
80	For complete Mechanical, E&C & I and ancilliary equipment Erection for 300MW Simple Cycle Power Plant, Serdang Malaysia	Simple Cycle Power Plant	300,000,000.00 RM	1993	1997
81	Responsible for M&E Services and E&I installation at Paka, (900MW) and Pasir Gudang (450MW) Power Plants Malaysia.	Power Plants Malaysia	60,000,000.00 RM	1993	1997
82	KOMPLEKS PLN CHANGKAT LADA & ULU REDAP, PERAK Supply, fabrication & installation of 50 ton X 8 nos. mill day bin steel structure	Kump. Chemineer Eng. S/B	650,000.00	1994	1995
83	TUANKU JAAFAR POWER STATION Maintenance on Boiler 6&7	TNB	345,230.00	Feb - 94	Nov - 94
84	PAKA POWER PLANT, TERENGGANU Transformer oil treatment work	Meidensha	27,000.00	Sep - 94	Oct - 94
85	PAKA CCPP 2 X 168MVA transformer, filtration & VACUUMING	Siemens/YTL	69,000.00	1994	Sept - 95
86	Melut Basin, Bashhayer 2 Marine Terminal Facilities Sudan.	Melut Basin	232,000,000.00 USD	1994	2006
87	Procurement, Installation, Testing and Commissioning For all M&E and related services at Petronas 304 bed State of the Art, Hospital in Kuala Lumpur, Malaysia	Petronas	233,000,000.00 RM	1994	2006
88	Pan Pacific Hotel, KLIA	Pan Pacific Hotel	50,000,000.00 USD	1994	2006
89	Procurement, and Installation of M&E Services Type K Buildings at Manjung 2100MW Coal Fired Power Plant, Maysia.	Coal Fired Power	80,000,000.00 RM	1994	2006
90	All Substations/Field Auxiliary Buildings, for Malaysia Liquefield Natural Gas Project in Bintulu, Sarawak, East Malaysia	Malaysia Liquefield Natural Gas Project	43,000,000.00 RM	1994	2006
91	Overall responsibility for successful completion Civil, Building and M&E Services work at Ammonia Syngas Project at Kerteh Malaysia	Ammonia Syngas Project	25,000,000.00 RM	1994	2006
92	Malaysia Airline Systems Support Facility and Fit-Out Works at KLIA (Sepang), Malaysia	Malaysia Airline Systems	60,000,000.00 RM	1994	2006
93	LUMUT CCGT – EC & INSTALLATION Erection of 6 x 168 MVA transformer, filtration, vacuuming & 6 x 11kV Al. Busducts	Peremba – Kentz	600,000.00	1995	1996

ITEM	PROJECT	CLIENT	CONTRACT VALUE	YEAR OF COMMENCEMENT	YEAR OF COMPLETION
94	HANDUK MACHINERY (M) SDN.BHD Supply & fabrication of steel pallets	Handuk Korea	216,548.00	Mar - 95	1995
95	SULTAN ISKANDAR POWER STATION, PASIR GUDANG Power plant rehabilitation & gas conversion, elect. Control & instrumentation work	Siemens AG	1,000,000.00	Apr <b>-</b> 95	Jul - 96
96	SULTAN ISKANDAR POWER STATION, PASIR GUDANG Furnace water wall tubes fins & skin casing damaged/burnt out repairs work	TNB	23,000.00	May - 95	1995
97	HICOM SHAH ALAM 275KV SUB-STATION 2 X 240 MVA power transformer, filtration & vacuuming	ABB	30,000.00	Jul - 95	Aug - 95
98	GENTING SANYEN – 132/275KV SALAK TINGGI SUB-STATION 2 X 30MVA power transformer, filtration & vacuuming	ABB	18,000.00	Jul - 95	Aug - 95
99	132/25KV KTM SOUTH SUB-STATION 2 X 25MVA transformer, filtration & vacuuming	ABB	18,000.00	Jul - 95	Aug - 95
100	BOILER MAINTENANCE/REPAIR WORK FOR THE YEAR OF 1995	TNB	104,650.00	Jan - 95	May - 95
101	PASIR GUDANG CCPP, JOHOR Instrumentation piping work	Meiden	45,000.00	Oct - 95	Nov - 95
102	CONNAUGHT BRIDGE POWER STATION, KLANG WHB 2 Header caps inspection work	TNB	12,600.00	Nov - 96	Dec - 96
103	TORAY PLASTIC (M) SDN.BHD MT3 PRAI, PENANG Installation of 2000kW Diesel generator set With auxiliary equipment	Meiden	270,000.00	Jan - 96	Apr - 96
104	CCMC CHLOR – ALKALI PROJECT, JOHOR Installation of rectifier transformer & al.Bushar c/w accessories	Meiden	84,000.00	Jun - 96	Oct - 96
105	275KV JURU OUTDOOR SWITCHING STATION, PENANG Installation of 1 x 100MVAR & 2 x 40 MVAR shunt reactors	PSE (Siemens/TNB)	63,000.00	1996	1996
106	132/33 KV GAS-SUB-STATION BAYAN LEPAS, PENANG Erection of 2 x 90 MVA 132/33kV; 2 x 30 MVA 132/11kV power transformers; 2 x 250 kVA 33/0.415kV earthing transformers	PSE (AMBC/TNB)	148,000.00	Sep - 96	Nov - 96
107	TNB 306495 PASIR PANJANG 132/11KV SUB-STATION SG.SEMENYIH 132 KV (EXTENSION) SUB-STATION Supply & erection of 132/11kv transmission equipment	ABB/TNB	415,000.00	1996	1998

