

Common Measures Project

Fact Sheet

March 2012

State environmental agencies are facing the combined pressures of diminishing resources, growing numbers of pollution sources, and the requirement to continue to meet EPA grant commitment inspection quotas at major facilities. Agencies need more sophisticated methods than counting inspection and enforcement activities to demonstrate the effectiveness of compliance assurance efforts and efficiently deploy their limited environmental resources. Developed and led by the Massachusetts Department of Environmental Protection, the Common Measures Project was a multi-state effort that addressed these challenges. Building on prior successful initiatives to measure and track the environmental performance of particular business sectors within individual states, it was designed to:

- Test the feasibility of using a common set of measures and statistical techniques to evaluate the environmental performance of targeted business sectors across states
- Use the results to determine if there were any significant compliance problems within a participating state that should be addressed
- Use the interstate comparisons to identify particularly effective strategies for promoting good environmental performance

Description

The Project was funded through a three year grant from the U.S. EPA State Innovations Grant Program, and involved Massachusetts, Colorado, Connecticut, Maine, New Hampshire, New York, Rhode Island, and Vermont as “participating” states and Washington and California as “observer” states. The Northeast Waste Management Officials’ Association (NEWMOA) provided facilitation, technical, and other support for the Project.

The Project began in 2006 and involved:

- In-depth training on performance measurement for participating and observing states that included:
 - The application of statistical techniques to inspections of a small random sample of facilities, which enable the evaluation of environmental performance on regulatory requirements and “beyond compliance” activities of an entire business sector
 - The design and implementation of meaningful and measurable performance indicators
- Agreeing on a sector to evaluate
- Agreeing on a set of “Environmental Business Practice Indicators” (EBPIs) and an inspection checklist to be used to assess sector performance
- Identifying the entire universe of facilities in the sector in each state, determining the size of the sample needed to obtain reliable results, and selecting a random sample of facilities for inspection
- Training all participating inspectors in the use and interpretation of the checklist to ensure consistent results across states

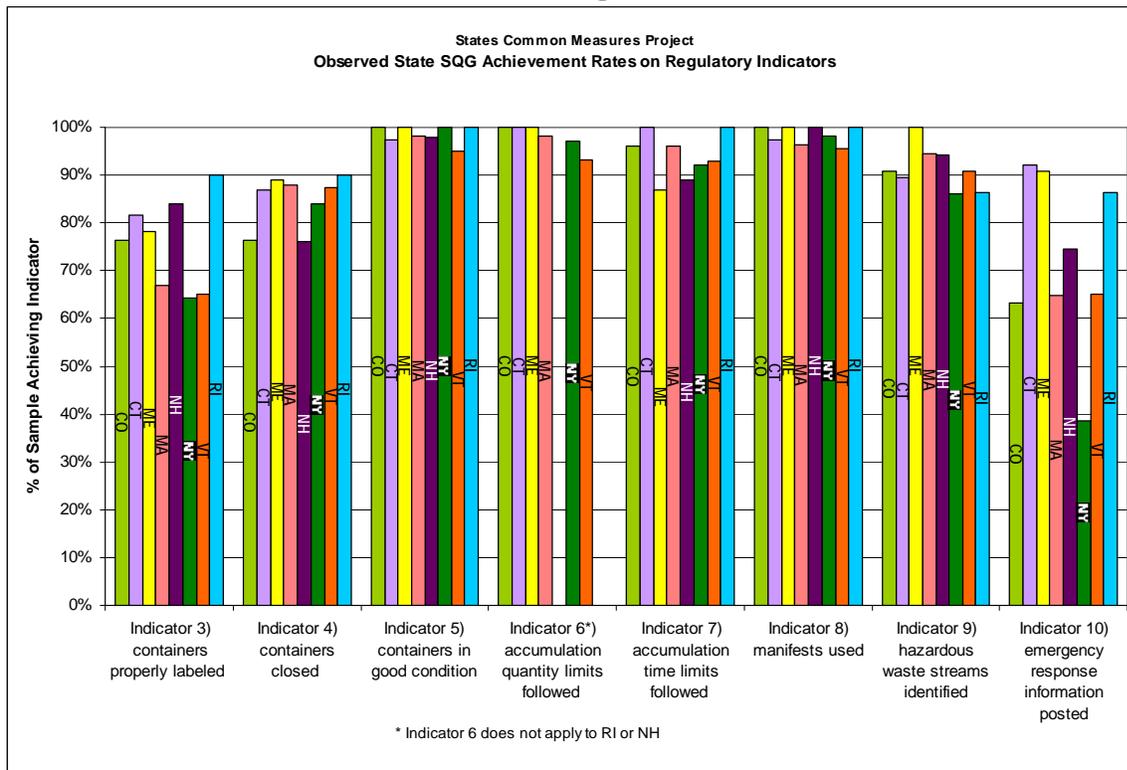
- Preparing descriptions of each state’s compliance assurance programs for the sector including traditional compliance (i.e., reporting, inspection, and enforcement) programs as well as assistance programs
- Enhancing an existing data management system (called the “Performance Analyzer”) that automates the statistical analyses of the inspection results, data entry, and quality assurance
- Using statistical analysis to apply the findings to the entire universe with a selected confidence level and to develop conclusions and recommendations for further action

Results

The Project participants selected Small Quantity Generators (SQGs) of hazardous waste for two reasons. First, all participating states had regulatory programs with similar basic requirements based on EPA’s Resource Conservation and Recovery Act (RCRA) program, which simplified the process of identifying common performance indicators. In addition, while SQGs can cause significant local adverse impacts if their wastes are not properly handled, many states lack the resources to do regular traditional compliance inspections of the large number of these facilities. As a result, the state programs have not had a good understanding of SQG’s overall performance and the extent to which they pose a serious threat to environmental quality.

