

**GOVERNMENT OF TELANGANA
IRRIGATION AND CAD DEPARTMENT**

From
Advisor
Lift Irrigation Schemes,
Irrigation & CAD Dept,
Govt. of Telangana,
Jalasoudha, Errummanzil,
Hyderabad.

To
All the CE'S,
I&CAD Department,
Govt. of Telangana

Lr.No. ADV/LIS/F. O&M/Do's & Don't Do's/D.No. 3 /2020 Dt: 2.1.2020

Sir,

Sub: Lift Irrigation schemes – O&M - Do's and Don't Do's at pumping stations (in case of Synchronous motors with FCMA or SFC start systems only) - Reg .

As desired in the meeting held on 21.12.19 at Institute of Engineer (Vishweshwarayya Bhavan) Khairtabad, on discussion of O&M policies of pumping stations of present day LIS following are herewith attached for favour of information and necessary action at your end.

- 1) O&M guide lines.
- 2) Do's and Don't Do's in pumping stations

Hence all the Chief Engineers are requested to instruct the concerned staff (up to AEE level) to follow these guidelines of Do's and Don't Do's activities in their respective pumping stations.

Yours faithfully,



Advisor,

02-01-2020

Encl: as above

Lift Irrigation Schemes,
I&CAD Department,
Govt. of Telangana

Copy submitted to Engineer-in-Chief(I), 2nd floor, Jalasoudha, erramanzil, Hyderabad for favour of information.

✓ Copy submitted to Engineer-in-Chief (A), 1st floor, Jalasoudha, erramanzil, Hyderabad for favour of information.

Copy submitted to Engineer-in-Chief /Projects, LMD colony, Karimnagar for favour of information.

Copy to

- 1) The Chief Engineer/Projects, I&CAD Department, Khammam.
- 2) The Chief Engineer, I &CAD Department, Mahabubnagar.
- 3) The Chief Engineer, I &CAD Department, Nalgonda.
- 4) The Chief Engineer, Kaleshwaram , Hyderabad.
- 5) The Chief Engineer, Kaleshwaram, Karimnagar.
- 6) The Chief Engineer, JCR DG LIS Warangal.
- 7) The Chief Engineer, I &CAD Adilabad.
- 8) Commissioner, Godavari Basin, Jalasoudha, Hyderabad.
- 9) The Chief Engineer, SRSP, Jalasoudha , Hyderabad
- 10) The Chief Engineer, PRLIS, 5th floor, Jalasoudha, Hyd.

Dos and Don't Dos of Lift Irrigation Schemes (In case of Synchronous motors with FCMA or SFC start systems only)

A) Dos

- 1) Before starting the pump-motor set, check for
 - a) Incoming breaker D.C. Supply in ON
 - b) Check for operation of breaker (keeping the Isolator open in case of 132, 220KV or 400KV breaker)
 - c) In case of draw out type 11KV breakers, draw the breaker into test position and check the operation of broken, if you are starting the motor after long shut down.
 - d) Megger the motor by Isolating earth and P.Ts if you are starting the motor after long time.
 - e) Check for grid voltage is it normal or if not, If high/low, adjust the transformer taps to get it to normal voltage level.
 - f) Ensure excitation is perfect. Check Field circuit breaker operations.
 - i. With main breaker in close position open the field breaker, it should not open.
 - ii. With main breaker in open condition close/open the field breaker it shall open/ close.
 - iii. Closing operations of field breaker are with or without main breaker in open/ close position.
- 2) D.C. supplies of all control panels, excitation A.C. supply is normal or not, is to be checked.
- 3) Check Discharge valves/ operations (only H.O.P.D in case of Francis turbine pumps, H.O.P.D and E.O.P.D operations in case of volute pumps or V.T. Pumps). Similarly check Guide vane operations (Guide Vanes provided) whenever Guide Vanes are checking ,HOPD should be in closed condition and vice versa.
- 4) Switch on excitation system and confirm it is O.K. Check up, functional check of starting system.
- 5) Keep the E.O.P.D valve opening upto 85% of full opening, before starting the pump.
- 6) Start cooling water pumps and check for flow normality.
- 7) Start the motor from local PLC panel/ main control room panel/MMI system, as per system of starting, available and observe.
 - a) Motor current during starting shall not be more than 2.5 times of rated current in case of FCMA starting system. 10 to 20% of rated current in case of SFC starting system.

