

**EVALUATION
OF THE EFFECTIVENESS OF THE IMPLEMENTATION TOOLS FOR THE
NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS
FOR AEROSPACE MANUFACTURING AND REWORK FACILITIES**

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EXECUTIVE SUMMARY

The Program Implementation and Review Group (PIRG) within the Information Transfer and Program Integration Division (ITPID) of the U.S. Environmental Protection Agency's (EPA) Office of Air Quality Planning and Standards (OAQPS) has been developing implementation tools for EPA's air quality regulations for years. Until now, PIRG has received only anecdotal feedback on the usefulness and effectiveness of these tools from their target audiences (industry and Federal, State, and local air pollution control agencies). There has been no structured mechanism for soliciting feedback on these tools. The purpose of this evaluation was to conduct a formal survey of the users of PIRG's implementation tools to determine the effectiveness of the tools. The tools for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Aerospace Manufacturing and Rework Facilities (Aerospace NESHAP) were chosen for this pilot study because the numerous Aerospace NESHAP implementation tools are still largely used as a model for other tools and because PIRG had a good list of the recipients and potential recipients of the tools. This pilot study will be used as a template for future efforts to evaluate the effectiveness of PIRG's implementation tools.

Out of the 135 stakeholders invited to take the Aerospace NESHAP implementation tools effectiveness survey, 20 responses were received. Some of the major findings from these survey responses include:

- The Aerospace NESHAP implementation tools were used by the target audiences;
- The target audiences found the Aerospace NESHAP implementation tools to be helpful;
- Some respondents among the target audiences did not know about the Aerospace NESHAP implementation tools;
- The Air Toxics Website and e-mail lists could be effective means of spreading awareness about the tools;
- The Aerospace NESHAP implementation tools are still being used seven years after they were developed;
- The Aerospace NESHAP implementation tools helped affected sources understand how to submit reports and make process and equipment changes; and
- The Aerospace NESHAP implementation tools made a difference in reducing air pollution.

These and other lessons learned from this survey will be used by PIRG to develop more useful implementation tools. In fact, some of these lessons are already being used. For example, the survey indicated that the applicability flowcharts for the Aerospace NESHAP were not very useful, which was the result PIRG expected. PIRG has been using a different format for applicability flowcharts developed subsequent to the Aerospace flowcharts after realizing that the format was confusing and not user-friendly. The survey results confirm that changes PIRG has made to implementation tools since those for the Aerospace NESHAP were developed will make the tools more useful to the target audiences.

One aspect of this evaluation that needs further examination before future efforts are undertaken is the low response rate. A strategy should be devised for increasing the response rate on future surveys without violating anyone's privacy or relying too heavily on trade associations for lists of stakeholders.

Finally, the success of this pilot study indicates that an effectiveness survey should become a standard aspect of the process for developing implementation tools for OAQPS' regulations.

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EVALUATION OF THE EFFECTIVENESS OF THE AEROSPACE NESHAP IMPLEMENTATION TOOLS

I. INTRODUCTION

In 1997, the Program Implementation and Review Group (PIRG) within the Information Transfer and Program Integration Division (ITPID) of the U.S. Environmental Protection Agency's (EPA's) Office of Air Quality Planning and Standards (OAQPS) developed a suite of implementation tools for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Aerospace Manufacturing and Rework Facilities (Aerospace NESHAP). The Aerospace NESHAP implementation tools were designed to help industry understand and comply with the Aerospace NESHAP and to help regulators understand and ensure that sources comply with the NESHAP. The tools convey basic information about the Aerospace NESHAP through summaries, flowcharts, checklists, and other documents created with the intent of being easy for stakeholders to use. The tools also include example reporting and recordkeeping forms with example responses. The tools were distributed to numerous aerospace stakeholders (affected sources, trade associations, Regional offices, State and local agencies, contractors, etc.) through mail and the Internet. At the time of their development, the Aerospace NESHAP implementation tools were considered the most comprehensive set of tools available, and were subsequently used as a model for developing implementation tools for other NESHAPs.

In order to make the most appropriate use of the available resources for implementation efforts for other NESHAPs and for residual risk standards, PIRG conducted an evaluation of the effectiveness of the Aerospace NESHAP implementation tools. Although many lessons have been learned since the development of these tools and some changes have already been made to the format and content of subsequent sets of implementation tools, the Aerospace NESHAP tools were chosen for this evaluation because there was a detailed record of people to whom the tools were or may have been distributed and because a wide variety of tools was developed for this regulation. This evaluation consisted of a survey designed to assess how useful the Aerospace NESHAP implementation tools were to members of the intended audience in helping them understand the rule and comply with or enforce it. The evaluation constitutes the first phase of a project aimed at improving the design, distribution, and effectiveness of implementation tools. Using the results of the Aerospace NESHAP implementation tools evaluation study, PIRG intends to improve existing and future tools as well as develop a template for conducting evaluations of other implementation tools.

This report presents the results of the Aerospace NESHAP implementation tools evaluation study. The report includes a summary of the Aerospace NESHAP implementation tools, a description of how the survey was developed and distributed, a summary of the responses received, and conclusions that can be drawn about the effectiveness of the Aerospace NESHAP implementation tools. This report also includes a discussion of lessons that were learned during

the evaluation process about both improving NESHAP implementation tools and designing online user surveys.

II. IMPLEMENTATION TOOL DEVELOPMENT AND DISTRIBUTION

This section provides a brief description of the Aerospace NESHAP implementation tools, how they were developed and distributed, and what feedback was received regarding their usefulness prior to this evaluation.

A. Tool Development

The implementation tools for the Aerospace NESHAP (tools) were developed following rule promulgation in 1995 under the lead of Ingrid Ward (PIRG). Individuals from the Federal and Regional levels of EPA, along with two State and local representatives, worked closely with stakeholders to develop a suite of tools that would be useful to both industry and regulators. Stakeholders were given the opportunity to review and comment on draft versions of the tools before the final versions were prepared. The end product was a comprehensive set of tools which became the model for developing implementation tools for other NESHAPs. The tools that were developed during this process and that are currently available on EPA's Air Toxics Website include the following:¹

- Overview Brochure: a brochure containing a compliance schedule, summary of rule requirements, and EPA's Regional office contacts (9 pages)
- Rule Summary: an implementation document containing a compliance timeline, regulatory overview, applicability flowcharts, and inspection checklist (130 pages)
- Recordkeeping Forms: various example recordkeeping forms including a blank form and example response
- Calculations: example calculations (5 pages)
- Reporting Forms: example reporting forms with example responses for initial notification, notification of compliance status, and semiannual notification
- Frequently Asked Questions (FAQs): a compilation of Questions and Answers which are numbered and organized by topic (117 Q&A's, 27 pages)

¹<http://www.epa.gov/ttn/atw/aerosp/aerosp.html#IMP>

- Applicability Guidance: applicability guidance memoranda from EPA Region 10 (2 memos, 3 pages)
- List of Manufacturers: a list of manufacturers of Method 319 paint arrestors (2 pages)

B. Tool Distribution

According to a 1992 survey of the aerospace industry conducted during the rule development process, there were approximately 418 sources potentially subject to the Aerospace NESHAP. Subsequent interaction with the industry indicates that this estimate is high, but no other estimate is readily available. In addition to these potentially affected sources; Regional, State, and local regulators were among the intended recipients of the Aerospace NESHAP implementation tools.

The implementation tools were primarily distributed through the Aerospace page on the Unified Air Toxics Website (UATW, now the Air Toxics Website).² The tools were posted on this page in March 1998, and interested parties were able to download copies of the tools from this website. According to archived usage reports for the UATW,³ the Aerospace page received an average of 65 hits and 55 downloads per week through the end of 1999. The Aerospace page was among the top 50 hits and the top 50 downloads among UATW sites almost every week from March 1998 through December 1999.

