

# APPENDIX A



## **ENVIRONMENTAL PROTECTION AGENCY WATER PROGRAM GRANTS WORK PROGRAM**

**Project Title: Encouraging the Voluntary Use of Environmental Management  
Systems by Small Businesses**

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**NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES**  
***Robert W. Varney, Commissioner***  
***G. Dana Bisbee, Assistant Commissioner***  
***Edward J. Schmidt, PhD, Director, Water Division***  
***Philip J. O'Brien, PhD, Director, Waste Management Division***  
***Kenneth Colburn, Director, Air Resources Division***

## **WATER POLLUTION CONTROL WORK PROGRAM**

NH Department of Environmental Services

**PROJECT TITLE:** Encouraging the Voluntary Use of Environmental Management Systems by Small Businesses

**INTRODUCTION AND BACKGROUND:** The New Hampshire Department of Environmental Services (NHDES) has always encouraged activities aimed at achieving regulatory compliance and environmental improvement through assistance and outreach and has made this approach one of the top goals within the NHDES's Strategic Plan. NHDES has implemented several EPA assistance initiatives including Project XL, CLEAN, and StarTrack. Enabling legislation is pending in the New Hampshire legislature that would give the NHDES Commissioner broad ability to incorporate and recognize ISO 14001 Environmental Management System (EMS) incentives in accomplishing the goals of the NHDES.

NHDES needs to gain experience with environmental management systems in general, and with ISO 14000 specifically, and to begin to explore how widespread use of EMS's could change relationships between NHDES and the regulated community.

### **PROJECT DESCRIPTION:**

The purpose of the project is to address several issues associated with ISO 14001 environmental management systems in New Hampshire's small business community and within NHDES. Issues include:

- Testing issues associated with the implementation of EMS's by small businesses;
- Assessing the type of EMS suited to small businesses;
- Obtaining initial indications of the actual environmental performance of firms implementing EMS's;
- Assessment of possible regulatory incentives and flexibility, and;
- Test acceptance of the EMS concept in the stakeholder community.

This will primarily be accomplished by assisting a group of businesses to prepare EMS's, and by holding discussions with the participating businesses and with stakeholder groups to explore options for possible regulatory incentives for businesses that use EMS's.

The primary industrial development for implementation of this project is the Pease International Tradeport (formerly Pease Air Force Base) with secondary locations being the Grenier Field (Manchester Airport) industrial area and the planned Stonyfield Londonderry Eco-Industrial Park. NHDES may give preference to companies already registered to an ISO 9000 standard, understanding that such companies will be generally familiar with the ISO system and its requirements.

Once a working group of companies have been assembled, the NHDES, with assistance from USEPA Region 1, New England's Office of Assistance and Pollution Prevention, will provide initial training for the working group. This initial training will consist of an introduction to the concepts of EMS's in general and the ISO 14001 EMS specifically. Following this, interns and NHDES personnel will work with the individual companies to help them perform an initial baseline audit. This will result in "gap analysis" reports for each company. This gap analysis report will be the main project deliverable in the case additional funding can not be provided for federal FY98.

Also in FY97, stakeholder groups for the immediate project area and for New Hampshire in general will be identified and contacted. Emphasis will be placed on involving non-governmental environmental advocacy groups. Groups that become involved will be offered the same initial training as the working group of companies so that they can have a comparable knowledge base. NHDES will moderate discussions with the stakeholder groups and the working group of companies to explore whether or not it may be possible in the future for companies with acceptable EMS's to receive different treatment from environmental regulators, and if so, what form that different treatment might take.

As FY97 funding allows, and possibly using additional funding in FY98, a contractor, knowledgeable in ISO 14001 EMS development, will be competitively procured to provide focussed training to the working group to first develop an ISO 14001 EMS specifically tailored to small businesses, and then specific EMS's for each company. Training focus will be on areas identified as deficient in the gap analysis report. NHDES expects to use interns, working with individual companies, to develop the EMS's. As time and funding allows, NHDES may also work with firms at the secondary locations to explore including EMS's in their operations.

An evaluation will be conducted of goals vs. accomplishments relative to environmental compliance and improvement as well as benefits and/or problems (successes/failures) to both the company and NHDES. The audits and monitoring will be performed on a multi-media basis. Businesses will be asked to report on the effectiveness of the EMS and on results within the business.

As part of a final project report, NHDES will evaluate the program to identify and promote more flexible ways to achieve our environmental goals through demonstrated cooperative voluntary achievement rather than forced compliance via command and control. Quantifiable performance measures will be used to evaluate the project and to demonstrate the merits to all stakeholders, in an open exchange of procedures and results.

### **WORK TASKS/OUTPUTS:**

1. Establish a partnership with a suitable group of companies who are willing to develop and implement an EMS. NHDES will ensure that specific firms interested in participating in this program have an acceptable level of historic compliance, as outlined in the Federal Register notice.
2. Simultaneously with task 1, NHDES will identify local stakeholder groups, and conduct a series of meetings with those groups through the life of this project to:
  - Learn what the local concerns are regarding environmental performance of the companies involved in the project;
  - Inform these people about the EMS concept, and;
  - Learn what ideas or expectations they may have about possible incentives or different

regulatory treatment that it would be appropriate to offer in the future to firms that successfully implement EMS's.

NHDES expects that ideas from the stakeholder groups will be fed into the EMS development process, but that these ideas will not necessarily drive the process. Stakeholders may attend one or more of the training workshops, and/or participating firms may attend stakeholder meetings as observers.

