

Environmental compliance in government

Expedite permit processing and improve facility compliance





Automatically ingest and analyze permit documents



Compare reported measurements against expected levels



Review exceptions, triage issues and report results

The Issue

Protecting and ensuring clean air and water is a high priority for governments, businesses and communities worldwide. To meet this challenge, facilities must operate within permitted levels and comply with local, national and international regulations. To make matters more difficult, environmental compliance must be balanced against other societal objectives, such as economic development.

Regardless of the scope and substance of local, national or international regulations, every rule is only as good as the results that follow. The goal of environmental compliance and enforcement processes should be to verify whether facilities are operating within applicable laws and regulations while simultaneously reducing regulatory burdens and costs.

The Challenge

Document overload. Manual due diligence work is a difficult, time-consuming task prone to human error. It diverts agency resources from tasks that require human intervention, increasing agency backlogs.

Self-reporting. Permittees are responsible for providing accurate compliance information to regulatory agencies, but their information is often incomplete or inaccurate. The result is a continual cycle of rework, reprocessing and frustration on both sides.

Complexity. Verifying compliance is increasingly difficult due to evolving regulations, as well as the complexity and subjectivity of measurement standards. Agencies need the right balance between regulations that positively affect environmental quality and over-regulation that stifles economic development.

Data volumes. Managing information is cumbersome due to unprecedented quantities of data. Manual data processing is error-prone and wastes time and resources.

Institutional knowledge loss. COVID-19 increased pressure on environmental agencies already facing staffing shortages, inspection backlogs and other administrative delays. This further exacerbated backlogs and made it harder for agencies to train new talent.

Our Approach

To manage the pressures of increasing regulatory and budgetary pressures, environmental agencies must go beyond upgrades to their IT systems and workflows and add an analytics layer that improves operations at every level. We approach the problem by providing software and services to help you:

- Automatically ingest permit documents. SAS® solutions quickly analyze millions of permit documents to quickly uncover non-compliance issues that might otherwise remain hidden.
- Curate a list of document exceptions. Automatically read and analyze documents using natural language processing to speed up the due diligence process.
- Surface irregularities and anomalies. Compare like facilities using peer groups to uncover anomalous activity.
- Minimize subjectivity in decision making. We apply an objective, analytical framework to the due diligence process to ensure that decisions are made in accordance with regulations.
- Manage compliance and enforcement activities. SAS helps prioritize potential issues for more efficient use of agency resources.
- Codify organizational knowledge. SAS helps agencies maintain effectiveness across administrations and employee turnover by codifying organizational knowledge into solution models.

SAS delivers an easily configurable analytical engine to assess levels of compliance using all forms of organizational data, automating manual due diligence processes.

The SAS® Difference

Using natural language processing, computer vision, unsupervised machine learning and predictive modeling, SAS helps environmental compliance agencies:

- Improve agency effectiveness. Automate manual due diligence work by using natural language processing to sift through large volumes of text inside permit and compliance documents.
- Strengthen decision making. Create an up-to-date, integrated view that incorporates data and insights across the enterprise so agencies can develop a 360-degree view of each facility.
- Increase public trust. SAS uses advanced analytics, Al and machine learning to validate whether regulated facilities are performing at reported levels.
- Respond to disruption and uncertainty. SAS solutions alert agencies to anomalous activity from permit data, enabling inspectors to quickly triage issues and instances of non-compliance.
- Take advantage of deployment flexibility. The SAS platform is cloud-native, providing on-premises, self-managed and software-as-a-service deployment options.
- Gain unmatched domain-specific knowledge. SAS domain experts understand how to solve common agency problems to drive financial, operational, organizational and societal value.