Although there was no formal direct mailing, approximately 500 hard copies of the original implementation document were printed. Some hard copies were sent to EPA's library system, from which interested parties could request hard copies. Individual hard copies were mailed to interested parties upon request. Additional hard copies, above the original 500, were distributed at regional training sessions which were conducted in August 1998. Training sessions of varying lengths (half-day up to two days) were conducted in Newington, Connecticut; Cocoa Beach, Florida; Kansas City, Kansas; Seattle, Washington; and San Francisco, California with the assistance of Regional office staff. These training sessions were attended by a total of approximately 400 people representing Regional offices, State agencies, local agencies, sources, trade associations, and contractors and were conducted for the purpose of providing a better understanding of the regulatory requirements of the Aerospace NESHAP.

C. Tool Feedback

Since the development of the tools, Ms. Ward has occasionally received informal feedback on their usefulness. Ms. Ward reported that the question and answer document, in particular, has been extremely helpful in reducing the amount of time that Emissions Standards

²<http://www.epa.gov/ttn/atw/aerosp/aerosp.html>

³These reports are archived on EPA's Intranet and are not available to the public.

Division (ESD) and ITPID staff spend answering questions from stakeholders. Originally, these questions and answers were to be compiled into a searchable database, but the database was not properly designed and so proved to be unhelpful. Additionally, Ms. Ward has received very positive feedback from both industry and regulators on the example reporting forms. A formal study had never been conducted to determine whether these tools were effective and suitable as a model for other rules.

III. TOOL EVALUATION SURVEY

This section outlines the survey development process as well as to whom and how the survey was distributed. A monthly timeline of the major steps taken to develop the survey is included as Figure 1.

A. Survey Development

A formal study to evaluate the effectiveness of the Aerospace NESHAP implementation tools was undertaken by PIRG under the lead of Tom Link. After consideration of a variety of data-gathering methods, PIRG decided to conduct the evaluation of the implementation tools using an online survey. The ease of distributing and responding to an online survey was considered advantageous for this evaluation.

The survey questions were developed by closely following the guidance of EPA's Compliance Assistance Generic Information Collection Request (ICR).⁴ The questions were directed at determining whether stakeholders knew about, obtained, and used the implementation tools; how useful they found the tools, whether the tools were helpful for compliance, and how they would improve the tools. While the survey was completely anonymous and EPA had no way of associating a survey response with a respondent, a demographic question was used in the survey to determine whether each respondent was affiliated with a source, governmental agency, or other organization. A copy of the survey questions (not in the online format) is included as Attachment 1 to this report. In the online version, only the questions relevant to each respondent (based on the answers they provided) appeared on the screen. Additional details about the ICR and the development of the survey questions are provided in a separate document.⁵ Lessons learned from the ICR approval process are described in Section V.B.1.

The format and function of the survey web page was created through the combined efforts of both those involved in the development of the implementation tools and the evaluation study and personnel from the Office of Enforcement and Compliance Assistance (OECA), who had previously developed a similar type of survey. The web page consisted of an introduction to the

⁴http://www.epa.gov/icr/icrs/1860_02.html

⁵Deering, Ann. "Evaluation Study Design to Determine the Effectiveness of the Aerospace NESHAP Implementation Tools." Prepared by EC/R Incorporated, prepared for Information Transfer and Program Integration Division, U.S. Environmental Protection Agency. Sept 2003.

October

- ⊗ Submit survey to the Office of Management and Budget (OMB)
- ⊗ Begin designing the back-end database
- ⊗ Begin designing the online survey

November

- ⊗ Prepare information needed for the Application Deployment Checklist
- ⊗ Obtain approval of the survey from the Office of Management and Budget

December

- ⊗ Post a draft survey and back-end database on EC/R's server for EPA comment and review
- ⊗ Post a draft survey on EPA's Intranet for technical testing
- ⊗ Obtain approval from the National Technology Services Division (NTSD) to post the survey on EPA's public server

January

- ⊗ Contact relevant trade associations to request aid in distribution of the survey
- ⊗ Prepare survey distribution lists
- ⊗ Conduct a beta-test of the survey on EC/R's server with help from selected stakeholders

February

- ⊗ Make final edits to the survey and database
- ⊗ Notify NTSD that the survey is ready for final review and production on EPA's public server

March

- ⊗ Survey period

April & May

- ⊗ Review and analyze survey results

Figure 1. Monthly timeline of major steps taken to conduct the online survey.

survey and a series of questions. The survey was formatted so that, as a respondent provided answers, additional response-specific questions would appear on the screen. At the end of the survey, the respondent was asked to submit their responses to EPA by clicking on a "submit" button. Respondents were able to alter their answers until they clicked "submit." The final version of the survey was developed using Domino code. Answers were stored in a back-end database which could be exported to a single table in Lotus 1-2-3.

A beta-test version of the online survey was created and hosted on EC/R Incorporated's server. The survey web page explained the purpose of the evaluation and presented a beta-test version of the survey along with links to the Aerospace NESHAP implementation tools. The beta-test was conducted on EC/R's server rather than EPA's to avoid delays in the project timeline associated with meeting EPA requirements for posting surveys on the public server. Using this strategy, PIRG was able to conduct the beta-test while continuing to take the necessary steps for posting the final version of the survey on EPA's public server. Invitations were sent by Mr. Link to a beta-test group of 18 stakeholders identified by Ms. Ward as active participants in aerospace-related activities. In addition to responding to the beta-test of the survey for technical testing purposes, the beta-test group was asked to comment on the survey questions and the function of the survey, and to provide contact information for any additional stakeholders. The invitation that was sent to the beta-test group is included in this report as Attachment 2. The few comments that were received during the beta-test period were incorporated into the final version of the survey. No contact information for additional stakeholders was received.

After developing the final version of the survey and ensuring the back-end database was correctly capturing responses, the survey went through final staging review by the Application Deployment Checklist (ADC) coordinators of EPA's National Technology Services Division (NTSD). The survey was approved by the ADC coordinators and posted on EPA's public server. The ADC coordinators also implemented the tracking of the number of hits the survey received while on EPA's public server.

B. Survey Distribution

Invitations to participate in the survey were directly sent to 199 people including representatives of industry, consulting firms, and Federal, State, and local government agencies, including the military and EPA. Only 135 of the individuals who were sent invitations to participate in the survey were expected to be members of the target audience for the Aerospace NESHAP implementation tools. These 135 individuals are considered the stakeholder group for the purpose of calculating the survey response rate. The other 64 individuals who were sent an invitation to the survey are EPA staff who would have an interest in the evaluation process and results but were not expected to provide a response to the survey.

In the invitation, the stakeholders were encouraged to forward information about the survey to any other relevant individuals. The survey was located on EPA's public access server, and no links to the survey were available from any other pages. It was assumed that people who

accessed the survey were either directly invited or received a forwarded invitation from someone who was directly invited to participate in the survey. The group of 135 stakeholders was identified with the help of Ms. Ward and Robert Peters, Director of Environmental Safety and Health for the Aerospace Industry Association (AIA). The invitations were sent to stakeholders by Ms. Ward and to appropriate members of the AIA by Mr. Peters. While both Ms. Ward and Mr. Peters adjusted the invitation to fit their needs, the basic invitation format is included as Attachment 3 to this report. The survey was completely anonymous, therefore a list of stakeholders to whom direct invitations were sent is not included in this report. Initial invitations were sent by e-mail on March 1 & 2, 2004. A reminder e-mail was sent by both Ms. Ward and Mr. Peters to their respective lists on March 22 & 23, 2004. Of the 135 stakeholders, 14 stakeholders received the initial invitation but not the reminder e-mail, and 12 stakeholders received the reminder e-mail but not the initial invitation. Of the 199 people invited to participate in the survey, 70 were invited by Mr. Peters, 125 were invited by Ms. Ward (including the 64 non-stakeholders), and 4 were invited by both Ms. Ward and Mr. Peters.