3. With the assistance of experts to be contracted by EPA, industrial park representatives, the University of New Hampshire (UNH), and other stakeholders, training will be provided to participating businesses, stakeholders, and/or NHDES staff to develop a basic understanding of EMS's and the ISO 14000 EMS specifically.
4. Each participating business, possibly with assistance from UNH interns, under EPA contract and coordinated by NHDES, will determine the business's current environmental policy, environmental aspects and impacts, existing audit processes, and compliance status. A "gap analysis report" will be developed for each participating business.

**Completion of the following tasks is contingent on receiving additional funding for FY98.**

5. NHDES will procure the services of an expert, knowledgeable in EMS development and ISO 14001, to provide training to the participating firms, and possibly also stakeholders and/or NHDES staff. The work product for this task will be a "generic" EMS for small businesses that can be adapted to specific firms. NHDES expects that this particular task will be at least partially funded by this FY97 grant.
6. NHDES will work with participating businesses to develop and measure specific environmental performance indicators which will be reported along with traditional activity and success indicators. NHDES anticipates that measures of success may include the following:
  - Number of companies participating, as a percentage of total with significant environmental issues in the target area.
  - Percentage of participating companies that complete EMS's.
  - Reduction in emissions and wastes generated from those firms that complete EMS's.
  - Changes to process input quantities, such as reductions in toxic chemical use or reduced use of fresh water or other natural resources.
  - Other measures as determined by the participating firms, such as improvements in financial and environmental performance. NHDES anticipates that this will be the important measure of success, the good will to be generated by the participating firms to "spread the gospel" of EMS use in the New Hampshire business community.
  - Similar to the last measure, a very important measure of success will be the amount of interest from the business community to repeat or continue this project.

The relative weight of these points remains to be determined.

7. UNH interns, under supervision by NHDES staff and/or contractors, will help participating businesses develop individual EMS's based on the developed generic EMS and to implement them within each business. Measures more specific than the ISO 14001 framework will be included in each firm's EMS as appropriate. Auditing procedures, or other follow-up procedures to detect, correct, and analyze the reason for, violations will be included.
8. NHDES will produce a project report describing the work conducted under this project which will include the generic EMS framework and results of discussions with firms and stakeholders on the appropriate types of regulatory incentives thought to be appropriate to offer firms that successfully implement EMS's. NHDES expects to make this report available to EPA and other participating States and to attend meetings to share lessons learned from this project.

**PROJECT TIME LINE:**

<b>Major Work Task</b>	<b>Time frame/Completion Date</b>
<b>1. Establish partnership with candidate companies</b>	<b>September 1, 1997</b>
<b>2. Identify stakeholders, conduct meetings</b>	<b>September 1, 1997 to Project Completion</b>
<b>3. Provide initial training</b>	<b>October 1, 1997</b>
<b>4. Produce gap analysis reports</b>	<b>December 1, 1997</b>
<b>5. Begin focussed ISO 14000 training</b>	<b>January 1, 1998</b>
<b>6. Develop generic small business EMS</b>	<b>February 1, 1998</b>
<b>7. Identify aspects and impacts, goals and objectives, and develop performance indicators</b>	<b>April 1, 1998</b>
<b>8. Develop individual EMS's</b>	<b>August 1, 1998</b>
<b>9. Compile final report</b>	<b>January 15, 1999</b>

**This time line is based on an 18 month year time period beginning August 1, 1997 and ending January 31, 1999. Should the project begin later than August 1, the time frames will be adjusted accordingly.**

**PROJECT BUDGET:**

The Department of Environmental Services requests \$45,000 in Environmental Protection Agency funds to carry out the first four tasks identified above, and begin the fifth task. Funds will support a Project Manager for one-quarter-time. The Project Manager will be responsible for carrying out or coordinating the project tasks described above. Grant funds will also provide for travel and other expenses associated with the project during the grant period. A 10% match for this grant will be in-kind, using the time of DES staff. A detailed budget is attached.

<b>Category</b>	<b>Amount</b>	<b>Participant Cost Share</b>
supplies & materials	2,100.00	
indirect costs	471.00	
audit fund set aside	45.00	
salary	17,689.00	3,740.00
benefits	5,837.00	1,260.00
accounting support	2,250.00	
contractual	13,500.00	
travel	<u>3,108.00</u>	
TOTALS	<u>\$45,000.00</u>	<u>\$ 5,000.00</u>

Total Project Amount = \$50,000.00

## APPENDIX B

### Description of the Other States' Programs

#### Arizona

The Arizona Department of Environmental Quality assisted several facilities to implement ISO 14001 EMSs. Training was provided to participating facilities. Three Baseline Protocols were submitted, but no EMS Design Protocols. As of late 2000, Arizona has dropped out of the program.

#### California

The California Environmental Protection Agency worked with companies that had EMSs in place to evaluate their performance, and assisted some others to implement their EMSs. Extensive stakeholder meetings were held on a regional basis. Eight California facilities are participating in the research.

#### Illinois

The Illinois Environmental Protection Agency worked with companies that already had EMSs. Assistance was provided for data-gathering and stakeholder involvement. A dozen Illinois facilities are participating in the research.

#### Indiana

The Indiana Department of Environmental Management offered small grants to facilities so that they could implement EMSs. Outside stakeholder involvement was required. Six Indiana facilities have participated, four have submitted EMS Design Protocols.

#### North Carolina

The North Carolina Department of Environment and Natural Resources offered technical assistance to several facilities that were perceived to be leaders. Assistance was in EMS development and in filling out the data Protocols. Roundtable meetings were held that focused on participating facilities but also included outside stakeholders. Six North Carolina facilities are participating in the research.

