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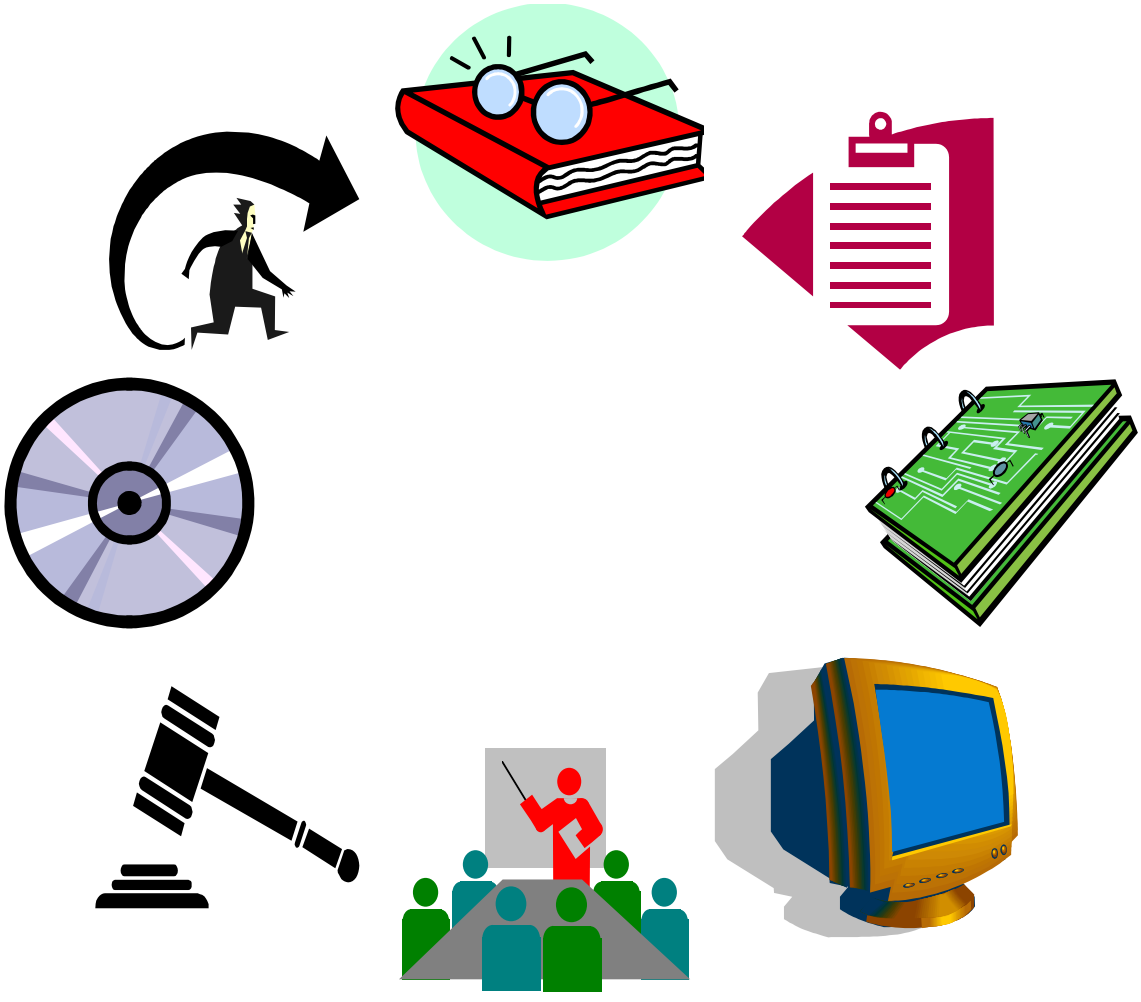
THE SMALL BUSINESS SOURCE BOOK ON ENVIRONMENTAL AUDITING



The Small Business Source Book on Environmental Auditing

U.S. Environmental Protection Agency
Small Business Division
Washington, DC

May 2000

NOTICE

This document has been prepared to assist those interested in environmental auditing for small business. The document describes publicly available sources of information and training on environmental auditing that, after review, appeared relevant to small business. This document does not address all sources of information and training on environmental auditing.

The U.S. Environmental Protection Agency (EPA) does not make any guarantee or assume any liability with respect to the use of any information contained in this document. It is recommended that users of this document requiring additional information or advice consult a qualified professional.

The inclusion of commercial products and services in this document does not constitute an endorsement by EPA.

ACKNOWLEDGEMENT

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- Small Business Ombudsman, Maine Department of Environmental Protection
- Tennessee Small Business Assistance Program
- New Jersey Department of Environmental Protection
- Massachusetts Office of Technical Assistance for Toxics Use Reduction (OTA)
- Iowa Waste Reduction Center, University of Northern Iowa
- Florida Small Business Assistance Program

The products and services included in this document were contributed for review by commercial and government sources. The project team is thankful for their timely cooperation.

SUGGESTED IMPROVEMENTS

Although every reasonable effort was made to make this document useful to small business, it is recognized that improvements are always possible. Comments and suggested improvements are welcome and should be directed to:

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TABLE OF CONTENTS

INTRODUCTION **1**

CHAPTER 1: GENERAL INFORMATION **4**

1.1 Sources of General Auditing Information 4

CHAPTER 2: AUDIT STANDARDS AND GUIDANCE **7**

2.1 Sources of Audit Standards and Guidance 7

CHAPTER 3: AUDIT CRITERIA **11**

3.1 Non-regulatory Criteria 11
3.2 Environmental Regulatory Criteria 13

CHAPTER 4: AUDIT TOOLS **17**

4.1 Protocols and Checklists 17
4.2 Supporting Information 28

CHAPTER 5: AUDIT TRAINING COURSES **39**

5.1 Audit Courses Targeted Toward Auditing and/or Small Businesses 39
5.2 ISO 14001 Auditing, Environmental Management Systems Auditing, and Related Auditing Courses 40

INTRODUCTION

The Small Business Source Book on Environmental Auditing (Source Book) provides information on environmental auditing (auditing) resources relevant to small businesses. Large businesses have long recognized the value of auditing as a tool that helps minimize liability, avoid compliance costs associated with new projects, and identify opportunities for improved operating practices. However, small businesses have been slower to accept auditing as a valuable business practice. The Source Book should be useful to small business owners, representatives, and assistance providers to learn about auditing practices and the value of auditing, by directing them to the most relevant sources of information and training.

What Is Environmental Auditing?

EPA defines environmental auditing as a periodic, objective, and documented assessment of an organization's operations compared to audit criteria. Audit criteria may be compliance requirements such as regulations or may be management practices that benefit the environment. In either case, an audit provides information on the operational status of an organization compared to management's environmental performance expectations. For example, if management expects the organization to be in compliance with regulations, an audit will provide information on whether compliance has been achieved or not, and if not, what specific measures are required to achieve compliance.

Why Conduct an Environmental Audit?

It is useful to think of an audit as a diagnostic exam and operations "tune-up." By conducting the exam (i.e., audit), a business gains a better understanding of where its operations stand compared specified criteria, such as compliance, management systems, or "greening." The audit will indicate what needs to be done to allow operations to meet the criteria so a business can take action and improve its efficiency. Like other "tune-ups," an audit should be performed periodically or whenever needed. Also, for those not sufficiently knowledgeable, training or the services of an expert may be needed for advice or troubleshooting in conducting an audit.

Source Book Organization

The Source Book has five chapters presented in a sequence most would typically undertake to understand auditing, develop an audit program, and conduct an audit.

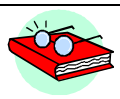
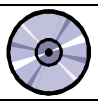
Chapter 1 provides "overview" resources, such as general books, journal articles, and case studies, that will help small businesses determine whether or not to conduct an audit. These resources describe audit programs, different types of audits, and lessons learned that will help small businesses understand the scope of auditing and make decisions on the type of audit that may best apply to its operations. The main benefit of these materials are that they contain information on all aspects of auditing, or information on auditing within the context of environmental management systems.

Chapter 2 provides resources that will help small businesses establish a sound structure for an audit program. These resources include auditing standards and guidance, as well as information on auditor qualifications. These documents are relatively short and provide essential information for designing an audit program, preparing for an audit, or evaluating outside consultants. These documents also can be used as planning checklists. The limitation of these documents is that they do not provide extensive background information or learning tools. While these documents may be essential for starting up an audit program, those looking for a more in-depth understanding of auditing may need to seek additional materials or training to supplement this knowledge base.

Chapters 3, 4, and 5 provide information on resources that allow an organization to design its audit program based on business goals and objectives. Chapter 3 lists audit criteria, from the federal regulatory requirements, to environmental management systems criteria of the International Organization for Standardization (ISO). Chapter 4 lists sources of tools that combine the audit process described by sources in Chapter 2 with the audit criteria information found in Chapter 3, thus guiding the user through a review of a facility's operations against specified criteria. Chapter 4 includes checklists and protocols, "how to" compliance assistance materials, and audit data and environmental program database information systems. Finally, for those organizations that would like outside assistance in developing and implementing an audit program, Chapter 5 provides information on publicly available audit training courses.

How the Information Is Presented

The Source Book lists many sources of information applicable to small business audit programs. To guide users of the Source Book, each chapter begins with a table that lists all sources contained in that chapter, including the author, publisher, date of publication, number of pages, price, and small business auditing relevancy classification. The table is followed by short summaries of each source. The summaries describe the material, how it can be used, its benefits and limitations, and how to obtain copies. Each source has an icon to the left of its summary which indicates what type of resource the item is. The following table indicates the icon designation for each source type.

Icon	Source Type	Icon	Source Type
	Book/Booklet or Brochure		Software
	Checklist		Standard/Guideline
	Manual		Training Course
	Reference Web site		Web site

Each included source of auditing information is classified 1, 2 or 3 based on its relevance to small business auditing. The criteria for each classification are as follows:

Relevance Classification	Description
1	**Most Relevant** – Source is designed so that small businesses can easily extract portions and apply it to its operations. Users of these sources require minimal previous auditing experience.
2	**Somewhat Relevant** – Many portions of the source are relevant, but not all.
3	**Less Relevant But Still Useful** – Source has some portions useful to small businesses, but the information may be more difficult to extract than from sources classified 1 or 2.

The usefulness of Source Book information to a particular business depends in part on the business type and the business's commitment to environmental management. Each of the sources included should be useful to some small businesses, but there is not one source perfect for all.

How the Information Was Obtained

Information was collected from state small business assistance providers, state environmental agencies, professional auditing groups, trade associations, diverse sources on the Internet, and experts in the auditing field from government, academia, and private organizations. Potential Source Book materials were reviewed to determine their applicability to auditing and relevance to small businesses. All included sources are publicly available.

CHAPTER 1: GENERAL INFORMATION

When considering whether to conduct an audit or implement an audit program, many businesses should first look to sources of information that will lead to a better understanding of the benefits and limitations of auditing. These materials typically include books, journal articles, and case studies. They describe audit programs, different types of audits, and lessons learned. General information materials provide background that will help small businesses understand the scope of auditing and make decisions on the type of audit that may best apply to its operations. These general information materials are beneficial because they provide a broad overview. In some cases, materials are prepared for a general audience and focus on auditing as one of many environmental management activities small businesses could undertake for environmental management improvement.

1.1 Sources of General Auditing Information

Document Title	Author/Publisher/URL	Date	Number of Pages	Relevance	Cost
The EAR Bookshelf (Web site of Auditing Book Reviews)	Environmental, Health & Safety Auditing Roundtable www.auditear.org/bookstore.htm	1999	Web site	2	Free
Environmental Audits, 7th Edition	Lawrence Cahill, Government Institutes Publishing www.govinst.com	1996	727	3	$79
Iowa Audit Training Manual	Iowa Waste Reduction Center, Department of Natural Resources (IDNR) www.iwrc.org	2000	25, plus appendices	1	Free
ISO 14001 Environmental Management Systems: A Complete Implementation Guide	Environmental Resources Management	1999	800+	2	$370
Practical Guide to Environmental Management, 7th Edition	Frank Friedman, Elf Atochem North America, Inc., Environmental Law Institute	1997	473	3	$39.95

The EAR Bookshelf *(Web site of Auditing Books and Book Reviews), Environmental, Health & Safety Auditing Roundtable, 1999, Free, www.auditear.org/bookstore.htm*

The EAR Bookshelf is a list of publications on auditing reviewed by the Environmental, Health & Safety Auditing Roundtable (EAR) (formerly Environmental Auditing Roundtable). The books were selected based on their usefulness to those in the auditing profession and the book reviews provide more detailed critiques than are available in this Source Book, as well as additional books unavailable for review for the Source Book. The Web site expects to include books written by EAR members that pertain to the environmental, health, and auditing field. The book reviews are useful for small businesses seeking professional critique prior to purchasing publications.

***Environmental Audits**, Seventh Edition, Lawrence Cahill, Government Institutes Publishing, 1996, 727 pages, $79, Available at www.govinst.com*

This book provides an overview of environmental auditing, a description of the audit process and advice on key issues, such as how to: select the audit team, use audit protocols and checklists, define audit scope, gather information during the audit, and prepare an audit report that facilitates corrective action. One section of the book describes specific types of environmental audits, including compliance, management systems, waste contractor audits, property transfer audits, and pollution prevention audits. The main challenge to small businesses in using this book is in determining which information is most relevant to the small business's program. EAR critiques of this book (see www.auditear.org/evnaud.htm) have suggested adding a glossary or index to make the book more user friendly. Despite these limitations, the book has been referred to as one of the few sources of comprehensive and general information on environmental auditing and environmental audit programs.

***Iowa Audit Training Manual,** Iowa Waste Reduction Center (IWRC) and Iowa Department of Natural Resources (IDNR), 2000, 25 pages plus appendices, Free, Available at www.iwrc.org*

This concise manual introduces small businesses to the Iowa audit-disclosure policy and shows businesses how auditing and the audit policy can be used. The training manual provides a step by step walk through of the environmental compliance audit process, factors to consider when setting up an audit, and specific factors to consider when conducting an audit of local, state, and federal environmental regulations that apply to businesses in Iowa. The manual also shows businesses in Iowa how they can take advantage of the newly promulgated Iowa self-audit law. The limitation of the manual is that it does not describe how to audit specific environmental regulations. The manual, however, conducts a review of several regulations that apply to small businesses and notes how the audit policy may, or may not, apply to the specific media area. Overall, the document is useful to businesses in Iowa who want to conduct audits under the Iowa policy. It is also applicable to businesses outside of Iowa who would like more information on environmental auditing and potential opportunities for disclosing audit findings under environmental regulatory agencies (i.e., EPA, state EPAs) audit policies and the findings within specified time periods.