IV. SUMMARY OF SURVEY RESULTS

This section presents and summarizes the responses that were received during the survey period. The stakeholders were asked to respond to the survey by March 31, but results were collected and analyzed through April 2. The titles for most of the following tables correspond with the questions asked in the survey. The first column represents the possible responses that could have been chosen by the respondent.

A. The Respondent Population

Direct invitations to participate in the survey were sent to a total of 199 people, 135 of whom were considered stakeholders. These stakeholders were also encouraged to forward the invitation to other stakeholders. A total of 20 responses were received. This is a response rate of approximately 10 percent of all the invitees or 15 percent of the stakeholder invitees. The ICR that was submitted for this survey projected a response rate of 15 percent, which was achieved.

Statistics were collected during the survey period to track the number of hits the survey received. The statistical package used tracks each time an individual file on the survey page is accessed. The survey page contains multiple files, such as the EPA logo on each page. This means that for every one time a respondent accesses the survey, multiple hits may be registered. By dividing the total number of hits by the number of files, it was estimated that the survey was accessed approximately 30 times during the period from March 1 through 31. Since EC/R staff accessed the site for testing purposes several times throughout this period, and 20 responses were received during this period, it was assumed that most of the stakeholders who accessed the survey also provided a response to it.

Table 1. The survey population

Stakeholder Type	Number of Respondents	Percent of Total Respondents
Affected Source	6	30
Federal Government	5	25
State Government	1	5
Local Government	5	25
Trade Association	1	5
Consulting Firm	1	5
Law Firm	0	0
Other*	1	5
TOTAL	20	100

* The respondent who marked 'other' did not provide any specification as to the organization with which he/she is affiliated.

The affected source group was the most well-represented type of organization among the survey respondents. Federal and local government representatives made up the two other groups that provided the most responses. Eighty-five percent of the respondents were from the target audiences for the Aerospace NESHAP implementation tools (affected sources and Federal, State, and local governments). The only type of organization not represented by any respondents was law firms.

B. Access to the Implementation Tools

A total of 17 respondents, or 85 percent of the total respondents,⁶ indicated that they obtained copies of the implementation tools. Table 2 summarizes the reasons stakeholders indicated they did not receive the tools. Table 3 summarizes how those stakeholders that did obtain the tools obtained them, and Table 4 summarizes when the respondents obtained the tools.

⁶ This group of 17 respondents was not the same as the group of 17 respondents who represented the target audiences for the Aerospace NESHAP implementation tools.

Table 2. Why did you not obtain copies of any of the implementation tools?

Response	Number of Respondents	Percent out of the Respondents who Didn't Obtain Tools	Percent of Total Respondents
I didn't know they existed	2	67	10
I am not the appropriate person to use them	1	33	5
I tried but was unable to obtain copies	0	0	0
Other	0	0	0
TOTAL	3	100	15

Table 3. How did you obtain the implementation tools for the Aerospace NESHAP?
(respondents could choose more than one means of obtaining the tools)

Response	Number of Respondents	Percent out of the 17 Respondents who Obtained Tools	Percent of Total Respondents
EPA's Air Toxics Website	12	71	60
EPA's Compliance Assistance Clearinghouse	1	6	5
Hard copy direct through the mail	1	6	5
Training session or conference	2	12	10
Colleague gave me a copy/link	5	29	25
Other*	1	6	5

* The respondent who marked "other" indicated that he/she received the implementation tools through direct involvement in the rulemaking process.

Table 4. When did you obtain the implementation tools for the Aerospace NESHAP?
(respondents could choose more than one option)

Response	Number of Respondents	Percent out of the 17 Respondents who Obtained Tools	Percent of Total Respondents
By the compliance date	4	24	20
After the compliance date	4	24	20
I don't remember	2	12	10
Some tools by the compliance date & some tools after	6	35	30

According to survey responses, the majority of respondents obtained at least some of the tools before the compliance date. The Air Toxics Website was the primary means by which tools were obtained. Those respondents that did not obtain copies of the tools indicated that they either did not know that the tools existed or that they are not the appropriate person to use them.

C. Rated Utility of the Implementation Tools

A total of 17 respondents, or 85 percent of the total respondents, indicated that they received the implementation tools for the Aerospace NESHAP. In this section we summarize whether those respondents used the tools and, if so, how useful they found them. Table 5 summarizes how many people who received the tools used them. Table 6 summarizes why the respondents who received and did not use the tools did not use them. Table 7 summarizes the utility of each implementation tool to the respondents who used them. Table 8 summarizes what the government and consultant respondents that used the implementation tools used them for, and Table 9 summarizes whether the tools are still useful to the respondents.

Table 5. Have you used any of the implementation tools for the Aerospace NESHAP?

Response	Number of Respondents	Percent out of the 17 Respondents who Obtained Tools	Percent of Total Respondents
Yes	16	94	80
No	1	6	5

Table 6. Why did you not use any of the implementation tools for the Aerospace NESHAP?

Response	Number of Respondents	Percent out of the 17 Respondents who Obtained Tools	Percent of Total Respondents
I received them too late	0	0	0
They were too difficult to understand	0	0	0
I was not the appropriate person to have received the tools	0	0	0
The tools were not helpful to me	0	0	0
Other*	1	6	5
TOTAL	1	6	5

* The respondent who marked "other" indicated that he/she did not use the tools because they were very long, and noted that there were 123 pages.⁷

⁷ This is approximately the length of the "Summary of Requirments" document which includes many of the implementation tools in one document. PIRG has since decided to make each tool a separate item for download and distribution to decrease the length of each individual tool and to make it easier for stakeholders to obtain only the tools they need.

Table 7. Please rate the usefulness of each of the implementation tools for the Aerospace NESHAP that you have used.*

Tool	Percent out of the 16 Respondents who used any implementation tools						Percent of Total Respondents					
	Very Good	Good	Satisfactory	Poor	Very Poor	Didn't Use	Very Good	Good	Satisfactory	Poor	Very Poor	Didn't Use
Overview Brochure	25	38	13	0	0	25	20	30	10	0	0	20
Compliance Timeline	25	31	13	0	0	31	20	25	10	0	0	25
Regulatory Overview	31	38	6	0	0	25	25	30	5	0	0	20
Applicability Flowcharts	19	25	19	0	0	38	15	20	15	0	0	30
Inspection Checklists	19	56	6	0	0	19	15	45	5	0	0	15
Example Recordkeeping Forms	31	38	6	0	0	25	25	30	5	0	0	20
Example Calculations	13	38	6	0	0	44	10	30	5	0	0	35
Example Reporting Forms	31	38	6	0	0	19	25	30	5	0	0	15
Frequently Asked Questions	50	19	13	0	0	19	40	15	10	0	0	15
Applicability Guidance Memos	25	31	6	0	0	38	20	25	5	0	0	30
List of Manufacturers of Method 319 Paint Arrestors	31	38	0	0	0	31	25	30	0	0	0	25

* All 16 respondents who used some of the implementation tools either rated each of the tools or indicated that they did not use the tool.

Table 8. I used this tool for the following purposes. (Note that this question was only asked of government and consultant respondents and multiple purposes could be chosen.)

Tool	Percent out of the 9 Gov't/Consultant Respondents who used any implementation tools			Percent of Total Gov't/Consultant Respondents		
	Compliance Assistance	Permitting	Enforcement	Compliance Assistance	Permitting	Enforcement
Overview Brochure	78	0	56	58	0	42
Compliance Timeline	56	0	33	42	0	25
Regulatory Overview	67	11	44	50	8	33
Applicability Flowcharts	56	11	33	42	8	25
Inspection Checklists	56	0	67	42	0	50
Example Recordkeeping Forms	56	0	56	42	0	42
Example Calculations	44	0	33	33	0	25
Example Reporting Forms	67	0	44	50	0	33
Frequently Asked Questions	78	11	44	58	8	33
Applicability Guidance Memos	56	11	33	42	8	25
List of Manufacturers of Method 319 Paint Arrestors	56	0	22	42	0	17

Table 9. Are the implementation tools for the Aerospace NESHAP still useful to you now?

