GOVERNMENT OF TELANGANA
IRRIGATION AND CAD DEPARTMENT

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

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

Lr.No. ADV/LIS/ 160 Dt: 11 .08.2017

Sir,

Sub: Do's and Don't Do's of Lift Irrigation schemes (In case of Synchronous motors with FCMA or SFC start systems only) – reg.

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Chief Engineer's are requested to instruct the concerned to follow these guide lines of Do's and Don't Dos activities in their pump-houses.

Yours faithfully,

Encl: As above

(K.Penta Reddy) 11.08.17
Advisor,
Lift Irrigation Schemes,
I&CAD Department,
Govt.of Telangana.

DE&CC)

16/8/2017

1. Chief Engineer, I&CAD Department, Khammam.
2. CE/Projects, I&CAD Department, Mahabubnagar.
3. CE/Projects, I&CAD Department, Nalgonda.
4. CE/Projects, Kaleswaram LIS /Hyderabad.
5. CE/Projects, LMD Kaleshwaram LIS Projects/Karimnagar.
6. CE/Projects,JCR DG LIS Projects/Warangal.
7. CE/Projects, Lift Irrigation Projects, Adilabad.
8. Commissioner, Godavari Basin, Jalasoudha, Hyderabad.
9. CE/Projects, SRSP,LMD,Karimnagar.

Copy to ENC (Irrigation), for information and further necessary action .
Copy to ENC(AW), for information and further necessary action .

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

Prepared by
SRI. K. PENTA REDDY,
ADVISOR LIFT SCHEMES,
IRRIGATION & CAD DEPARTMENT

A) Dos

1) Before starting the pump-motor set, check for
   a) In coming breaker D.C. Supply in ON
   b) Check for operation of breaker (keeping the Isolator open in case of 132, 220KV breaker) draw the breaker into test position in case of 11KV draw out type breaker, if you are starting the motor after long shut down.
   c) Megger the motor by Isolating earth and P.Ts if you are starting the motor after long time.
   d) Check for grid voltage is it normal or not. If high/low, adjust the transformer taps to get it to normal.
   e) Ensure excitation is perfect. Check Field circuit breaker operations.
      i). with main breaker in close position open the breaker it should not open.
      ii). with main breaker open condition close/open the field breaker it shall open/close.
      iii). Closing operations are with or without main breaker in open/close position.
2) D.C. supplies of all control panels, excitation A.C. supply is normal i.e available.
3) Check Discharge valves (only H.O.P.D in case of Francis turbine pumps and H.O.P.D and E.O.P.D operations in case of volute pumps or V.T. Pumps.
4) Switch on excitation system and confirm it is O.K. Check up, functional check of starting system.
5) Start the motor from control room panel/MMI system as per system of starting, available and observe.
   a) Motor current during starting shall not be more than 2 times of rated current in case of FCMA starting system. 10 to 20% of rated current in case of SFC starting system.
   b) In case of FCMA starting system, excitation is to be switched on (in case of manual operation by manually switching and automatically in case of auto start operation) when speed reaches 90% of rated speed.
   c) In case of SFC system starting, excitation system is to be switched on before starting the pump.
6) Observe the starting time during starting from starting up to rated speed and record if it is abnormal/more.