***ISO 14001 Environmental Management Systems: A Complete Implementation Guide**, Environmental Resources Management, 1999, 800+ pages, $370 including four quarterly updates*

This two-volume document walks the user through the process of understanding the ISO 14001 Environmental Management System (EMS) and provides tools for developing and implementing an ISO 14001 EMS. The document provides several case studies on how to implement ISO 14001 at facilities ranging from small resorts to larger industries, based on typical environmental impacts and regulatory requirements applicable to those operations. The document provides detail on aspects such as part-time and contract employees, assigning environmental responsibilities to non-environmental staff, and methods of ensuring that key equipment is calibrated. The document also contains several checklists that can be used for self-auditing or to evaluate the scope of a third party auditing consultant. The limitation of the document is that it does not include the actual ISO 14001 Standard. The document does a thorough review of paraphrasing the Standard, and contains many detailed case studies and "recommended approaches" that make this one of the more comprehensive and useful publications available on ISO 14000.

Practical Guide to Environmental Management*, 7th Edition, Frank Friedman, Elf Atochem North America, Inc., Environmental Law Institute, 1997, 473 pages, $39.95, For copies call (202) 939-3800*

This book provides practical knowledge of company environmental management programs based on the experiences of the widely respected author at a large multinational chemical company. Included is a 60-page chapter on auditing and its relation to a comprehensive environmental management program. Auditing topics include: benefits and risks (including legal issues associated with EPA and the Securities and Exchange Commission), key components of designing an effective auditing program based on factors that EPA and industry have observed, methods of ensuring the integrity of the auditing program, and national and international auditing policies. The book is useful for practical information regarding environmental auditing programs and their role as part of larger environmental management programs. The book provides substantial value to businesses developing environmental management programs that include auditing.

CHAPTER 2: AUDIT STANDARDS AND GUIDANCE

This chapter presents process or qualification standards for conducting audits. These documents are relatively short and provide the user with essential information for designing an audit program, preparing for an audit, or evaluating auditors. The strength of these documents is that they provide information that is brief and easy-to-use. These documents can be used as planning checklists. The limitation of these documents is that they do not provide extensive background information or learning tools. Because they focus on the audit process or auditor qualifications, they also do not provide information on environmental requirements (e.g., regulations). While these documents may be essential for starting up an audit program, or understanding the components of an audit program, those looking for more in-depth understanding of auditing may need to seek additional materials or training to supplement this information.

2.1 Sources of Audit Standards and Guidance

Document Title	Publisher/URL	Date	Number of Pages	Relevance	Cost
14010-96 ANSI/ISO Guidelines for Environmental Auditing: General Principles	ASTM www.astm.org	1996	4	2	$27
14011-96 ANSI/ISO Guidelines for Environmental Auditing: Audit Procedures – Auditing of Environmental Mgmt. Systems	ASTM www.astm.org	1996	6	2	$27
14012-96 ANSI/ISO Guidelines for Environmental Auditing: Qualification Criteria for Environmental Auditors	ASTM www.astm.org	1996	6	2	$27
Application for Certified Environmental Auditor	Canadian Environmental Auditing Association www.ceaa-acve.ca/ certification.html	1999	34	2	Free
Board of Environmental Auditor Certifications, EMS/ISO 14000-Plus Qualification Criteria for Environmental Auditors	Board of Environmental Auditor Certifications www.beac.org	1999	2	2	Free
Board of Environmental Auditor Certifications, Qualification Criteria for Environmental Compliance Auditors	Board of Environmental Auditor Certifications www.beac.org	1999	6	2	Free
List of Environmental Air Compliance Auditors for Small Businesses	New Jersey Small Business Assistance Program www.state.nj.us/dep/ opppc/AUDGUID9.htm	1999	10 pages, plus a list of auditors	1	Free
Standard Practice for Environmental Regulatory Compliance Audits	ASTM www.astm.org	2000	12	2	New – Price Unknown
Standards for the Performance of Environmental Health and Safety Audits	Environmental Health and Safety Roundtable www.auditear.org	1993	5	2	Free
Standards for the Professional Practice of Environmental, Health, and Safety Auditing	Board of Environmental Auditor Certifications www.beac.org	1999	18	2	Free

14010-96 ANSI/ISO Guidelines for Environmental Auditing: General Principles, *American Society for Testing and Materials, 1996, 4 pages, $27, Available at www.astm.org or by calling (610) 832-9585*

This guideline provides the general principles of auditing that are applicable to ISO 14001 audits. Any activity defined as an ISO 14001 environmental audit should meet the criteria in the ISO 14010 guideline. It is useful for small businesses that would like to understand the principles of auditing; however, this information may also be available in other sources about auditing that contain information with more extensive background.

14011-96 ANSI/ISO Guidelines for Environmental Auditing – Audit Procedures – Auditing of Environmental Management Systems, *American Society for Testing and Materials, 1996, 6 pages, $27, Available at www.astm.org or by calling (610) 832-9585*

The ISO 14011 International Standard establishes audit procedures that provide for planning and conducting an audit of an EMS to determine conformance with EMS audit criteria. It is useful for businesses that would like to plan for or conduct audits of environmental management criteria and assure that the audit meets the standards of ISO 14011.

14012-96 ANSI/ISO Guidelines for Environmental Auditing: Qualification Criteria for Environmental Auditors*, American Society for Testing and Materials, 1999, 6 pages, $27, Available at www.astm.org or by calling (610) 832-9585*

This guideline provides guidance on qualification criteria for environmental auditors and lead auditors and is applicable to both internal and external auditors. It should help small businesses evaluate minimum qualifications for environmental auditors that conduct ISO 14000 audits. The limitations of this document are that it does not establish criteria for the selection and composition of audit teams, nor does it specify qualifications for media-specific audits, compliance audits, or industry-specific audits. For further information on audit teams, reference is made to ISO 14011.

Application for Certified Environmental Auditor (including qualification criteria), *Canadian Environmental Auditing Association, 1999, 34 pages, Free, Available at www.ceaa-acve.ca/certification.html*

The 34-page application includes the standards for a Certified Environmental Auditor. The standards include minimum criteria for professional experience, auditing experience, training, and personal attributes and skills. The standards in the application are useful for small businesses to compare with the qualifications of auditors. The limitation of the standards is similar to that of others, in that criteria do not include experience in a particular industry that might be most useful for small business. Still, the application is an easy source of professional qualification standards to obtain and use for evaluating auditors.

Board of Environmental Auditor Certifications, EMS/ISO 14000-Plus Qualification Criteria for Environmental Auditors*, Board of Environmental Auditor Certifications (BEAC), 1999, 2 pages, Free, Available at www.beac.org*

The Qualification Criteria provide the minimum level of education, professional experience, audit experience, training, references, and testing for BEAC environmental auditor certification for those auditors conducting audits against ISO 14000 or Environmental Management Systems Criteria. The Qualification Criteria for EMS/ISO 14001-Plus Auditors is useful for small businesses to compare with the qualifications of consultants, or to be aware of the qualifications of BEAC-certified auditors. The limitation of these criteria is similar to that of other audit certifications, in that the criteria do not include experience in a particular industry that might be most useful for the small business. Still, the Qualification Criteria are an easy source to obtain and use for evaluating auditors.

Board of Environmental Auditor Certifications, Qualification Criteria for Environmental Compliance Auditors*, Board of Environmental Auditor Certifications (BEAC), 1999, 6 pages, Free, Available at www.beac.org*

The Qualification Criteria provide the minimum level of education, professional experience, audit experience, training, references, and testing for BEAC environmental auditor certification. The Qualification Criteria for Environmental Compliance Auditors is useful for small businesses to compare with the qualifications of auditors, or to be aware of the qualifications of BEAC-certified auditors. The limitation of these criteria is similar to that of other audit certifications, in that the criteria do not include experience in a particular industry that might be most useful for the small business. Still, the Qualification Criteria are an easy source to obtain and use for evaluating auditors.

List of Environmental Air Compliance Auditors for Small Businesses*, New Jersey Small Business Assistance Program*, *Office of Pollution Prevention and Permit Coordination, 1999, 10 pages of auditor qualifications and auditor selection criteria, plus a list of auditors, Free, Available at www.state.nj.us/dep/opppc/AUDGUID9.htm or by calling (877) 753-1151 or (609) 292-3600*

This document provides the required qualifications for an air compliance auditor for small businesses in New Jersey. Qualifications include professional experience, education, and specialized seminars related to air compliance auditing. These qualifications can be used to evaluate businesses that are considering hiring an outside auditor to review their operations with respect to air compliance. The document also provides guidance for small businesses in selecting an auditor, developing and negotiating contracts, and building a relationship with the auditor to assure that the needs of the small business are met. Despite its focus on New Jersey, the qualifications and the criteria are useful for any small business that needs to evaluate or select an auditor for conducting an audit against air compliance criteria.

Standard Practice for Environmental Regulatory Compliance Audits*, American Society for Testing and Materials, 2000, 12 pages, New Standard – Price Unknown, Available at www.astm.org or by calling (610) 832-9585*

This 12-page document is a voluntary consensus standard for conducting environmental regulatory compliance audits. It describes the audit process that distinguishes environmental compliance audits from less formal evaluations and other types of audits. It addresses auditor independence; professional proficiency of the auditor, audit team and audit process; required elements of each audit; audit scope; definitions; and legal considerations. The document is useful for small businesses that would like to understand a standard audit process, to evaluate proficiency of auditors, and to plan their own audits. This document may be an essential first step for small businesses that intend to commence a formal audit program that meets nationally recognized auditing standards. The standardized terms and definitions and description of roles and responsibilities are especially useful as a reference when discussing audits with others.

Standards for the Performance of Environmental, Health and Safety Audits, *Environmental, Health and Safety Roundtable, 1993, 5 pages, Free, Copies can be obtained by sending your request via E-mail to KathyEAR@aol.com or calling (480) 659-3738*

These standards were developed by members to provide minimum criteria for the conduct of environmental, health and safety audits. Included are general standards on auditor proficiency, due professional care and independence, the conduct of audits, and audit reporting. The EHSAR may make available its list of members who subscribe to these and other EHSAR standards.

Standards for the Professional Practice of Environmental, Health, and Safety Auditing*, Board of Environmental Auditor Certifications, 1999, 18 pages, Free, Available at www.beac.org*

This 18-page document provides standards BEAC members on environmental, health, and safety auditing. It describes requirements for auditor independence; professional proficiency of the auditor, audit team, and audit process; required elements of each audit; determining audit scope; managing the audit function in an organization or business; and definitions. The document is useful for small businesses that would like to understand the BEAC audit process, to evaluate proficiency of external auditors and consultants, and to use as a guide for planning audits.

CHAPTER 3: AUDIT CRITERIA

In contrast to audit standards (Chapter 2), which define how an audit should be conducted, audit criteria define how the small business should be, or would like to be, operating. These criteria include regulatory requirements, such as federal, state, or local laws and regulations. They also include non-regulatory criteria such as environmental management systems standards, best management practices for businesses and agriculture, green product standards, or sustainable practice standards. Note that despite being not required, many of the "beyond compliance" criteria are crucial to the safe and efficient operation of a facility. Beyond compliance criteria in areas such as energy efficiency or environmental management systems (EMS) can reduce operating costs, allow small businesses to reduce their compliance requirements, and allow small businesses to constantly identify areas where environmental impact can be reduced. Furthermore, many businesses that generate hazardous waste are required by federal or state law to reduce the quantities of waste generated through pollution prevention. Thus, pollution prevention and EMS audit criteria provide opportunities for satisfying these requirements.

3.1 Non-regulatory Criteria

Non-regulatory criteria define particular attributes of an organization's environmental program or specific environmental activities. While non-regulatory criteria may, in some cases, be developed by a government agency, the non-regulatory criteria usually describe optional activities. In auditing, non-regulatory criteria include environmental management systems, pollution prevention practices, or green product attributes.

Document Title	Publisher/URL	Date	Number of Pages	Relevance	Cost
14001-96 ANSI/ISO Environmental Management Systems – Specification with Guidance for Use	ASTM www.astm.org	1996	14	2	$39
14004-96 ANSI/ISO Environmental Management Systems – General Guidelines on Principles, Systems, and Supporting Techniques	ASTM www.astm.org	1996	31	2	$47
Compliance Focused Environmental Management System-Enforcement Agreement Guidance	U.S. EPA http://es.epa.gov/oeca/oceft/neic/12elmen.pdf or http://es.epa.gov/oeca/oceft/neic/pubstxt.html	1997	15	2	Free
EPA Region I Star Track Program Leadership Through Environmental Management Systems and Compliance Auditing	U.S. EPA Region I www.epa.gov/region01/steward/strack/applicat.html	1998	6	2	Free
Green Seal Standards for Environmentally Friendly Products	Green Seal www.greenseal.org	1992-1999	2-5 pages each	1	Free

14001-96 ANSI/ISO Environmental Management Systems – Specification with Guidance for Use, *American Society for Testing and Materials, 1996, 14 pages, $39, Available at www.astm.org*

ISO 14001 is an International Standard that can be used as audit criteria for conducting audits of a facility or organization's environmental management system. This document specifies requirements for

an environmental management system, to enable an organization to formulate a policy and objectives taking into account legislative requirements and information about significant environmental impacts. It applies to those environmental aspects which the organization can control and over which it can be expected to have an influence. It does not itself state specific environmental performance criteria.

In addition to its use as audit criteria, the Standard allows small businesses to seek certification, or self-declare its conformance to the Standard. Some small businesses have used ISO 14001 EMSs to distinguish themselves in their market. The limitation of this document is that it contains little guidance on how to implement the ISO 14001 requirements and limited information on how to conduct an audit against these requirements. This Standard is equally applicable to large and small businesses, although some small businesses have expressed the concern that the formal documentation of environmental activities required by the Standard places an unreasonable resource burden on them.

14004-96 ANSI/ISO Environmental Management Systems – General Guidelines on Principles, Systems, and Supporting Techniques, *American Society for Testing and Materials, 1996, 31 pages, $47, Available at www.astm.org or by calling (610) 832-9585*

ISO 14004 complements ISO 14001 by providing guidance on how a company can implement ISO 14001 and on how to audit a facility against the ISO 14001 criteria. The document provides examples that complement each item in the 14001 Standard. For example, ISO 14001 states that a facility should identify the aspects of its operations that may impact the environment, while ISO 14004 describes the different operations of a facility that may impact the environment.