Response	Number of Respondents	Percent out of the 16 Respondents who Used the Tools	Percent of Total Respondents
Yes	14	88	70
No, they are not up to date	0	0	0
No, they are not useful for maintaining compliance	0	0	0
No, my job no longer requires me to use them	2	13	10
Other	0	0	0

While almost all of the respondents that obtained copies of the implementation tools used at least one of them, many respondents did not use all of them. The respondents indicated that most of the tools they did use were either "good" or "very good." Some tools were considered "satisfactory," but none were considered "poor" or "very poor" by any of the respondents. The Frequently Asked Questions document received the best overall rating. The Regulatory Overview, Example Recordkeeping Forms, Example Reporting Forms, and List of Manufacturers of Method 319 Paint Arrestors also received high ratings. The Example Calculations, Applicability Flowcharts and Applicability Guidance Memos received the lowest totals of "very good" and "good" responses and were also used the least of all of the implementation tools. The Inspection Checklists, Example Reporting Forms, and Frequently Asked Questions were the most used implementation tools. Government and consultant respondents indicated that they used the tools mainly for compliance assistance or enforcement. Only four of the tools were used for permitting (Regulatory Overview, Applicability Flowchart, Frequently Asked Questions, and Applicability Guidance Memos). Most respondents indicated that the tools are still useful to them now.

D. Rated Utility of Implementation Tools for Increasing Understanding of How to Meet NESHAP Requirements

This section summarizes how useful the implementation tools were at helping affected sources carry out the requirements of the Aerospace NESHAP. The following tables summarize the usefulness of the tools at helping affected sources understand how to carry out regulatory actions, make process and equipment changes, and carry out management actions. The last two tables of this section summarize whether increased understanding of the NESHAP through use of the implementation tools resulted in pollutant reductions and cost savings, respectively, at affected sources. All six of the affected source respondents indicated that they used the implementation tools.

Table 10. The implementation tools for the Aerospace NESHAP increased my understanding of how to carry out the following regulatory actions (*respondents could choose more than one action*):

Response	Number of Respondents	Percent out of the 6 Affected Source Respondents
Submitting a Notification	5	83
Submitting Reports	6	100
Submitting Data	4	67
Obtaining a Permit	2	33
The implementation tools were not helpful	0	0
Other	0	0

Table 11. The implementation tools for the Aerospace NESHAP increased my understanding of how to make the following process and equipment changes (*respondents could choose more than one change*):

Response	Number of Respondents	Percent out of the 6 Affected Source Respondents
Changing the storage or handling of a waste or emission	2	33
Changing a process or practice	5	83
Implementing a material or waste recycling system	0	0
Installing new process equipment	4	67
Installing pollution control equipment	4	67
The implementation tools were not helpful	0	0
Other	0	0

Table 12. The implementation tools for the Aerospace NESHAP increased my understanding of how to carry out the following management actions (*respondents could choose more than one action*):

Response	Number of Respondents	Percent out of the 6 Affected Source Respondents
Instituting training or other communication to improve awareness and/or practices	5	83
Establishing an environmental management system	3	50
Conducting a self-audit	3	50
The implementation tools were not helpful	1	17
Other	0	0

Table 13. Do you think your use of the implementation tools and your increased understanding of the Aerospace NESHAP have resulted in pollutant reductions at your facility?

Response	Number of Respondents	Percent out of the 6 Affected Source Respondents
Yes	4	67
No	2	33
I'm not sure	0	0
There have not been pollutant reductions	0	0
TOTAL	6	100

Affected source respondents provided the following details regarding pollutant reductions at their facilities:

- "Air emissions reduction of 52% TCE consumption from vapor degreaser."
- "We have recently adopted various zero-VOC primers and topcoats, reducing annual emissions by several tons per year."

Table 14. Do you think your use of the implementation tools and your increased understanding of the Aerospace NESHAP have resulted in cost savings?

Response	Number of Respondents	Percent out of the 6 Affected Source Respondents
Yes	2	33
No	1	17
I'm not sure	3	50
There have not been cost savings	0	0
TOTAL	6	100

All of the survey respondents who are affected sources indicated that the implementation tools increased their understanding of how to submit reports. Most of the affected sources also indicated that the tools increased their understanding of how to change a process or practice and how to institute training or other communications to improve awareness and/or practices. A majority of affected source respondents (67 percent) indicated that using the implementation tools increased their understanding of the Aerospace NESHAP and resulted in pollutant reductions at the facility. A variety of responses were received to the question regarding cost savings, and no respondents provided any details on cost savings associated with implementing the NESHAP.

E. Changes to the Implementation Tools

This section summarizes changes that respondents made to the tools and how they suggested EPA could improve the tools. Seven, or 44 percent, of the 16 respondents who used the implementation tools modified them to suit their needs. These respondents modified the tools in the following ways:

- "Modified the checklist to fit our processes"
- "Developed our own specific checklist for spraybooths"
- "Added more detailed instructions to the recordkeeping forms"
- "Used the requirements in local procedures"
- "Deleted sections of the reporting form that weren't applicable"

During the beta-test of the survey, we received the following additional details about modifications that were made to the implementation tools:

- "Some facilities used recordkeeping and notification forms as a model so they likely made some changes to accommodate unique situations and facility specific information"

- "The certification report was modified to only include the applicable activities at our facility"
- "Streamlined directions for calculations"
- "We developed our own inspection checklist and recordkeeping and reporting forms. When the implementation tools became available we ensured our previous[ly] developed documents were adequate."
- "Used them to develop compliance and operational checklists"

Respondents provided the following suggestions to improve the implementation tools:

- "Inspection checklist tool needs to be more user friendly"
- "[Make implementation tools] more to the point"
- "[Provide] more answers to frequently asked questions..."
- "Group Frequently Asked Questions so that they are easier to search"
- "[Provide] more applicability guidance memos"
- "Get tools on the website as soon as possible after the rule is promulgated"
- Because of a recent inquiry from a minor source aerospace facility about daily recordkeeping, one respondent looked closely at the implementation tool titled "Example 4(a)– Primer and Topcoat Recordkeeping Form" and noted that:
 - the form needs to be provided in Excel format
 - a column is needed for total material applied in gallons, a sum of paint and thinner
 - two columns are needed for daily VOC and HAP emissions in pounds per day
 - a form is also needed for multi- (two and three) part coatings

During the beta-test of the survey, the following suggestions were made to improve the implementation tools:

- "Make them available as soon as possible."
- "Have them developed six months to a year prior to the final compliance date of the rule."
- "Ensure they are updated to reflect amendments and correct errors (Ingrid has been very responsive in ensuring this has been done)."
- "The tools I use most often are the frequently asked questions and guidance memos. Frequent updates/additions to these tools are most useful. This helps maintain consistency with how questions are answered for sources throughout the count[y]."
- "On implementation tools such as inspection checklists, I would suggest striving to make these checklists as concise as possible. Concise tools are easiest to use in the field."
- "Maybe some additional QA/QC. Found typos and such."
- "I thought they were great in 1998 and still use them frequently. I can't think of any changes."

V. LESSONS LEARNED

A. Developing and Improving NESHAP Implementation Tools

Constructive feedback was received regarding the effectiveness of the implementation tools developed for the Aerospace NESHAP. The responses received to this survey will be useful in both improving the Aerospace NESHAP implementation tools and developing similar future tools. Rather than reiterate the contents of each table included in the report, this section includes a few highlights of the lessons learned from the survey that will be used to develop and improve NESHAP implementation tools.

While the majority of respondents obtained copies of the tools and used them, there were some respondents who did not know the tools existed. Efforts could be made to improve public awareness of the tools and increase tool distribution. The Air Toxics Website was used by most respondents to access the tools. One lesson learned is to increase awareness of the tools by increasing awareness of the Air Toxics Website since it has been an effective means of tool distribution.

