

Air Quality Management Natural Minor Permits Value Stream Mapping - A LEAN Improvement

Project Date: August 10, 2005 to Present

PROBLEM

Any facility within Delaware that emits more than ten (10) pounds of air contaminants per day must have a natural minor permit prior to construction and operation. Delaware has more than 5,000 facilities requiring such permits. Facility owners requested, and were unable to get, a predictable timeframe when their permit request would be issued. Air Quality Management realized they were spending a majority of the permit process time getting the applications completed

CURRENT STATE

As of August, 2005:

- About 50% of applications did not contain all the general information (administrative) required.
- About 90% of applications were technically incomplete.
- Incomplete applications resulted in a large backlog and an unpredictable process timeframe.
- Permit writers were spending the majority of their time getting information from the applicants so they could complete the application.
- Applicants were purposely submitting incomplete applications in order to get in the queue.

FUTURE STATE

What the project team wanted to change.

- Establish a first-in/first-out system.
- Return incomplete applications if applicants fail to respond to requests for information.
- Create a permit tracking board to show progress.
- Develop new user-friendly application using input from the customer.
- Increase application completeness with new application form.
- Hold training sessions for the facility owners.

MAJOR ACCOMPLISHMENTS

- The Value Stream Mapping (VSM) process reduced rework time and issues with applications while maintaining the actual engineer analysis time.
- Facility owners now have a more predictable timeframe for their permit application process.
- More facility owners are submitting complete applications.
- Increased the communication and interaction between the facility owners and the program, as well as within the Air Quality Management team.
- The backlog of applications went from 199 to 0.

IMPLEMENTATION TEAM

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IMPLEMENTATION PLAN

| | Deadline | Status |
|--|----------|----------|
| Formalize first in first out system and prioritization of applications | 8/05 | Complete |
| Formalize process for visually tracking permit progress | 9/05 | Complete |
| Solicit input from customers for application general information completeness | 9/05 | Complete |
| Plan to manage lagging permits in pipeline | 10/05 | Complete |
| Develop mechanism to formally notify applicant of administrative/technical completeness | 10/05 | Complete |
| Begin collecting performance metrics | 10/05 | Complete |
| Design and implement process for pre-submittal meeting | 12/05 | Complete |
| Develop standards & process to return administratively incomplete applications | 1/06 | Complete |
| Develop technical review criteria | 1/06 | Complete |
| Establish process for technical review gate | 1/06 | Complete |
| Prepare checklist for technical completeness | 1/06 | Complete |
| Revise the applications for synthetic minor approval requests so they are in compliance with VSM | | |
| Proposed changes | 10/06 | Complete |
| Update webpage and new Documents | 10/06 | Ongoing |

LESSONS LEARNED & FOLLOW UP

- The majority of problems stemmed from permit applications.
- Fixing the permit application documents dramatically improved the process.
- The Value Stream Mapping (VSM) process was a great teambuilding tool between Air Quality management and the regulated community.

Major Program Improvements