The ISO 14004 guideline is useful for those who would like more information on the ISO environmental management system standards than can be found in 14001. In the absence of ISO 14001, the 14004 Standard is a useful planning tool, perhaps more useful than 14001 since 14001 provides only what information and programs are necessary, not how that information or program might be developed and organized. The limitation of ISO 14004 as audit criteria is that ISO 14004 does not contain the exact ISO 14001 criteria. Thus, facilities looking to achieve ISO 14001 certification (there is no ISO 14004 certification) would be required to look at both documents. Nevertheless, for those facilities looking to develop an ISO 14001 EMS and review their EMS against the ISO criteria, ISO 14004 provides all the information necessary to get the facility through the certification process.

Compliance Focused Environmental Management System – Enforcement Agreement Guidance*, Steve Sisk, U.S. EPA National Enforcement Investigation Center (NEIC), 1997, 15 pages, Free, Available at http://es.epa.gov/oeca/oceft/neic/12elmen.pdf or http://es.epa.gov/oeca/oceft/neic/pubstxt.html*

NEIC's Compliance Focused Environmental Management System provides a set of environmental management system (EMS) criteria recognized by U.S. EPA as having a specific emphasis on regulatory compliance. The EMS contains the traditional components of a strong environmental management program, including setting an environmental policy, developing targets and objectives, defining environmental roles and responsibilities, measuring performance, and conducting periodic internal inspections and reviews. The NEIC EMS criteria are more explicit in their compliance and pollution prevention focus than ISO 14001. The criteria list 12 elements of an EMS that are similar to ISO 14001. In addition to the criteria, the document contains guidance for regulators on the time period necessary to implement an EMS. The document is useful to small and medium-sized businesses that would like to audit their EMS or assure that an audit of their EMS includes a review of compliance management.

EPA Region I Star Track Program Leadership Through Environmental Management Systems and Compliance Auditing*, U.S. EPA Region I, 1998, 6 pages, Free, Available at www.epa.gov/region01/steward/strack/applicat.html*

The EPA Star Track Program was designed to recognize companies that have demonstrated leadership in their environmental management programs through establishing an environmental management system, maintaining a strong record of complying with environmental laws and regulations, and implementing pollution prevention in business operations. The Star Track Program requires periodic auditing. The document is the application package that businesses are required to complete to be considered for the program. The document is useful for small businesses interested in a review of the components of EPA-recognized environmental management programs. The limitation of the document is the small amount of detail compared to other criteria. Its main use is to improve understanding and assist in planning to incorporate components of a strong environmental management program into business operations. For small businesses in EPA Region I (New England), the criteria also provides information on an opportunity to achieve recognition for a formal environmental management program.

Green Seal Standards for Environmentally Friendly Products*, Green Seal, 1992-1999, 2-5 pages each, Free, Available at www.greenseal.org*

Green Seal is a nonprofit standard-setting organization that evaluates products and awards a Green Seal Certification Mark to products that meet their standards. As of January 1999, Green Seal had established standards for the following products:

- Tissue Paper (GS-01)
- Re-Refined Engine Oil (GS-03)
- Compact Fluorescent Lamps (GS-05)
- Water Efficient Fixtures (GS-06)
- Printing and Writing Paper (GS-07)
- Household Cleaners (GS-08)
- Paper Towels and Paper Napkins (GS-09)
- Coated Printing Paper (GS-10)
- Paints (GS-11)
- Windows (GS-13)
- Newsprint (GS-15)
- Reusable Utility Bags (GS- 16)
- Refrigerators (GS-20)
- Freezers (GS-21)
- Clothes Washers (GS-22)
- Clothes Dryers (GS-23)
- Dishwashers (GS-24)
- Cooktops/Ovens/Ranges (GS-25)
- Watering Hoses (GC-01)
- Alternative Fueled Vehicles (GC-02)
- Plastics Labeling Systems (GC-04)
- Showerheads (GC-06)
- Paper Products Used in the Preparation of Food (GC-08)
- Residential Air Conditioning Systems (GC-09)
- Fleet Vehicle Maintenance (GC-10)
- Powdered Laundry Bleach (GC-11)
- Anti-Corrosive Paints (GC-03)
- Window Films (GS-14)

These standards are useful for small businesses in auditing procurement practices against green product standards. For small businesses that produce such materials, these standards are useful as audit criteria to determine the extent to which the small business' products are environmentally friendly.

3.2 Environmental Regulatory Criteria

Regulatory criteria are those that a business is required to meet under federal, state, local or tribal law. This section provides an overview of the major federal environmental regulations that may apply to small businesses. The citations in this section may be one of the later references to which small businesses

turns to during their environmental program development, since compliance assistance tools and protocols are often easier to use. The sections of the Code of Federal Regulations (CFR) described below can be used as a guide to EPA regulatory requirements. The regulatory requirements can be used as minimum audit criteria for facilities that may be subject to federal environmental regulations. Be aware that most small businesses are subject to many state, local, and/or tribal requirements that **are not** included in this Source Book. State environmental requirements can be obtained from the Small Business Assistance Program or Small Business Ombudsman in each state, or the state offices of environmental protection. Local requirements can be obtained from local government offices such as the department of public works, health, sanitation, or sewer authorities.

Document Title	Publisher/URL	Date	Relevance	Cost
Code of Federal Regulations – Refrigerants – CFC Air Pollution Control Requirements, 40 CFR 82	U.S. Gov't. Printing Office www.epa.gov/epacfr40/chapt-I.info/	1999	2	Free
Code of Federal Regulations – Oil Spill Planning, 40 CFR 112	U.S. Gov't. Printing Office www.epa.gov/epacfr40/chapt-I.info/b	1999	2	Free
Code of Federal Regulations – Direct Discharge Permitting Requirements, 40 CFR 122	U.S. Gov't. Printing Office www.epa.gov/epacfr40/chapt-I.info/	1999	2	Free
Code of Federal Regulations – Management of Pesticides, 40 CFR 150-186	U.S. Gov't. Printing Office www.epa.gov/epacfr40/chapt-I.info/	1999	2	Free
Code of Federal Regulations – Hazardous Waste Management, 40 CFR 260-273	U.S. Gov't. Printing Office www.epa.gov/epacfr40/chapt-I.info/	1999	2	Free
Code of Federal Regulations – Used Oil Management, 40 Part 279	U.S. Gov't. Printing Office www.epa.gov/epacfr40/chapt-I.info/	1999	2	Free
Code of Federal Regulations – Underground Storage Tanks, 40 CFR 280	U.S. Gov't. Printing Office www.epa.gov/epacfr40/chapt-I.info/	1999	2	Free
Code of Federal Regulations – Emergency Planning, 40 CFR 355, 370, and 372	U.S. Gov't. Printing Office www.epa.gov/epacfr40/chapt-I.info/	1999	2	Free
Code of Federal Regulations – Pretreatment Requirements, 40 CFR 403	U.S. Gov't. Printing Office www.epa.gov/epacfr40/chapt-I.info/	1999	2	Free
Code of Federal Regulations – Toxic Substances Management, 40 CFR 761	U.S. Gov't. Printing Office www.epa.gov/epacfr40/chapt-I.info/	1999	2	Free

Code of Federal Regulations – Refrigerants - CFC Air Pollution Control Requirements, 40 CFR 82., *U.S. Government Printing Office, 1999, Free, Available at www.epa.gov/epacfr40/chapt-I.info/*

This section of the CFR provides regulatory requirements for managing equipment that contains ozone depleteing substances such as refrigerants (cloroflourocarbons or CFCs). It includes requirements for leak detection, certifying technicians who perform work on vehicle and non-vehicle refrigeration equipment, and certifying equipment used to recover or recycle CFCs.

Code of Federal Regulations – Oil Spill Planning, 40 CFR 112, *U.S. Government Printing Office, 1999, Free, Available at www.epa.gov/epacfr40/chapt-I.info/*

This section of the CFR provides regulatory requirements that can be used as audit criteria in determining whether a small business is required to develop and implement a spill prevention control and countermeasures (SPCC) plan. The criteria also includes required components of the plan. These requirements are useful as regulatory criteria for any small business that may use or store petroleum products and/or vegetable oils in quantities approaching or exceeding 1320 gallons, or as best management practice criteria for facilities that have smaller amount of these substances.

Code of Federal Regulations – Direct Discharge Permitting Requirements, 40 CFR 122 and Effluent Guidelines 40 CFR 400-471, *U.S. Government Printing Office, 1999, Free, Available at www.epa.gov/epacfr40/chapt-I.info/*

This section of the CFR provides regulatory requirements that can be used as audit criteria for facilities that discharge wastewater directly to waterways, culverts, streams, or any method other than an underground injection or to a sanitary sewer system. The criteria in this section includes requirements for obtaining permits, effluent limitations by industry, and permitting requirements for discharges of contaminated storm water.

Code of Federal Regulations – Management of Pesticides, 40 CFR 150-186, *U.S. Government Printing Office, 1999, Free, Available at www.epa.gov/epacfr40/chapt-I.info/*

This section of the CFR provides regulatory requirements that can be used as audit criteria for small businesses that store, manufacture, or apply pesticides. The sections may be most useful to small businesses include Parts165 (pesticide disposal), Part 166 (storage), Part 171, certification of pesticide applicators, and Parts 180-187 (pesticides in food and animal feed). The remaining sections focus on pesticide registration and packaging procedures for facilities that manufacturer or package pesticides.

Code of Federal Regulations – Hazardous Waste Management, 40 CFR 260-273, *U.S. Government Printing Office, 1999, Free, Available at www.epa.gov/epacfr40/chapt-I.info/*

This section of the CFR provides regulatory requirements that can be used as audit criteria in the following areas: determining whether a waste is a hazardous waste, storing, labeling, and shipping hazardous waste containers, hazardous waste manifests, hazardous waste recycling and treatment, special requirements and exemptions for small quantity generators of hazardous wastes, and managing universal wastes (batteries, fluorescent lamps). The requirements most applicable to small businesses are likely to be found in 40 CFR 261, 262, and 273.

Code of Federal Regulations – Used Oil Management, 40 CFR 279, *U.S. Government Printing Office, 1999, Free, Available at www.epa.gov/epacfr40/chapt-I.info/*

This section of the CFR provides regulatory requirements that can be used as audit criteria for facilities that generate, store, collect, transport, or burn used oil. Requirements contained in this section include

management and labeling of containers, where and how used oil can be burned for energy, and limits on transportation with and without a permit.

Code of Federal Regulations – Underground Storage Tanks, 40 CFR 280, *U.S. Government Printing Office, 1999, Free, Available at www.epa.gov/epacfr40/chapt-I.info/*

This section of the CFR provides regulatory requirements that can be used as audit criteria for facilities that own or operate underground tanks that store oil, fuels, or otherwise hazardous substances. Requirements contained in this section include the definition of an underground storage tank, requirements for tank materials, monitoring, inspections, recordkeeping, and financial assurance.

Code of Federal Regulations – Emergency Planning, 40 CFR 355, 370, and 372, *U.S. Government Printing Office, 1999, Free, Available at www.epa.gov/epacfr40/chapt-I.info/*

This section of the CFR provides regulatory requirements that can be used as audit criteria for facilities that store, use, or manufacture hazardous chemicals. Part 302 includes a list of reportable quantities and notification requirements for reporting releases or spills of hazardous materials, such as chemicals, metals, oils, or pesticides. Part 355 includes requirements for notifying local emergencies planning agencies for facilities that use, dispose, or release certain quantities of hazardous substances. Part 370 and 372 include requirements for notifying state and local emergency planning agencies for facilities that store certain quantities of hazardous chemicals.

Code of Federal Regulations – Pretreatment Requirements, 40 CFR 403, *U.S. Government Printing Office, 1999, Free, Available at www.epa.gov/epacfr40/chapt-I.info/*

This section of the CFR provides regulatory requirements that can be used as audit criteria to evaluate whether facilities that discharge wastewater to a public sanitary sewer system are meeting discharge requirements. Combined with 40 CFR 122, this section provides limitations for these discharges based on the Standard Industrial Classification (SIC) code of the small business.

Code of Federal Regulations – Toxic Substances Management, 40 CFR 761, *U.S. Government Printing Office, 1999, Free, Available at www.epa.gov/epacfr40/chapt-I.info/*

This section of the CFR provides regulatory requirements that can be used as audit criteria for facilities that store or used materials containing asbestos, lead, polychlorinated biphenyls (PCBs), and other toxic substances. It includes requirements for protecting workers and other people who may come in contact with toxic substances, including reporting, labeling, handling, and disposal requirements.

CHAPTER 4: AUDIT TOOLS

Audit tools are used to support or implement an audit program. Tools may include audit checklists or protocols that present audit criteria in a format that allows easier use by the auditor. Tools may also include audit finding ranking systems, compliance assistance documents or software, or any other material that the auditor would use during the audit process, not described in the other chapters.