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ITEM	PROJECT	CLIENT	CONTRACT VALUE	YEAR OF COMMENCEMENT	YEAR OF COMPLETION
108	APMC KANTHAN 2 X 48MVA transformer vacuuming & oil purification work	Pauwels Belgium	24,000.00	1996	1996
109	TNB CONTRACT 171/96 (TNB 310895 – MAINHEAD) OIL PURIFICATION BUKIT KAYU HITAM SUB-STATION Erection & oil purification for 2 x 132/33kV 90MVA transformer, 2 x 132/11kV 39 MVA transformer	EPE Reyrolle	123,600.00	1997	1997
110	BUKIT RAJA MALAYSIAN STEEL MILL Vacuuming & oil purification work for 132/11kV 1 x 80 MVA power transformer	Siemens	50,000.00	1997	1997
111	SINGAPORE AROMATIC PROJECT, PULAU AYER CHAWAN, SINGAPORE Elec. & Instrumentation works.	Siemens (MSW Joint Venture)	3,000,000.00	1997	1997
112	MEGASTEEL/AMSTEEL PLANT AT KUALA LANGAT, SELANGOR Erect of 6 x 180 MVA 275/33kV; 5 x 30/45MVA 33/11kV power transformers	Megasteel / Amsteel Siemens	426,000.00	1997	Jun - 98
113	MMT DESIGN & CONSTRUCTION OF NEW OFFICE, PAINT & FABRICATION FACILITY ON PART OF LOT 9258 NILAI, NEGERI SEMBILAN Supply & installation of firefighting services & All associated works.	Transfield Projects	351,826.00	Jan - 98	Jul - 98
114	120MW POWER DEVELOPMENT SABAH IPP HV, LV Elect, instrumentation, Testing & Commissioning work	Powertron / PKESB	2,400,000.00	Nov - 97	May - 98
115	TNB NO. 332595 132/11KV PAGOH SUB-STATION Installation of elect. Works	Projass / TNB	51,000.00	Nov - 97	1998
116	TNB CONTRACT 114/96 (TNB 306495 – MHC) Filtration & vacuuming of 132/11kV 2 x 30MVA power transformers at Seremban 2	EPE Reyrolle	30,000.00	Apr - 98	May - 98
117	MEGASTEEL SDN, BHD, KUALA LANGAT Assembly, testing & commissioning of 6 units Siemens 11.5 MVA transformers at finishing Mill switch house	Megasteel	115,000.00	Nov - 97	Jun - 98
118	ABB 180MVA TRANSFORMER AT SSAAPS, PHASE 3 KAPAR Vacuuming & circulation of power transformers	TBV Power	10,000.000	Jun - 98	Jun - 98
119	TNB 1227/96 LEMBAH BERINGIN 275 KV S/S Erection of 2 x 240MVA; 2 x 90MVA; 2 x30MVA power transformers	EPE Reyrolle	185,000.00	Apr - 98	Dec - 98
120	Supply and installation of duct and Desert water cooler	Mini tent project Ministry of public work	700,000.00	1998	2000



ITEM	PROJECT	CLIENT	CONTRACT VALUE	YEAR OF COMMENCEMENT	YEAR OF COMPLETION
121	MCF 8 – 12/14 MVA TRANSFORMER Re-energising & treater #5 elect. Work	Mesceong (M) S/B	126,240.00	Jan - 99	Mar - 99
122	CONTRACT NO. 1226/96, TNB 310295 – MAINHEAD "A" MAX HARTA AND TELUK PANGLIMA GARANG'S SUB-STATION Erection of 4 x90 MVA 33/132kV & 4 x 30MVA 11/132kV power transformer	EPE Reyrolle (M) S/B	228,000.00	Jun - 99	Feb - 00
123	MVF PROTON – GX PROJECT, SHAH ALAM Supply & installation for the new machine at the paint shop	Meiden	75,000.00	Aug - 99	Sep - 99
124	MOTOROLA (M) SDN.BHD Installation of HT equipment & cabling work	Mayplus Corporation	77,760.00	Jul - 99	Dec <b>-</b> 99
125	KHTP INDEPENDENT POWER UTILITY PROJECT, KULIM Supply & installation of earthing system	Mudajaya Corporation	212,843.00	Oct - 99	Mar - 01
126	PROTON UTILITIES FOR M41 SATELITE LINE SHAH ALAM Supply and installation of lighting and small power	Meiden	89,366.00	Oct - 99	Nov - 99
127	Supply and installation of HVAC system Packaged mini split ducting system	Zulfi 150 bed hospital  Ministry of health	800,000.00	1999	2001
128	PROTON ELECTRICAL SUPPLY FOR M27 NEW LINE AT JIG SHOP Supply, testing & commissioning of 1000 AMP Busduct	Meiden	91,000.00	Feb - 00	Apr - 00
129	PROTON, SHAH ALAM Electrical supply for Re-locate Battery Charger at Forklift Repair Shed	Meiden	47,000.00	Mar - 00	Apr - 00
130	COMMERCIAL MINERAL MALAYSIA SDN.BHD PASIR GUDANG, JOHOR Supply & installation of electrical and fire Fighting services & all associated works	Transfield Projects	72,012.00	Jul - 00	Oct - 00
131	SECTION U5, SHAH ALAM, MUKIM SG.BULOH, SELANGOR Construction, completion and maintenance of earth work and other associated work for proposed low cost and medium cost apartment	Agmal Development Sdn.Bhd	863,015.00	Jun - 00	Sep - 00

ITEM	PROJECT	CLIENT	CONTRACT VALUE	YEAR OF COMMENCEMENT	YEAR OF COMPLETION
132	TG.LANGSAT COGENERATION PROJECT, JOHOR Mechanical equipment installation in turbine area	OGP Techincal Services Sdn.Bhd	280,000.00	Aug - 00	Sep - 00
133	DESIGN & BUILT SCHOOL PROJECT DANAU KOTA FOR MOE Supply, installation & commissioning of Electrical, Telephone, Lightning Protection, Earthing, P.A System, Fire Protection System, Hydrant & Plumbing Services.	Juara Prestasi Sdn.Bhd	1,500,000.00	Aug - 00	Oct - 04
134	Supply and installation of HVAC system (chiller, FCU, AHU, packaged mini split ducting system)	Kingdom trade center Kingdom holding Co	1,800,000.00	2000	2002
135	Supply and installation of HVAC system (chiller, FCU, AHU, packaged mini split ducting system)	100 Bed prince musad bin jalwi hospital Ministry of health	4,130,000.00	2000	2002
136	Supply and installation of HVAC system (chiller, FCU, AHU, packaged mini split ducting system)	Haqal general hospital  Ministry of health	900,000.00	2000	2002
137	PROPOSED CONSTRUCTION & COMPLETION OF 8 BLOCKS OF 7 STOREY LOW MEDIUM COST APARTMENT AT BANDAR PINGGIRAN SUBANG SEKSYEN U5 SHAH ALAM, SELANGOR. Supply, installation, testing & commissioning of Electrical, Telephone, MATV, Fire Protection & Street Lighting Systems	Agmal Development Sdn.Bhd	4,013,405.60	Apr - 01	Mar - 04
138	RAAF Base, BUTTERWORTH, PENANG Supply, installation, testing, commissioning of Electrical, Instrumentation, Fire Protection Services, Compress air piping, air-conditioning & ventilation in Fuel Farm & Building Area	Transfield Project (M) Sdn.Bhd	1,297,611.40	Sep - 01	Mar - 02
139	POWER HOUSE PROTON FACTORY AT SHAH ALAM, DELANGOR Supply, installation, testing & commissioning of Electrical Services	Meiden Electric Engng. Sdn.Bhd	126,000.00	Nov - 01	Jun - 02
140	Supply and installation of HVAC system (chiller, FCU, AHU, packaged mini split ducting system)	Prince sultan city for humanitarian	340,000.00	2001	2003

