Case Study: Automation Streamlines Service to Regulated Public

KSIIS

The Need to Automate Agriculture Inspections

Until two years ago, the North Dakota Insurance Department performed all inspections of anhydrous ammonia storage facilities, and the separate North Dakota Department of Agriculture issued regulatory responses. This separation caused multiple issues:

- Agriculture was writing enforcement letters to entities it had never visited, dependent entirely on second-hand information from Insurance.
- Insurance would sometimes issue verbal warnings and compliance assistance that Agriculture was unaware of, leading to mixed signals.
- The regulated public frequently voiced frustration at not knowing where to go with questions.
- Because the overall system was largely manual, it was difficult to generate reports showing what had been inspected and determined to be in compliance, and what had not.

To address coordination issues, the state legislature transferred inspection responsibility to Agriculture, which saw an opportunity to automate. The old Insurance method of handling inspection data consisted of inspectors filling out paper forms that were scanned back at the office for storage as images, but not accessible data. Agriculture wanted to capture data electronically and store it in a usable form for easy reference and report generation. After evaluating options, Agriculture decided KSIIS was the solution it needed, including electronic data capture in the field on tablet PCs.

Organization
North Dakota Department of Agriculture

Challenge
The state legislature transferred responsibility for anhydrous ammonia regulation from the state Insurance Department to the Department of Agriculture. The existing system was paper-based and inefficient, and the transfer made this a perfect time to switch to automation.

Solution
The Kelly State Inspection and Investigation System (KSIIS) satisfied Agriculture's need for a cost-effective, simple method of capturing data electronically in the field for database storage and reporting.

Results
Agriculture has increased and broadened inspections, responds in real-time to questions by pulling up full inspection records, and generates accurate, on-demand reports on completed inspections.

"With KSIIS, we quickly capture accurate information and can immediately produce reports on the number of inspections completed and where. That helps us quantify the value of the program – very important in times of tight budgets." – Jim Gray, pesticide and fertilizer division director, North Dakota Department of Agriculture.

Fast Roll-Out, Immediate Improvements

Jim Gray, Agriculture's pesticide and fertilizer division director, gave the green light to KSIIS, and the department was fully operational in an approximately nine-month period that included the creation of customized forms, inspector training, and outreach to the regulated public.

Database-driven KSIIS extends paperless data capture and processing to the field, enabling thorough, automated inspections and investigations.

"To make this project a success, we decided to educate the regulated public as well as our inspectors," says Gray. "To reposition ourselves as the go-to resource for questions and regulatory issues, we fed information to reporters at agricultural publications and websites. We also met with the regulated community in groups from tens of participants to hundreds, explaining our program and the benefits of KSIIS automation to us and to them."

Now that the new system is in operation, people responsible for storing anhydrous ammonia know whom to contact for regulatory issues. Whenever Agriculture receives a question, "KSIIS makes it easy to pull up records, review an inspection including pictures and inspector notes, and give a definitive response," says Gray. KSIIS also allows Agriculture to easily and immediately produce reports on the number of inspections completed and where, helping it to better track overall activity as well as communicate the value of the program to state legislators.

Benefits Beyond Original Goals

Due to staffing issues, the Insurance Department previously had not focused on anhydrous ammonia nurse tanks; it was inspecting each storage facility once every five years, and would look at nurse tanks during those inspections. "Automation efficiency has helped us make nurse tank inspections a priority, which eliminated a problem of the past," says Gray. "There are no mandated registration bases for nurse tanks, which farmers can own – and North Dakota is home to thousands of them, compared to around 450 bulk tanks."

In addition to more granular inspections, Agriculture now offers extensive compliance assistance, with inspectors visiting sites without official inspections to identify measures needed for compliance in a service it offers to anyone who requests it. In the first year of new system operation, the agency performed roughly 350 of these compliance checks, mostly on nurse tanks, in addition to its 600+ official inspections.

KSIIS reports show that ammonia storage compliance is trending in the right direction in North Dakota, and achieving compliance is much easier for the regulated public. "The public's response has been overwhelmingly positive," says Gray. "The state took it upon itself to improve its services, and it succeeded."