4.1 Protocols and Checklists

Document Title	Author/Publisher/URL	Date	Number of Pages	Relevance	Cost
Business Guide for Reducing Solid Waste	U.S. EPA www.epa.gov	1993	41, plus worksheets	1	Free
Choosing an Environmental Consultant, Guidance for Small Businesses	New York State Environmental Facilities Corporation, Small Business Assistance Program	1999	29	1	Free
Consolidated Screening Checklist for Automotive Repair Facilities and Checklist Guidebook	U.S. EPA www.ccar-greenlink.org	1997	32	1	Free
Environmental Auditing, California Compliance Guide	Environmental Resources Management, Specialty Technical Publishers	1999	350+	2	$365
Environmental Auditing, Federal Compliance Guide	Environmental Resources Management, Specialty Technical Publishers	1999	365+	2	$419
Environmental Management Guide for Small Laboratories	U.S. EPA www.epa.gov/smallbusiness/help.htm	1998	53	1	Free
The Environmental Self-Audit for Small Business: A Quick and Easy Guide to Environmental Compliance	New York State Small Business Environmental Ombudsman, www.empire.state.ny.us/sbeo/default.htm	1994	30	1	Free
Environmental Self-Evaluation Guide for Small Business, Tool #1: A Practical Guide to Environmental Compliance	Pennsylvania Department of Environmental Protection www.dep.state.pa.us	1996	38	1	Free
Green Seal Choose Green Report, Energy Efficient Indoor Lighting	Green Seal www.greenseal.org	1997	9	1	Free
Green Seal Choose Green Report, General Purpose Cleaners	Green Seal www.greenseal.org	1998	7	1	Free
Green Seal Choose Green Report, Lawn Care Equipment	Green Seal www.greenseal.org	1998	7	1	Free
Green Seal Choose Green Report, Office Products	Green Seal www.greenseal.org	1997	5	1	Free
Green Seal Choose Green Report, Vehicle Maintenance	Green Seal www.greenseal.org	1996	4	1	Free
ISO 14001 Mini Gap Analysis	Transformation Strategies www.trst.com/gapanal.htm	1998	Web site	2	Free
Managing Chemicals Safely, Putting It All Together	Chemical Education Foundation www.chemed.org	1996	24	3	$1.25

Document Title	Author/Publisher/URL	Date	Number of Pages	Relevance	Cost
Mercury: Managing, Recycling, Disposing – A Business Guide to Conducting a Mercury Audit	PA Department of Environmental Protection www.dep.state.pa.us	1999	4	1	Free
Motor Vehicle Repair Facilities: Model Facility Guide	Maine Department of Environmental Protection	1999	26	1	Free
Multimedia Inspection Checklist	State of Tennessee, Dept. of Environmental and Conservation	1999	5	1	Free
Protocol for Conducting Environmental Compliance Audits of Hazardous Waste Generators Under the Resource Conservation and Recovery Act	U.S. EPA www.epa.gov/oeac/ccsmd/ profile.html	1998	72, plus appendices	2	Free
Protocol for Conducting Environmental Compliance Audits of Treatment Storage and Disposal Facilities Under the Resource Conservation and Recovery Act	U.S. EPA www.epa.gov/oeac/ccsmd/ profile.html	1998	112, plus appendices	2	Free
Protocol for Conducting Environmental Compliance Audits Under the Comprehensive Environmental Response, Compensation, and Liability Act	U.S. EPA www.epa.gov/oeac/ccsmd/ profile.html	1998	45	2	Free
Protocol for Conducting Environmental Compliance Audits Under the Emergency Planning and Community Right-to-Know Act	U.S. EPA www.epa.gov/oeac/ccsmd/ profile.html	1998	12, plus appendices	2	Free
A Self-Assessment Workbook for Small Manufacturers	Rutgers, The State University of New Jersey, Office of Industrial Productivity and Energy Assessment http://oipea-www.rutgers.edu/ documents/doc_f.html	1998	83	1	Free
A Self-Audit Checklist for Dry Cleaners	Pennsylvania Department of Environmental Protection (www.dep.state.pa.us), Office of Pollution Prevention and Compliance Assistance	1997	4	1	Free
The Small Business Environmental Assistance Site Visit Manual	Iowa Waste Reduction Center, University of Northern Iowa	1999	64	1	Free
Waste Minimization Plan for Small Quantity Generators as Required by the Mississippi Comprehensive Multimedia Waste Minimization Act of 1990	Mississippi Department of Environmental Quality www.deq.state.ms.us/newweb/ homepages.nsf	1998	6	1	Free

***Business Guide for Reducing Solid Waste**, U.S. EPA, Office of Solid Waste and Emergency Response, November 1993, 41 pages plus worksheets, Free, Available at www.epa.gov – Search by document number: EPA/530-K-92-004*

This document provides background information on waste reduction and recycling, a description on how to develop a waste reduction program, a walk-through of the waste assessment process, and potential options for implementing solutions to issues discovered in the waste assessment. The document is useful to facilities that would like to implement an audit program that includes assessments of solid waste management activities compared to environmental management systems criteria (components of a successful solid waste program), and best management practice criteria (waste reduction, recycling, composting, purchasing, and implementation options). The document also provides information useful as audit standards guiding the reader through the steps in the waste assessment process. The worksheets at the end of the document provide a framework for determining waste generation and calculating costs, current waste reduction activities, targets for further reduction, and implementation options. The limitation of the document is that the user may need to seek technical assistance for exploring specific technical opportunities for waste reduction once the assessment is complete. Still, the document provides a useful framework for the waste reduction program. If backed by information on specific opportunities, it provides a valuable resource for those businesses interested in a sustainable waste reduction program.

***Choosing an Environmental Consultant, Guidance for Small Businesses,** New York State Environmental Facilities Corporation, Small Business Assistance Program, 1999, 29 pages, Free, Available by calling (800) 882-9712 or (518) 457-4100 (NY Small Business Assistance Office main number is (800) 780-7227)*

This booklet provides information on factors to consider when small businesses decides to retain an environmental consultant. It discusses when a consultant might be useful, steps for hiring the consultant, locating consultants, preparing a request for proposal, reviewing proposals, the proposed working relationship between the business and the consultant, contracts, potential problems, and assuring a positive ongoing relationship after the work is complete. The document does not provide examples of specific projects or a list of consultants. However, it does provide sources where the small business may locate consultants, and provides tools that could be useful for auditing and compliance assistance projects. The document complements some of the auditing standards (see Chapter 2) which identify key characteristics of those qualified to conduct environmental audits.

***Consolidated Screening Checklist for Automotive Repair Facilities and Checklist Guidebook,** U.S. EPA, December 1997, 32 pages, Free, Available at www.ccar-greenlink.org, E-mail: ccarinfo@unicom.net, or by calling (888) GRN-LINK (476- 5465) or (913) 498-2227*

This document provides a two-page checklist for automotive repair and auto body shops to evaluate a comprehensive list of environmental requirements including used oil, air conditioner repair, antifreeze recycling, solvent use, underground storage tanks, vehicle washing, storm water management, and other issues. The checklist is accompanied by a 30-page guide that explains each question and the answers that auto repair facilities can strive for to maintain compliance and/or prevent pollution. The document is useful for vehicle repair, equipment repair, and other maintenance activities at other small businesses. The major benefit of the document is that it provides a comprehensive list of major requirements that apply to auto repair activities in an easy-to-use checklist. The limitation of the document is that it does

not describe all requirements in detail (in particular underground storage tanks), thus requiring the user to gather some additional information to assure compliance (much of which can be obtained at the associated www.CCAR-Greenlink.org Web site). Nevertheless, the document is useful as a day-to-day checklist and auditing tool for nearly all the EPA requirements for an auto repair shop.

Environmental Auditing, California Compliance Guide*, Environmental Resources Management, Specialty Technical Publishers, 1999, 350+ pages, $365 including four quarterly updates, Available at www.stpub.com, by E-mail at orders@stpub.com, or by calling (800) 251-0381 or (604) 983-3434*

This document is an audit tool that contains background information on California air, wastewater, hazardous waste, and hazardous materials management requirements, an explanation of the requirements, and audit protocols for these audit criteria. The guide is useful as the basis of an audit program to determine compliance against these requirements. It includes a walk-through of audit preparation, auditing, and scoring for each criteria. While the depth of information is useful, those new to the regulations may find the amount of information challenging to determine what applies to them. Despite this limitation, the tool is useful for an audit program and provides a comprehensive listing of the complex California requirements organized into an audit tool.

Environmental Auditing, Federal Compliance Guide*, Environmental Resources Management, Specialty Technical Publishers, 1999, 365+ pages, $419 for CD-ROM, $419 for paper copy, and $619 for both CD-ROM and paper copies (both include four quarterly updates), Available at www.stpub.com, by E-mail at orders@stpub.com, or by calling (800) 251-0381 or (604) 983-3434*

The Federal Compliance Guide parallels the California Compliance Guide (see previous). It includes sections on air quality, drinking water, facility management systems, hazardous materials, oil and petroleum, solid waste, special pollutants (asbestos, lead , PCBs), and the Toxic Substances Control Act.

Environmental Management Guide for Small Laboratories, *U.S. EPA Small Business Division, 1998 (update available in June 2000), 53 pages, Free, Available at www.epa.gov/omisbo1/lab.pdf or by calling (800) 368-5888*

This document provides information designed to help staff in small laboratories better understand their responsibility for good environmental management. While its purpose is to assist in development and implementation of environmental management programs that meet federal EPA regulatory requirements, it is also useful as an auditing tool. The guide reviews environmental areas (air, water, hazardous and biological waste management, emergency planning, etc). For each area, the guide presents the requirements that apply to laboratory operations, and includes a self-audit checklist of key compliance requirements. The guide also provides pointers to OSHA and DOT requirements that, although not included in the guide, often apply to laboratory operations. The guide is useful to any small business with laboratory operations as a self-audit tool. It is also useful for businesses that use laboratories and may want to assure the labs are in compliance with EPA regulations. The Guide can be a useful tool as a starting point for small businesses (As well as medium and larger) to manage the environmental issues associated with laboratory operations, with additional state-specific assistance from state small business assistance programs.

The Environmental Self-Audit for Small Business: A Quick and Easy Guide to Environmental Compliance*, New York State Small Business Environmental Ombudsman, January 1994, 30 pages, Free, Available at www.empire.state.ny.us/sbeo/default.htm or by calling (800) State-NY*

This document provides a multimedia checklist to conduct audits of small businesses against criteria related to air pollution, water pollution, land use, solid waste, and hazardous materials. The document provides an overview of requirements, rather than many of the details. For example, the discussion of hazardous waste management informs the small business of requirements to "properly" separate incompatibles and "properly" label containers, but does not provide information on which wastes need to be separated, how they should be separated, or what specific labeling requirements apply. The document is useful for small businesses that would like an overview of requirements. It would also be useful for a medium-sized business with operations that may impact the environment in several media (air, water, land) and would like to be aware of the scope of requirements to which they may be subject. The limitations of the document are that the user would need to have many supporting documents, such as regulatory fact sheets or the regulations themselves in order to conduct a thorough audit of its operations.

Environmental Self-Evaluation Guide for Small Business, Tool #1: A Practical Guide to Environmental Compliance*, Pennsylvania Department of Environmental Protection, November 1996, 38 pages, Free, Available at www.dep.state.pa.us or by calling (717) 783-1323*

This document provides background material and audit checklists to evaluate a small business's operations with respect to compliance programs in air quality, water, storage tanks, municipal waste (including solid waste landfills), residual waste, and hazardous materials/hazardous wastes. The document is targeted toward small businesses by including regulations that are likely to affect small businesses in the self-evaluation guide, and omitting those that would apply only to large industries. The main benefit of the checklists is that they allow small businesses to determine if it has programs in place for complying with the major categories of regulations. It also provides contact information and a list of technical assistance resources, within PADEP, EPA, and private organizations such as universities, consulting companies, and state industrial partnership and resource centers. The document also provides location and ordering information for U.S. EPA Sector notebooks. The main limitation of the document is that it omits many of the detailed compliance requirements to which small businesses may be subject.

Green Seal Choose Green Report, Energy Efficient Indoor Lighting*, Green Seal, 1997, 9 pages, Free, Available at www.greenseal.org (a small fee may be requested when ordering directly from Green Seal at (202) 331-7337, ext. 31)*

Green Seal Choose Green Report on Energy Efficient Indoor Lighting provides background information on environmentally preferable light bulbs and lighting fixtures, and provides quality ratings for over 25 different types of lighting equipment (including specific brand names), including downlighting, ceiling fixtures, wall/sconces/bathroom fixtures, and track/general/portable lighting. The report is useful for conducting internal energy audits, to evaluate recommendations provided by outside consultants, and to allow consideration of energy efficiency into purchasing decisions. The report discusses light intensity, energy consumption, light bulb performance, light clarity, light quantity and quality, and options for installing new lights in existing fixtures. The report does not include information on environmental

compliance or Clean Air Act Standards. It simply provides information to allow the user to make better informed decisions that can save the small business money in energy costs while assuring that the business's lighting needs are met.

Green Seal Choose Green Report, General Purpose Cleaners, *Green Seal, 1998, 7 pages, Free, Available at www.greenseal.org (a small fee may be requested when ordering directly from Green Seal at (202) 331-7337, ext. 31)*

Green Seal Choose Green Report on General Purpose Cleaners provides background information on environmentally preferable cleaning products that can help small businesses reduce the exposure of its employees to hazardous chemicals, reduce OSHA compliance requirements, and reduce EPA hazardous waste disposal requirements. The report discusses the risks and benefits of conventional and greener cleaners, provides checklists on how to evaluate whether a cleaner is truly environmentally preferable, and provides performance and quality ratings for over 30 different brands of general purpose cleaners. The report is useful as a checklist for conducting internal audits that include a hazardous materials inventory. It is also useful to evaluate recommendations provided by outside consultants (perhaps a hazard communication plan and waste disposal costs can be avoided by switching cleaners), and to allow for the purchase of environmentally preferable products that meet the small business's performance needs. The report does not include information on environmental compliance or hazardous waste or OSHA Standards. It simply provides information to allow the user to evaluate current options, make better-informed decisions that can protect workers, and minimize compliance costs.

Green Seal Choose Green Report, Lawn Care Equipment*, Green Seal, 1998, 7 pages, Free, Available at www.greenseal.org (a small fee may be requested when ordering directly from Green Seal at (202) 331-7337, ext. 31)*

Green Seal Choose Green Report on Lawn Care Equipment provides background information on environmentally preferable lawn care equipment, and provides quality ratings for over 15 electric powered and 30 gasoline powered lawn mowers (including specific brand names). The report describes the benefits of electric powered and four-cycle gasoline powered engines in terms of reduced impact on the environment and overall equipment quality. The report is useful for small businesses that are making purchasing decisions on lawn care equipment because it identifies environmentally preferable products that compare with the performance standards of more polluting products. The report is also useful for small businesses to evaluate contractors who may perform lawn care services. The report does not include information on environmental compliance or Clean Air Act Standards. It simply provides information to allow the user to make better-informed decisions when trying to purchase or use environmentally preferable lawn equipment.

Green Seal Choose Green Report, Office Products*, Green Seal, 1997, 5 pages, Free, Available at www.greenseal.org (a small fee may be requested when ordering directly from Green Seal at (202) 331-7337, ext. 31)*

Green Seal Choose Green Report on Office Products provides background information on environmentally preferable office products that contain recycled content, are recyclable, or are more energy efficient than conventional products. The report includes organizational products (file folders, binders, and labels) and desktop products (writing pads, index cards, pencils and pens, floppy disks, self-

sick notes) that can help small businesses reduce its impact on the environment while meeting its product performance needs. The report is useful as a checklist for conducting internal audits of typical office operations. It is also useful to ease the process of purchasing environmentally preferable products that meet the small business's performance needs. The report does not include information on environmental compliance or hazardous waste or OSHA Standards. It simply provides information to allow the user to evaluate current options and to make better-informed decisions that can reduce the small business's impact on the environment.