The total lack of "poor" and "very poor" responses for any of the tools indicates that, in general, EPA is developing useful implementation tools. The Frequently Asked Questions document was both the most used and the most useful of all the tools. The comments received from some of the respondents reiterate this point and suggest making it even more user-friendly by, for example, organizing the questions by topic.⁸ The Inspection Checklists and Example Reporting Forms were also among the most used tools, and the Regulatory Overview, Example Recordkeeping Forms, and Example Reporting Forms were among the most useful tools. A lesson learned here is to focus implementation efforts on FAQs, example forms and checklists, and a regulatory overview. This confirms the anecdotal evidence Ms. Ward had that the example reporting forms were well used and very useful. On the other end of the spectrum, the Example Calculations, Applicability Flowcharts, and Applicability Guidance Memos were the least used tools and were also among the least useful tools. If EPA is interested in preparing similar tools in the future, it would be worth investigating why these three tools in particular were not well used. Regarding the applicability flowcharts, shortly after they were developed, PIRG personnel realized that the format was confusing and not helpful to the target audiences and, thus, began using a different format for applicability flowcharts developed for other rules. Therefore, the survey results with respect to the applicability flowcharts were expected and, in fact, confirm a specific lesson already learned about developing implementation tools.

⁸ One suggestion obtained during the survey development process (not from the beta-testers or survey respondents) was that the searchable database of comments received on the Office of Air and Radiation (OAR) website, along with EPA's responses to these comments, which has been successfully implemented by OAR could serve as a model for creating searchable databases of frequently asked questions (and their answers) for NESHAP implementation tools.

Most respondents indicated that the implementation tools for the Aerospace NESHAP are still useful to them now, which emphasizes the suggestions that the tools should be kept accurate and up-to-date. Many users of the tools are modifying them to suit their needs; the lesson learned here is that the tools should be posted on the Air Toxics Website in both an easily-downloadable format (such as .pdf) and an easily modifiable format (such as MS Word).

Affected source respondents indicated that the tools were useful in helping them understand how to take regulatory actions, make process and equipment changes, and make changes in management actions. In fact, 100 percent of the affected source respondents indicated that the tools helped them understand how to submit reports, and 83 percent of the affected source respondents indicated that the tools helped them understand how to change a process or practice and how to institute training or other communication. Furthermore, 67 percent of the affected source respondents indicated that the tools resulted in pollution reduction at their facilities. The tools were least helpful in providing affected sources with an increased understanding of how to obtain a permit, change the storage or handling of a waste or emission, and implement a material or waste recycling system.

Government and consultant respondents indicated that they used the tools mainly for compliance assistance and enforcement purposes and less so for permitting. Looking specifically at the inspection checklists, PIRG expected to see them well used for compliance assistance and enforcement, which the survey confirmed. PIRG also expected to see the FAQs well used for enforcement, which the survey indicated was not the case. Overall, PIRG expected to see more use of the tools for permitting purposes. One lesson learned is to target permittees when publicizing the existence of implementation tools, perhaps through an e-mail listserv or other mailing list. Another lesson learned is to review the tools to determine whether they could be made more useful for permitting purposes.

Overall, respondents suggested that the tools be made available as soon as possible, and specifically at least six months prior to the final compliance date of the NESHAP. Respondents also suggested that tools be made concise and user-friendly and that they be kept up-to-date.

Several lessons that were learned regarding the development and improvement of implementation tools include:

- Increase awareness of the Air Toxics Website to publicize the availability of tools;
- Focus implementation efforts on developing Frequently Asked Questions, example forms, checklists, and a regulatory overview document;
- Investigate why example calculations, applicability flowcharts and applicability guidance memoranda are not well used;
- Keep tools accurate and up-to-date;
- Provide tools in formats that are both easy to download and easy to modify;
- Include permittees when distributing tools;
- Review tools for their usefulness to permittees;

- Develop tools that are concise; and,
- Make tools available to the public in a timely fashion.

These lessons learned will be used to improve the development and distribution of implementation tools in the future. In fact, some of these lessons learned are already being implemented by PIRG.

B. Designing Online User Surveys

1. Office of Management and Budget (OMB) Survey Approval Process

In order to survey more than nine people, the survey needed to be approved by the Office of Management and Budget (OMB). To expedite the approval process for the Aerospace NESHAP Implementation Tools survey, PIRG made use of the generic Compliance Assistance Information Collection Request (ICR), with EPA ICR No. 1860.02, OMB Control No. 2020-0015, and a full title of "Assessment of Compliance Assistance Projects." This is an ICR which was written by EPA to cover a variety of surveys expected to be conducted over the course of three years on the subject of compliance assistance effectiveness. When OMB approved the ICR, they agreed to review within 30 days any specific surveys prepared according to the guidelines within the ICR. The ICR is managed by EPA's Office of Enforcement and Compliance Assistance (OECA).

As a first step in the process, the ICR itself (Form OMB 83-I and Supporting Statement) was obtained, as well as OECA's "Guide for Measuring Compliance Assistance Outcomes" (EPA300-B-02-011, June 2002) (OECA Guide). Appendix C in the OECA Guide gives a detailed explanation of how to use the ICR. EC/R and PIRG reviewed this information and then drafted a survey following the guidelines in the ICR and OECA Guide. The memoranda and "Request for Approval of Information Collection Activity" that must accompany the survey when it is sent to OMB were also drafted. The draft documents were then sent to Rochele Kadish and Lynn Vendinello, the personnel responsible for the ICR at OECA, with whom contact had already been established. After Ms. Kadish reviewed the draft ICR package, EC/R and PIRG met with her via conference call to request her comments and feedback on the survey design and contents. Ms. Kadish was generally very positive about the clarity and appropriateness of the draft survey questions, in part because they followed OECA's guidance so closely. EC/R and PIRG then revised the package and submitted the final version to Ms. Kadish for forwarding to OMB. The email was not recognized as an ICR package to be sent on to OMB and so was not submitted in a timely fashion. When this mistake was discovered, the package was submitted approximately three and a half weeks later than originally planned. When no response was received within 30 days after the survey was submitted, Ms. Kadish instructed PIRG to assume the survey had been approved.

Several lessons that were learned from the OMB survey approval process and that will be incorporated into any future compliance assistance evaluation surveys include:

- Minimize the number of questions on the survey (and, thus, the response time);
- Consider the usefulness of possible responses for each question in the survey;
- Establish a rapport with OECA personnel from the beginning of the survey development process;
- Follow the ICR guidance closely for a smooth approval process;
- Clearly indicate in your email subject line when you are sending OECA an ICR package to be forwarded to OMB;
- Follow-up on the status of your ICR package; and
- If a response to your ICR package for a survey submitted under the Compliance Assistance ICR is not received from OMB within 30 days, assume it has been approved.

2. Coordinating with National Technology Services Division

The National Technology Services Division (NTSD) coordinates the tasks required to post a survey on EPA's public server. These tasks include filing the Application Deployment Checklist (ADC) and Security Certification, completing staging review of the survey, uploading the final survey to EPA's public access server, and implementing the collection of statistics on the number of times the survey is accessed.

PIRG's consultation with the NTSD began after a draft version of the survey had been developed in Cold Fusion code and the ADC had been filed. After filing the ADC, EC/R and PIRG met with NTSD to review it and discuss the general process of posting the survey on EPA's public access server. During the consultation, the NTSD indicated that only applications developed using Domino code, rather than Cold Fusion, are posted on the server. Since this survey was to be used as a template for other surveys, Mr. Link decided that the survey should be re-developed using the approved Domino code. The survey was re-developed using Domino code with a Lotus 1-2-3 back-end database and appropriate changes were made to the ADC.

