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## Technical Bulletin

No. 211

# PROCEDURE FOR REMOVING DIODES FROM NWL RIG TYPE TRANSFORMER-RECTIFIER'S

### *Tools Required:*

- 9/16" Wrench
- 11/16" Wrench

### *Safety Precautions:*

1. **PRIOR TO PERFORMING THIS PROCEDURE MAKE SURE THAT THE T/R SET IS DE-ENERGIZED AND LOCKED OUT USING THE PROPER INTERLOCK SEQUENCE.**
2. **A SEPARATE SOLID GROUND CONNECTION MUST BE MADE TO THE HIGH VOLTAGE BUS CONDUCTOR THAT FEEDS THE PRECIPITATOR. IF A SEPARATE EXTERNAL GROUND CONNECTION IS NOT MADE, LETHAL VOLTAGES MAY EXIST WITHIN THE T/R SET.**

### *Other Precautions:*

1. Make sure that the lid of the T/R set and other surfaces are clean of dirt, flyash, water or other contaminants prior to opening the T/R set. Once the T/R lid is removed, care should be taken not to introduce any contaminants into the dielectric fluid.
2. It is NOT necessary to drain the dielectric fluid to perform this test. Draining the fluid will only cause other problems. This procedure was intended to be performed with the fluid at the operating level. If there are any questions concerning the type of fluid in the T/R set, check the dielectric nameplate on the side of the tank. Material Safety Data Sheets (MSDS) can be obtained on all of our dielectric fluids from NWL.

### *Procedure:*

1. Using a 9/16" wrench, remove the cover clamps on the handhole cover of the T/R set. When all the clamps are off, remove the cover.
2. Using a 11/16" wrench remove the nuts and washers that hold the top of the two diode stack assemblies to the transformer rig structure. Lift the electrical lug and wire from the brass stud.



3. Grab the top of the diode assembly and pull forward (off of the stud) until the middle and bottom electrical clip connection disengage. Lift the diode assembly up and out of the handhole. Let the excess fluid drain off the diodes prior to removing them from the tank.
4. When installing the new diodes, care must be taken to properly align the middle and bottom electrical clip connectors. Place the bottom of the new diode assembly in the holding channel at the bottom of the tank. Center the diode assembly so that the middle and bottom electrical connectors align with the clips on the rig structure. If the connectors are not properly aligned the clips may be bent or damaged. Push the top of the diode assembly back on to the brass stud. Place the electrical lug and the nuts/washers back on the stud. Tighten the nut.