Increasing duties and decreased funding—a familiar refrain to state officials across the country. Virtually every director of a government agency is asked to cut costs, eliminate waste, and provide better customer service, all without sacrificing quality, the mission or the morale of its employees.

The Iowa Department of Natural Resources (DNR) is responsible for maintaining state parks and forests, and managing energy, fish, wildlife, land, air and water resources in Iowa. The agency also issues environmental protection permits for various activities. When a business needs to build or expand a water or wastewater treatment system, install a boiler or a paint booth, they must obtain a permit from the DNR. This is to ensure that the construction and operation of the facility limits impacts to the environment. Iowans expect the DNR to enforce regulations that protect them and preserve their quality of life.

The process of permitting businesses can cause friction, though. Businesses want to get through the process as soon as possible. They have other priorities such as meeting payrolls and deadlines, filling orders, and borrowing funds for needed expansions or changes. In the face of all that needs to be done, a business will chafe at a permitting approval process that seems buried in red tape and appears designed to take as long as possible.

In early spring 2003, representatives from the Iowa Coalition for Innovation and Growth asked me to meet with them. At the meeting, I heard complaints about the air construction permitting process. With an average of 62 days to process a permit, DNR already had one of the fastest permitting programs in the country but coalition members argued the agency could still do better. A faster permitting program could put Iowa at an economic advantage. They offered a challenge: the coalition would help the DNR improve by offering to pay for a consultant to conduct a business process improvement project called a kaizen.

We learned that this methodology, originally developed in Japan, focuses on continuous improvement. It centers on measurement and data, eliminates waste, variability, roadblocks and reduces turnaround or “lead time.” We also learned that top Iowa businesses such as Pella Corporation, Maytag and Vermeer Manufacturing had been using the kaizen methodology for years to improve performance. With the promise of assistance from Pella Corporation officials, we agreed to the coalition’s proposal.

The coalition wanted the event to address the air permitting area. The DNR Air Quality Bureau issues approximately 2,000 air construction permits annually to a wide array of businesses and industries. The agency was contacted by TBM Consulting Group, the North Carolina-based company that specializes in business process improvement, to initiate the kaizen.

Efficiency—In Government?

Fairly or not, governments are often labeled as havens of inefficiency. Why? Certainly government isn’t designed to operate like business. For one thing, we expect openness, public input, and transparency in government activities—these things are important to us. Private business wants to remain, well, private. The lack of competition, something that businesses deal with every day, may be a factor in promoting process over efficiency in government. Rarely have governments embraced the kind of capitalistic drive to “outdo the shop down the road.” Consequently, there is little emphasis on building those kinds of improvement skills in government employees.

The typical governmental approach to improvement is to: 1) appoint a task force; 2) give it an assignment—a problem to solve; and 3) establish a deadline for a recommendation. This approach sometimes works and sometimes doesn’t. At best, and when it works, change can take a long time. At worst, the needed improvement never occurs, leaving employees frustrated and demoralized.

Kaizen is different. This business process improvement methodology is an intense and sometimes challenging approach, but when done correctly can produce swift and dramatic results. Basically, you put a group of people in a room for a week, give them all the authority they need to change a system and let them go. By the end of the week, the new process should be designed and in place. Change—fundamental, dramatic change—happens with stunning rapidity.

Of course, things are rarely that simple and kaizen is no different. Planning actually begins about six weeks prior to the event. The targeted process is identified and critical information is gathered.

The participants are prepared for long days during the five-day kaizen. During the week, the team maps the process in detail and works to eliminate all non-value-added time, black holes (where work can get stuck for days, weeks, even years) and opportunities for variability. The new and improved process is defined and implemented. On Friday, the exhausted but triumphant group presents the new process and results.

DNR conducted the air quality construction permit kaizen event in June 2003. I insisted that DNR customers be included in the event; I saw it as an opportunity to get
past that “across-the-table” feeling. So, in addition to DNR staff, representatives from permitted businesses and the coalition participated. My intuition was right on: after an intense week in a closed room dissecting the intricacies of air quality construction permitting, the regulated and the regulator finally understood each other’s jobs and frustrations. They began to work as a team to achieve the goals of the kaizen event.

During the week, the team analyzed work flow maps and collected time trials on each task in the process. The group discovered that a typical air construction permit may travel through as many as 20 steps from start to finish. These steps included sorting incoming mail, assigning permit and completeness reviews, discussing issues with customers and finally, approving and mailing the approved permit. The team was amazed to discover that only about one day of work content was needed to issue a typical permit, yet the turnaround time was 45 to 80 days. The disconnect between actual and potential turnaround time was due to several reasons. Staff was struggling with a significant permit backlog that, despite concentrated effort, never seemed to diminish. There was idle time buried everywhere in the process that drained efficiency. When incomplete applications were received, staff had to request and then wait for a response. This back-and-forth exchange could eat up weeks, even months. Over time, various bureaucratic fillips had been added that no longer carried any value. The group was determined to identify methods to push the turnaround time as close as possible to the actual work time. By Friday, the new process had been designed, reviewed and implemented. The flow maps had uncovered a spaghetti-like work path so space was redesigned to reduce the numbers of handoffs (the number of times the permit moves from person to person) and ensure that the permit itself was always visible (not hidden in a “to-do” pile). Because computers had to be moved and phone lines rerouted, a temporary work space was established where the new process was up and working.

In the end, the new process simplified work flow, eliminated several steps and reduced the turnaround time without sacrificing quality and environmental protection. The amount of time engineers now spend actively reviewing permit applications remains unchanged. Only unproductive time and tasks have been eliminated.

I think the results speak for themselves. Steps in the standard air construction permit processing decreased from 23 to seven, a 70-percent improvement. Handoffs decreased from 18 to four, a 70-percent improvement. The application form was redesigned for clarity and one form was completely eliminated. The average turnaround time for a standard air construction permit decreased from the average 62 days to six working days, a 90-percent improvement. If a new permit arrives in the mail on Monday, on average it will be approved and sent out the following Monday. A special phone helpline now operates for applicants to use to ensure the information they intend to submit is complete and accurate.

Most impressive was the complete elimination of the backbreaking 600 permit backlog. This took six months of determined effort by DNR Air Quality staff, Bureau Chief Catharine Fitzsimmons and Supervisor Dave Phelps, but now all work is current. It was the dedication of our folks that made the difference. They were totally focused on achieving their goals and I give the credit to them.

In fact, I was so impressed by the results I did something virtually unprecedented in state government—I gave each participating employee a bonus. This was allowable because DNR operates as a “charter agency” and through a special agreement with the employees’ labor union. This special designation allows the agency to exercise certain flexibilities in exchange for a reduction in its General Fund appropriation. The agency has also received funding from the charter agency grant program to develop in-house kaizen expertise.

Since that time, DNR has conducted or participated in events in landfill permitting, water quality and underground storage tanks, and another event in air quality. In addition, DNR has participated in a kaizen at the Iowa Department of Cultural Affairs.

I like the successes achieved through the kaizen events and the feedback from customers is extremely positive. Just as important is the reaction from employees. It has given many of our folks a sense of control they have never experienced before. They know now that we can change for the better and that they are the most important part of making that happen. After all, our mission is “Leading Iowans in Caring for Our Natural Resources.” The DNR can and should help lead the way toward world-class government.