Green Seal Choose Green Report, Vehicle Maintenance*, Green Seal, 1996, 4 pages, Free, Available at www.greenseal.org (a small fee may be requested when ordering directly from Green Seal at (202) 331-7337, ext. 31)*

Green Seal Choose Green Report on Vehicle Maintenance provides background information on environmentally preferable products found in maintenance shops, including coolants, motor oils, and car wash detergent. The report provides opportunities for buying recycled materials and reducing environmental impact. The report also lists six brands of motor oil, four brands of engine coolant, and three brands of detergent that meet current performance standards of conventional products, but are either of recycled content or of less toxicity than the conventional alternative. The information in the report can be used as best management practice and good housekeeping criteria for an internal audit. The report is also useful to evaluate recommendations provided by outside consultants, and to allow for the purchase of environmentally preferable products that meet the small business's performance needs. The report does not include information on environmental compliance or hazardous waste or OSHA Standards. It simply provides information to allow the user to evaluate current options, make better-informed decisions that can protect workers, and minimize compliance costs.

ISO 14001 Mini Gap Analysis, *Transformation Strategies, 1998, Free, Available at www.trst.com/gapanal.htm*

This audit tool is a checklist that can be used to conduct an initial assessment of a small business's operations with respect to the environmental management systems (EMS) criteria in ISO 14001 (a gap analysis). The Web site asks the user to review 16 statements based on the ISO 14001 EMS standard. The small business indicates the company's degree of conformance with each statement, and is provided with an overall score, comment about status, as well as next steps. The limitation of this tool is that it is intended to be an initial high-level analysis, rather than a detailed operations level audit. Small businesses may be able to use this tool, combined with one of the EMS Standards (ISO 14001 or EPA/NEIC Compliance-Based EMS) to conduct an internal EMS audit, conduct an initial review, or compare against the work of an outside consultant. Overall, this is a very useful no-cost tool for evaluating environmental management systems.

Managing Chemicals Safely, Putting it All Together*, Chemical Education Foundation, 1996, 24 pages, $1.25, Available at www.chemed.org*

The document provides information on preventing chemical accidents and managing chemicals in accordance with OSHA requirements. The document describes chemical safety program components, provides short checklist points for reviewing potential accidents, and discusses communication mechanisms such as product and drum labeling. The document is useful for getting started with chemical safety and hazardous waste management programs and those looking for tips on how to

improve their programs. Information in the document is also useful for minimizing waste disposal costs. The limitations of the documents are its general content and a focus on practices, rather than regulatory requirements. Despite this limitation, the document provides a good overview, some important management techniques, and a guide to setting up a chemical safety program all of which are useful in setting up a chemical safety and hazardous waste management program.

Mercury: Managing, Recycling, Disposing – A Business Guide to Conducting a Mercury Audit*, Pennsylvania Department of Environmental Protection, 1999, 4 pages, Free, Available at www.dep.state.pa.us (click on Pollution Prevention and Compliance Assistance, and then P3Erie) or by calling (814) 332-6839*

This document is a brief, yet thorough audit protocol for conducting an audit of business operations that may include mercury. The document includes a one-page list of potential mercury-containing items, followed by 11 questions related to mercury management. The audit criteria in the protocol are management systems criteria, as the protocol asks questions related to managing mercury and having a program in place to assure that the environmental, health, and safety aspects of mercury are considered where mercury is purchased or used. The limitation of this protocol is that it does not provide detailed regulatory requirements or regulatory citations. The document recommends that those who answer "not" to any of the audit questions to contact PADEP or visit the PADEP Web site to learn about the regulatory requirements and how to comply. Despite this limitation, the document is a useful tool for small businesses to identify items that may potentially contain mercury and to determine whether those materials are being managed safely and in accordance with PADEP requirements.

Motor Vehicle Repair Facilities: Model Facility Guide, *Maine Department of Environmental Protection, 1999, 26 pages, Free, Available at (207) 287-6188*

This document provides an overview of key regulations applicable to motor vehicle repair operations and several checklists for conducting assessments of these operations. The document is useful for those conducting compliance and "beyond compliance" assessments of vehicle repair or other maintenance shop operations. The checklist questions are presented such that "yes" answers indicate the facility is complying with Maine requirements, while "no" answers indicate the facility is out of compliance. Of special note are chapters on oil filters, rags and absorbents, and tires. The limitations of the document are that it does not include regulatory citations, does not include all regulatory requirements that may apply to these operations, and includes requirements that are only applicable in Maine. Nevertheless, the document provides a comprehensive overview of the air, water, waste management, and good housekeeping issues that apply to vehicle maintenance operations, and provides a number of clearly presented checklists that are useful for conducting self-assessments. For facilities located in other states, this document is still a good starting point, since the Maine-specific requirements are more strict than the federal requirements.

Multimedia Inspection Checklist, *State of Tennessee Department of Environment and Conservation, Division of Community Assistance, 1999, 5 pages, Free, Available at (615) 532-8006*

This checklist covers the state's major environmental regulatory program areas and is useful for any business. The checklist includes questions on general observation, emergency plans, air emissions, pesticides, water, radiation, hazardous waste, solid waste, PCBs, underground storage tanks, injection wells, mines, and pollution prevention. The questions are clearly presented and should be simple for

small businesses to answer. The document is useful for small businesses that would like to review its operations and determine the regulatory areas that apply to its operations and some of the compliance requirements. The limitation of the document as a self-assessment tool is that the "correct" answers for all of the questions are not always obvious, and some questions are merely to gather information. Given this limitation, the checklist is best used for a facility to understand the environmental aspects of its operations and then to consult with the Division of Community Assistance to interpret the results. However, unlike other checklists that may be developed solely for information gathering purposes of the Department of the Environment, this checklist does ask many questions that provide compliance requirements, giving the small business an opportunity to be introduced to these requirements in many of the program areas. Note that although the document was prepared by the State of Tennessee, the checklist would be useful to small businesses in other states as well.

Protocol for Conducting Environmental Compliance Audits of Hazardous Waste Generators Under the Resource Conservation and Recovery Act (RCRA), *U.S. EPA, October 1998, 72 pages plus appendices, Free, Available at www.epa.gov/oeca/ccsmd/profile.html or by calling (800) 490-9198*

The protocol provides a checklist to be used by those conducting environmental regulatory compliance audits of facilities that generate hazardous waste to evaluate those facilities' compliance with RCRA. The protocol begins with a definition of terms and then a guide to the sections of the protocol applicable to the three classes of hazardous waste generators (those that generate less than 100 kg/month, 100-1000 kg/month, or greater than 1000 kg/month). The appendices include lists of hazardous wastes to assist the facility in determining which wastes are hazardous wastes. The protocol is formatted in two columns, with the first column listing the regulatory requirement and the second listing the auditor review activities. The protocol is useful for small or medium-sized businesses that have some familiarity with hazardous waste issues or environmental regulations, and provides a comprehensive walk-through of the RCRA generator requirements. The limitations of the document are that new users or very small businesses may prefer to begin self-audits with other tools that present most (rather than all) of the requirements in a short (i.e. one-to-ten page) multimedia checklist, rather than a comprehensive protocol. For those businesses looking to evaluate the protocols of auditors, this document provides a good base for comparison.

Protocol for Conducting Environmental Compliance Audits of Treatment Storage and Disposal Facilities Under the Resource Conservation and Recovery Act, *U. S. EPA, December 1998, 112 pages plus appendices, Free, Available at www.epa.gov/oeca/ccsmd/profile.html or by calling (800) 490-9198*

The protocol provides a checklist to be used by those conducting environmental regulatory compliance audits of facilities that treat hazardous waste, store hazardous waste on site for longer than 90 days (or in some cases longer than 180 or 270 days), or dispose of hazardous waste through landfilling or incineration under the federal hazardous waste regulations (RCRA). In addition to the audit checklist, the document includes background information on EPA's Audit Policy, how to use the protocol, key compliance requirements, definitions of key terms, typical records to review, typical features to inspect, and a checklist index. The protocol is useful for small or medium-sized businesses in chemical, metal finishing, wood preserving, or other industries that may be required to store their hazardous wastes for extended periods of time. The protocol is also useful for businesses that would like to audit disposal facilities that accept waste from the small business, to assure that the waste is being properly managed. The limitation of this protocol is that it is very detailed (which may be a benefit to some in that the

protocol can be relied on to thoroughly assess compliance). The extensive detail may contain more information than small businesses can easily manage and may be more useful for those with some environmental management experience. Thus this document would more likely be useful to a consultant or outside auditor hired by the small business, rather than the small business itself.

Protocol for Conducting Environmental Compliance Audits Under the Comprehensive Environmental Response, Compensation, and Liability Act*, U.S. EPA, December 1998, 45 pages, Free, Available at www.epa.gov/oeca/ccsmd/profile.html or by calling (800) 490-9198*

The protocol provides a checklist to be used by those conducting environmental regulatory compliance audits under the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), also known as Superfund. The protocol begins with an introduction to the regulations governing reporting and responding to releases of hazardous substances, and continues with description of the process of evaluating a contaminated site, conducting a remedial investigation, selecting remediation methods, removing contaminated materials, involving the community in cleanup, and maintaining an administrative record. The protocol is useful for small businesses that may use or manufacture hazardous substances that may be released to the environment, or small businesses that owns property on which contamination has occurred. The protocol provides a checklist of regulatory requirements from initial reporting through cleanup. Even if a facility has not had a release that caused contamination in the past, the protocol is useful for its checklist or reporting requirements. It is useful to small businesses that store quantities of hazardous or extremely hazardous substances, because it explains regulations that can be difficult to interpret if a facility were simply to look at the Code of Federal Regulations. As with the EPCRA protocol (see below), a table in an appendix includes a list of all hazardous and extremely hazardous substances that may make a facility subject to these requirements, allowing the facility to do a self-check to determine if the requirements apply. The limitations of the protocol are that it does not indicate which chemicals are likely to make a small business subject to the regulations. The CERCLA requirements are more likely to apply to laboratory or manufacturing operations than service providers, such as auto repair, dry cleaners, or printers. Thus many facilities may not need this protocol. The major benefit of the protocol is that it provides a structured format for reviewing the potentially complex requirements of CERCLA and a method of evaluating remediation contractor proposals and activities.

Protocol for Conducting Environmental Compliance Audits Under the Emergency Planning and Community Right-to-Know Act*, U.S. EPA, December 1998, 12 pages plus appendices, Free, Available at www.epa.gov/oeca/ccsmd/profile.html or by calling (800) 490-9198*

The protocol provides a checklist to be used by those conducting environmental regulatory compliance audits under the federal Emergency Planning and Community Right-to-Know Act (EPCRA). The protocol begins with an introduction to the regulations governing planning for releases of hazardous chemicals stored, manufactured, or used at a facility, and is then followed by the checklist which walks the user through several sections of the Code of Federal Regulations that cover emergency planning and reporting requirements. The protocol is useful for small businesses that may store quantities of hazardous or extremely hazardous substances because it explains regulations that can be difficult to interpret if a facility were simply to look at the Code of Federal Regulations. A table in an appendix includes a list of all hazardous and extremely hazardous substances that may make a facility subject to these requirements, allowing the facility to do a self-check to determine if the requirements apply. The limitations of the protocol are that it does not indicate which chemicals are likely to make a small business subject to the regulations. The EPCRA requirements are more likely to apply to laboratory or

manufacturing operations than service providers, such as auto repair, dry cleaners, or printers. Thus many facilities may not need this protocol. The major benefit of the protocol is that it provides resources for the small business to make its own applicability determination. In contrast to some of the other more complex regulations, the smaller scope of the EPCRA requirements would likely allow small businesses to rely on this protocol as a comprehensive, yet not overly complex, resource for EPCRA compliance.

A Self-Assessment Workbook for Small Manufacturers*, Rutgers, The State University of New Jersey, Office of Industrial Productivity and Energy Assessment, 1998, 83 pages, Free, Available at http://oipea-www.rutgers.edu/documents/doc_f.html*

This workbook provides a small manufacturing company with a step-by-step method to improve operations and reduce costs through energy conservation, waste minimization, and improved manufacturing productivity. The workbook is organized in three basic sections that the user can complete in series or concurrently. The workbook includes checklists that cover the manufacturing process (raw material usage, final product, and plant subsystems used in the manufacturing process) and help the user focus on the processes and identify all energy consuming equipment. The workbook also contains 21 recommendations and examples of cost saving projects identified by the Department of Energy's Energy Analysis and Diagnostic Center and the Industrial Assessment Center programs. The recommendations include fluorescent tube replacement, compacting trash, water savings measures, and suggestions on how to maximize boiler operations among other projects. The book has few limitations. A small manufacturer can easily use the workbook to perform a self-audit of the manufacturing process, the plant's subsystems, and current waste minimization procedures. The workbook lists all the equipment an auditor will need to collect the recommended information and provides sample calculations. For non-manufacturing businesses, the workbook includes potentially useful examples of cost savings through roof insulation, lighting recommendations, and waste reduction recommendations including water saving measures, recycling programs for wooden pallets and corrugated cardboard, and trash compacting.

A Self-Audit Checklist for Dry Cleaners*, Pennsylvania Department of Environmental Protection (PADEP), Office of Pollution Prevention and Compliance Assistance, 1997, 4 pages, Free, Available at www.dep.state.pa.us*

The checklist provides a self-audit tool for Pennsylvania dry cleaners on the environmental requirements of dry cleaning operations, and the aspects of an environmental management program applicable to dry cleaners. The checklist asks questions related to training employees, storing materials, minimizing leaks and spills, maintaining good housekeeping, modifying costly procedures, retrofitting older equipment, using care with floor drains, and developing a marketing plan. The limitation of the checklist is that it does not cite regulatory requirements; thus, those using the checklist are uncertain which of the checklist items are required by law or regulations and which are good management practices. However, in contrast to checklists that ask general questions, this self-audit tool asks many specific questions, where the good management practice or regulatory requirement is specified in the question itself. For those who would like more information on the regulatory citations, the checklist provides contact information within PADEP. Overall, the checklist is a useful tool for dry cleaners in Pennsylvania and in other states to evaluate their operations with respect to compliance requirements and opportunities to reduce environmental impact through the use of good management practices.