ITEM	PROJECT	CLIENT	CONTRACT VALUE	YEAR OF COMMENCEMENT	YEAR OF COMPLETION
141	Supply and installation of HVAC system Packaged mini split ducting system	Residential building for staff Prince sultan city for humanitarian	450,000.00	2001	2003
142	Supply and installation of HVAC system Packaged mini split ducting system	Hail technical college  General organization for tech education	1,200,000.00	2001	2003
143	Supply and installation of HVAC system Packaged mini split ducting system	Tabouk technical college  General organization for tech education	1,500,000.00	2001	2003
144	SEMANGAR WATER SUPPLY SCHEME Supply, deliver, installation, testing & commissioning and maintenance of Plumbing, Air-conditioning Ventilation and Fire Protection services	Ranhill Civil/ Kejuruteraan R.E Morris Sdn.Bhd	910,000.00	Jun-02	Oct - 03
145	Supply and installation of HVAC system Packaged mini split ducting system	Abbar & zainy cooled store	350,000.00	2002	2004
146	Supply and installation of HVAC system Packaged mini split ducting system	Arab national bank	1,100,000.00	2002	2004
147	Supply and installation of HVAC system Packaged mini split ducting system	Extenxion of malaz jail Ministry of interior	1,200,000.00	2002	2004
148	Supply and installation of HVAC system Packaged mini split ducting system	King Abdu Aziz welfare center Tabuok governor house	350,000.00	2002	2004
149	TETUAN SUTERA CERIA PROPOSED CONSTRUCTION FOR SINGLE STOREY WAREHOUSE AND 4 STOREY OFFICE LOT AT BANGI, SELANGOR Supply, delivery, installation, testing and Commissioning of electrical, telephone, air-conditioning and mechanical ventilation system	Sutera Ceria Sdn.Bhd.	1,138,000.00	Apr - 03	May <b>-</b> 05
150	SG. MUAR BRIDGE – PACKAGE H1 Supply labour, testing & commissioning of electrical services to bridge over Sungai Muar	Ranhill Civil/ Kejuruteraan R.E. Morris Sdn.Bhd.	329,900.00	Jun - 03	Oct - 03

ITEM	PROJECT	CLIENT	CONTRACT	YEAR OF	YEAR OF
ITEM	PROJECT	CLIENT	VALUE	COMMENCEMENT	COMPLETION
151	NEW LABIS WATER TREATMENT PLANT-PACKAGE 3 (BUILDING SERVICES) Supply, delivery, installation, testing and commissioning, of Electrical Services, Fire Protection, ACMV, Cold Water, Plumbing & Sanitary Services.	Ranhill Civil/ Kejuruteraan R.E. Morris Sdn.Bhd.	700,000.00	Sep - 03	Oct - 05
152	Supply and installation of HVAC system (chiller, FCU, AHU, packaged mini split ducting system)	MODA 50 Bed hospital  Ministry of defense & Aviation	1,500,000.00	2003	2005
153	Supply and installation of HVAC system (chiller, FCU, AHU, packaged mini split ducting system)	Technical collage general organization  For education and vocational training	900,000.00	2003	2005
154	SSU MATSUSHITA (MECOM) AT NEW SEAPARK Supply, Installation & Commissioning of 33KV XLPE underground cable in Peninsular Malaysia Package "A"	Kejuruteraan R.E. Morris Sdn.Bhd.	1,046,480.00	Feb - 04	Sep - 04
155	MANTISSA INSTITUTE AT TTDI, KUALA LUMPUR Supply, delivery, installation, testing and commissioning of Electrical Services	Mantissa Institute	61,300.00	Feb - 04	Feb - 04
156	NAZA AUTOMOTIVE MANUFACTURING PLANT AT GURUN, KEDAH HT & Electrical installation and associated services	Kejuruteraan R.E. Morris Sdn.Bhd.	347,200.00	Mar - 04	Apr - 04
157	SESC SHAH ALAM Supply, delivery, installation, testing and commissioning of Mechanical Ventilation & Electrical Services	Sumitomo Electric Sintered Components (Malaysia) Sdn.Bhd.	37,030.00	May - 04	May - 04
158	(PCSBW SHOP) FOR PERODUA FACTORY AT SG CHOH, RAWANG SELANGOR Supply, delivery, installation, testing and commissioning of Electrical Services	Meiden Electric Engineering Sdn Bhd	22,000.00	May - 04	May - 04
159	HOKUSHIN (M) SDN SHAH ALAM Supply, delivery, installation, testing and commissioning of Electrical Services	Meiden Electric Engineering Sdn Bhd	64,000.00	Jun - 04	Jun - 04
160	Supply and installation of HVAC system Packaged mini split ducting system	Riyadh Cement company	117,000.00	2004	2006

ITEM	PROJECT	CLIENT	CONTRACT	YEAR OF	YEAR OF
161	Supply and installation of HVAC system (chiller, FCU, AHU, packaged mini split ducting system)	General organization for technical	670,000.00	COMMENCEMENT 2004	COMPLETION 2006
162	Supply and installation of HVAC system (chiller, FCU, AHU, packaged mini split ducting system)	training  General organization for technical  Education and vocational training	2,095,000.00	2004	2006
163	3 x 700MW COALED FIRED TANJUNG BIN POWER PLANT Supply, delivery, installation, testing and commissioning of Electrical & Telecommunication Services	Kejuruteraan R.E. Morris ASAS JV	9,392,665.00	Mar - 05	May - 08
164	WATER WORKS GREATER PROJECT PHASE 2 CONSTRUCTION AND COMPLETION WATER DAM AT SUNGAI CHEREH, KUANTAN Supply, delivery, installation, testing and commissioning of Electrical Services	AAY_MMN JV	5,853,915.00	May - 05	Aug - 08
165	TETUAN SUTERA CERIA SDN BHD PROPOSED EXTENSION FOR 2-STOREY FACTORY AND 2 STOREY OFFICE AT EXISTING OFFICE/WAREHOUSE AT BANGI, SELANGOR Supply, delivery, installation, testing and commissioning of Electrical Services.	Sutera Ceria	500,000.00	Oct - 05	Jul - 06
166	Supply & Installation of HVAC System and Firefighting system	SECECO Sustation Doadmi	400,000.00	2005	2007
167	Supply & Installation of HVAC System and Firefighting system	SECECO 33 KV Substation Tabrjal	250,000.00	2005	2007
168	Supply & Installation of HVAC System and Firefighting system	Ministry of Higher Education	400,000.00	2005	2007
169	Motorola Manufacturing Plant, Chennai	Motorola Manufacturing Plant	80,000,000 USD	2006	2007
170	Supply and installation of Chilled water piping and all required Fittings and AHU Installation	Old Factory  AI-OBIEKAN ELOPAK Factory for packaging Co.	175,000.00	2006	2008
171	Supply & Installation of Chilled water piping and ducting, D.D.C Control Complete HVAC System	Science College ZULFI  Ministry of Higher Education	9,510,540.00	2006	2008