#### Oregon

The Oregon Department of Environmental Quality worked with companies that have EMSs in place to gather performance data through the Baseline and EMS Design Protocols and to develop a regulatory innovation program. Four Oregon facilities are participating in the research.

### Pennsylvania

The Pennsylvania Department of Environmental Protection offered assistance in filling out the data Protocols and in implementing EMSs to interested facilities. Two Pennsylvania facilities are now participating in the research.

### Vermont

The Vermont Department of Environmental Conservation, Agency of Natural Resources, offered EMS implementation training very similar to DES's. Four Vermont facilities are now participating in the research.

### Wisconsin

The Wisconsin Department of Natural Resources provided assistance with data gathering and some implementation assistance. Resources were also put into website development. Wisconsin, like Oregon, was focused on development of a regulatory incentive program. Seven Wisconsin facilities have participated in the research.

## APPENDIX C

### NH's EMS Law and Reports to the Legislature

#### CHAPTER 295 HB 575-FINAL VERSION

12 Mar 97....0491h  
5/22/97 1045s

97-0146  
03/01

#### STATE OF NEW HAMPSHIRE

In the Year of Our Lord One Thousand Nine Hundred and Ninety-Seven

AN ACT authorizing the commissioner of the department of environmental services to accept environmental standards developed by the International Organization for Standardization (ISO) in place of certain permits and certification requirements.

*Be it Enacted by the Senate and House of Representatives in General Court convened:*

1. 295:1 Findings. The general court finds that the promulgation of the environmental
2. management standards by the International Organization for Standardization (ISO 14000
3. is
4. important for success in international trade, and that authority for a New Hampshire entity,
5. either public or private, to certify managerial practices of private companies relative to ISO
6. 14000 standards will be important to New Hampshire's competitive position internationally.
7. 295:2 New Paragraph; Duties of Commissioner; International Environmental Management
8. Standards. Amend RSA 21-O:3 by inserting after paragraph IX the following new
9. paragraph:
10. X. (a) Have the authority to:
11. (1) Accept the international environmental management standards developed by
12. the International Organization for Standardization 14000 series (ISO 14000).
13. (2) Determine, at the commissioner's discretion, whether ISO 14000 certification of
14. certain entities ensures adequate compliance with existing standards or requirements
15. established by the department.
16. (3) Investigate the possibility of seeking certification of the department as an ISO
17. 14000 registrar.
18. (4) Disseminate information on the availability and benefits of ISO 14000
19. certification.
20. (b) File reports of the department's activities and recommendations for
21. legislative action
22. pursuant to this paragraph with the house environment and agriculture committee before
23. July 1, 1998, and before July 1, 1999.
24. 295:3 Repeal. RSA 21-O:3, X, relative to international environmental management

- standards, is repealed.
19. 295:4 Effective Date
  20. I. Section 3 of this act shall take effect July 1, 2000.
  21. II. The remainder of this act shall take effect 60 days after its passage.
  22. (Approved: June 20, 1997)
  23. (Effective Date: I. Section 3 shall take effect July 1, 2000.
  24. II. The remainder shall take effect August 19, 1997.)

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Report #1 – printed off disc

August 17, 1998

The Honorable George Musler, Chairman  
House Environment & Agriculture Committee  
Legislative Office Building, Room 303  
33 North State Street  
Concord, New Hampshire 03301

RE: ISO 14000 series of international standards on environmental management systems

Dear Chairman Musler:

In Chapter 295, Laws of 1997, the Legislature tasked the Department of Environmental Services (DES) to report to this Committee on some specific issues related to the ISO 14001 international standard for environmental management systems (EMS's). I have attached a copy of that statute for your reference.

The EMS concept arose in the private sector in the early 1990's as the business community realized that it was inefficient and costly to deal with their environmental concerns in purely reactive ways, or by "crisis management". EMS's are the application of management science to dealing with the environmental aspects of a business.

Different national standards organizations and industry sector groups responded by developing various EMS standards. In part to address the differences between the various standards, in 1996 the International Organization for Standardization (ISO) finalized the ISO 14001 international EMS standard. ISO is made up of the standards organizations of approximately 110 countries. The American National Standards Institute is the official U.S. representative to ISO. ISO produces standards covering subjects from thread gauges to how information is magnetically coded on the back of credit cards. ISO develops standards through a consensus-based process.

ISO is now producing a series of environmental management standards called the ISO 14000 series. The actual EMS standard to which one certifies is ISO 14001. Other standards in the ISO 14000 series support the ISO 14001 standard. These other standards cover audit procedures, credentials of auditors, measures of environmental performance, etc. The ISO 14000 standards are written so that they can be applied by any organization throughout the world, in any regulatory environment.

When producing a standard, ISO invites any interested organization to participate in the discussions. The US Environmental Protection Agency actively participated, and continues to participate, in the work of developing the ISO 14000 standards.

DES is very interested in the promise of the ISO 14001 EMS standard. We believe that movement of businesses away from dealing with their environmental affairs in purely reactive ways toward using organized environmental management systems can only mean improved environmental performance and improved economic performance. We are working to generate data to help us measure these changes.

A significant thrust of Chapter 295 is to examine the relationship between certification to the ISO 14001 standard and assurance of compliance with environmental laws and regulations. To have a firm's EMS certified to the ISO 14001 standard the firm must first formally commit in policy statements to conform to relevant legal requirements and second, must have a system in place to identify and address all legal and other requirements that the firm is subject to. This is emphatically not the same as actually being in compliance with those legal and other requirements. The ISO 14001 standard itself does not require actual compliance. However, we believe that just having a system in place to identify and address all legal and other requirements that the firm is subject to is an important step in the right direction.