The Small Business Environmental Site Visit Manual*, Iowa Waste Reduction Center, University of Northern Iowa, 1999, 64 pages, Free, Available at www.iwrc.org*

This booklet provides a step-by-step approach for small business assistance providers who conduct site visits as part of an overall compliance assistance program. It includes chapters on developing a site visit program, available technical assistance tools, the site visit audit process, and special considerations. It is most useful for small business assistance providers who will be conducting site visits or environmental audits and offer compliance assistance. It is also useful for small businesses who will be conducting self-audits, or who hire consultants to conduct audits. The limitations of the document are its focus on process, rather than regulatory criteria. However, the document brings in many compliance assistance resources and audit process checklists that would be very useful for a small business interested in environmental auditing. Overall, this document provides a very good overview of auditing and the audit process targeted directly toward small businesses and small business assistance providers.

Waste Minimization Plan for Small Quantity Generators as Required by the Mississippi Comprehensive Multimedia Waste Minimization Act of 1990, *Mississippi Department of Environmental Quality, 1998, 6 pages, Free, Copies are available by writing to the Mississippi Dept. of Environmental Quality, Attn: Environmental Resource Center, P.O. Box 20305, Jackson, MI 39289-1385*

This three-page questionnaire is required to be completed by small quantity generators (SQGs) of hazardous waste in Mississippi. The questionnaire walks the user through components of a waste minimization program and allows the user to consider aspects of waste minimization efforts. The document is useful for small businesses that generate hazardous waste or that generate any wastes and would like to reduce the volumes generated. The questionnaire does not provide any guidance on waste minimization technologies, management strategies, or green purchases that might aid small businesses in reducing waste generation. For users in Mississippi, in helps meet a regulatory requirement. For users outside of Mississippi, it provides questions for the small business to consider as it manages and minimizes its hazardous waste.

4.2 Supporting Information

Document Title	Author/Publisher/URL	Date	Number of Pages	Relevance	Cost
1998 Resource Guide for Small Business Air Emission and Multimedia Assistance	Iowa Waste Reduction Center	1998	84	1	Free
Audit Builder Software	EHS Technologies Corporation	1999	Software	2	$99 to $2,000
ChemAlliance.org	Partially funded by EPA www.chemalliance.org/ RegTools/index.htm	1999	Software	1	Free
Community Outreach: Making it Easy, Ideas and Examples	Chemical Education Foundation www.chemed.org	1999	94	1	$23
Compliance Assistance Package for Hazardous Waste Generators	New Jersey Department of Environmental Protection	1996	20, including appendices	1	Free

Document Title	Author/Publisher/URL	Date	Number of Pages	Relevance	Cost
Compliance Manual for Indiana's Vehicle Maintenance Shops	Indiana Department of Environmental Management, Compliance and Technical Assistance Program www.state.in.us/idem/ctap/ index.html#vehicle	1998	154, plus attachments	1	Free
Dakota Auditor: Environmental, Health, and Safety and EMS Auditing Software	Dakota Software Corporation www.dakotasoft.com/ product/auditor.html	1999	Software	2	Varies
Enhancing the Link with Your Customer: Preparing for Environmental, Health, and Safety Assessments	SOCMA http://socma.rd.net/reskit.html	1996	30	2	$98
Environmental Management Systems: An Implementation Guide for Small and Medium-Sized Organizations	U.S. EPA, Office of Wastewater Management www.epa.gov/OWM/fdfs/ finalgu.pdf	1996	156	1	Free
EPA Small Business Gateway	U.S. EPA Office of Small Business Ombusdman www.epa.gov/smallbusiness/ help.htm	2000	Web site	1	Free
Facility Pollution Prevention Checklist	Pennsylvania Department of Environmental Protection (www.dep.state.pa.us), Office of Pollution Prevention and Compliance Assistance	1997	2	1	Free
GreenWare Environmental Audit Software	GreenWare Environmental Systems, Inc. www.greenware.com	2000	Software	3	Varies
How to Reduce Your Energy Costs: The Energy Efficiency Guide for Businesses, Industry, Government, and Institutions	Pennsylvania Department of Environmental Protection (www.dep.state.pa.us), Office of Pollution Prevention and Compliance Assistance	1996	72	1	Free
Incentives for Self-Policing: Discovery, Disclosure, Correction and Prevention of Violations, U.S. EPA Audit Policy	U.S. EPA	1995	6	1	Free
Massachusetts Crash Course for Compliance and Pollution Prevention	Massachusetts Office of Technical Assistance for Toxics Use Reduction (OTA) www.state.ma.us/ota/ otapubs.htm	1998	40 for workbook; 74 for toolbox	1	Free
National Automotive Compliance Assistance Center	Coordinating Committee for Auto Repair www.ccar-greenlink.org	1999	Web site	1	Free
National Metal Finishing Resource Center	www.nmfrc.org	1999	Web site	2	$0-125/ year

Document Title	Author/Publisher/URL	Date	Number of Pages	Relevance	Cost
P2/E2 Pollution Prevention/Energy Efficiency Site Visit Program	PA Department of Environmental Protection	1999	Web site	1	Free
Paints and Coatings Resource Center	www.paintcenter.org/ compass.cfm	1999	Web site	2	$0-125
Printers National Environmental Assistance Center	www.pneac.org/pneac.html	1999	Web site	2	$0-125
Printers Protecting the Environment Workbook	Florida Dept. of Environmental Protection, Small Business Assistance Program, www.dep.state.fl.us/air/outreach/sbap/index.htm	1999	93	1	Free
Product Stewardship Resource Guide	Chemical Education Foundation, www.chemed.org	1998	83	2	Free
Understanding the Hazardous Waste Rules: A Handbook for Small Businesses -1996 Update	U.S. EPA	1996	25 plus inserts	1	Free

1998 Resource Guide for Small Business Air Emission and Multimedia Assistance*, Iowa Waste Reduction Center, University of Northern Iowa, 1998, 84 pages, Free, Available by calling (800) 422-3109 or by writing to SBAP Resource Guide, Iowa Waste Reduction Center, University of Northern Iowa, 1005 Technology Parkway, Cedar Falls, Iowa 50613-6951*

This book contains a state-by-state bibliography of compliance assistance tools available to small businesses. It is a comprehensive listing of compliance assistance tools developed by small business assistance providers from all 50 states. The bibliography includes one-to-two sentence descriptions of documents available in each state. The documents contained in the bibliography include compliance assistance centers, fact sheets, booklets, guidebooks, comprehensive manuals, regulatory summaries, and other information all targeted toward helping small businesses prevent pollution and achieve compliance. The book contains a 3 ½" floppy disk with a search engine so that the reader can sort through the bibliography by source topic, state, or environmental media. Most of the materials in the bibliography are available free of charge.

Audit Builder Software, *EHS Technologies Corporation, 1999, Price ranges from $99 to $2,000 depending on user needs, Available at (856) 786-4035*

Audit Builder Software is a software package that includes audit protocols, report generation, and the ability to manage audit data. The software provides protocols for EPA, OSHA, DOT, and state regulations, and allows the user to edit the protocols to include best management practices and pollution prevention audit criteria that may not be in the regulations. The program is useful for small to medium-sized businesses for maintaining regulations, developing facility-specific protocols, generating audit reports, and tracking audit data. The software is comprehensive, thus requiring the auditor to determine which protocol questions apply to the facility. It must be kept up to date, requiring the user to periodically

contact state regulatory agencies to determine whether the protocol is current or to purchase additional updates. Audit Builder can help small businesses conduct audits, manage its audit data, produce clear, presentable audit reports, and assure compliance. When combined with compliance assistance materials from state small business agencies, the software can significantly increase a business's ability to maintain an audit program.

***ChemAlliance.org**, Compliance Assistance Web site for Chemical Industries (Partially funded by U.S. EPA), 1999, Free, Located at www.chemalliance.org/indexmain.asp*

ChemAlliance.org is a Web site designed to provided regulatory and compliance assistance information to businesses involved with chemical processing. The site includes a regulatory handbook with a "virtual plant tour," a step-by-step review of key regulations, and other features to help businesses better understand how regulations apply to their operations. It also includes a collection of self-assessment resources such as checklists on compliance, risk assessment, environmental management systems, and pollution prevention. Furthermore, it includes links to contacts for pollution prevention and compliance assistance, a glossary of environmental and regulatory terms, and other resources available on the World Wide Web. The Web site is useful as a first stop for small businesses that process or otherwise deal with chemicals in their operations, and provides a good complement to materials available from state small business assistance providers. The checklists provide audit criteria for conducting self-assessments and the other resources are useful for developing corrective actions to audit findings. The limitation of the Web site is that it is focused on the process chemical industry. Thus, it is useful for all businesses with a chemical focus, and for those that are looking for general compliance assistance information. The significant amount of information is well presented, making it easy for the user to locate and review information. Overall, this source is a useful first step for many businesses and a key source of information for process chemical businesses.

***Community Outreach: Making it Easy, Ideas and Examples,** Second Edition, Chemical Education Foundation, 1999, 94 pages, $23, Available at www.chemed.org or by calling (703) 527-7747*

This document is a 94-page booklet on implementing community outreach programs for companies that deal with chemicals. While the booklet is written for companies that deal with chemicals, the focus is on community outreach activities and programs that could apply to any small or medium-sized business. The booklet's main benefit to audit programs is that it defines elements of a community outreach program, including elements of programs focused on product stewardship, information distribution, emergency response, general education, advocacy, community advisory groups, and community events. The booklet could be used to generate an in-house checklist to evaluate a business's community outreach activities. Included in the booklet are 50 pages of case study highlights of community outreach programs, with examples from each of the above categories, contact information, and hours spent on each assignment. Compliance is not this booklet's goal, and it is useful for businesses that not only want to maintain a strong environmental program, but also want to communicate that program to the public. Overall, this booklet has few limitations, as it can be used as a reference for developing a community outreach program, or as the basis for auditing community outreach activities. Note that the Chemical Education Foundation has many additional compliance assistance materials available on its Web site (www.chemed.org) for free.

Compliance Assistance Package for Hazardous Waste Generators, *New Jersey Department of Environmental Protection, 1996, 20 pages including appendices, Free, Available at www.state.nj.us/dep/enforcement/home.htm*

This document provides an overview of the federal EPA hazardous waste requirements, which have been adopted by the State of New Jersey. The document is applicable to all businesses (large and small), with no specific industry focus. It is most useful to small and large quantity generators of hazardous waste. The document separates the Code of Federal Regulations (CFR) by topic area as a business would likely consider them, presenting the requirements in a list format that makes them much easier to understand than in the CFR directly. With each requirement (e.g., personnel training), the document lists the elements of that requirement (e.g., key training components, frequency, etc.) that must be included to assure compliance. While not presented in checklist form, the document could be used as an internal checklist for hazardous waste compliance. At a minimum, the document is useful for the small business to better understand hazardous waste rules, and to be able to ask questions about specific sections of the rules from DEP, EPA, or other experts. Document appendices include a manifest tracking log, weekly container storage area inspection log, New Jersey hazardous waste contact information, and a list of commercially permitted hazardous waste facilities.

Compliance Manual for Indiana's Vehicle Maintenance Shops*, Indiana Department of Environmental Management, Compliance and Technical Assistance Program, 1998, 154 pages plus attachments, Free, Available at www.state.in.us/idem/ctap/index.html#vehicle or by calling (317) 232-8172 or toll free at (800) 451-6027, press 0 for operator and request extension 2-8172*

This comprehensive compliance manual provides details on the rules and regulations affecting vehicle maintenance shops in Indiana. The manual covers environmental regulations of the Indiana Department of Environmental Management (IDEM), U.S. DOT, and OSHA. The manual also includes fire and building services information, and waste prevention and minimization recommendations. The manual is most useful for small businesses that deal with vehicle maintenance activities. The extensive compliance assistance portion of the document guides the user through the different types of vehicle repair activities and the associated regulatory requirements with each. The compliance assistance portion contains several lists of compliance requirements that could be used as internal checklists to verify compliance. The attachments contain information useful for setting up an environmental, health, and safety program at a facility, including worksheets for developing a hazard communication plan, assigning responsibilities for various environmental activities, preparing a chemical inventory, and certifying CFC recovery systems. The attachments also include sample hazardous waste manifests and shipping labels. The limitation of this document is that it does not contain brief checklists or protocols that could be extracted to conduct a self-audit. While much of the information necessary to conduct an audit is contained in the document, the lack of checklists may mean the document has too much information for a brief review. This limitation can be overcome, however, by obtaining checklists or protocols from other sources such as CCAR-Greenlink or other states where vehicle maintenance or auto repair audit checklists have been developed. The Indiana guide is extremely comprehensive and could be used either as the basis for making new checklists or as a complement to other audit tools.

Dakota Auditor: Environmental, Health, and Safety and EMS Auditing Software*, Dakota Software Corporation, 1999 update, Prices vary, Purchasing information available at www.dakotasoft.com/product/auditor.html or by calling (716) 381-8710*

Dakota Auditor is a software program that provides audit checklists for all EPA and state environmental, health, and safety compliance criteria and ISO 14000 environmental management systems criteria. The software program is an audit tool in that the audit criteria are presented in checklist format and can be used to create audit reports and track audit findings. The program is useful for small or medium-sized businesses that are developing an internal audit program and would like to use one source of information for audit criteria, checklists, and information management. One benefit of this software is the ability of the business to add its own checklist questions or best management practice criteria to the checklists and easily incorporate these criteria into its audit program. For businesses looking to establish long-term programs, Dakota Auditor may present an efficient tool to conduct audits, assure compliance, and manage audit data.

Enhancing the Link with Your Customer: Preparing for Environmental, Health and Safety Assessments*, Synthetic Organic Chemical Manufacturers Association, 1996, 30 pages, $98 (for non-members), Available at http://socma.rd.net/reskit.html*

SOCMA is the trade association for the batch and custom chemical manufacturers. The guide was designed to assist chemical companies preparing for environmental, health, and safety audits of the facility by customers. The guide takes the user through the stages of an assessment including planning, the assessment itself and follow-up. The guide includes a survey that allows the user to gather pertinent information on training, personnel, permits, and issues associated with air, water, solid and hazardous waste, as well as safety and health issues such as occupational exposures. In addition, the guide includes a housekeeping checklist to ensure the user's facility is in good condition prior to the audit. The guide is useful for small businesses that is preparing for an environmental assessment. The guide includes information on loading/unloading and product distribution, and is geared towards manufacturers. Even if a facility is not a manufacturing facility, the guide is effective in directing the user towards gathering pertinent information. It does not indicate if a business is in compliance or which regulations apply. Rather it focuses on the audit process and steps a facility can take to prepare for an audit. The guide is especially helpful for small businesses preparing for an external audit.