ITEM	PROJECT	CLIENT	CONTRACT VALUE	YEAR OF COMMENCEMENT	YEAR OF COMPLETION
172	Supply & Installation of ducting and complete HVAC System	King Faisal University Permanent Campus Ministry of Higher Education	8,207,430.00	2006	2008
173	Supply & Installation of ducting and complete HVAC System	Handicap Center Jeddah Ministry of Social Welfare	1,900,000.00	2006	2008
174	Supply & Installation of Chilled water piping and ducting, D.D.C Control complete HVAC System	Girls High Technical College HAIL Technical and Vocational Training Corporation	3,421,980.00	2006	2008
175	Supply & Installation of Chilled water piping and ducting, D.D.C Control complete HVAC System	HAIL University Engineering College Ministry of Higher Education	43,137,865.00	2006	2008
176	Supply & Installation of Chilled water piping and ducting, D.D.C Control complete HVAC System	TABOUK University Science College Ministry of Higher Education	34,032,845.00	2006	2008
177	Supply & Installation of complete air compressed System	Bisha Technical College (BISHA) Ministry of Higher Education	273,000.00	2006	2008
178	Supply & Installation of Plumbing, HVAC ducting and Fire Fighting System	E.O.D	485,000.00	2006	2008
179	Supply and installation of Stainless Steel Pipe Steam Network	King FAHD 500 Bed Hospital Tabouk Ministry of Health	1,392,942.00	2006	2008
180	Supply & Installation of HVAC System	Vocational Training Center SHARORA Technical and Vocational Training Corporation	2,378,540.00	2006	2008
181	Supply & Installation of HVAC System	Techical College QURAYYAT Technical and Vocational Training Corporation	4,781,654.00	2006	2008

ITEM	PROJECT	CLIENT	CONTRACT VALUE	YEAR OF COMMENCEMENT	YEAR OF COMPLETION
182	Supply & Installation of Chilled water piping and ducting, D.D.C Control complete HVAC System	Girls High Technical College HAIL Technical and Vocational Training Corporation	3,421,980.00	2006	2008
183	PROPSEDCONSTRUCTION BUILDING FOR 10 UNIT 3 ½ STOREY OFFICE SHOPLOT & 10 STOREY BUILDING DAERAH PETALING, SELNAGOR DARUL EHSAN. Supply, delivery installation, testing and commissioning of Electrical Services	Mandarin Purpose Sdn.Bhd.	1,230,000.00	May - 07	May - 09
184	KINA BIOPOWER 11.5MW EFB POWER PLANT PROJECT, SANDAKAN, SABAH Supply, delivery, installation, testing and commissioning of Mechanical Services	Meiden Electric Engineering Sdn.Bhd.	2,448,000.00	Aug - 07	Aug - 08
185	SEGUNTOR BIOPOWER 11.5MW EFB POWER PLANT PROJECT, SANDAKAN SABAH Supply, delivery, installation, testing and commissioning of Mechanical Services	Meiden Electric Engineering Sdn.Bhd.	2,408,860.00	Oct - 07	Mar - 09
186	KSA design Team Leader		1,200,000,000.00	2007	2008
187	Supply & Installation of Air Cooled Chillers System	AL SAFI YOGHURTS FACTORY	21,300,000.00	2007	2009
188	Supply & Installation of HVAC System for Clean Room Facility	Deef Pharmacy Factory  Deef Pharmacy Co. Ltd	13,100,000.00	2007	2009
189	Supply & Installation of Air Cooled Chillers AND HVAC System	Swaiket dates Factory  Al Swaiket Farm	10,700,000.00	2007	2009
190	Supply & Installation of Complete Electro-Mechanical Works	Technical College Qwayayah Techinical and Vocational Training Corporation	46,400,000.00	2007	2009
191	Supply & Installation Computer Room System	JEDDAH LAB AL OMAR	7,760,000.00	2007	2009

ITEM	PROJECT	CLIENT	CONTRACT VALUE	YEAR OF COMMENCEMENT	YEAR OF COMPLETION
192	Supply & Installation of Chilled water piping and ducting, D.D.C Control Complete HVAC System	University Science & Business College Ministry of Higher Education	22,800,000.00	2007	2009
193	PROPOSED CONSTRUCTION FOR DOUBLE STOREY BANGLO HOUSE WITH BASEMENT AY TROPICANA GOLF & COUNTRY RESORT, PETALING JAYA, SELANGOR Supply, delivery, installation, testing and commissioning of Electrical LV, Communication & Aircond System	Mr. Andrew M.S. Tan	179,000.00	Mar - 08	Aug - 08
194	INDUCTION FURNACE MINI MILL PROJECT AT BERANANG, SELANGOR HT Electrical And Associated Works	Spring Bond Sdn Bhd	657,204.00	May - 08	Aug - 08
195	INDUCTION FURNACE MINI MILL PROJECT AT BERANANG, SELANGOR Supply, delivery, installation, testing and commissioning of Electrical LV System	Spring Bond Sdn Bhd	665,456.00	Jun - 08	Sep - 08
196	INDUCTION FURNACE MINI MILL PROJECT AT BERANANG, SELANGOR Supply, delivery, installation, testing and commissioning of Hydrant & Water Reticulation Works System	. Spring Bond Sdn Bhd	120,000.00	Aug - 08	Mar - 09
197	INDUCTION FURNACE MINI MILL PROJECT AT BERANANG, SELANGOR Supply, delivery, installation, testing and commissioning of Process Water Piping System	Spring Bond Sdn Bhd	650,000.00	Aug - 08	Mar - 09
198	$2\times50$ storey Hotels for the Marriott Group. Responsible for all MEP Services from installation through to Commissioning	Marriott Group	8,000,000,000.00	2008	2009
199	Responsible for managing all design output.		1,200,000,000.00 RYS	2008	2009
200	5 Star Condominiums & Hotel on Palm Island, Dubai		6,000,000.00	2008	2009
201	Royal Amwaj Hotel & Spa, Palm Island Dubai 6 Star (Contrat Value 100m USD)	Royal Amwaj	100,000,000.00 USD	2008	2011
202	Turn Key Job	Avalon Pharmacy. Factory AVALON CO. LTD.	14,000,000.00	2008	2010