There is lively on going discussion in the ISO 14000 community regarding the relationship between certification to the ISO 14001 standard and compliance. In theory, the auditors who come to a facility to check if the facility's EMS meets the ISO 14001 standard do not check for compliance because the standard does not require compliance. However, in practice, the auditors seem to look at the compliance performance of the facility to some extent. It does seem clear that to maintain certification, the facility will have to demonstrate improved compliance, assuming that there are areas of non-compliance. DES has to conclude that at this time, certification to ISO 14001 alone does not ensure adequate compliance.

DES does feel that firms with ISO 14001 environmental management systems will probably have greater rates of compliance, and we are actively researching this question. Using a two year, \$100,000, EPA grant which we received in the fall of 1997. we're working with several firms the Pease International Tradeport in a pilot project to assess the performance of the ISO 14001 environmental management system. In that project, we are providing assistance to these firms so that they will have ISO 14001-complaint EMS's in place by this winter. At the same time, we will gather data to assess changes in performance in the areas of environmental performance, regulatory compliance performance pollution prevention, stakeholder confidence, and economic impacts and benefits to the companies. Representative Naida Kaen of the House Science, Technology & Energy Committee is participating in the stakeholder group-the DES ISO 14000 Advisory Committee-that is helping DES assess the environmental performance of our participating firms and the possible policy implications of widespread EMS use.

Approximately twelve states and several federal agencies are conducting similar studies. These projects are all researching the effectiveness of the ISO 14001 EMS in the same areas, and are generating data in a consistent format. Data from all these projects is going into a common database maintained at the University of North Carolina. We hope that this will allow us to have reliable data to make appropriate policy decisions in the future.

One thing that an ISO 14001 EMS brings to a company is the promise of better environmental performance in un-regulated areas. For example, we have no laws in New Hampshire mandating waste reduction, nor do we regulate the quantity of energy used, or the amount of raw materials recycled. In an ISO 14001 EMS, the company addresses all its environmental impacts, whether regulated or not.

DES encourages better performance in these unregulated areas to help us accomplish our mission which is to protect and enhance New Hampshire's environment. As part of our research project, we are exploring options with the DES ISO 14000 Advisory Committee on what positive incentives we may be able to offer firms to improve performance in non-regulated matters and in regulated matters for performance beyond the minimum actually required in the regulations. Certification to the ISO 14001 standard may be a way to identify companies that merit such incentives.

Chapter 295 specifically requested DES to *"investigate the possibility of seeking certification of the department as an ISO 14000 registrar"*. Registrars are the parties who conduct audits at a facility, and make a determination as to whether the firm's EMS meets the ISO 14001 standard. In the United States, registrars are accredited by the American National Standards Institute – Registrar Accreditation Board. Registrars are, by definition, disinterested third parties. DES feels that enough registrars are available in the private sector to make this government involvement unnecessary.

DES has been active with the state's business community to publicize our interest in and support of EMS use. This letter forms the first of the reports to your Committee required in Chapter 295 of the Laws of 1997. Please do not hesitate to contact my office if you have questions or want any more information.

Sincerely,

Robert W. Varney  
Commissioner

Att:Chapter 295,Laws of 1997  
cc: Robert Minicucci, DES

Report #2 – printed off disc

August 3, 1999

The Honorable George Musler, Chairman  
House Environment & Agriculture Committee  
Legislative Office Building, Room 303  
33 North State Street  
Concord, NH 03301

Re: **ISO 14000 series of international standards on environmental management systems**

Dear Chairman Musler:

We are pleased to submit this second report on specific issues related to the ISO 14001 international standard for environmental management systems (EMSs), as required by Chapter 295 of the Laws of 1997.

The EMS concept arose in the private sector about ten years ago as the business community realized that it was inefficient and costly to deal with their environmental concerns in purely reactive ways, or by "crisis management". EMSs are the application of management science to the

environmental aspects of a business. Different national standards organizations and industry sector groups responded by developing various EMS standards. In part to address the differences between the various standards, in 1996 the International Organization for Standardization (ISO) finalized the ISO 14001 international EMS standard. ISO is made up of the standards organizations of approximately 110 countries. The American National Standards Institute is the official U.S. representative to ISO. ISO produces standards covering subjects from thread gauges to how information is magnetically coded on the back of credit cards. ISO develops standards through a consensus-based process.

ISO has now producing a series of environmental management standards called the ISO 14000 series. The actual EMS standard to which one certifies is ISO 14001. Other standards in the ISO 14000 series support the ISO 14001 standard. These other standards cover audit procedures, credentials of auditors, measures of environmental performance, etc. The ISO 14000 standards are written so that they can be applied by any organization throughout the world, in any regulatory environment.

When producing a standard, ISO invites any interested organization to participate in the discussions. The US Environmental Protection Agency actively participated, and continues to participate, in the work of developing the ISO 14000 standards. DES is now participating in this work, through a Multi-State Working Group for Environmental Management Systems (MSWG), a winner of a 1998 Council of State Governments Innovation Award.

DES is very interested in the promise of the ISO 14001 EMS standard. We believe the business trend toward organized environmental management systems and away from purely reactive relations can only mean improved environmental results and improved economic performance. We are working to generate data to gauge whether our belief in the promise of EMSs is supported by actual experience.

