UP RAJYA VIDYUT UTPADAN NIGAM LIMITED

OBRA THERMAL POWER STATION 'B' (BTPS OBRA)

NEW INITIATIVE

In-House Overhaul & Revival of a Damaged Pay Loader

Title of Initiative	In-house overhaul and revival of an old, damaged pay loader
Unit	Obra Thermal Power Station 'B' (BTPS Obra), UPRVUNL
Department	Coal Handling Plant (CHP)
Category	Equipment refurbishment / in-house maintenance initiative
Executed By	Officers and staff of the CHP Department, BTPS Obra 'B' (team effort)

BACKGROUND

The Coal Handling Plant (CHP) of BTPS Obra 'B' had a pay loader that, over years of service in the coal yard, had fallen into a state of serious disrepair. The machine's frame and body had corroded and caked with coal dust and mud, the cabin glass, mirrors and wiper were damaged, the paint had completely worn off, and the hydraulics and running gear were in poor condition. As a result, the pay loader had become non-functional and was lying unused in the plant premises.

A pay loader is a key piece of mobile equipment for a coal handling plant, used for coal reclamation, stacking, housekeeping and clearance of yard areas. Its unavailability was a gap in the department's material-handling capability, and procurement of a new machine would have entailed significant capital expenditure and a long procurement cycle.

THE INITIATIVE

Instead of condemning the machine or waiting for fresh capital procurement, the CHP team of BTPS Obra 'B' took up the challenge of reviving the old pay loader entirely in-house, using the plant's own workshop resources, manpower and scrap material salvaged from within the plant. The work broadly involved:

- Complete dismantling, inspection and condition assessment of the chassis, cabin, bucket assembly, hydraulic system and running gear.
- Repair and reinforcement of the corroded frame and structural members using scrap steel available within the plant
- Overhaul of the hydraulic cylinders and linkages to restore smooth movement of the loader arm and bucket
- Refurbishment of the operator's cabin, including glass, mirrors, wiper and controls
- Rebuilding of the bucket assembly and running gear
- Thorough cleaning, surface preparation and repainting of the complete machine
- Reassembly, trial run and testing before commissioning the pay loader back into regular service

The entire job was carried out by in-house CHP manpower, without engaging any outside agency or OEM support and without procurement of any major bought-out spare, reflecting the department's own technical capability and initiative.

BENEFITS

- A critical piece of coal-yard equipment stands restored to full working condition, strengthening the department's material-handling capability
- Avoids/defers dependence on fresh capital procurement of a new pay loader, reflecting prudent use of public sector resources
- Gives a second life to material and components that would otherwise have gone to scrap — a resource-conscious, circular approach to asset upkeep
- Builds in-house technical skill, confidence and a sense of ownership among maintenance staff, who executed a job of this scale entirely on their own
- Offers a replicable, self-reliant model that other units of UPRVUNL facing similarly old or damaged equipment can adopt
- Boosts the morale of the CHP team and sets a positive precedent for tackling similar challenges across the Nigam

BEFORE & AFTER



Before: damaged and non-functional



After: overhauled and fully functional



The refurbished pay loader, repainted and back in regular service

REPLICABILITY / WAY FORWARD

The approach adopted at BTPS Obra 'B' — condition assessment, in-house repair and fabrication using scrap and locally available material, and reassembly and testing by own manpower — is fully replicable at other thermal and hydro stations of UPRVUNL that have similarly old or partially damaged mobile equipment. This initiative is being shared so that other units of the Nigam may consider in-house refurbishment as a first option, wherever technically feasible, before resorting to fresh procurement.

Submitted by: Obra Thermal Power Station 'B' (BTPS Obra), UPRVUNL