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SPECIAL START-UP PROCEDURE

Purpose: To outline a start-up procedure for a T/R set that has experienced any of the following conditions:

1. The dielectric fluid has been retro-filled in the field.
2. The dielectric fluid has been removed from the T/R tank for a period of time.

This procedure should help release any air that may be trapped within the transformer and Air Core Reactor (ACR) coils after being removed from the dielectric fluid. Failure to remove the entrapped air may cause a dielectric voltage breakdown within the coils and ultimately failure of the T/R set.

Warning : This procedure is not meant to be a replacement to a proper dielectric fluid / air evacuation process utilizing a heated vacuum chamber . This procedure is not guaranteed to remove all of the air that may have been introduced into the coils. Any air that is still entrapped may cause damage to the coils. NWL will not be liable for any damages, direct or indirect, that may occur in following this procedure.

Procedure:

1. Ground the High Voltage bushing.
2. Disable the undervoltage alarm on the T/R controller
3. Energize the T/R controller and slowly increase the output in manual. (The T/R primary and secondary ammeters should be registering current. The primary and secondary voltmeters should be zero.
4. Bring the T/R up to 75 % of the rated primary current.
5. Let the unit run for a minimum of 12 hours. After that time period, de-energize the system.

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6. Interlock the switch in the HV position thereby connecting the T/R set to the precipitator.
7. With the controller set in manual with zero volts output, energize the unit. Bring the T/R primary voltage up slowly. When the output voltage of the T/R reaches approximately 25 KVDC, verify that both primary and secondary currents are registering on their respective meters. If either current does not register, or if they are excessive, de-energize the system. Using the proper interlock procedures for personnel safety, check for an open or shorted condition in the precipitator system. Rectify the problem, then start again.
8. Let the unit run at this level for thirty minutes.
9. After the T/R has run at the reduced voltage level for thirty minutes, increased the input until the unit reaches rated voltage or current, whichever comes first. **DO NOT EXCEED EITHER THE RATED VOLTAGES OR RATED CURRENTS OF THE T/R SET.**