ITEM	PROJECT	CLIENT	CONTRACT VALUE	YEAR OF COMMENCEMENT	YEAR OF COMPLETION
203	Marriot Renaissance & Court Yard Hotel & Apartments 4 & 5 Star Doha	Marriot	90,000,000.00 USD	2009	2011
204	Complete Electro-Mechanical Works	Sheikh Mohamed Ben Abdoulwahab Foundation LADA	19,860,000.00	2008	2010
205	Rotana, Shangri-La & Merweb Hotels 4 & 5 Star Hotels Doha	Rotana	110,000,000 USD	2009	2011
206	Complete Electro-Mechanical Works	PETRA KSA FACTORY  PETRA Industrial Engineering Co.	30,342,944.00	2009	2011
207	Complete Electro-Mechanical Works	Kingdom Tower Mall Expansion RAWAFED ALTAAAMR	15,342,944.00	2009	2011
208	Complete Electro-Mechanical Works	ROOMZ ALMUTLAQ HOLDING GROUP	14,500,000.00	2009	2011
209	IKAN MARIN INCUBATOR, AT SETIU, TERENGGANU Proposed construction for fish farm Supply, delivery installation, testing and commissioning of Electrical System	Jurutiara Sdn Bhd	881,637.00	Dec - 10	Sep - 12
210	SURUHANJAYA TENAGA APPLICATION FOR USG FACTORY, TAMAN KLANG UTAMA, KLANG	USG Products Sdn Bhd	13,000.00	Apr - 12	Dec - 12
211	PROPOSED FOR CONSTRUCTION OF 72 UNITS SHOP OFFICE, KUALA SELANGOR Fire Fighting Works	Utamal Land Sdn Bhd	115,900.00	Nov -12	Jan - 13
212	CADANGAN KELULUSAN PELAN LAMPU JALAN BAGI PEMBINAAN SEBUAH PASARAYA 1 TINGKAT BESERTA 1 TINGKAT MEZZANINE DI ATAS SEBAHAGIAN LOT 619, MUKIM KUALA SELANGOR DAN KAMPUNG PASIR PENAMBANG, DAERAH KUALA SELANGOR, SELANGOR DARUL EHSAN TUK TETUAN GOLDPAGE ASSETS SDN BHD Street Lighting Services	Utamal Land Sdn Bhd	80,000.00	Apr - 13	Jul - 13
213	PROPOSED HOTEL DEVELOPMENT ON LOT 10,11,12,13,14 & 15 AT THE EXISTING 72 UNIT KEDAI PEJABAT 2/4 TINGKAT DIATAS SEBAHAGIAN LOT 984 (Lot lama 620) DAN LOT 982 (LOT LAMA 617) MUKIM KUALA SELANGOR DAN KAMPUNG PASIR PENAMBANG, DAERAH KUALA SELANGOR, SELANGOR DARUL EHSAN UNTUK TETUAN GOLDPAGE ASSETS SDN BHD	UTAMAL LAND SDN BHD	574,651.00	May - 13	Jan - 14

## LIST OF CURRENT PROJECTS

ITEM	PROJECT	CLIENT	CONTRACT VALUE	YEAR OF COMMENCEMENT	YEAR OF COMPLETION
1	PROPOSED DEVELOPMENT 1 BLOCK SPACE BUSINESS (BUSINESS SUITES) 21 FLOOR AT JALAN RAJA MUDA ABDUL AZIZ, KUALA LUMPUR Design, Construct and Completion of ELV, Generator Set, Façade & External Lighting, Lightning Protection, PA System, SMATV, ICT, CCTV, Card Access System, Air Cond, Traffic Light & Boom Gate Works	Pembinaan Luhur Usaha Sdn Bhd	30,692,000.00	Dec - 13	In Progress
2	SUPPLY, TESTING, DELIVERY OF STINGER SYSTEM I - BEAM SUPPORT WORKS PROJECT MASS TRANSIT LEMBAH KELANG JAJARAN SUNGAI BULOH-KAJANG	MEIDEN MALAYSIA SDN BHD	50,000,000.00	Apr -14	In Progress

## 2 x 50 STOREY HOTELS PROJECT MANAGEMENT CITY CENTER PH II DOHA



MARRIOT HOTELS, DOHA



**BOILER ROOM** 



DIESEL GENERATOR ROOM



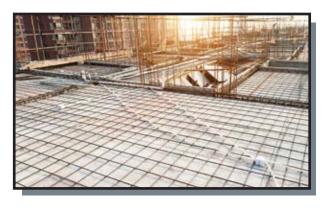
L.V. SWITCHGEAR ROOM

## PROPOSED DEVELOPMENT 1 BLOCK 1 SPACE BUSINESS SUITES (130 UNITS) 21 FLOOR AT JALAN RAJA MUDA ABDUL AZIZ, KUALA LUMPUR

DESIGN, CONSTRUCT AND COMPLETION OF ELV, GENERATOR SET, FACADE & EXTERNAL LIGHTING, LIGHTNING PROTECTION, PA SYSTEM, SMATV, ICT, CCTV, CARD ACCESS SYSTEM, AIR CONDITIONING, TRAFFIC LIGHT & BOOM GATE WORKS







CADANGAN MEMBINA 10 UNIT KEDAI / PEJABAT 3 ½ TINGKAT SERTA BANGUNAN PEJABAT 10 TINGKAT DI DAMANSARA UNTUK TETUAN MANDARIN PURPOSE SDN BHD



ELECTRICAL, LOW VOLTAGE, COMMUNICATION & PA SYSTEM



KINA / SEGUNTOR BIO-POWER 11.5 MW EFB POWER PLANT AT SANDAKAN SABAH

## COOLING WATER PIPE LINE, STEAM PIPING, BUTTERFLY VALVES





INSTALLATION OF STEAM TURBINE



PIPEWORK INSTALLATION



HIGH / LOW PRESSURE STEAM TURBINE PALM OIL HUSK FEED CONVEYOR





3 0

## 3 X 700 MW COAL FIRED POWER PLANT TANJUNG BIN, JOHOR

SUPPLY, DELIVERY, INSTALLATION, TESTING & COMMISSIONING OF ELECTRICAL, LIFT SERVICES & TELECOMMUNICATION SERVICES





CADANGAN MEMBINA SEBUAH GUDANG 1 TINGKAT BERSERTA PEJABAT 4
TINGKAT DIATAS, 40845 JALAN 10 / 10 BANDAR BARU BANGI, MUKIM KAJANG
DAERAH HULU LANGAT, SELANGOR UNTUK TETUAN CERIA SDN BHD

