Environmental Monitoring Checklist

A practical checklist for air, water and noise monitoring programmes that catch exceedances when they happen

GRI 303 · GRI 305 · NEMA · ISO 14001

Most monitoring programmes measure the right things. Fewer act on the results in time. This checklist covers the monitoring plan, each environmental medium, and how readings are checked against limits and turned into action.

A Monitoring Plan

- [ ] Every permit, licence and legal monitoring requirement is listed per site
- [ ] Monitoring points are mapped, with location, parameters and frequency recorded
- [ ] Each monitoring point has a named owner responsible for readings and follow-up
- [ ] Limits and trigger values are recorded for every parameter, with their source

B Air Quality & Emissions to Air

- [ ] Point sources such as stacks and vents are monitored at the frequency required
- [ ] Ambient air quality is measured at the boundary or sensitive receptors where required
- [ ] Dust and particulate matter from open sources is monitored, for example with dust buckets or continuous monitors
- [ ] Monitoring equipment is calibrated, with calibration records kept

C Water Quality & Discharges

- [ ] Effluent and stormwater discharge points are sampled at the required frequency
- [ ] Groundwater and surface water monitoring points are sampled against baseline values
- [ ] Samples are analysed by an accredited laboratory, with certificates kept
- [ ] Discharge volumes are measured alongside quality parameters

D Noise & Vibration

- [ ] Noise is measured at the site boundary and at nearby sensitive receptors
- [ ] Measurements cover the times of day and night when the site operates
- [ ] Background noise levels are recorded so site contribution can be separated
- [ ] Complaints from neighbours are logged and linked to monitoring results

E Biodiversity & Land

- [ ] Biodiversity commitments and protected areas near the site are identified
- [ ] Surveys are carried out at the agreed frequency, with results recorded
- [ ] Changes in disturbed and rehabilitated surface area are tracked
- [ ] Rehabilitation progress is measured against the approved plan

F Data Capture & Quality

- [ ] Readings come straight from instruments, laboratories or systems where possible, not retyped
- [ ] Field readings are captured on mobile devices with date, time, location and person
- [ ] Missing or failed readings are flagged and explained
- [ ] Historical data is loaded so trends and baselines can be calculated

G Thresholds & Exceedances

- [ ] Every reading is checked against its limit as soon as it is captured
- [ ] Alert levels warn before the legal limit is reached
- [ ] An exceedance raises an event with an owner and an immediate response recorded
- [ ] Root cause is investigated and corrective actions are tracked to closure
- [ ] Exceedances that must be reported to the regulator are notified within the required time

H Reporting & Review

- [ ] Monitoring reports required by permits are produced from the recorded data
- [ ] Trends across sites and periods are reviewed by management
- [ ] Monitoring results feed environmental aspects, risks and objectives
- [ ] Records are retained for the period required by permits and legislation

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