

# Vakalapudi Lighthouse

Estd.1878

## VISAKHAPATNAM DIRECTORATE MASTER LEDGER

0 **Name** : VAKALAPUDI LIGHTHOUSE  
1 **Sr.No.** : 0964  
(as per A.L.O.L)  
2 **Position** : Lat: 17<sup>0</sup> 00.8' N  
Long: 82<sup>0</sup> 17. 1' E  
3 **Elevation** : 47.88 Mtr  
4 **Characteristic** **FL(3) white, every 15 sec**



### 5 **Range in nautical miles**

i) Luminous : 26 M

ii) Geographical : 19 NM

### 6 **Lighthouse Tower**

i) Type : Circular R.C.C. Tower

ii) Height : 45 Mtr

iii) Colour : Red and White bands  
Scheme

### 7 **Optical Equipment**

- a) i) Make : M/s BBT  
ii) Size : 350 mm (4<sup>th</sup> order) revolving  
iii) No. of Panels : 3 Nos.  
iv) Area of dioptric portion : -  
v) Area of catadioptric portion : -  
vi) Divergence

- Main : Horizontal. 6° 45.5', Vertical 6° 18'
- vii) Duration of flash
- Main/ Standby : 0.19 seconds
- Emergency : ---
- b) **Pedestal** : Mercury float (28kg in use)  
Cast iron pedestal
- c) **Rotation Device**
- i) Stepper Motor : Twin stepper motor Direct Drive system.  
2 No's Unique make, Capacity 20 Kgs
- ii) Stepper Motor  
Controller : 2 No's Unique make
- d) **Rotation Speed** : 4 RPM
- e) **Illuminant**
- i) Main/Service : 3 Nos.150 W Metal Halide Lamp (cluster type)
- ii) Standby : Nil
- iii) Emergency : Nil
- f) **Effective Beam Intensity**
- i) Main/Service : 9,39,600 Cds.
- ii) Standby : N/A
- iii) Emergency : N/A
- 8 **Lantern**
- i) Diameter : 2.4Mtr
- ii) Height of  
glazing : 1.5Mtr
- iii) No. of panes : 9 Nos.
- iv) Ventilators : 8 Nos.
- 10 **Main light UPS** : 4 Nos.
- Make : UTL
- Capacity : 800 VA

Input : 12V DC  
Output : 230V AC  
Model Number : UTL combo

**11 Energy Source**

- A) APEPDCL Mains : 440 V/50Hz 3 Phase.
  
- B) Green Energy : 3KW off grid solar power plant for main light.
  - i) Solar panels : 10 nos 24V/250W solar Modules (Vikram make)
  - ii) Battery Bank : 11 nos 12V /150Ah Battery bank Exide SMF
  - iii) PCU : 3 KVA Rating, HBL make

**12 Diesel Engine Generator**

Make : Kirloskar, HA294  
Engine No. : 02.1186/0400940  
Rating : 19 HP/ 02 cylinders  
Output voltage : 240V/50Hz  
RPM : 1500/ Air cooling

**13 Diesel Engine Alternator**

Make : Kirloskar  
Engine No. : KG180M1  
Rating : 12.5 KVA/ single phase  
Output voltage : 240V/50Hz  
RPM : 1500

**14 Servo Stabilizers : 1 No.**

Sl.No. : 1290/24348  
Make : Supra-Hitech  
Model : SH-3150  
Capacity : 15 KVA  
Input : 330 - 460 V  
Output : 400

**15 AMF Panel**

- Make : Elect India  
 Model : EMF15KM3G1-ICFTDM02  
 Capacity : 10 VA/ 3 Phase
- 16 No of Batteries : 1 No. Exide 12 V/ 150 AH Battery for Gen Set  
 : 3 Nos. Exide 12 V/ 150 AH Batteries for Main Light  
 : 0 No. Exide 12 V/ 150 AH Battery for Rotation
- 17 **RACON**  
 Make : Tideland signal Corp., U.S.A.  
 Input Voltage : 9 to 36 Volts D.C.  
 RACON Sl.No. : 6165  
 Morse Code : G  
 Date of Commissioning : December 2004  
 Solar Panel : Tata BP , 12V/70 watt  
 Battery : Tubular Battery 12V/ 90AH
- 18 NAIS Equipment  
 Make : M/s SAAB  
 AIS R40 Base Station : Sl.No.5253  
 AIS R40 Base Station : Sl.No 5202  
 V- SAT Dish Size : 2.4Mtr. Dia ( with BUC 5 watt capacity)  
 VHF Antenna : 2 Nos.  
 GPS Antenna : 2 Nos.  
 Indoor (Data Modem) : 1 No.(HUGHES)  
 Ethernet Switch : 1 No. (CISCO)  
 UPS : 2 Nos., 1 KVA inbuilt 48V battery for AIS  
 Base station and AIS Satellite Modem.  
 Date of Commissioning : 20/12/2011
- 19 Automation of Lighthouse.  
 Make : M/s Recktronic Devices & Systems, Pune.  
 RDS Panel : 1No. in power house. (S.No.1692)  
 RDS Panel : 1No Service room. (S.No.1714)  
 PLC units : 2 Nos.  
 Power Transducers : 3 Nos.