SUPPLY, DELIVERY, INSTALLATION, TESTING & COMMISSIONING OF ELECTRICAL, TELEPHONE, AIR CONDITIONING AND MECHANICAL VENTILATION SYSTEM



## SEMANGAR WATER SUPPLY, JOHOR

SUPPLY, DELIVER, INSTALLATION, TESTING & COMMISSIONING OF PLUMBING, AIR CONDITIONING & VENTILATION AND FIRE PROTECTION SERVICES.





## DESIGN & CONSTRUCTION OF THE FUEL FARM UPGRADE 324 COMBAT SUPPORT SQUADRON AT RAAF BASE BUTTERWORTH, PENANG

SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF ELECTRICAL, INSTRUMENTATION, FIRE PROTECTION SERVICES, COMPRESS AIR PIPING, AIR-CONDITIONING & VENTILATION IN FUEL FARM & BUILDING AREA











PROPOSED CONSTRUCTION & COMPLETION OF 8 BLOCKS OF 7 STOREY LOW MEDIUM COST APARTMENT AT BANDAR PINGGIRAN SUBANG SEKSYEN U5 SHAH ALAM, SELANGOR

SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF ELECTRICAL, TELEPHONE, MATV FIRE PROTECTION & STREET LIGHTING SYSTEMS





### CADANGAN PROJECT PEMBINAAN PUSAT INCUBATOR IKAN MARIN, KAMPUNG LIMAU NIPIS, SETIU TERENGGANU DARUL IMAN

SUPPLY, DELIVERY, INSTALLATION, TESTING AND COMMISSIONING
OF ELECTRICAL SYSTEM







### 132KV TRANSMISSION & DISTRIBUTION SUB-STATION ERECTION WORKS

SUPPLY & ERECTION OF 132/11KV TRANSMISSION EQUIPMENT



### TG. LANGSAT COGENERATION PROJECT, JOHOR

### MECHANICAL EQUIPMENT INSTALLATION IN TURBINE AREA





### **ERECTION OF POWER TRANSFORMERS & OIL FILTRATION**









### LUMUT CCGT - EC & I INSTALLATION

ERECTION OF 6 X 168MVA TRANSFORMER, FILTRATION, VACUUMING & 6 X 11KV AL BUSDUCTS









### TORAY PLASTIC (M) SDN BHD MT3 PRAI, PENANG

INSTALLATION OF 2000KW DIESEL GENERATOR SET WITH AUXILIARY EQUIPMENT









We, the Management and Employees of TASAS EMC, firmly commit ourselves to ensure that all construction projects and services are executed in accordance with contract specifications, drawings, within greed time frame and with consistent quality level that will meet and exceed client's expectations.

We believe that quality is everybody's responsibility, and continuous improvement is the driving force for success, so we also commit ourselves to continually improve the quality of our projects and services by continually reviewing and monitoring operations and achieving our objectives.

This is done by the effective and efficient implementation of ISO 9001:2008 Quality Management system standards in addition to complying with the applicable legal requirements and statutory regulations.

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TASAS EMC - HS Manual (HS M-01)

### 7.1 Purpose

This manual defines the scope of TASAS EMC Health, Safety Management System (HS MS) and provides a linkage of system documents to the various elements of OHSAS18001:1999 standard.

The principal elements of the system described in this manual are:

- QHS Policy
- Hazards and Risks
- Legal and Other Requirements
- QHS Objectives
- HS Management Programs
- Organizational Structure and Responsibility
- Communication
- Document Control
- Operational Control
- Crisis Management
- Monitoring and Measurement
- Incidents and Corrective and Preventive Action
- Records
- HS MS Audit
- Management Review

### 7.2 Scope

TASAS EMC HS MS provides a mechanism for HS management throughout all areas and departments. The HS management system is designated to cover health and safety hazards and risks, which a facility can control and directly manage, and those it does not control or directly manage but can be expected to have an influence.

### 7.3 Issue and Update

The control of this Manual is in accordance with the TASAS EMC operational procedure Control of Management System Documents. All copies of this Manual not marked "CONTROLLED COPY" are uncontrolled and should be used for reference purposes only.

Amendments to this manual will be issued by the QHS Engineer/MR or designee following approval by the Projects Manager.

### 7.4 QHS Policy

TASAS EMC QHS policy is endorsed by TASAS EMC Project Manager. The policy covers all activities at the company's facilities and sites. The Policy includes a commitment to continual improvement and prevention of pollution and occupational health and safety, as well as a commitment to meet or exceed relevant legislation, regulations and other requirements. The Policy will be reviewed annually by top management, communicated to all employees and made available to the public in accordance with the communication, procedures adopted.

Reference Material OHSAS 18001 Standard (4.2) ISO 14001 Standard (4.2)

Applicable Procedures
HS M = 01 TASAS EMC HS MS Manual

### 7.5 Hazard Identification, Risk Assessment and Risk Control

The TASAS EMC HS Cross Functional Team identifies the hazards and associated risks, which the company controls and over which it may be expected to have an influence, and determines which of those hazards and associated risks are considered significant by using a semi-quantitative risk assessment method and pre-defined evaluation matrix. Risk assessment results and significance are documented and maintained. These hazards and associated risks are reviewed at least semi-annually by the CFT or when there is a new or changed process or activity at the company facilities or sites. The QHS Engineer/MR maintains the Hazard Identification and Risk Assessment Records.

Reference Material
OHSAS 18001 Standard (4.3.1)

Applicable Procedures P - 04 H

### 7.6 Legal and Other Requirements

TASAS EMC has established an operational procedure for the purpose of identifying, accessing and communicating legal and other requirements that are applicable to the company. Additional information is also available through legal publications. Local regulations are identified, accessed and communicated by the QHS Engineer/MR. At least annually the QHS Engineer/MR will review the most current international, national, regional, provincial, and local legal and other requirements, as applicable to TASAS EMC scope of operations and activities.

