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75 आज़ादी का अमृत महोत्सव

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Fire Control and Prevention Plan – Nanta Trenching Ground Dump Site, Kota

1. **Introduction** :

Nanta Trenching Ground dump site is the main Municipal Solid Waste (MSW) disposal facility for Kota city. Due to the presence of mixed waste, including dry and wet waste, organic material, plastics, and dry combustible matter, the site is vulnerable to fire incidents, especially during summer, hot weather and windy seasons. Uncontrolled unwanted fires may cause lead to:

- Spontaneous Fire happened at dump site due to high temperature cause risk to life of site workers.
- Release of toxic gas and smoke affecting air quality and nearby habitation.
- Risk to worker and nearby community public area.
- Environmental damage to air quality and temperature changes.
- Environmental damage to soil and groundwater.

A Fire Control Plan is essential to prevent, protect and mitigate fire incidents at the site.

2. **Objectives of the Fire Control Plan** :

- Prevent fire outbreaks through regular monitoring and preventive actions.
- Under_CCTV surveillance and security check at dumping site.
- Water Spray on collection vehicles waste before dumping at site.
- Ensure unauthorised person can not be entried in dumping site premises.
- Ensure quick response and minimized damage in case of a fire.
- Protect workers, nearby communities, and environmental health.
- Align with SWM Rules 2016 and NCAP Dust & Air Quality Mitigation guidelines.

3. **Fire Risk Assessment at Nanta Trenching Ground Site** :

Sr No	Risk Factor	Description
1.	Combustible Waste	Dry leaves, plastics, paper, and RDF material
2.	Methane Formation	Due to anaerobic decomposition of organic waste
3.	Open Burning	Informal burning by ragpickers or accidental fire
4.	Hot Weather & Winds	High summer temperature and desert winds accelerate spread

4. **Fire Prevention Measures** :

a. Waste Management-
   - ➢ Daily spreading, levelling, and compaction of incoming waste.

b. Patrolling and Surveillance-
   - ➢ Round-the-clock security and CCTV to monitor for smoke or unauthorized activity.
   - ➢ Deployment of fire Brigade and watch teams in summer months

c. Ban on Open Burning
   - ➢ Strict prohibition and penalty on rag-pickers or unauthorized burning

d. Green Buffer Development
   - ➢ Peripheral plantation to act as a wind and fire barrier.

5. **Fire Control and Response Measures** :

a. On-Site Fire-Fighting Arrangements:
   - ➢ Proposed Overhead water tank (50,000 liters).
   - ➢ On Site 5 Borewell which are use for fir fighting.
   - ➢ Fire vehicle available at site for immediate response.
   - ➢ Sand/soil stockpiles near the active dumping zone for smothering fires.

b. Emergency Response Protocol:
   - ➢ Immediate reporting to the site in-charge and Fire Department.
   - ➢ Evacuation of rag-pickers and workers from the hotspot area.

- ➢ Fire-fighting with water and soil covering to suppress flames.

c. Health & Safety

- ➢ Provision of PPE kits (masks, gloves, safety shoes) for all site workers.
- ➢ First-aid kit and ambulance service for emergency situations.

6. **Monitoring and Reporting** :

S.No.	Activity	Frequency	Responsibility
1.	Daily site inspection	Daily	Site Supervisor, NNK
2.	Fire safety equipment check	Weekly	Engineering/SWM Dept.
3.	Incident Reporting	Immediate	Site Manager to Commissioner

7. **Estimated Resource Requirement** :

S.No.	Item	Quantity	Remarks
1.	Overhead water tank	01 Nos.	50 KL
2.	Fire Vehicle	01 Nos.	For active fire-fighting For smothering fire
3.	Sand/Soil Stock	-	(Sand dune also available at site)
4.	CCTV Cameras	16 Nos.	For 24x7 surveillance

8. **Expected Outcomes** :

- Zero major fire incidents during the financial year 2025-26.
- Improved air quality around nanta trenching ground and nearby settlements.
- Safe working environment for SWM staff and rag-pickers.
- Compliance with NCAP and SWM Rules 2016 for fire safety.

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