A significant thrust of Chapter 295 is to examine the relationship between certification to the ISO 14001 standard and assurance of compliance with environmental laws and regulations. To have a firm's EMS certified to the ISO 14001 standard, the firm must first formally commit in policy statements to conform to relevant legal requirements and second, must have a system in place to identify and address all legal and other requirements that the firm is subject to. This is not the same as actually being in compliance with those legal and other requirements, and the ISO 14001 standard itself does not require actual compliance. However, we believe that with a system in place to identify and address all legal and other requirements that a firm is subject to, that firm has made an important step in the right direction.

Discussion continues in the ISO 14000 community regarding the relationship between third party certification to the ISO 14001 standard and regulatory compliance. Third party certification involves independent auditors examining a facility to determine whether that facility's EMS meets the ISO 14001 standard. These auditors do not verify regulatory compliance because the standard does not require compliance. However, in practice, the auditors do look somewhat at the compliance performance of the facility. Because of the requirement in the standard to show continuous improvement, it appears that to maintain certification the facility would have to demonstrate improved compliance, assuming that there are areas of non-compliance. However, certification to ISO 14001 alone does not necessarily ensure adequate compliance.

We feel intuitively that firms with ISO 14001 environmental management systems in place, whether registered or not, will probably have greater rates of compliance, and we are actively researching this issue. We are working with several firms in the seacoast area in a pilot project to assess the performance of the ISO 14001 environmental management system. In that project, we are providing assistance to these firms so that they will have ISO 14001-compliant EMSs in place by the end of 1999. At the same time, we will gather data to assess changes in performance in the areas of environmental performance, regulatory compliance performance, pollution prevention, stakeholder confidence, and economic impacts and benefits to the companies. Representative Naida Kaen of the House Science, Technology & Energy Committee is participating in the DES ISO 14000 Advisory

Committee that is helping DES assess the environmental performance of our participating firms and the possible policy implications of widespread EMS use.

At least twelve states and several federal agencies are conducting similar studies. These projects are all researching the effectiveness of the ISO 14001 EMS in the areas noted above, and are generating data in a consistent format. Data from all these projects is going into a common database maintained at the University of North Carolina. We hope that this will allow us to have reliable data to make appropriate policy decisions in the future. As this is an on-going effort, we hope that by the middle of 2000 answers will begin to emerge from the data.

One thing that an ISO 14001 EMS brings to a company is the promise of better environmental performance in non-regulated areas. For example, we currently have no laws in New Hampshire mandating waste reduction, nor do we regulate the quantity of energy used, or the amount of raw materials reused or recycled. In an ISO 14001 EMS, the company would address each of these items by dealing with all of its environmental impacts, whether regulated or not. DES encourages better performance in these unregulated areas to help us accomplish our mission to protect and enhance New Hampshire's environment and public health. We are exploring options with the DES ISO 14000 Advisory Committee on what positive incentives we may be able to offer firms to improve performance in non-regulated matters and to go "beyond compliance" in the activities subject to regulatory requirements, beyond the minimum required in the regulations. Certification to the ISO 14001 standard may be a way to identify companies that merit such incentives. It is important to note that we feel that such incentives are only appropriate for companies that go beyond the minimum standards that compliance with the laws and regulations establish.

In the normal process of periodic revisions to ISO standards, many parties are advocating for changes to the ISO 14001 standard that would strengthen the need for assuring compliance with relevant laws and regulations, to improve communications with the public, and to strengthen the move toward proactive prevention of pollution through source reduction. DES has been represented in this process, with the US EPA and many other states, through the Multi State Working Group. DES generally supports these proposed changes in the belief that they will strengthen the standard, lead to better environmental performance, and promote public knowledge of a company's performance.

Chapter 295 specifically requested DES to "*investigate the possibility of seeking certification of the department as an ISO 14000 registrar.*" Registrars are the parties who conduct audits at a facility, and make a determination as to whether the firm's EMS meets the ISO 14001 standard. In the United States, registrars are accredited by the American National Standards Institute - Registrar Accreditation Board. Registrars are, by definition, disinterested third parties. As we indicated in last year's report, DES feels that we cannot achieve this disinterested status because of our responsibility for enforcing the state's environmental laws. Furthermore, we feel that enough registrars are available in the private sector to make this government involvement unnecessary.

The last issue of this report relates to recommendations for legislative action. As stated above, DES has undertaken significant work to investigate the effectiveness of ISO 14001 EMSs. We have no firm conclusions yet as to how regulatory incentives or other changes to the current system might be beneficial. We therefore suggest that no specific new legislation on ISO 14001 be pursued at this time. DES has been active with the state's business community to publicize our interest in and support of EMS use. We do see the possibility of including EMS-related assistance in DES's spectrum of business assistance programs.

This letter forms the second and last of the reports to your Committee required in Chapter 295 of the Laws of 1997. Thank you for your interest in our analysis of ISO 14001 and its place in our environmental programs. We look forward to future interaction with you on the subject. Please do not hesitate to contact my office if you have questions or want any more information.

Sincerely,

Robert W. Varney  
Commissioner



## APPENDIX D

### Description of EMS Implementation Training Program

#### I. SCOPE OF WORK

##### Task I: Informational Training Sessions

QST will provide informational training for stakeholders in two evening sessions. These training sessions will provide attendees with a general understanding of the elements of an EMS and specific training as to the requirements of ISO 14001. QST anticipates that these training sessions will be conducted in two three-hour sessions. The sessions will be conducted by Mr. Wilson and will include appropriate handouts to assist attendees in understanding the material. Likewise, examples taken from everyday experiences will be used to explain concepts such as identifying environmental aspects and impacts, setting objectives, developing operational plans, or selecting environmental performance indicators.