After completing a beta-test and making final changes to the survey, both the survey and a Security Certification were submitted to NTSD. The Security Certification was completed by PIRG and submitted by Bill Harnett, the director of ITPID. The Security Certification form is included as Attachment 4 to this report. The NTSD posted the survey on EPA's public access server, provided with the URL for the survey, and coordinated the collection of statistics to track the number of hits the survey page received.

Several lessons that were learned from working with NTSD and that will be incorporated into any future compliance assistance evaluation surveys include:

- Meet with NTSD prior to survey development to ensure use of the appropriate programming and data collection software;
- Maintain ongoing communication with NTSD to ensure that the appropriate forms are completed (Application Deployment Checklist and Security Certification) and EPA protocols are met;
- Update NTSD throughout the survey development process to ensure that the project timeline allows time for NTSD approval; and
- Subscribe to the Domino listserv (e-mail: DominoUsers-owner@lists.epa.gov) to stay informed of software developments and changes.

3. Technical Issues

The online survey was constructed using Lotus Notes database design software Domino Designer version 5.0.8. While Domino Designer is commonly used to develop databases for use on Lotus Notes, it also has the capabilities to develop databases, including surveys, for use on the internet that can be viewed with common web browsers like Internet Explorer or Netscape. Domino has an interface to capture survey responses in a table, and then the table can easily be exported to a Lotus 1-2-3 database.

As with any development platform, technical issues were encountered while developing the survey with Domino Designer. As mentioned, the first version of the database was developed using Cold Fusion. Because of restrictions with EPA security, it was decided that Domino Designer should be used instead. It was thought at first that code from Cold Fusion could be directly translated into Domino, thus decreasing the time needed to re-create the survey in Domino. However, the two platforms were incompatible, and the survey had to be redesigned exclusively in Domino. This created a venue for producing a template for future online surveys in Domino, and it also created a more straightforward method for the programming aspect of the survey.

Redesigning the survey in Domino caused some of the original features from the Cold Fusion version to be lost. The format of the survey was user-defined; that is, different survey questions appeared depending on the answers to previous questions. Since Cold Fusion has very few compatibility problems with the internet, more formatting and programming options were available. As mentioned above, Domino Designer is used primarily to develop applications for Lotus Notes, which is different from producing a web page for the internet. The programming languages and basic page design can be incompatible with web browsers, especially Netscape.

Other formatting and programming issues arose while developing the survey in Domino. For example, it was discovered during the beta-test period that the survey did not view correctly on some screen resolutions because the programming did not translate well from the back-end

database to the internet. Problems were also encountered with the way different survey questions appeared based on user responses. Some questions did not appear at all, and others seemed to appear at the wrong times. There were some programming issues with the table that captured survey responses as well; some questions were not programmed to correctly capture the responses. These programming issues were lessons learned that were corrected during the beta-test period.

Three technical issues could not be resolved. The first two issues were due to programming and time restrictions. First, since the survey was user-defined, some questions did not appear at all for some users. For these questions, the survey should have automatically entered a value of "NA" for "Not Applicable" in the back-end database. If users did not answer questions that did apply to them, the response should have automatically defaulted to "NR" for "No Response" in the database. Programming and time restrictions forced all the answers to default to "NR."

Second, in Cold Fusion, the survey was originally designed to check for blank answers. If blanks were found, a popup screen would ask users if they would like to answer the blank questions. This quality assurance measure was not possible in Domino without major programming modifications.

Third, the survey was designed to reload itself with different questions based on user answers. However, in practice, the survey reloaded to different spots on the web page. For example, when the user answered the third question, the survey might reload and move up to the first question. The user would then have to scroll down to find question four. Neither EC/R nor EPA technical support could resolve this issue within the constraints of available resources.

Throughout the production of the survey, EC/R worked closely with EPA technical support to ease the transition of the survey to an EPA server. Security clearance is required for each individual wishing to produce a web site through EPA. EC/R already had two staff certified to produce certain web sites on EPA, but for future survey development, security clearance will need to be established at the beginning of the process. EPA allowed the EC/R staff to access the EPA servers through a gateway called SecuRemote, which can be installed on individual computers and accessed with an EPA-assigned user name and password. Once the software was installed correctly, there were no technical problems associated with accessing EPA's servers.

It should also be noted that future surveys will need to be quality checked against EPA's new Domino server, version 6.0. This survey had no compatibility problems with the new server, but if future surveys are designed with old software, compatibility may become a problem. EC/R has recently upgraded its software to version 6.5, and would not have problems developing surveys in the future. EPA technical support was very helpful with putting the survey on the EPA server, but they could not provide support on other programming issues. If external technical support is needed in the future, a subscription to a Domino technical support program would be helpful.

Several technical lessons that were learned from developing the online survey and that will be incorporated into any future compliance assistance evaluation surveys include:

- Due to Domino programming incompatibilities with the internet, determine if the survey will be viewed by the general public on Internet Explorer, or if it can be viewed on Lotus Notes, or both;
- Establish security clearance with EPA as soon as possible;
- Determine if the survey will be user-defined or will require more than one web page so the programming can be dealt with early in the process; and,
- If this survey will be used as a template, the unresolved issues described above will need to be addressed. None of the issues are fatal, but they will require additional allocation of resources to solve.

4. Communicating with Stakeholders

The first step in communicating with stakeholders was to determine how to reach them, and then how to encourage them to participate in the survey. It was decided that potential survey participants would be most likely to respond to an invitation sent by an individual with whom they had prior interaction. Ms. Ward was involved throughout the development of the survey and her on-going contact with the aerospace industry was relied on to reach the majority of the stakeholders. Ms. Ward had maintained an informal database including e-mail addresses for stakeholders of the industry and she was willing to invite these stakeholders to participate in the survey. As an attempt to reach additional stakeholders, PIRG contacted the major trade association for the industry, the Aerospace Industry Association (AIA). Robert Peters, Director of Environmental Safety and Health for the AIA, was willing to invite his membership to participate in the survey.

A review of other EPA-affiliated surveys revealed that, in one instance, an incentive had been used to increase the survey response rate. By participating in a survey for EPA's Compliance Assistance Clearinghouse, respondents were entered into a drawing for a prize. PIRG contacted the developers of that survey to determine if a similar incentive could be used for this survey. The developers of the Compliance Assistance Clearinghouse survey indicated that they received approval to offer a prize through the Office of the General Counsel (OGC) and that it was a project-specific process. Based on this information, PIRG decided not to offer a material incentive for participating in the survey, and instead stressed in the invitation to the stakeholders the importance of the survey in improving the implementation tools for other EPA standards, some of which may apply to aerospace facilities.

After determining who should contact the stakeholders, the challenge remained to determine the appropriate length of time that should be given for responding to the survey. The goal was to provide enough time that anyone temporarily out of the office or otherwise occupied would be able to respond to the survey, while realizing that generally people would provide a response shortly after receiving an invitation or would not respond at all. While a long survey

period might give busy respondents the necessary time to take the survey, a shorter survey period may provide encouragement to take action for those respondents that might otherwise procrastinate. Taking this into consideration, the official survey period was set at one month. This would allow time to prepare draft results for presentation at two EPA conferences occurring during the month following the survey period. Based on the survey responses, PIRG could decide whether a reminder invitation should be sent to encourage additional survey response. The survey received a 10 percent response rate (out of the 135 stakeholders) during the eleven day period after the original invitation was sent. When no additional responses were received for the ten days following this period, a "reminder" e-mail was sent encouraging any of the stakeholders who had not responded to do so in the remaining week of the survey period. The reminder e-mail was sent to all but 14 of the original stakeholder group, and 12 additional stakeholders who did not receive the original invitation were sent the reminder note. Following the reminder e-mail, six additional responses were received within two days for a total response rate of approximately 15 percent.

