	<p align="center"><b>NLC TAMILNADU POWER LIMITED</b></p> <p align="center"><b>DEPARTMENTAL PROCEDURE MANUAL</b></p> <p align="center">(Incorporating ISO 9001:2015, ISO 14001: 2015, ISO 45001:2018 &amp; ISO 50001:2018)</p> <p align="center"><b>STANDARD OPERATING PROCEDURE</b></p>		
<b>TITLE: - SOP - Vacuum Pump Assembling work</b>		<b>Doc. ID: NTPL/AHD/SOP-06</b>	
<b>Issue No.: 01</b>	<b>Issue date: 06.11.2018</b>	<b>Revision date: 13.12.2024</b>	<b>Revision No.: 01</b>

### 1.0 PURPOSE:

To describe the procedure for assembling the Vacuum Pump.

### 2.0 SCOPE:

This procedure applies to maintenance personnel involved in the assembly of Vacuum Pumps used in Ash Handling Division of NTPL.

### 3.0 RESPONSIBILITY:

Operation and Maintenance Engineer.

### 4.0 INPUT:


Defect log from Ash Handling Division Operation Team.

### 5.0 OUTPUT:

Availability of Equipment

### 6.0 ACTIVITIES:

- Choose a suitable vacuum pump main casing, side casings with control cones, impeller, bearings, and bearing doors.
- Clean the surfaces of the main casing, side casings, and impeller using a grinding machine.
- Clean the bearings using diesel. Store them safely after cleaning.
- First place the vacuum pump main casing on a flat surface with wooden packing underneath for support.
- Insert the side door control cones into the impeller to verify smooth and free movement
- Next insert the impeller into the main casing.
- Ensure the impeller rotates freely.
- Next you need to fix the Drive End (DE) and Non-Drive End (NDE) side doors.
- Tighten all bolt & nuts.
- Install the gland and gland rope on both DE and NDE sides.
- Insert the bearing dummy inside the doors on both DE and NDE sides.
- Fix the bearing casings on both DE and NDE sides.

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- Mount the bearings on the DE and NDE sides using a bearing puller.
- Lock each bearing using a bearing lock washer and lock nut.
- Apply Grease to the bearing before closing the bearing doors.
- Check and ensure all bolts and nuts are properly tightened.
- Once again rotate the impeller using the shaft to confirm smooth operation.
- Fix the flywheel to the shaft and ensure it is properly aligned.

## 7.0 RECORDS:

Record No	Record Title	Location	Responsibility	Retention Time
NTPL/AHD/R-09	Daily Maintenance Log	Site Office	Site In-charge	3years

## 8.0 VERIFICATION, CORRECTIVE AND PREVENTIVE ACTION:

HOD shall ensure adequacy and implementation of the above procedure through periodic interaction with division personnel, and regular review and monitoring of the process and compliances. In case of any observed deviation, correction and preventive action shall be immediately undertaken.

PREPARED BY	REVIEWED BY	APPROVED BY
		
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