It is QST's understanding that the sessions will be conducted at an appropriate conference room, to be provided by the NH DES, at the Pease International Tradeport. QST will provide coffee and tea for both sessions and has, for costing purposes, assumed 30 attendees..

QST will also provide one six-hour training session for NH DES staff and other interested parties. This session will be structured in the same manner as the training session described above. It is QST's understanding that the session will be conducted at the NH DES offices in Concord, NH. QST will not be responsible for refreshments or lunch for this session.

##### Task II: EMS Implementation Training and Assistance

QST's scope of work involves a series of seven interactive training sessions to walk the participating companies through the entire implementation process. The major advantages of this approach are:

- interaction and ideas exchange between participating companies;
- employee buy-in of the EMS process through use of employees to assist in each stage of the planning and implementation process;
- ability of companies to try out what they have learned in their own facilities and to customize the process to meet the unique demands of their operations;
- cost effectiveness of small group training versus having a consultant perform similar tasks separately for each company .

This balanced approach uses a progressive series of training sessions. Time is provided between sessions for individual companies to practice the lessons learned. The next session allows a segment of time for feedback and additional support. This series of sessions moves through the steps of EMS implementation so that by the end, the participating companies have or are well on their way to having, their EMS in place. The implementation steps will follow

ISO 14004, the general international guidelines for EMS. Not only is it a solid approach with inputs from professionals around the world, but an EMS fashioned after ISO 14004 easily leads to ISO 14001 certification.

The sessions will be structured to provide 50 minutes of training and ten minute breaks each hour. This structure has been shown to provide optimal transfer of information and enhances attention and participation. Training sessions will be highly interactive and include frequent breakouts for small group practice.

It is QST's understanding that the sessions will be conducted at an appropriate conference room, to be provided by the NH DES, at the Pease International Tradeport. QST will provide a continental breakfast with tea and coffee and break refreshments for the half-day sessions. In addition, for the full-day session, QST will provide lunch. For costing purposes, QST has assumed 15 people will participate in the training sessions.

The session descriptions below describe each training session. The descriptions are structured to detail the following, as appropriate for each session:

- *Review/Feedback* - For sessions where assignments are given, the first part of the next session is devoted to review and discussion of the assignments.
- *Topics Covered* - Describes the topics to be discussed in each session.
- *Session Duration* - The time required to complete the training session.
- *Materials* - Describes the materials QST would anticipate providing to participants. The description is not necessarily complete, as the materials will be structured to the particular needs of the participants.
- *Assignments* - Describes the anticipated assignments to be completed by participants before the next session.
- *Potential External Deliverables* - Describes outputs from the participants which could be provided to stakeholders, if desired. It is unlikely that all of the materials listed would be appropriate, but we have identified obvious outputs for consideration at each step of the training.
- *Time To Next Session* - The amount of time needed by participants to complete their assignments.
- *Additional Assistance* - Describes activities that QST could provide outside the classroom, if necessary, for individual participants.

#### **Session One: Introduction, Commitment, Policy, and Implementation Strategies**

*Topics Covered:* Session One will begin with a brief and very practical overview of the EMS implementation steps stressing the requirements of ISO 14001. Discussion will then turn to the issues of top management commitment and the importance of the environmental policy. This will include ways to attract top management's commitment, what should be included in the environmental policy, and how to develop an environmental policy. The

final topic will cover how to select an implementation strategy which works for their company, including issues such as implementation teams, assuring buy-in at all levels of the company, and availability of resources, both time and money.

*Session Duration:* 4 hours.

*Materials:* As necessary and appropriate to conduct the described training, including samples of environmental policies, summary material on ISO 14000, and a copy of The ISO 14000 Answer Book. Each participant will be provided a loose leaf binder in which to build his/her EMS Program, as the sessions proceed.

*Assignments:* Develop an environmental policy. Select an approach to implementation, including identifying personnel and their roles and responsibilities.

*Time To Next Session:* 4 weeks minimum.

*Additional Assistance:* The issues discussed in Session One generally require serious attention and commitment from each company's top management. QST can meet with management to help them better understand the EMS process, benefits, and resource implications. QST will rely on Mr. Wilson and Mr. Zimmerman (benefits associated with pollution prevention and waste minimization initiatives) to provide this assistance.

#### **Session Two: Initial Review, Environmental Aspects/Impacts, Legal and Other Requirements**

*Review/Feedback:* This session will start with an opportunity for participants to discuss their environmental policies and selection of an implementation approach. The intent is to get participants to share successes and failures and help everyone ensure that they have an acceptable environmental policy and have identified appropriate personnel to get the EMS implemented. Key personnel responsible for implementation should be involved in the remaining training sessions.

*Topics Covered:* This session will address how to determine the need for and then how to conduct an initial review, including tools such as checklists or questionnaires. The discussion will then turn to the important step of determining environmental aspects and their corresponding impacts. Practical examples will be used to assist participants in understanding the concept of environmental aspects, in identifying associated impacts, and in assessing significance. Finally, the discussions will focus on legal and other requirements that companies may need to consider when deciding on EMS objectives.