Adepts : 6 Nos.  
 Modem : 1 No.  
 DC Power Supply Unit : 1 No, (1KVA, APC Make, Model- BR1000G-IN, Sl.No.214450744.)  
 VSAT Antenna : 1.5 Mtr. dia  
 Date of commissioning : 05/02/2013

## 20 NAVTEX

Transmitter (1Kilo watt) : 2 No's, DANPHONE Make provided in Dual transmitter rack (5.4 feet height)  
 Power Supply unit : 2 Nos. capacity 0-300Volt for each Transmitter  
 1 No. (for Power control remotely),  
 IP Power switch : Ethernet Switch (router): 1 No.,  
 Transmitter switch: 1 No. Tuner  
 Ethernet Switch(router) : 1 No. (For connected NAIS Modem unit)  
 Receiver with antenna : 1 No.  
 ATU : 2 Nos.(In ATU room)  
 ATU Controller : 1 No.(In ATU room)  
 T Antenna : 1 No. Mounted on 30 Meter Height GI trestle  
 tower 2 Nos.  
 Smoke Detector(Fire Alarm) : 1 No. in Tx Room.  
 Servo Stabilizer : 1No, Make: Blue Bird, Sl No.6-2014 104, 15 KVA  
 1No, 7.5 KVA, Make; Power Gun, Model: PI, Sl  
 UPS : No.EXNBN/14-15/CCS/11,  
 Batteries 10 Nos. Exide,42AH,12 Volts

### Details of Diesel Engine Generators

Details of Engine : 2 Nos.  
 Engine No. : 522828906709  
 Make/Tape : Eicher  
 H.P. : 26  
 No. of Cylinder : 3 Nos.

RPM	: 1500
Cooling	: Air Cooled
Engine No.	: 522828906709
Make/Tape	: Eicher
H.P.	: 26
No. of Cylinder	: 3 Nos.
RPM	: 1500
Cooling	: Air Cooled
Details of Alternator	: 2 Nos.
Frame	: AH310200-318
Make	: Pinnacle
KVA	: 20.0
Vol	: 230 V
Frequency	: 50 Hz
Phase	: Single
RPM	: 1500
Frame	: AH310200-327
Make	: Pinnacle
KVA	: 20.0
Vol	: 230 V
Frequency	: 50 Hz
Phase	: Single
RPM	: 1500
AC with stabilizer	: 2 No's, 1.5 Ton split type
Model	: S185CUR-TV
Make	: ONIDA
Total unit	: 02 Nos.
Computer	: 1No. Hp make CPU with Monitor 25" 2No's(1No. HPdeskjet, model 3545 all-
Printers	: One, 1No. Epson LQ50 for Navtex messages

- Date of Commissioning : 03/03/2015
- 21 Street Lights : i) 8 Nos. GI poles with 25W LED  
ii) 8 Nos. 15W solar street light  
iii) Gate Light CFL - 2 Nos.
- 22 Firefighting equipment  
Fire Extinguishers  
i) D.C.P. type : 3 Nos.  
(2kg Capacity)  
ii) Foam type : 1 No.  
(9 litres capacity)  
iii) Fire Buckets : 4 Nos.
- 23 Communication Facility : e-mail : Vakalpudi-vizag@dgl.nic.in
- 24 Water Supply : Ground water & Connection from  
Gram panchayat
- 25 Land  
i) Area : 5 Acres  
ii) Demarcation : Compound wall  
iii) No. of fruit : 9 Nos.  
trees  
iv) No.of non : 25 Nos.  
fruit bearing :  
Trees
- 26 Buildings : Powerhouse attached with Office and NAVTEX  
Room, Store-1 No., Inspection qtr, NA-I Qtr-1No.,  
NA-II Qtr-1 No., LHA Qtr., NAVTEX Operator  
Building.
- 27 Staff : i) NA- II-01no, LHA – 01no, Navtex operator-  
02nos(Outsourcing) and Security Guards -  
01no(Outsourcing).

- 28 Mode of approach : By train up to Samalkot, by road Samalkot to Kakinada 15 km. By Auto Kakinada to Vakalapudi LH 8 km.
- 29 Facilities available : a) Post Office within 5 km (Valasapakala)  
b) Govt. Hospital within 12 km (Kakinada)  
c) Govt. School within 5 km (Valasapakala)  
d) Nationalized Bank within 6 km (Sarpavaram)  
e) Police Station within 6 km (Sarpavaram)
- 30 Postal Address : The Navigational Assistant Gr-I,  
Vakalapudi Lighthouse,  
Tammavaram Post, Kakinada,  
East Godavari Dist.  
Andhra Pradesh, Pin: 533005
- 31 **Cost Details**
- i) Construction : Rs.1.3 Crore
- ii) Cost of equipment : Not available
- 32 Year of first Light Commissioned : 2004 (Taken over from Port Department of Andhra Pradesh)
- 33 Date of Commissioning : 08-11-2004
- 34 Subsequent Innovation : Nil