

iFOREST

INTERNATIONAL
FORUM
FOR ENVIRONMENT,
SUSTAINABILITY
& TECHNOLOGY

Decommissioning TPPs in India

Environmental, social and financial aspects

September 21, 2023

Environmental Considerations in Decommissioning Retired Thermal Power Plants

Session 2



Environment – A key consideration in a TPP decommissioning project

- Handling and clean-up the hazardous materials utilized, generated and stored during power generation (such as ACM, PCBs, toxic metals, mercury etc.)
- Managing e-waste, and re-useable chemicals and equipment
- Managing water & air pollution during dismantling
- Handling and managing construction and demolition waste
- Stabilization and reclamation of ash pond
- Overall clean-up and environmental remediation

Order of Hon'ble National Green Tribunal (South Bench)

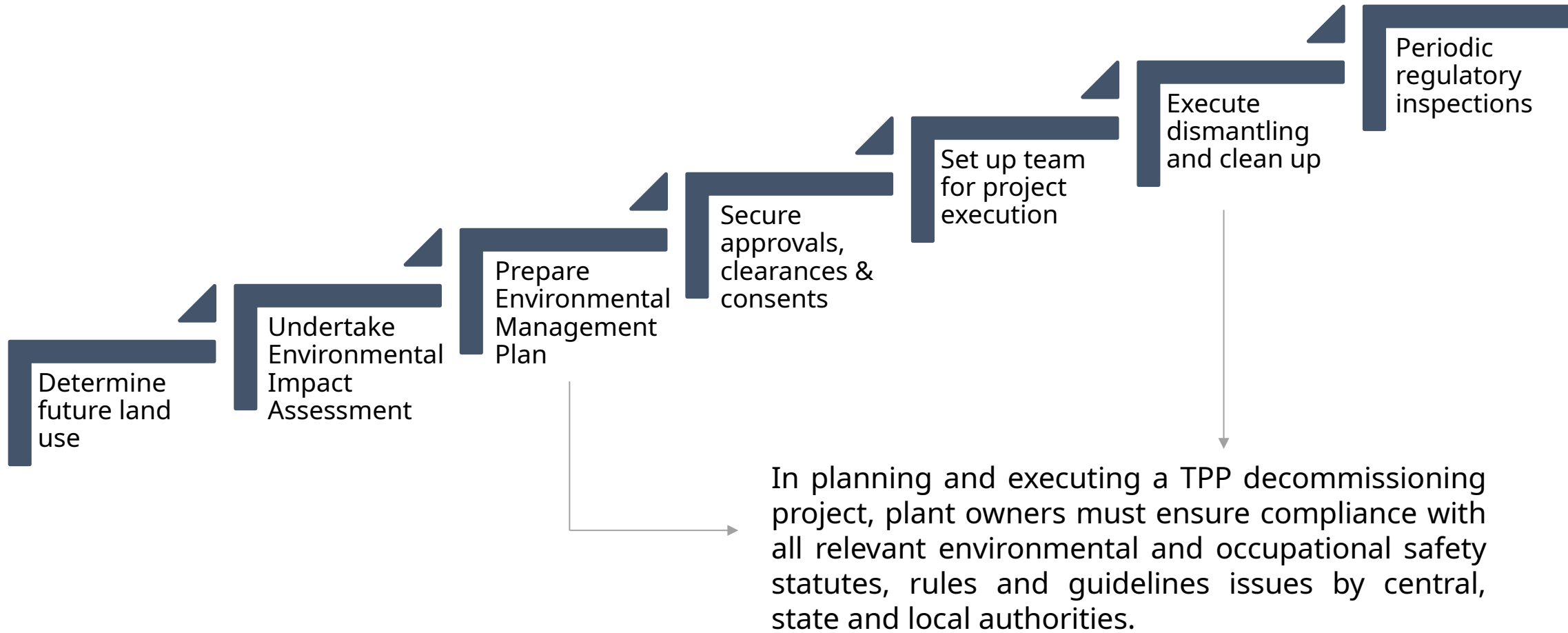
Order dated March 23rd 2021 in the matter Dharmesh Shah Versus Union of India and Others concerning decommissioning Neyveli Thermal Power Station-I in Tamil Nadu.

“there is no general guideline or monitoring system to supervise the decommissioning process of TPPs”

“...the questions need to be addressed in a scientific manner...”

“MoEFCC, CEA and CPCB to constitute a joint committee of their own and evolve a policy or guideline as to how the decommissioning of thermal power plant unit has to be carried out... including manner of creating mechanism to supervise as to how it is being properly implemented by the power plant and mining area”

Environmental Guidelines for Decommissioning a Coal/Lignite-Fired Power Plant (Draft), July 2021



Relevant Acts, Rules and Notifications

Water (Prevention
& Control of
Pollution) Act, 1974

Air (Prevention and
Control of
Pollution) Act in
1981

Hazardous and
Other Wastes
(Management and
Transboundary
Movement) Rules,
2016

Construction and
Demolition Waste
Management
Rules, 2016

MoEFCC
notifications for fly
ash utilization and
ash ponds



In June 2023, CEA and CPCB issued 'Guidelines on Design, Construction, O&M and Annual Certification of Ash Ponds.'

In context of plant decommissioning, the following provisions of become relevant:

- Statutory permission from relevant regulatory authorities required for abandoning an ash pond.
- All measure need to be adopted to prevent pollution from abandoned pond.
- Reclamation of ash disposal facility is to be endured, through complete dewatering, site preparation, and placement of earth cover (300 mm).
- Area can be vegetated or used for solar or wind power plant installation (following feasibility study, statutory clearances and adequate measures to prevent surface erosion and pollution).
- Annual certification of reclaimed ash pond and dykes is to be ensure by plant owners

Strengthening Environmental Guidance

- Provide clear timelines for action
- Undertake an environment assessment of retired power plant (instead of a detailed EIA study)
- Provide clear guidance on developing EMP for decommissioning
- Ensure that social and community concerns are addressed in the EMP
- Provide for a unified consent and a single window clearance mechanism
- Provide guidance on engaging specialized agencies for decommissioning
- Ensure a stringent monitoring mechanism
- Introduce a mechanism for final audit and certification
- Build an incentive for repurposing

Thanks.