Several lessons were learned from communications with stakeholders that will be incorporated into any future compliance assistance evaluation surveys:

- Focus the distribution of the survey on people most likely to have used the tools;
- As much as possible when developing implementation tools, maintain lists of names and email addresses of stakeholders, workshop attendees, and tool recipients in order to maximize the number of people invited to participate in the survey and, consequently, the number of survey respondents;
- Work with individuals involved in the development of the implementation tools to identify stakeholders;
- Contact trade associations to identify stakeholders;
- Conduct the survey closer to the date of development of the implementation tools, rather than waiting several years;
- Solicit responses from people who did not use the tools, but were expected to have used them, to understand why the tools were not used;
- Pursue the idea of using a prize as an incentive to participate in the survey;
- Be available to answer questions and provide contact information to potential survey respondents;
- Most respondents will provide their response shortly after becoming aware of the survey;
- A reminder note can be an effective means of increasing response to a survey; and
- Posting a notice of the survey on the Air Toxics Website may be an effective means of publicizing the survey since this is how most respondents obtained the tools.

VI. CONCLUSIONS AND RECOMMENDATIONS

While only twenty responses to the Aerospace NESHAP implementation tools survey were received, the information gleaned from those responses and the lessons learned in the process of developing the survey will be valuable in future efforts to both develop implementation tools and evaluate their effectiveness. The major findings from the survey include:

- The Aerospace NESHAP implementation tools were used by the target audiences;
- The target audiences found the Aerospace NESHAP implementation tools to be helpful;
- Some respondents among the target audiences did not know about the Aerospace NESHAP implementation tools, but could have been informed through the Air Toxics Website and e-mail lists;
- The Aerospace NESHAP implementation tools are still being used seven years after they were developed;
- The Aerospace NESHAP implementation tools helped affected sources understand how to submit reports and make process and equipment changes; and
- The Aerospace NESHAP implementation tools made a difference in reducing air pollution.

In the future, tool effectiveness surveys should be incorporated up-front into plans for developing implementation tools. When developing implementation tools, EPA should concentrate its efforts on developing a small number of separate tools, especially a Frequently Asked Questions document and example forms, which are concise, user-friendly, and readily available through the Air Toxics Website in a timely manner and in a variety of formats. EPA should also concentrate on improving the visibility of the Air Toxics Website. Future survey efforts can reasonably be carried out in a six-to-eight month time period if a generic ICR is used and a good working relationship is established early with personnel in OECA, NTSD, and the industry in question.

One aspect of this evaluation that needs further examination is the low response rate. A strategy should be devised for increasing the response rate on future surveys without violating anyone's privacy or relying too heavily on trade associations. The following are a few recommendations for improving the response rate:

- Advertise that survey respondents can enter to win a prize;
- Create a link to the survey from the Air Toxic Website page containing the implementation tools;
- Directly contact EPA Regional staff who have worked with the industry; and
- Develop a listserv for people who wanted to stay informed about the implementation tools and use the listserv to announce the survey.

Finally, the various lessons learned through this evaluation study should be incorporated into a user guide and accompanying electronic survey template to streamline future survey efforts. This would facilitate including an effectiveness survey as a standard aspect of the process for developing implementation tools for OAQPS' regulations. The feedback from such surveys will help PIRG develop even more useful implementation tools.

Attachment 1: The Aerospace Implementation Tools Evaluation Survey

SURVEY ON AEROSPACE NESHAP IMPLEMENTATION TOOLS

The EPA is interested in learning how useful you found the implementation tools for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Aerospace Manufacturing and Rework Facilities (Subpart GG; "Aerospace NESHAP"). These tools can be found at: <http://www.epa.gov/ttn/atw/aerosp/aerosp.html#IMP>. Completing this survey should take no more than five minutes. Your voluntary input will help EPA develop better implementation tools for other NESHAPs and respond more effectively to your needs. All surveys are anonymous; we will not obtain or store information from your computer such as your IP address, and no "cookies" will be used.

You do not need to complete this survey if any of the following apply to you:

- You are not and have never been involved in any way with the aerospace industry
- There are no aerospace facilities in your jurisdiction

If this is the case, the EPA would appreciate it if you would pass the URL for this survey on to the most appropriate contact in your organization.

1) With which **type of organization** are you affiliated?

- | | | |
|---|--|---|
| <input type="checkbox"/> Affected source | <input type="checkbox"/> Trade association | <input type="checkbox"/> Federal government |
| <input type="checkbox"/> State government | <input type="checkbox"/> Local government | <input type="checkbox"/> Consulting firm |
| <input type="checkbox"/> Law firm | <input type="checkbox"/> Other (please specify): _____ | |

2a) **Did you obtain** copies of any of the implementation tools for the Aerospace NESHAP?

- Yes (*go to question 2c*) No

2b) **Why did you not** obtain copies of any of the implementation tools for the Aerospace NESHAP? (*end survey*)

- | | |
|--|--|
| <input type="checkbox"/> I didn't know they existed | <input type="checkbox"/> I am not the appropriate person to use them |
| <input type="checkbox"/> I tried but was unable to obtain copies | <input type="checkbox"/> Other (please specify): _____ |

2c) **How** did you obtain the implementation tools for the Aerospace NESHAP (check all that apply)?

- | | |
|--|--|
| <input type="checkbox"/> EPA's Air Toxics Website | <input type="checkbox"/> EPA's Compliance Assistance Clearinghouse |
| <input type="checkbox"/> Hard copy direct through the mail | <input type="checkbox"/> At a training session or conference |
| <input type="checkbox"/> A colleague gave me a copy/link | <input type="checkbox"/> Other (please specify): _____ |

2d) **When** did you obtain the implementation tools for the Aerospace NESHAP?

- | | |
|--|---|
| <input type="checkbox"/> By the compliance date (9/1/98) | <input type="checkbox"/> After the compliance date (9/1/98) |
| <input type="checkbox"/> I don't remember | <input type="checkbox"/> Some tools by the compliance date & some tools after the compliance date |

3a) **Have you used** any of the implementation tools for the Aerospace NESHAP?

- Yes (*go to question 4a*) No

3b) **Why did you not use** any of the implementation tools for the Aerospace NESHAP? (*end survey*)

- I received them too late
- They were too difficult to understand
- I was not the appropriate person to have received the tools
- The tools were not helpful to me
- Other (please specify): _____

4a) Please **rate the usefulness** of each of the implementation tools for the Aerospace NESHAP that you have used. Each tool name shown below is hyperlinked to an electronic copy of the actual tool for your reference. [*For all government/consultant respondents:*] Also indicate for **which purpose(s)** you used the tools.

Tool	I found the usefulness of this tool to be:						I used this tool for the following purpose(s):		
	Very Good	Good	Satisfactory	Poor	Very poor	Didn't use	Compliance Assistance	Permitting	Enforcement
Overview Brochure									
Compliance Timeline									
Regulatory Overview									
Applicability Flowcharts									
Inspection Checklists									
Example Recordkeeping Forms (1,2,3,4,5,6,7)									
Example Calculations									
Example Reporting Forms (1,2,3)									
Frequently Asked Questions (Q&A's)									
Applicability Guidance Memos (1,2)									
List of Manufacturers of Method 319 Paint Arrestors									

4b) Are the implementation tools for the Aerospace NESHAP **still useful** to you now? (*All respondents except sources go to question 9*)

- Yes
- No, they are not up-to-date
- No, they are not useful for *maintaining* compliance
- No, my job no longer requires me to use them
- Other (please specify): _____

****QUESTIONS 5-8 ARE FOR SOURCES ONLY****

5) The implementation tools for the Aerospace NESHAP increased my understanding of how to carry out the following regulatory actions (check all that apply):

- | | |
|--|--|
| <input type="checkbox"/> Submitting a notification | <input type="checkbox"/> The implementation tools were not helpful |
| <input type="checkbox"/> Submitting reports | <input type="checkbox"/> Other (please specify): |
| <input type="checkbox"/> Submitting data | |
| <input type="checkbox"/> Obtaining a permit | |

6) The implementation tools for the Aerospace NESHAP increased my understanding of how to make the following process and equipment changes (check all that apply):

- | | |
|--|--|
| <input type="checkbox"/> Changing the storage or handling of a waste or emission | <input type="checkbox"/> Installing pollution control equipment |
| <input type="checkbox"/> Changing a process or practice | <input type="checkbox"/> The implementation tools were not helpful |
| <input type="checkbox"/> Implementing a material or waste recycling system | <input type="checkbox"/> Other (please specify): _____ |
| <input type="checkbox"/> Installing new process equipment | |

7) The implementation tools for the Aerospace NESHAP increased my understanding of how to carry out the following management actions (check all that apply):

- | | |
|--|--|
| <input type="checkbox"/> Instituting training or other communication to improve awareness and/or practices | <input type="checkbox"/> Conducting a self-audit |
| <input type="checkbox"/> Establishing an environmental management system | <input type="checkbox"/> The implementation tools were not helpful |
| | <input type="checkbox"/> Other (please specify) |

8a) Do you think your use of the implementation tools and your increased understanding of the Aerospace NESHAP has resulted in pollutant reductions at your facility?