- Session Duration:* 6 hours training and a lunch break.
- Materials:* As necessary and appropriate to conduct the described training, including case studies, initial review checklist/questionnaire, matrix sheets for identifying environmental aspects/impacts, and matrix sheets for assessing significance.
- Assignments:* Conduct an initial review. Develop a list of environmental aspects for your company. Determine the impacts for the selected environmental aspects. Develop a short-list of significant environmental aspects and impacts. Identify those legal and other requirements which your company will consider for your EMS.
- Potential External Deliverables:* Environmental Policies.
- Time To Next Session:* 6 weeks minimum.
- Additional Assistance:* QST can provide personnel to either conduct or help companies conduct the initial reviews. QST prefers to see companies provide at least a core of employees to conduct the initial review to ensure employee buy-in to the process. Mr. Wilson can meet individually with any company's implementation team to assist in defining environmental aspects/impacts.
- Session Three: Setting Objectives & Targets and Developing Environmental Management Programs**
- Review/Feedback:* Participants will be encouraged to share their lists of environmental aspects and discuss how they were selected and how the issue of significance was addressed. Likewise, participants will be encouraged to share their lists of legal and other requirements. It is anticipated that this review will be longer than the previous one so that adequate time can be devoted to this important step. The goal is to ensure that each participant's company has the appropriate basis from which to develop objectives & targets and environmental programs, and proceed with implementation.
- Topics Covered:* This session will look at how to develop objectives and targets which relate to the environmental policy, environmental aspects, and legal and other requirements. Again, practical examples will be used to illustrate the process. The remainder of this session will be used to discuss the development of environmental management programs for the objectives and targets. This includes the elements of an environmental management program, as well as the use or adaptation of existing management programs.

*Session Duration:* 4 hours.

*Materials:* As necessary and appropriate to conduct the described training, including matrix sheets for setting objectives & targets and example environmental programs.

*Assignments:* Develop a list of objectives and targets consistent with the environmental policy, to address the significant environmental aspects of your company and to meet legal and other requirements under which you operate. Develop appropriate environmental management programs for your company's objectives and targets.

*Potential External Deliverables:* Initial Review Report; matrix of significant environmental aspects/impacts; list of legal and other requirements.

*Time To Next Session:* 4 weeks minimum.

*Additional Assistance:* QST can provide assistance to develop objectives & targets and environmental programs, and if necessary to help draft environmental programs. Dr. Barg would take the lead for drafting assistance. This would be accomplished by interviewing appropriate company personnel as to the specific operations and, based on the company's selected objectives and targets, drafting appropriate programs to achieve the objectives.

**Session Four: Implementation 1: Capability, Accountability, and Training**

*Review/Feedback:* This review period will focus on the setting of objectives & targets and the environmental management programs developed for each participant's company. Key considerations are the responsiveness of the objectives & targets and environmental programs to the environmental policy and environmental aspects/impacts.

*Topics Covered:* This session begins the discussion of actual implementation of the EMS and will address the following EMS elements:

- ensuring that appropriate resources are available to implement the environmental programs and meet the objectives and targets;
- consideration of alignment and integration of the company's EMS with non-EMS management system elements already in place within the company;
- ensuring employee awareness of environmental management goals;

- ensuring adequate and appropriate knowledge and skills for employees in environmentally sensitive job descriptions;
- developing, conducting, and reviewing appropriate training programs.

*Session Duration:* 6 hours and a lunch break.

*Materials:* As necessary and appropriate to conduct the described training, including matrix sheets for roles and responsibilities, matrix sheets for existing management elements, samples training logs, sample job activities and skill requirements.

*Assignments:* Identify the specific resources to be made available for implementation and operation of your company's EMS. Develop a matrix of existing management elements and the integration/alignment of your EMS elements with those existing management elements. Define and list the specific people responsible for each element of implementation, operation, and review of your company's EMS. Define specific activities aimed at promoting employee awareness and ensuring employee buy-in. Develop a list of environmentally sensitive job activities and corresponding skill requirements. Develop training programs to ensure employee awareness and job skills.

*Potential External Deliverables:* Matrix of objectives & targets.

*Time To Next Session:* 6 weeks minimum.

*Additional Assistance:* The Project Team can assist individual companies, as needed, to identify environmentally sensitive jobs and develop capability requirements for those jobs. Likewise, the Project Team, as well as other QST Nashua staff, have the expertise to provide in-house training, if needed. The project Team can assist the company to set up its own internal training programs or provide actual training.

#### **Session Five: Implementation 2: Communication, Documentation, Operational Control, and Emergency Preparedness**

*Review/Feedback:* In this review period we will discuss each participant's progress in starting to implement their EMS. Participants can gain valuable insights from hearing about the experiences of others; what works and what doesn't. Support will be provided to those who are having difficulties with particular elements.

- Topics Covered:* This session completes the discussion of actual implementation of the EMS and will address the following EMS elements:
- communicating EMS information internally to employees and, as desired, reporting environmental activities externally;
  - documenting operational processes and procedures related to your EMS; what needs to be documented?; how are documents updated?;
  - developing operating procedures which ensure that your company's environmental policy and objectives and targets are met;
  - developing, or incorporating existing, emergency plans and procedures for accidents, failures, or non-routine operating conditions (e.g., shut down; emergency maintenance).
- Session Duration:* 4 hours.
- Materials:* As necessary and appropriate to conduct the described training, including sample document logs, sample document control procedures, matrix for tracking incidents and corrective action, example operating procedures.
- Assignments:* Determine top management's intent for reporting and establish appropriate procedures to ensure internal communication and external reporting (consistent with management's intent). Determine the documentation necessary for your EMS to ensure control, review, and improvement of the EMS. Determine the operational procedures necessary to ensure conformance with your EMS, develop a basic format which defines the minimum requirements for the procedures, prioritize the order of completion of the procedures, and establish a schedule for completion of the procedures. Define emergency and non-routine incidents associated with each operation necessary to ensure conformance with your EMS and either prepare emergency preparedness and response procedures or integrate existing procedures into the framework of your EMS.
- Potential External Deliverables:* Summary of training and awareness programs; EMS responsibility organization chart.
- Time To Next Session:* 5 weeks minimum.
- Additional Assistance:* QST has considerable experience helping companies develop operational procedures which address environmental concerns associated with the operations. Dr. Barg would take a lead role in providing assistance on operational procedures. Likewise, the project Team has developed numerous contingency plans, as well as Integrated Contingency Plans.