The figures presented below show the achievement rates for each EPBI for each participating state. Achievement rates, one of several performance measures evaluated in the Project, are the proportion of the SQGs that are complying with the specified regulatory EBPI or implementing a “beyond compliance” EPBI.

Figure 1



This graph demonstrates that there is a relatively high rate of performance (greater than 70 percent) across all of the participating states for a number of the regulatory EBPIs, including:

- Storage containers are closed

- Storage containers are in good condition
- Accumulation times and limits are followed
- Hazardous waste streams are identified
- Manifests are used

The graph also identifies two regulatory EBPIs for which performance varies across states and may need enhanced compliance assurance or assistance activities in certain states:

- Storage containers are properly labeled
- Emergency response information is posted

Figure 2

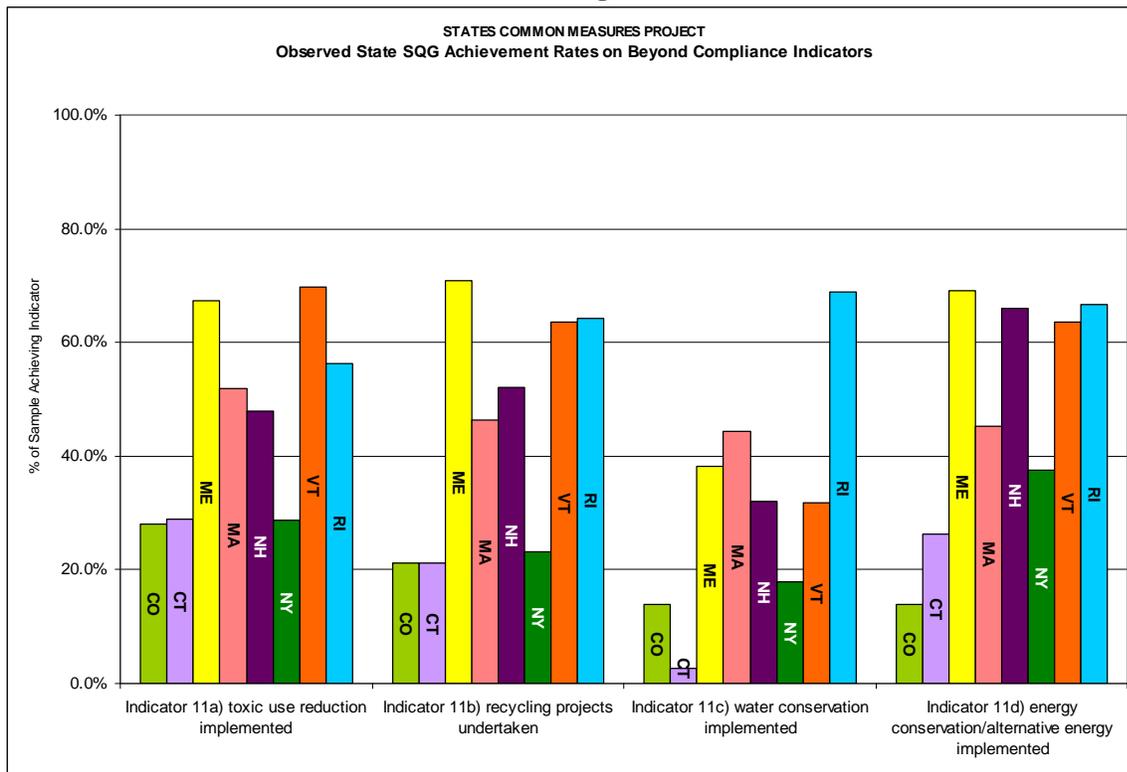


Figure 2 shows that performance on the voluntary “beyond compliance” indicators (i.e., toxics use reduction, recycling, and water/energy conservation) was generally lower and showed considerable variation across all the states.

Some of the identified differences in state performance were statistically significant. In order to better understand the reasons behind these differences, the Project team examined the compliance assurance program descriptions provided by the states to identify any practices that could be associated with higher performance. The results indicated that onsite compliance and “beyond compliance” assistance programs appear to be associated with higher performance levels on both types of indicators. The quantity and frequency of inspections and enforcement actions (the traditional compliance approach) did not appear to affect performance levels.

Summary

The Common Measures Project demonstrated that developing and using an effective common measurement approach across eight participating states is not only possible but can generate valuable information. Additionally, the Project found that:

- The Common Measures approach has tremendous potential to generate meaningful data about the environmental performance of any group. This information can then form the basis for fact-based discussions and decisions on deploying and targeting limited state inspection, assistance, and enforcement resources.
- Comprehensive measurement can sometimes lead to surprising results. At the outset of the Project, the participants anticipated that compliance with certain EBPI's among the generators would be occurring at lower rates and did not expect to see the association between environmental performance and onsite compliance assistance.
- Deploying this type of measurement approach more widely would require senior management commitment and dedicated resources and time. State agencies need continued assistance from U.S. EPA to build internal capabilities, including the use of the Performance Analyzer Tool.

The Project was designed to be replicated by other agencies. It created a template that can be used to train staff in the use of statistical techniques to measure group performance, and an automated statistical analytical tool that can help researchers streamline data management, statistical analyses, and presentation of results. The Project demonstrated tremendous ability to generate meaningful data about the performance levels of any group. This information can be valuable in making informed and strategic decisions about the “best” way to achieve desired levels of compliance and to measure whether the regulated community is achieving its targeted compliance rate. The challenge going forward is to take meaningful steps to reach this potential.

The full Report (authored by Steven DeGabriele and Susan Peck of MassDEP and Tara Acker of NEWMOA) and additional information about the Project is available at:

www.newmoa.org/erp/projects/commeas.cfm.