Reference Materials Legal and Other Requirements ISO 14001 Standard (4.3.2) OHSAS 18001 Standard (4.3.2)

Applicable Procedures
P - 03H Control of Regulations and Other Requirements

### 7.7 QHS Objectives

TASAS EMC Management has developed its standard objectives for key processes at each relevant function and level within the organization. In-compliance with companies' standard objectives the CFT has developed companies' objectives and targets regarding health, safety, where these objectives and targets define:

- 1. The key measures and associated performance indicators for each process;
- 2. The specific, quantified targets define those performance indicators;
- 3. The planned deadlines for the achievement of those targets; and
- 4. The responsibilities for reporting and acting against results.

Objectives and targets are developed considering legal and other requirements, significant health and safety hazards and risks, technological options and financial, operational and business plans, and the management in the management review meeting for approval, then to confirm the progress of hitting the targets.

Reference Material ISO 14001 Standard (4.3.3) OHSAS 18001 (4.3.3)

Applicable Procedures
TASAS EMC QHS Objectives Matrix
P-04H Hazard Identification and Risk Assessment

### 7.8 HS Management Programs

The CFT established Risk Management Programs (RMPs') as a means for achieving objectives and targets. These programs define the principal actions to be taken, those responsible for undertaking those actions and the scheduled times for their implementation. The RMPs' are developed by the CFT and approved by the Projects Manager (refer to Section 7.5 Hazard Identification, Risk Assessment and Risk Control).

Reference Material: ISO 14001 Standard (4.3.4) OHSAS 18001 Standard (4.3.4)

Applicable Procedures
P-04H Hazard Identification and Risk Assessment
All FALCON EMC HS Operational Instructions

### 7.9 Organizational Structure and Responsibility

HS management system roles, responsibilities and authorities are defined at relevant functions and levels within the company. TASAS EMC' management provides the resources essential to the implementation and control of the HS management system, including: training, human resources, specially services, financial resources, technical and informational services. The QHS Engineer/MR has primary responsibility for establishing, operating and maintaining the HS MS. An HS CFT provides routine HS MS support and reports directly to the QHS Engineer/MR.

Reference Material OHSAS 18001 Standard (4.4.1) ISO 14001 Standard (4.4.1)

Applicable Procedures
All TASAS EMC HS Operational Procedures and Instructions

### 7.10 Training, Awareness and Competence

TASAS EMC identifies, plans, monitors and records training needs for personnel whose work may create a significant influence on his or other people health and safety. TASAS EMC has an operational procedure to create awareness and train employees at each relevant function and level so they are aware of the QHS policy, significant hazards and associated risks, their roles and responsibilities in achieving conformance with the policy and procedures, and with the requirements of the HS management system. The training QHS Engineer/MR is responsible for maintaining employees training records. Appropriate records are monitored and reviewed on a scheduled basis. Competency is determined by the employee's direct manager/supervisor.

Reference Material ISO 14001 Standard (4.4.2) OHSAS 18001 Standard (4.4.2)

Applicable Procedures Resources Management

### 7.11 Communication

The TASAS EMC has established and will maintain different means of communications for internal and external communications regarding hazards and associated risks and its HS MS.

Examples of internal communication:

- Notice boards
- Awareness training of company personnel, as appropriate in line with job function
- HS training of relevant job functions, as appropriate
- Electronic notes
- Team meetings and meeting minutes
- Management reviews and meeting minutes
- Corrective action Requests

The QHS Engineer/MR is responsible to ensure proper external communication with interest parties. This includes, not exclusively, communicating TASAS EMC HS requirements to contractors, communicating and feedback from UAE legal authorities, communicating clients an accreditation bodies audits results to customers.

### 7.12 HS Management System Documentation

This Manual identifies all documents relevant to the HS MS. A copy of HS MS documents, other than visual aids and records, can be obtained from the QHS Engineer/MR or designee.

Reference Material: ISO 14001 Standard (4.4.4) OHSAS 18001 Standard (4.4.4)

Applicable Procedures

Control of Management System Documents

### 7.13 Document & Data Control

TASAS EMC has established an operational procedure for controlling all documents related to its management system. This procedure describes where documents can be located and how and when they are viewed. The procedure ensures that current versions are available and that obsolete documents are promptly removed from use or are suitably identified. Controlled documents are obtainable from the QHS Engineer/MR or designee.

The procedure also describes the methods used to maintain electronic documents and data, and securing the system from loss, damage or infection by electronic viruses.

Reference Material ISO 14001 Standard (4.4.5) OHSAS 18001 Standard (4.4.5)

Applicable Procedures INS/P-01 Control of Management System Documents

### 7.14 Operational Control

The CFT is responsible for identifying operations and activities associated with significant hazards and risks that require operational controls in procedures, work instructions or management programs.

These documents define the mechanisms for the establishment, implementation and maintenance of the HS MS and ensure that the system is maintained in accordance with TASAS EMC QHS policy and QHS objectives and targets and is communicated to employees, suppliers and contractors.

- System Procedures: Cover the management and control of both the HS MS and the principal hazards and risks which the system manages. These procedures are TASAS EMC wide in their application.
- Work instructions: Cover the control of specific operational activities and are usually activity specific in their application.

Reference Material ISO 14001 Standard (4.4.6) OHSAS 18001 Standard (4.4.6)

Applicable Procedures
All TASAS EMC Operational Procedures and Work Instructions.

### 7.15 Crisis Management

TASAS EMC has an operational procedure to identify potential for and respond to accidents and emergency situations, and for preventing and mitigating the hazards impacts that may be associated with them. Emergency methods are reviewed by the CFT on an annual basis and after the occurrence of accidents or emergency situations.

Reference Material ISO 14001 Standards (4.4.7) OHSAS 18001 Standards (4.4.7)

Applicable Procedures P-02H Crises Management



### 7.16 Performance Monitoring and Measurement

TASAS EMC has established operational procedures to monitor and measures the key characteristics of its operations and activities that can have a significant impact on the health and safety. These procedures associated with maintenance operational procedure, which includes maintenance requirements of HS MS performance.

The company shall conduct pre-scheduled HS internal audits, that cover all departments and working sites, to measure and ensure the effectiveness of its HS MS performance, and its regulatory compliance. Periodic analysis for system output will take place by departments managements to measure achievements of established objectives and targets.

The QHS Engineer assisted by CFT members and allocated Safety Officers shall conduct frequent health and safety inspections on company personnel, activities, facilities, sites and contractors, and report their findings.