- Yes
- No (skip to 8c)
- I'm not sure (skip to 8c)
- There have not been pollutant reductions (skip to 8c)

8b) If available, please provide any details you have on pollutant reductions (e.g., tons per year [tpy] reduction in specific pollutant). If you would like to provide supporting information, such as a reference or link to a report or other source of data, you may do so here.

8c) Do you think your use of the implementation tools and your increased understanding of the Aerospace NESHAP has resulted in cost savings?

- Yes
- No (skip to question 9a)
- I'm not sure (skip to question 9a)
- There have not been cost savings (skip to question 9a)

8d) If available, please provide any details you have on cost savings. If you would like to provide supporting information, such as a reference or a link to a report or other source of data, you may do so here.

9a) Did you **modify** any of the implementation tools for the Aerospace NESHAP to suit your needs?

- Yes
- No (*go to question 10*)

9b) **How** did you **modify** the implementation tools for the Aerospace NESHAP?

10) How would you **improve** the implementation tools for the Aerospace NESHAP?

Thank You for participating in the survey

OMB Control No. 2020-0015
Approval expires January 2005

Public reporting for this collection of information is estimated to average 5 minutes per response, including time for reviewing instructions, gathering information, and completing and reviewing the information. Send comments on the Agency's need for this information, the accuracy of the provided burden estimate, and any suggestions reducing the burden, including the use of automated collection techniques to the Director, Office of Environmental Information, 1200 Pennsylvania Ave., NW Washington DC 20460 and to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th St. NW Washington DC 20503. Attention: Desk Officer for EPA. Include the EPA ICR 1860.01 and the OMB control number 2020-0015 in any correspondence. Do not send your completed surveys to this address.

Attachment 2: Invitation Template for Beta-test Group

SUBJECT: Invitation - Aerospace MACT Implementation Tools Survey

Dear Aerospace Industry Stakeholder:

The U.S. Environmental Protection Agency (EPA) is planning to launch a survey to evaluate how useful industry stakeholders found the implementation tools that we developed in 1997 for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Aerospace Manufacturing and Rework Facilities. Your input and feedback can greatly benefit the EPA in developing new implementation tools that are the most useful for stakeholders. The EPA would appreciate your help in beta-testing the survey before it is distributed.

Please take a few minutes (approximately five) to respond to the draft online survey using the link below. If desired, you may submit more than one response while testing the survey. After submitting your response, please provide the EPA with any feedback or suggestions you have, including indicating any questions or wording that were unclear. In order to incorporate your feedback in the final version of the survey, your response and any suggestions are needed by January 23, 2004.

The EPA is interested in distributing the final version of the survey to as many stakeholders as possible. A distribution list for the final version of the survey is attached to this message in a file below. If possible, please review the distribution list and provide the EPA with the contact information (including an e-mail address) for any additional stakeholders. We will also be asking you to fill out the survey again once it is finalized.

To begin testing the draft Aerospace NESHAP Implementation Tools Survey click on or go to the following website: <http://www.sscap.net/aerosurvey/>

Please submit comments and suggestions to the EPA by sending an EMAIL to us at:
link.tom@epa.gov
cox.shannon@ecrweb.com

Thank you very much for your help!
--Tom

Attachment 3: Invitation Template for Stakeholders

Dear Aerospace Industry Stakeholder:

The U.S. Environmental Protection Agency (EPA) is conducting a survey to evaluate how useful you found the implementation tools that we developed in 1997 for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Aerospace Manufacturing and Rework Facilities. These tools can be found at <http://www.epa.gov/ttn/atw/aerosp/aeropg.html#IMP>. Please take a few minutes (approximately five) to participate in the online survey. Your participation and responses are anonymous and will help the EPA make the most appropriate use of the resources available for tool development efforts for other NESHAPs (such as Surface Coating of Miscellaneous Metal Parts and Products and Surface Coating of Plastic Parts and Products) and residual risk standards. We would appreciate your survey response by **March 29, 2004**.

The EPA is interested in hearing from as many stakeholders as possible. Please help us in making this survey a success by forwarding this message to any appropriate individuals and organizations.

Link to the Aerospace NESHAP Implementation Tools Survey:

<http://yosemite.epa.gov/oar/aerosurvey.nsf/survey1?openform>

Please Note: Depending on the configuration of your computer, you may need to use your scroll bar to see all of the survey questions. We're interested in your input, so please be sure not to miss any questions! If you experience any other significant problems, feel free to call Shannon Cox at (919)-484-0222 ext. 229.

Attachment 4: Security Certification Form

Application Security Certification for Non-Major/Non-Sensitive Web Application

This checklist is only applicable for applications that **have not** been defined as a “Major Agency System” according to the IRM Policy Manual Chapter 17, Section 5

<http://intranet.epa.gov/rmpolicy/ads/manuals/Chaptr17.PDF> and **do not contain or access** data/information that is defined as “High Sensitivity” according to the EPA Information Security Manual 2195A1

<http://intranet.epa.gov/rmpolicy/ads/manuals/Manual.PDF>. If your application meets the criteria of a “Major Agency System” or contains data that is “High Sensitivity”, you are required to submit an Application Security Plan <http://cfint.rtpnc.epa.gov/ntsdweb/security/SecAppDevChecklist.cfm> as set forth in the EPA Information Security Planning Guidance Document <http://intranet.epa.gov/itsecurity/security.pdf>

Application Owner Information

Owner Name:
 Organization:
 Phone Number:
 Email Address:

Developer Information

Developer Name:
 Company:
 Phone Number:
 Email Address:

Application Information

Application Name:
 Application
 Acronym:
 ADC Number:

Division Director Certification

N/A	✓	I certify that the application is not defined as a “Major Information System”. I certify that the application does not access information that is defined as “High Sensitivity”. I agree that NTSD has the authority to remove the application from production if the application adversely impacts the Central Production Environment or applications located on the same. I certify that the application follows all guidelines set forth in the EPA ColdFusion Development and Deployment Guide http://intranet.epa.gov/coldfusion/devguide/ and ColdFusion Developer Articles http://intranet.epa.gov/coldfusion/articles.html I certify that the application follows the principles set forth in the EPA Domino WebSite http://basin.rtpnc.epa.gov/admin/rtpdomino.nsf/ByTitle/StepsToDeploy?OpenDocument I certify that all guidelines regarding cgi scripts located at http://intranet.epa.gov/webmast3/webguide/cgichk.html have been followed. I certify that the application follows all guidelines regarding Java Server Pages (JSP), Java servlets and Java beans located at: http://intranet.epa.gov/java/
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Division Director:

Email:

@epa.gov

Date:

Note: This document must be Emailed to the ADC Security (Email: [adc security](mailto:adc_security)) as a WordPerfect attachment from the Division Director to be considered as proper certification.