E-ENTERPRISE
for the Environment

Modernizing the business of environmental protection

PROJECT SUMMARY

Smart Mobile Tools for Field Inspectors supports inspection planning and management, field data collection, and evidence management, all within an integrated suite of digital tools to improve the quality and consistency of environmental inspections.

PROJECT LEADS

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RESOURCES

- **Smart Tools for RCRA Production Software**
- **RCRA User Documentation**

SMART MOBILE TOOLS FOR FIELD INSPECTORS

Improving field inspection quality, consistency, and efficiency using mobile devices.

Challenge

Environmental inspections are largely paper-based processes requiring hours of preparation and post-inspection work. Smart Mobile Tools for Field Inspectors (Smart Tools) bring environmental inspections into the 21st century by streamlining operations and improving the quality and consistency of information collected by inspectors during inspections.

Benefits

Smart Tools have fundamentally improved the operation and management of federal and state environmental inspection programs by providing digital assistance to inspectors and their managers during each stage of the inspection process. Smart Tools:

- Improve consistency and clarity of information
- Optimize inspection resources
- Provide inspectors and their managers with a suite of digital tools to improve the quality, consistency, and timeliness of inspections
- Support federal and state inspection planning and management, field data collection, and evidence management
- Prepare field inspectors to conduct and document their inspections both in the office and in the field on a mobile digital device
- Provide inspectors with full electronic access to relevant data, guidance, and reference materials
- Create a draft inspection report, upon completion of an inspection, from the inspectors' electronic field notes coupled with all evidence (including photos)

Accomplishments

The Smart Tools effort draws on the work of several states that developed inspection support software for a variety of media programs. States and EPA started by holding a lean process improvement event that addressed joint Resource Conservation and Recovery Act (RCRA), National Pollutant Discharge Elimination System (NPDES), and air requirements for a mobile inspection software solution. The team also tested ruggedized laptops for use with the Smart Tools software.

In 2018-2019, the Environmental Council of States (ECOS) and the Association of State and Territorial Solid Waste Management Officials helped EPA customize Smart Tools for use in RCRA Subtitle C inspections. Smart Tools for RCRA was completed at the end of 2019 and rolled out for use by inspectors in the early adopter regions and the states of Arkansas and Maryland in June 2020. Inspectors from 37 states have now attended training sessions, and several states have completed desk audits and field inspections using Smart Tools. The national rollout continues, and the user base is expanding rapidly.

The Smart Tools project team, in partnership with ECOS and the Association of Clean Water Administrators, built upon Smart Tools for RCRA to define and develop a version for inspectors implementing the NPDES permit program addressing water pollution. Smart Tools for NPDES inspectors was successfully launched at the end of December 2020, followed by a series of training sessions in early 2021 to support further adoption as part of the national rollout.

What's Next?

Smart Tools is being enhanced to support program areas in which checklists are the primary means of monitoring compliance via on site inspections. The project team is also providing ongoing onboarding support as Smart Tools for RCRA and NPDES continue to be adopted by a growing number of users.