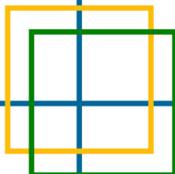




Evaluation of the Effectiveness of an Ethanol Compliance Manual



Fact Sheet

Introduction

In response to a rapid increase in newly permitted ethanol facilities in U.S. mid-western states, EPA Region 7 staff developed a compliance assistance manual for ethanol facilities entitled *Environmental Laws Applicable to Construction and Operation of Ethanol Plants*. After the manual was published in November 2007, Region 7 conducted significant outreach on the manual with ethanol facilities, ethanol contractors, and other interested stakeholders. In 2009, EPA undertook an evaluation to assess the success of the manual in improving industry compliance with relevant rules and regulations and to gather information on the manual's readability, quality of information, and overall usefulness as a compliance assistance tool to ethanol facilities in the Region. In addition, Region 7 wanted to identify ways to improve facility satisfaction with the manual as a compliance assistance tool and to determine what other compliance assistance tools and materials might be helpful to ethanol facilities. The following information describes the questions that structured the evaluation, the overall evaluation approach, and the evaluation's key findings and recommendations.

Overarching Evaluation Questions

The following topics and questions formed the structure of the evaluation:

- 1. Topic: Outreach and Awareness.** Question: How effective were Region 7's efforts to advertise the availability of and distribute the manual to ethanol facilities and other intended audiences?
- 2. Topic: Effectiveness of the Manual as an Information Tool.** Question: How effective was the manual as a tool for transferring compliance (and related facility technical support) information to ethanol facilities?
- 3. Topic: Changes in Understanding and Behavior.** Question: Has the existence and use of the manual led to increased understanding and behavior change to support improved compliance?
- 4. Topic: Improving the Manual.** Question: How could the manual be improved to provide effective compliance assistance to ethanol facilities?
- 5. Topic: Other Compliance Assistance.** Question: What approaches other than the manual would provide effective compliance assistance to the ethanol facilities?

Evaluation Approach

To answer the overarching evaluation questions, evaluators (1) undertook interviews with ethanol facility environmental managers, ethanol industry contractors, state compliance staff, and EPA staff; (2) developed a customer satisfaction survey and distributed the survey to ethanol facilities in Region 7 and ethanol industry contractors known to work in the Region; and (3) conducted research on ethanol plant compliance to try to answer the overarching evaluation question on the effect the manual had on compliance.

<http://www.epa.gov/evaluate>

For more information on completed evaluations at EPA or the Evaluation Support Division, visit the above link.

Evaluation Findings and Recommendations

Findings

Overall, those that participated in the evaluation found the manual to be very informative. Participants appreciated the manual's existence and the effort that EPA Region 7 undertook to develop it. Below are the major findings of the evaluation, organized by the overarching evaluation topic areas.

Outreach and Awareness: Awareness of the manual amongst ethanol facilities and contractors was not as prevalent as it could be, despite extensive outreach efforts by Region 7 staff. Further, the timing of the manual's publication occurred after most new plants had commenced or completed construction. Nonetheless, most of these facilities were receptive to reviewing the manual as a part of this evaluation, and feedback indicated that non-Region 7 ethanol plants might also find the information useful.

Effectiveness of the Manual as an Information Tool: Evaluation participants said the manual was well-organized, readable, and an appropriate tool for conveying compliance information. Having this material, including appropriate contacts, organized in one place provided for an easy reference.

Changes in Understanding and Behavior: All evaluation participants said the manual was helpful for increasing or solidifying their understanding of environmental compliance requirements. However, this evaluation cannot conclusively say that the manual has led to any significant changes that would affect facility compliance. With only a few exceptions, evaluation respondents were not able to identify specific instances where use of the manual resulted in increased awareness or improved compliance.

Improving the Manual: Respondents to this evaluation had a number of suggestions on how future versions of the manual could be improved, with suggestions centering around additional content, such as a section on cellulosic ethanol, or around functional content, such as checklists and case studies.

Other Compliance Assistance: Evaluation participants indicated that venues such as conferences, EPA workshops, interactive Web sites, and direct EPA interaction were also valuable approaches for providing compliance assistance to ethanol facilities.

Recommendations

Based on the evaluation findings, the evaluators provided a number of recommendations to Region 7 for consideration when making changes to the manual and conducting other sector outreach.

To improve outreach to facilities and contractors, the evaluation recommended that Region 7 consider additional outreach strategies, such as developing a biofuels-centric email list, and considering ethanol plant contractors as both an audience for the manual and as a communication conduit to the plants. In addition, as much of the content is relevant to all U.S. ethanol plants, Region 7 could consider ways to tailor content and distribute the manual nationally.

Transferring the manual to an interactive, Web-based format would improve access and the ability to keep it up-to-date for its audiences. Future versions of the manual could also include new relevant regulatory information; an executive summary; more "at a glance" information, such as lists of resources and checklists; more specific examples; and related regulatory information about topics of interest to ethanol plants, such as cellulosic ethanol production.

Finally, the evaluators worked with Region 7 staff to identify options for applying lessons from this evaluation to the Region's other compliance assistance and beyond compliance efforts. A first step for carrying these ideas forward would be to identify a small group in the Region to explore strategic and practical options for enhancing the Region's other compliance assistance activities.