

State of Vermont Wastewater Permit Process Kaizen Event Case Study

State Agency: Vermont Agency of Natural Resources, Department of Environmental Conservation, Wastewater Management Division

Method Implemented: Kaizen event

Summary: In July 2007, the State of Vermont took universal jurisdiction over all wastewater systems and water supply systems with design flows of less than 6,500 gallons per day (gpd). The Wastewater Management Division of the Vermont Agency of Natural Resources anticipated an increase in applications for wastewater permits due to this change. In anticipation of this regulatory change, the Wastewater Management Division conducted a kaizen event in 2006 to improve the state's on-site wastewater permitting process. This event culminated in the presentation of a redesigned permitting process that eliminated waste and focused resources on value-added outcomes while preserving the current level of environmental and public health protection. The kaizen project helped to reduce the amount of time that it is now taking to process these permit applications. For example, prior to the kaizen project the longest period of staff time it took for a permit to be issued was 542 days; since the kaizen process, the longest period of staff time it has taken to get a permit issued has been 34 days. The kaizen event has been described by participants as being worthwhile and helpful.

Scope of the Lean Project

Process Involved: On-Site Wastewater Permitting Process

Goals and Objectives: The goals and objectives of the event included:

- Reduce permit processing time (lead time) by 50 percent (while using the same environmental review standards).
- Improve productivity by 100 percent.
- Develop a system for identifying permit applications that do not need technical review and/or do not require a permit.
- Improve coordination between the five regional offices and establish clear priorities for the program.
- Increase accountability of designers (permit applicants).
- Simplify rules and policies.
- Enhance the permit database to include a compliance checklist, improve tracking capability on permits, and allow the public access to the database.

Year Conducted: 2006

Consultant Support: Guidon Performance Solutions

Process Changes and Results

During this event, the Vermont Wastewater Management Division made a number of changes to the on-site program's permitting process, including the following:

- Adopted a new policy of returning administratively incomplete applications to the designer for completion.

- Revised the permit application form to facilitate application reviews, database entry, permit writing, and eventual targeting of project reviews.
- Developed a consistent permit format and standard permit conditions.
- Developed consistent checklists for administrative and technical reviews of permit applications.

The project yielded the following results:

- Prior to the kaizen event the longest period it took a permit to be issued was 542 days; since the kaizen process, the longest period it has taken has been 34 days.
- Reduced the number of process steps from 150 to 38 a 75 percent reduction.
- Reduced the number of decisions from 31 to 5.
- Eliminated the number of handoffs from 18 to 6.
- Changed the number of loops from 5 to 2. (Loops are when an application is sent from person number one to person number two who then passes the permit back to person number one so that they can pass it on to person number three.)
- Eliminated the number of process delays from 39 to 3.

For More Information

Contact Person:

Brendan Cosgrove
Legislative Liaison and Organizational Development Coordinator
Vermont Agency of Natural Resources
103 South Main Street
Waterbury, VT 05671
802-241-3713
brendan.cosgrove@state.vt.us