Reference Material ISO 14001 Standard (4.5.1) OHSAS 18001 Standard (4.5.1)

Applicable Procedures QHS MS Assurance P-04H Hazard Identification and Risk Assessment P-06H HS Monitoring and Measurements

### 7.17 Incidents and Corrective and Preventive Action

TASAS EMC has an operational procedure for defining responsibility and authority for handling and investigating of any occurred accidents, near misses or unsafe conditions/acts defining action to mitigate impacts, and for initiating and completing corrective and preventive action. Any changes in procedures resulting from corrective and preventive actions are implemented and recorded. The QHS Engineer/MR maintains these records.

Reference Material ISO 14001 Standard (4.5.2) OHSAS 18001 Standard (4.5.2)

Applicable Procedures

QHS MS Assurance
P-01H Incidents Reporting and Investigation

### 7.18 Records

TASAS EMC has an operational procedure for the identification, maintenance and disposal of its management system records. These records include training records and the results of audits and reviews. They are readily retrievable and protected against damage deterioration and loss. The Areas and Departments maintain their own records. Record and document retention is also specified in the procedure.

Reference Material ISO 14001 Standard (4.5.3) OHSAS 18001 Standard (4.5.3)

Applicable Procedures
Control of Management System Documents

### 7.19 HS Management System Audit

Periodic system audits are conducted to ensure that the HS management system has been properly implemented and maintained. The results of these audits are provided to management. Audits are performed according to Annual Audit Plan, which is based on the importance of an activity, the results of previous audits and the audit schedule. All auditors are trained and audit records are kept with the QHS Engineer/MR.

Reference Material ISO 14001 Standard (4.5.4) OHSAS 18001 Standard (4.5.4)

Applicable Procedures

QHS MS Assurance

### 7.20 Management Review

TASAS EMC Management reviews all elements of the HS MS at least every six months to ensure its continuing suitability, adequacy and effectiveness. Meeting minutes record these reviews and are maintained by the QHS Engineer/MR or designee.

The QHS Engineer/MR ensures that all decisions and actions determined in the management review are documented and an action plan/corrective actions issued for concerned people to mitigate areas of concern. Follow up-results are presented in the next management review for evaluation and verification by management.

Reference Material ISO 14001 Standard (4.6) OHSAS 18001 Standard (4.6)

Applicable Procedures

QHS MS Assurance

### SECTION 8 Equipment

NO.	PLANT / EQUIPMENT & IT'S MANUFACTURER / MAKE	QUANTITY
		QUANTITI
Α	CABLE PULLING EQUIPMENT	0
	Cable winch 5 ton	2
	Cable drum trailers	3
	Mobile Mechanical Lifting Jacks	6
_	Cable Rollers	300
	Cable pulling eyes	4
Б	Cable pulling irons	200m
В	O.H LINE INSTALLATION EQUIPMENT	0
	O.H line conductor trailers	12
-	Line pulling & tensioning mach.	
	Ladders (aluminum)	12
	Safety belts	20 sets
-	O.H.L pulling rollers	30
	Poles trans. Trailer With 10 crane	1
С	MECHINERY	•
-	Diesel generators	3
-	Air compressors	3
	Welding machines	3
	Leaders	2
-	Portable drilling machines different sizes	4
-	Fixed vertical drilling machine	1
-	Material transport trailers	1
	Concrete mixers (Mobile)	1
	Jack hammers	3
-	Backhoe	1
-	Pickups	5
-	Trucks	3
	Compactors (Roller)	3
	Concrete vibrators	1
	Water pumps	2
	Pits Berg Machine (Lock Forming)	64
	Bidding Machine (Reinforcement)	82
	Sheet Cutting Machine Electrical	11
	Sheet Cutting Machine Manual	21
	Bedding Machine Manual	14
	Roller Machine	5
-	Beading Machine For cladding	5
	Seam Machine	4
	Cutting machine for commercial Sheet	4
	Electrical Welding Plant	5
	Oxygen & Estelline Set (For cutting & welding)	4
	Organ Welding Machine	5
	Welding Machine	6
	Gas Welding Machine	8
	Threading Machine	6
	Pik up & Cars	29
	Dyana	8
	Air Balancing Hood	4

### SECTION 8 Equipment

NO.	PLANT / EQUIPMENT & IT'S MANUFACTURER / MAKE	QUANTITY
D	TOOLS	
	Different sets of tools & accessories for the installation	25
	And updated to suit applications	
	Clipping Tools	8
	Jack Hammers & Hoses	68
	Scaffolding	5500 sqm
	Ladders	45
Е	TESTING EQUIPMENT	
	Insulation & continuity tester (meggers) 1000V	2
	Insulation tester 5000V	1
	HV AC/DC dielectric testing equipment 70/100kv	1
	Measuring instruments (multimeters)	4
	Clamp meters	8
	Primary injection set	1
	Sec. injection test set	1
	Dynameters	6
	High Voltage detector up to 36kV	1
	Earth testers	6
	Cable / Metal Detectors	12
	High Pressure Duct Leaking Testing Machine	2
	Low Pressure Duct Leaking Testing Machine	6
	Anemometer	3
	Ultra Sonic Water Flow Meter	4
	Sound Level D.B Metter	4
	Thickness Testing Metter	3

# SECTION 9 Work Force (Over 300)

No.	CATEGORY	QUANTITY
1	INDUSTRIAL ENGINEERS	4
2	MECHANICAL ENGINEERS	5
3	ELECTRICAL & TELCOM ENGINEERS	6
4	CONSTRUCTION SUPERINTENDENTS	2
5	SUPERVISORS CIVIL	3
6	SUPERVISORS MECHANICAL	6
7	SUPERVISORS ELECTRICAL & TELECOM	6
8	QUANTITY SURVEYORS ELECTRICAL/MECHANICAL/CIVIL	2
9	QA/QC SUPERVISORS ELECTRICAL & TELECOM/MECHANICAL/CIVIL	1
10	FIELD SURVEYORS	3
11	AUTO CAD OPERATORS	5
12	COMPUTER PROGRAMMERS	2
13	PURCHASERS	4
14	STORE KEEPER	3
15	LEAD MAN	18
16	CARPENTORS	22
17	MASONS	28
18	STEEL FIXERS	24
19	RIGGERS	4
20	DRIVERS	4
21	EQUIPMENT OPERATORS	7
22	MECHANICS	5
23	PAINTERS	13
24	AC TECHNICIANS	31
25	PLUMBERS	22
26	ACCOUNTANT/OFFICE CLERKS	3
27	TIME KEEPERS	2
28	CASP BOSS	2
29	ELECTRICIAN	28
30	WELDERS	11
31	SEMI SKILLED LABORS	16
32	UN SKILLED LABOURERS	32



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