CleanConnect.ai AI Solutions For Energy

Regulatory Compliance · Flare Monitoring

Automated EPA Method 22 Compliance — Zero Manual Observation Required

CleanConnect.ai's Visual AI software turns existing plant cameras into always-on EPA compliance engines, eliminating human error and freeing skilled personnel for higher-value work.

REGULATION	ASSET TYPE	PRODUCTS USED	OUTCOME
EPA Method 22	Flare Stacks	Visual AI Software Suite	Automated Compliance

THE REGULATORY BURDEN

EPA Method 22 mandates that refineries consistently observe flare stacks for visible smoke and precisely record the duration of any smoking event. Under the traditional approach, this obligation is a significant operational and safety drain on personnel and resources.

■ TRADITIONAL APPROACH

- Dedicated personnel stationed near flare stacks continuously
- Subjective, inconsistent smoke visibility determinations
- Manual logging of start/stop times — prone to human error
- High labor cost with no upside beyond bare compliance
- Audit risk from incomplete or inconsistent records

✓ CLEANCONNECT.AI APPROACH

- Autonomous AI monitors flare tip 24/7 with no human required
- Objective, repeatable smoke detection using computer vision
- Automatic and precise event start and stop timestamps
- Zero incremental labor cost for ongoing compliance
- EPA-ready reports generated automatically for every audit period

HOW IT WORKS

CleanConnect.ai's Visual AI deploys as a lightweight software overlay on the refinery's existing camera infrastructure — no new hardware required in most installations.

1. **Connect to Existing Cameras**
   The software integrates with installed plant cameras via standard network protocols, typically deployable within hours.
2. **Autonomous Smoke Detection**
   Computer vision and ML models continuously analyze the flare tip, distinguishing visible smoke from steam, dust, or optical artifacts.
3. **Precise Event Timestamping**
   The exact second a smoking event begins and ends is recorded automatically, meeting EPA documentation requirements.
4. **EPA-Ready Report Generation**
   Compliance reports with confidence scores, timestamps, and visual snapshots are generated automatically and exportable on demand.

RETURN ON INVESTMENT

~0	±1s	Days
Manual labor hours required for ongoing Method 22 compliance	Timestamp accuracy for smoking event start and stop logging	Typical deployment timeline on existing camera infrastructure

Infrastructure Agnostic

Works with cameras already installed. Most sites deploy without purchasing any new hardware.

Audit-Ready Documentation

Every smoking event is logged with objective data and snapshots — producing defensible compliance records.

Eliminate Human Error Risk

Objective machine analysis replaces observer fatigue and subjective judgment — removing the top source of failures.

Redeploy Skilled Personnel

Free compliance operators from repetitive monitoring to focus on higher-value plant maintenance and optimization.

Automate your Method 22 compliance today.

CleanConnect.ai deploys on existing cameras with minimal disruption. Most sites operational within days.

Book a Demo → cleanconnect.ai

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