Environmental Management Systems: An Implementation Guide for Small and Medium-Sized Organizations, *U.S. EPA, Office of Wastewater Management, November 1996, 156 pages, Free, Available at www.epa.gov/OWM/pdfs/finalgu.pdf*

The Guide provides an overview of environmental management systems (EMSs) and their applicability to small and medium-sized businesses. The Guide includes case studies, "helpful hints," sample procedures for implementing portions of an EMS, and recommendations for implementing EMSs. Approximately one-third of the Guide's 150 pages focus on developing an EMS, while the rest of the Guide provides case studies and implementation tools. Because the Guide is based on the ISO 14001 EMS audit criteria, small businesses could also use the Guide to ensure that its EMS meets the ISO 14001 criteria, or use the information in the Guide to review against an outside auditor's proposed EMS criteria. The Guide is useful for small businesses that want to understand EMS criteria.

EPA Small Business Gateway, *U.S. EPA, Office of Small Business Ombudsman, Current, Free, Available at www.epa.gov/smallbusiness/help.htm*

The EPA Small Business Gateway is a Web site intended to provide small businesses a single location to begin their search for information related to environmental management. It provides links to state assistance programs, state environmental agencies, EPA hotlines, and national compliance assistance centers, as well as compliance assistance materials, information on water and energy conservation, and a list of publications. It is useful as a starting point for small businesses wanting to learn more about compliance and pollution prevention and the resources available to them. It is also useful to supplement information received from other sources and to obtain general information (i.e., EPA audit policy related to small businesses) useful to small businesses. If a small business has Internet access, this Web site should be the first place to start searching for environmental management information an a list of useful local contacts.

Facility Pollution Prevention Checklist*, Pennsylvania Department of Environmental Protection, Office of Pollution Prevention and Compliance Assistance, April 1997, 2 pages, Free, Available at www.dep.state.pa.us (click on Subject/Pollution Prevention/Compliance Assistance) or by calling (717) 783-0540*

This two-page pollution prevention (P2) checklist is useful for small businesses in any state that would like to conduct an internal audit of their operations with respect to pollution prevention criteria, and to be able to evaluate consultants who offer P2 audit services. The checklist provides 13 categories of operations that may take place at small businesses and then identifies three-to-ten P2 opportunities for each operation. Each opportunity is a potential resource savings for the small business and a method of reducing the business's impact on human health and the environment. The checklist provides examples of engineering controls (e.g., using foot pedals to control water usage), process controls (e.g., frequent sludge removal from cleaning processes), and management systems methods (e.g., accounting for waste treatment and disposal expenses as a direct cost of producing a product) of implementing a P2 program and taking specific actions to reduce waste. Many of the questions focus on solvent, cleaning, metal plating, painting, or oil/water separator operations, thus making the checklist most applicable to these operations, rather than service industries or food processing. While the document is most useful for businesses with these operations, the document contains general questions about water conservation, energy usage, spill prevention, and materials handling that can be used by all businesses, small and large.

GreenWare Environmental Audit Software*, GreenWare Environmental Systems, Inc., 2000, Prices range from $699 for a single user to $3,999 for multiple assessments and multiple users. Available at www.greenware.com, E-mail at greeninfo@greenware.com, or by calling (416) 363-5577*

GreenWare Environmental Audit Software is a self-assessment and management tool for conducting environmental audits. Two of the most useful products are software ISO 14001 environmental management systems audits, for implementing an environmental management system that meets the ISO 14001 audit criteria. These software products are designed to provide companies and/or their consultants with a complete electronic tool set for use in evaluating, implementing, monitoring and auditing environmental management systems for their conformance to the ISO 14000 standards. Each product contains the following features, including: a document management system; full customization,

report-writing and word-processing capabilities; automatic linkages and scoring; customizable views for draft, final, manual and electronic documents; internal and external document configuration (including WWW); extensive guidance and on-screen instruction including context-specific ISO text document controls, verification and password protect features; links to multiple locations and users; and special diagnostic features that automatically evaluate the completion and status of the electronic documents. The software can be linked with financial auditing software so that small businesses can manage its environmental management systems and its financial audit data. The software is useful for small businesses that would like to incorporate their audits into an existing data management tool with the audit criteria incorporated with audit data. While some small businesses may find the software more formal than is necessary. It is also useful for medium sized or larger businesses that have multiple facilities and would like a prepared software program to manage their data.

How to Reduce Your Energy Costs: The Energy Efficiency Guide for Businesses, Industry, Government, and Institutions*, Pennsylvania Department of Environmental Protection, Office of Pollution Prevention and Compliance Assistance, 1996, 72 pages, Free, Available at www.dep.state.pa.us*

This book provides small businesses opportunities for saving energy that is expended for lighting, heating, ventilating, air conditioning, hot water, machines, and the overall building. The book also provides a checklist for a self-energy audit and tools to develop an energy management system. The book is useful for small businesses to evaluate and improve energy usage of current operations through focused operation and maintenance. The book is also useful for small businesses during purchasing processes to evaluate the energy efficiency of new products, for annual budgeting, for remodeling or building add-ons, or to upgrade maintenance programs to include an energy conservation focus. The book is useful because it provides examples of actual costs of different energy alternatives and methods for calculating savings for several aspects of operations, such as different types of building doors, HVAC systems, electricity purchases (based on different rate systems), lighting, security, and windows. It can be used to conduct self-audits, to develop an energy conservation program, to evaluate proposed process evaluations (or audits) of energy consultants, or simply as a guide to include energy conservation in future business planning.

Incentives for Self-Policing: Discovery, Disclosure, Correction and Prevention of Violations, U.S. EPA Audit Policy*, U.S. EPA, 1995, Published in the Federal Register on December 22, 1995 (60 FR 66706), 6 pages, Free, and* ***Proposed Modifications to the Policy on Compliance Incentives for Small Businesses and Request for Public Comment,*** *U.S. EPA, Published in the Federal Register on July 29, 1999 (64 FR 4116), Available from the Audit Policy Docket at (202) 260-7548 or (202) 564-4187. Also available at www.epa.gov/fedrgstr/EPA-GENERAL/1999/July/Day-29/g19437.htm*

These documents explain U.S. EPA's enforcement policy for disclosure of potential compliance issues discovered in an environmental audit and proposed modifications to the policy. The documents explain how small businesses may report potential compliance issues to EPA and receive a waived penalty, or penalty reductions, provided that the compliance issue is corrected by the facility within a specified time period. Note that the small business policy applies only to small businesses, while the audit policy applies to small and large businesses.

Massachusetts Crash Course for Compliance and Pollution Prevention, *Massachusetts Office of Technical Assistance for Toxics Use Reduction, 1998, 40 pages as workbook and/or 74 as toolbox, Free, Available at http://state.ma.us/ota/ota.htm or by calling (617) 626-1060*

The Crash Course manual provides a comprehensive course on the environmental, health, and safety requirements and pollution prevention practices for auto body shops. The manual also contains information that would be useful to general auto repair shops or small businesses that maintain their own fleet vehicles. The document is one of the most comprehensive compliance assistance materials available to small businesses because it includes health and safety as well as environmental requirements. It includes a plain-language description of the basic environmental, health, and safety issues and regulations that apply to Massachusetts auto body shops, a comprehensive self-audit checklist to help shops review their compliance, and information on pollution prevention opportunities. The manual also provides regulatory and assistance contact information within Massachusetts. The manual is organized such that the user can fairly easily turn to the desired section, read about the requirements, and then move on to the checklist. However, while Massachusetts is the focus, there is sufficient discussion of EPA requirements, EPA contacts, and pollution prevention opportunities that apply in any state to make this document worthwhile to businesses in all states.

National Automotive Compliance Assistance Center*, Coordinating Committee for Auto Repair, 1999, Free, Available at www.ccar-greenlink.org (Web site partially funded by U.S. EPA)*

The National Automotive Compliance Assistance Center provides many audit tools, self-assessment checklists, federal and state compliance assistance and pollution prevention documents, and links to additional state programs and documents. The center is useful for small businesses involved in auto repair or who have vehicle repair or building maintenance activities as part of their operations. The limitation of the Web site is that it does not contain information on all state regulatory requirements for waste disposal of antifreeze, used oil, and solvents, all of which may be regulated differently from state to state. The Web site does contain links to state environmental agencies, so that the user can find the appropriate contacts if the needed information is not directly available on the Web site. Similar to other compliance assistance centers, this Web site can answer many questions and provides many useful tools for small businesses to conduct self-assessments of and make improvements to their environmental management activities related to auto repair.

National Metal Finishing Resource Cente*r, 1999, Cost ranges from $0-$125/year, Available at www.nmfrc.org*

The National Metal Finishing Resource Center is a Web site intended to provide compliance assistance information to metal finishers. The free site provides information on environmental news and regulatory updates, but does not provide access to compliance assistance materials. The pay site ($40-$125/year) provides access to compliance assistance materials that may assist small businesses in assessing its operations with respect to environmental laws and regulations and pollution prevention opportunities.

P2/E2 Pollution Prevention/Energy Efficiency Site Visit Program*, PA Department of Environmental Protection, 1999, Free, Available at www.dep.state.pa.us*

This brochure describes the Pennsylvania Department of Environmental Protection's (PADEP's) P2/E2 program, which provides free pollution prevention and energy efficiency audits to industry and businesses, farming operations, and municipalities with good compliance records. The document recommends that businesses that would like a free audit to complete *An Environmental Self-Evaluation for Small Business* (available at www.dep.state.pa.us, or 717-783-9981) prior to the free site visit to determine whether the business may have significant compliance issues which it would like to correct prior to inviting DEP to the facility. The brochure is simply designed to promote the program and has little value on its own. The brochure and the program only apply to businesses within Pennsylvania. For Pennsylvania businesses, the contact information and the site visit program can be useful for small businesses to conduct self-assessments, and to determine how to evaluate their opportunities for waste reduction, energy efficiency, and cost savings through better environmental and energy management. Note that many other states have similar programs through the state Small Business Assistance Program (usually found within the state department of environmental protection, or the state office of economic development).

Paints and Coatings Resource Center*, 1999, Cost ranges from $0-125, Available at www.paintcenter.org/compass.cfm*

The Paints and Coatings Resource Center is a Web site intended to provide compliance assistance information to small businesses involved in painting and coating metal materials. This free site includes links to federal and state compliance assistance programs. More in-depth information is available for an annual fee of $40 to $125.

Printers National Environmental Assistance Center*, 1999, Cost ranges from $0-125, Available at www.pneac.org/pneac.html*

The Printers National Environmental Assistance Center is a Web site intended to provide compliance assistance information to small businesses involved in the printing industry. This free site includes links to federal and state compliance assistance programs. More in-depth information is available for an annual fee of $40 to $125.

Printers Protecting the Environment Workbook, *Florida Department of Environmental Protection, Small Business Assistance Program, 1999, 93 pages, Free, Available at www.dep.state.fl.us/air/outreach/sbap/index.htm*

The document is the workbook from a Florida workshop on environmental issues affecting printers. The workshop is designed to educate printers on hazardous waste generation, water discharges, and air pollution issues and regulations affecting their operations. The workbook contains background information describing printing processes and their potential environmental impacts, along with checklists on the regulatory requirements under each section. The document is useful to printers in all states for understanding environmental requirements and conducting self-assessments. The limitation of the document is its focus on printers. While other businesses may find some value in reviewing the

document as a method of reviewing their own operations, the document is most useful as a comprehensive compliance assistance and self-audit checklist for printing operations.

***Product Stewardship Resource Guide**, Chemical Education Foundation, April 1998, 83 pages, Free, Available at www.chemed.org or by calling (703) 527-6223*

This guide is similar to the Audit Source Book, with a focus on chemical handling and environmental protection related to chemicals management. The Resource Guide provides over 70 pages of sources of information on general health and safety, environmental and pollution control, emergency planning and response, hazardous materials transportation and regulations, regulatory compliance, product stewardship, and trade associations. The guide focuses on the chemical industry, and nearly all the materials are available through the Chemical Education Foundation (regardless of the author or publisher). The limitation of this document is similar to the limitations of the Audit Source Book, in that it directs the user to other materials, rather than directly providing information.

***Understanding the Hazardous Waste Rules: A Handbook for Small Businesses – 1996 Update**, U.S. EPA, June 1996, 25 pages plus inserts, Free, Available at www.epa.gov/smallbusiness/help.htm or by calling (800) 368-5888*

This document provides background information and details on how small businesses can comply with the federal hazardous waste regulations. The document defines hazardous wastes, lists hazardous wastes typically generated by small businesses and the wastes' associated waste codes, explains how to determine the quantity of waste generated, how to obtain an EPA identification number, requirements for conditionally exempt small quantity generators and small quantity generators, and requirements for managing waste on site. The document concludes with a list of state environmental protection agencies and their contact offices for hazardous waste management. The document is useful for small businesses that would like a walk-through of the hazardous waste requirements, or would like to conduct a self-review of its waste generation activities. The document has limited use in auditing because it does not have a summary checklist or brief audit-review tool. However, the document is easy to read, and provides essential information that would be useful to any small business that would like to better understand requirements for generating, storing, managing, and disposing of hazardous waste.

CHAPTER 5: AUDIT TRAINING COURSES

5.1 Audit Courses Targeted Toward Auditing and/or Small Businesses

Course Title	Provider/URL	Number of Days	Relevance	Cost
Orientation to Environmental Auditing	PRIZIM Inc. www.PRIZIM-Inc.com	1-4	1	$200+/ person/day
Training for Environmental Air Compliance Auditors For Small Businesses	New Jersey Small Business Assistance Program, Office of Pollution Prevention and Permit Coordination, and Cook College, (732) 932-9271 www.state.nj.us/dep/opppc/AUDGUID9.htm	Varies	1	Varies

Orientation to Environmental Auditing, *PRIZIM Inc., 1-4 days, Cost starts at $200 per person, per day (minimum class size of 8) and varies depending on course location and specific requirements of attendees or sponsoring organization. For more information, contact PRIZIM Inc., 316 E. Diamond Avenue, Suite 201, Gaithersburg, MD 20877, (301) 840-9316*

This training course provides an introduction to auditing targeted toward small to medium-sized businesses, and small business assistance providers. The one-day course includes an overview of the audit process, discussion of audit terminology, internal vs. external audits, audit tools, techniques for gathering audit evidence and evaluating facility performance (including interviewing and document reviews), audit reporting, and methods of prioritizing audit findings. The one-day course includes several exercises and discussion to allow attendees to practice the techniques in the classroom or at a nearby facility. The four-day course generally includes visits to a local facility where attendees will use audit tools, evaluate facility performance, develop audit findings, and begin to draft corrective action items for the facility. The course is useful for small to medium-sized businesses that are interested in an orientation to auditing and who would like to be able to determine how a formal auditing program may benefit their business operations. The course is also useful for small business assistance providers that would like to improve their techniques for planning site visits and to be better able to provide auditing expertise to small businesses. Overall, the course provides a detailed review of auditing, combined with practical skills training to allow attendees to better conduct their own internal program, or to be better able to evaluate independent auditors who may visit their facility.

Training for Environmental Air Compliance Auditors for Small Businesses*, New Jersey Small Business Assistance Program, Office of Pollution Prevention and Permit Coordination, and Cook College, Information is available at www.state.nj.us/dep/opppc/AUDGUID9.htm or by calling (732) 932-9271*

The New Jersey Small Business Assistance Program offers a training course in conducting environmental audits for compliance with Clean Air Act requirements in New Jersey. The course is useful for small businesses with manufacturing, printing, painting, or processing operations that may generate air pollutants. The course trains those businesses to conduct internal audits, or to evaluate outside consultants. Specific Clean Air Act topics include air permits in New Jersey, operating permits, pollution prevention, and preparing air emissions statements. The limitation of this course is its focus on New Jersey Clean Air Act requirements only. Thus, its use may be limited for those in other states.

Despite this limitation, the course provides a good standard for evaluating external consultants, or for training in-house staff on important and challenging regulations.

5.2 ISO 14001 Auditing, Environmental Management Systems Auditing, and Related Auditing Courses

ISO 14001 audit training courses are used to receive information and practice a wide range of information from developing a general understanding of the ISO Standard, to developing an EMS audit program, to honing audit-related skills. Classes vary in length and may include the development of an EMS program, hands-on training, writing audit findings, and extensive interaction with other professionals. Training courses are an individual choice based on company needs and previous knowledge of the attendee. Most of the training listed below is geared toward EMS and ISO 14000 implementation and will discuss in some detail the audit process itself. The vast majority of the companies listed offer ANSI-RAB or similar types of certification training courses for those individuals wanting lead auditor certification. The courses listed below are targeted toward enhancing attendee understanding of the auditing standards to be able to conduct audits. The major limitation of these courses is that they are not always relevant to the environmental issues at the small business facility. When registering for a class, to maximize the value of the class, it is important for the small business to determine whether the instructor is familiar with key environmental regulations and plant operations, or whether the small business should receive separate training on environmental issues and regulations prior to attending an ISO training course.

Company	Web site/Information	Types of Courses Offered*	Relevance	Cost Range**
Applied Quality Systems	www.aqsperformance.com	ISO 14000 overview, internal auditor, and ANSI-RAB lead auditor.	2	$995+
Competitive Edge Environmental Management Systems, Inc.	www.isoedge.com	Lead auditor, internal auditor, and implementation training.	2	$595-$1,595
Eagle Group USA, Inc.	www.eaglegrpusa.com	Hands-on audit practice, ISO 14000 internal quality auditor, auditor upgrade/refresher, lead auditor, and gap analysis courses.	2	Varies
Excel Partnership, Inc.	www.xlp.com	Training courses for ISO 14000 from overview to advance accreditation.	2	$295-$1995
Executive Enterprises	www.eeiconferences.com	Courses on ISO 14000 and auditing.	2	Varies
Global Quality Institute	www.globalquality.com	Courses on ISO 14000 interpretation, documentation and implementation, integration with ISO 9000, and improving performance through internal auditing.	2	$595-$895

Company	Web site/Information	Types of Courses Offered*	Relevance	Cost Range**
Government Institutes	www.govinst.com	ISO 14001, implementing and auditing your EMS, process safety management auditing, internal auditor training for the ISM Code and ISO 9000, International environmental auditing, and environmental, health, and safety audit courses.	2	$795-$1,999
International Quality and Environmental Services	www.iques.com	Courses in internal auditing, implementation and documentation, and ISO 14000 overview.	2	Call for costs
ISO 14000 Plus Auditing Training	Board of Environmental Auditor Certifications www.beac.org	Unique training for BEAC members and others interested in EMS auditing.	2	Varies
MGMT Alliances Inc.	www.mgmt14k.com	ISO 14000 lead auditor course.	2	$1,585
Pillar Management Associates	www.pillarassociates.com	ISO 14000 lead auditor, introduction for the CEO, aspects and impacts, and internal auditing.	2	Varies
PRIZIM Inc.	www.PRIZIM-Inc.com	Audit program development, general EMS auditing, advanced auditor skills, and special training for government agencies.	2	Varies
Quality System Development	www.iso14000.net/qsd	Courses in lead auditing, management system integration, EMS internal auditing, and an executive overview and interpretations of ISO 14000.	2	$245-$895+
SGS International Certification Services, Inc.	www.necnet.org	Course in environmental compliance auditing, EMS internal auditor, EMS implementation, and lead auditor training.	2	$595-$1,695
Stat-A-Matrix	www.thesamegroup.com	Courses in lead auditor training, internal auditing, interpreting and implementing ISO 14000, and integrating ISO into a quality management system.	2	$595+

*Some courses are accredited by ANSI-RAB and can be used toward lead auditor certification.
**Check Web site for most current prices and schedules. Price varies with length of class. Some companies offer discounts for group registration and for attending more than one class in a 12-month period.

***Applied Quality Systems**, 2585 Hamline Avenue North, Suite A, St. Paul, MN 55113, (651) 633-7902, www.aqsgerformance.com*

AQS has a course for ISO 14000 internal auditing that provides the attendee with terminology, definitions, background, history, and the rationale for an EMS. In addition, the class discusses the roles and responsibilities of an auditor, provides information to refine the auditor's interview and note-taking skills, and tips for the auditor. The attendee will also receive information on planning and conducting effective audits, documentation, how to develop an EMS audit report, and preparing a closing meeting. This class is targeted toward individuals responsible for planning and performing audits or who may be a member of an audit team. A complete list of courses, dates, times, costs, and agendas is available on the Web site.

***Competitive Edge Environmental Management Systems, Inc**., 27777 Franklin Road, Suite 300, Southfield, MI 48034, (734) 207-4988, www.isoedge.com*

Competitive Edge offers courses in ISO 14000 implementation, internal auditing, and lead auditor training. The agendas list the specific content for each class including hands-on exercises. The two most useful classes for small business are the internal auditing and ISO 14000 implementation courses. They provide specific information on developing an EMS, including performing initial reviews, developing a manual, and auditing a facility. The implementation course is geared toward those individuals responsible for developing and implementing an EMS and the auditing course is recommended for those attendees that will perform the audits. A complete list of courses, dates, times, prices, and agendas is available on the Web site.

***Eagle Group USA, Inc**., 100 West Big Beaver, Suite 200, Troy, MI 48084, (248) 355-4421, www.eaglegrpusa.com*

Eagle Group has an extensive list of training courses by category on their Web site. Courses include a hands-on audit practice course, an ISO 14000 internal quality auditor, auditor upgrade and refresher courses, lead auditor courses, a course on performing a gap analysis, and more. Courses are geared toward specific groups and small businesses should choose courses based on their need and the background of individuals performing audits. A complete list of courses, dates, times, prices, and agendas is available on the Web site.

***Excel Partnership,** 75 Glen Road, Sandy Hook, CT 06482, (203) 426-3281, www.xlp.com.*

Excel Partnership offers an extensive list of training courses for ISO 14000, ISO 9000, and ISO Guide 25. The courses range in complexity from an overview to advanced accreditation classes. Key courses include a three-day EMS Internal Auditing, and a three-day ANSI-RAB Accredited Advanced EMS Auditor Course for Quality and Environmental Professionals. The Excel Partnership offers additional courses related to environmental audit criteria including: Implementing an ISO 14001 Environmental Management System (three-day), Understanding Environmental Regulations (two-day), and ISO 14001 Overview (one-day). A complete list of courses, dates, times, prices, and agendas is available on the Web site.

***Executive Enterprises**, Two Shaw's Cove, New London, CT 06320, (800) 831-8333, www.eeiconferences.com*

Executive Enterprises offers courses in ISO 14000 and auditing. At this time Executive Enterprises is not accredited by ANSI-RAB as a trainer. Courses may not be offered as frequently as some other training institutes. A complete list of courses, dates, times, prices, and agendas is available on the company Web site.

***Global Quality Institute**, 102 Rosedale Avenue, Brampton, Ontario L6X 1K1 Canada, (905) 452-9788, www.globalquality.com*

Global Quality offers courses on ISO 14000 interpretation, documentation and implementation, integrating it with an existing QMS, and improving performance through internal auditing. The interpretation course reviews the development of ISO 14000 and provides an analysis of the components and an understanding of the documentation requirements. The improving performance course through auditing teaches the attendees how to interpret the ISO 14000 Standard and be effective EMS auditors. All courses include case studies. The above courses will benefit small business wanting an understanding of basic ISO 14000 principles and how to interpret the Standard. A complete list of courses, dates, times, prices, and agendas is available on the company Web site.

***Government Institutes**, ABS Group Inc., 4 Research Place, Suite 200, Rockville, MD 20850, (301) 831-8333, www.govinst.com*

Government Institutes offers a wide range of auditing courses, including a general environmental, health, and safety audit course, courses on ISO 14000 implementation, and lead auditor training. Classes range from an introduction to lead auditing giving the small business a wide range of training options to meet all the needs of the business. At this time, Government Institutes does not have a class certified by ANSI-RAB. The environmental, health, and safety audit course provides a solid base for general auditing. A complete list of courses, dates, times, prices, and agendas is available on the Web site.

***International Quality and Environmental Services**, 41820 West Six Mile Road, Suite 100, Northville, MI 48167, (248) 344-4466, www.iques.com*

IQuES offers four ISO 14000 courses: internal auditor, implementation, documentation, and an overview course. The courses provide step-by-step interpretation of the requirements and responsibilities of management, writing environmental policy and procedures, establishing an implementation plan, and preparing audit checklists, conducting interviews, and reporting on ISO findings. The classes are targeted toward senior-level managers, personnel involved in developing and implementing the ISO Standard, and personnel involved in performing the audits. Small businesses need to select classes based on their needs. A complete list of courses, dates, times, prices, and agendas is available on the company Web site.

ISO 14000 Plus Auditing Training*, Board of Environmental Auditor Certifications, 5 days,* www.beac.org

This 5-day training course is a minimum requirement for auditors to achieve certification as an ISO 14001-Plus EMS auditor. The course reviews the five major topics of an environmental management system, and incorporates those into key business processes and regulatory requirements. In contrast to traditional ISO 14000 courses, this course trains attendees on how to assess systems for managing substantial compliance in key regulatory areas. Upon completion of the course, attendees will have greater knowledge of environmental compliance requirements and management systems to be able to assess a business's system for achieving substantial compliance. Other sections of the course include identifying environmental aspects and impacts of business operations, and applying professional auditing practices. The course is useful to those businesses that would like to conduct environmental management systems audits that include a thorough review of compliance issues, for small business assistance providers that would like to learn more about the links between management systems and compliance, and for small businesses to compare the qualifications of outside consultants.

MGMT Alliances Inc*., 301-1529 West 6th Avenue, Vancouver, British Columbia V6J 1R1, (604) 733-2899, www.mgmt14k.com*

MGMT Alliances offers one course on ISO 14000 lead auditing. The course provides attendees with the knowledge and skills required to perform audits for environmental compliance and determine the effectiveness of an EMS. The course also provides an in-depth analysis of the ISO 14000 Standard itself. Upon completion of the course, attendees will receive accreditation from EARA and ANSI-RAB. This course would be useful for small businesses that have a current in-depth knowledge of ISO 14000 and want to maintain a certified lead auditor on staff. A complete list of courses, dates, times, prices, and agendas is available on the company Web site.

Pillar Management Associates*, 322 Poindexter Lane, Lexington, SC 29072, (803) 808-3287, www.pillarassociates.com*

Pillar Management offers courses in ISO 14000 training, lead auditor, introduction, aspects and impacts, and internal auditing. The usefulness of the courses will depend on the needs of the small business. A complete list of courses, dates, times, prices, and agendas is available on the above Web site.

PRIZIM Inc.*, 316 E. Diamond Avenue, Suite 201, Gaithersburg, MD 20877, (301) 840-9316, www.PRIZIM-Inc.com*

PRIZIM offers standard and customized training in EMS auditing (see description in Section 5.1) nationwide. PRIZIM has trained many state government agencies in small business auditing and offers unique training for federal government auditors, as well as for commercial businesses.

Quality System Development*, 105 Woodside Court, Leitchfield, KY 42754, (502) 257-9997, www.iso14000.net/qsd*

Quality System Development provides courses for ANSI-RAB lead auditor, integration of ISO 14000 with a current ISO 9000 management system, EMS internal auditor, and executive overview and interpretation. The two most useful courses for small businesses interested in ISO 14000, EMS, and auditing are the internal auditor's course and the overview course. The other courses are more advanced and apply to businesses that have a strong background in ISO and EMS and want a lead auditor. The courses are geared toward personnel involved in developing and implementing an EMS and in auditing the facility. A complete list of courses, dates, times, costs, and agendas is available on the company Web site.

SGS International Certification Services, Inc*., 5925 Airport Road, Suite 300, Mississagua, Ontario L4V 1W1, (905) 676-9595, Training schedules are available at www.necnet.org or www.sgsicsus.com*

SGS offers courses in environmental compliance auditing, EMS internal auditor and lead auditor training, and EMS implementation. The environmental compliance auditing course is useful for small businesses developing a general auditing system that is not necessarily geared toward ISO 14000/EMS implementation. This course provides protocols and checklists and reviews and critiques examples of auditing systems, workshops, and case studies. A complete list of courses, dates, times, costs, and agendas is available on the company Web site.

STAT-A-MATRIX, *One Quality Place, Edison, NJ 08820-1059, (732) 548-0600, www.thesamegroup.com*

STAT-A-MATRIX offers four courses in auditing and ISO 14000. They include lead auditor training, internal auditing, interpreting and implementing ISO 14000, and integrating ISO 14000 into a QMS. A basic understanding of the ISO 14000 Standard is developed in the interpretation course. The lead auditor training and internal auditing courses require prior knowledge of the ISO Standard and EMS. Attendees can use the interpretation class as a pre-requisite for attending the lead auditor and the internal auditing training. A complete list of courses, dates, times, costs, and agendas is available on the company Web site.