**Session Six: Measurement and Evaluation**

- Review/Feedback:* In this review period we will discuss each participant's progress in completing the steps needed to implement their EMS. As in Session Five, participants can gain valuable insights from hearing about the experiences of others; what works and what doesn't. Support will be provided to those who are having difficulties with particular elements.
- Topics Covered:* Environmental measurement provides the data and information necessary for management to evaluate the performance of your EMS against the objectives and targets, to determine where changes or adjustments are needed, and ensure continual improvement of the EMS. This session will address issues related to measurement and evaluation and will discuss:
- environmental performance evaluation and the development of appropriate environmental performance indicators, including discussion of the ISO 14031 standard on environmental performance evaluation;
  - the importance of documented corrective and preventative action;
  - storage of EMS records, data, and other information, and how to manage that information so that it is available to those in the company who need it;
  - the role of audits and the distinctions between EMS audits and compliance audits.
- Session Duration:* 6 hours training and a lunch break.
- Materials:* As necessary and appropriate to conduct the described training, including case studies, example environmental performance indicators, and protocols for EMS and compliance audits.
- Assignments:* Develop environmental indicators to measure environmental performance related to your company's objectives and targets. Consider existing document control and management systems at your company and evaluate their adaptation to or integration with EMS information. Develop a plan for periodic audits of your EMS.
- Potential External Deliverables:* EMS Communication Plan; matrix of operational procedures development; Emergency Preparedness Plan.
- Time To Next Session:* 8 weeks minimum.
- Additional Assistance:* QST can provide assistance in developing appropriate environmental indicators. QST understands that EMS and compliance audits will be

conducted as a second phase of this project and, therefore, will not expect participating companies to be conducting audits at this time.

**Session Seven: Review and Improvement**

*Review/Feedback:* This session will be primarily a review of the work being performed by the participants relative to measuring the performance of their EMS. The measurement and evaluation process will highlight areas of the EMS where improvements are needed. The development of environmental indicators is a key element and time will be needed to discuss how this process is working. Therefore, much of this session will involve discussing how the environmental indicators are working, looking at problems in the EMS which may have been uncovered, and really looking back at the whole EMS implementation process in light of the data and information collected. This may lead to a reappraisal of some environmental aspects, adjustments of objectives and targets, reconsideration of some environmental programs or operational procedures, etc. This is the time to look at the EMS in total and consider its effectiveness.

*Topics Covered:* This session will close with a brief discussion of management review and the concept of continual improvement of the EMS.

*Session Duration:* 4 hours.

*Materials:* None.

*Assignments:* None.

*Potential External Deliverables:* List of environmental performance indicators.

## II. SCHEDULE

QST is available to begin work on the project as soon as final cost and scope negotiations are completed. QST would recommend starting the Task II training sessions as early as possible. Our proposed schedule assumes a February start date for Task II. The Task I informational training session for stakeholders could occur anytime early in the project and should not hold up the start of Task II.

The proposed schedule is as follows:

Task I: Informational Training Sessions for Stakeholders and NH DES

Within 2 weeks after contract execution/approval.

Task II: EMS Implementation Training and Assistance

Start within 3 weeks after contract execution/approval.

Session 1	Week #3
Session 2	Week #7
Session 3	Week #12
Session 4 (Note 1)	Week #17
Session 5 (Note 2)	Week #23
Session 6 (Note 3)	Week #28
Session 7	Week #36

Note 1: Actual training would occur over time and would not be expected to be completed by Session 5. A training program and schedule would need to be completed by Session 5.

Note 2: The EMS should be in place by the end of Session 5 activities. The review part of Session 6 has the purpose of settling any outstanding implementation step issues.

Note 3: Sessions 6 and 7 deal with ongoing issues of measurement and review of the EMS. Environmental measurement is important and we have provided time for companies to give the issues serious consideration.

QST will work with the DES staff to develop a final schedule which best meets the needs of the pilot project. Likewise, as deliverables are identified by DES or stakeholders, QST can build deadlines or submittal dates into the final schedule.

## APPENDIX E

### Roster and Minutes of DES ISO 14000 Advisory Committee Meetings

#### NHDES ISO 14000 ADVISORY COMMITTEE MEMBERS (random order, as of 11/00)

Ken Baker Tuck School, Dartmouth Coll. Hanover, NH 03755	Ned Beecher N.E. Biosolids & Residuals Assn PO Box 422 Tamworth, NH 03886-0422	Paul L. Adams T.A.P.P. 23 Kelly's Corner Road Chichester, NH 03234
Ann S. Reid Great Bay Watch UNH Coop. Ext./Sea Grant Kingman Farm Durham, NH 03824	Nancy L. Girard, Esq Conservation Law Foundation 27 North Main Street Concord, NH 03301-4930	Henry Mullaney, Ph.D NH Industrial Research Center 138 Kingsbury Hall Durham, NH 03824-3591
Laurel Brown NH Business & Industry Assoc. c/o PSNH 1000 Elm Street, PO Box 330 Manchester, NH 03105	The Honorable Naida Kaen NH House of Representatives Science, Tech. & Energy Comm. 22 Toon Lane Lee, NH 03824	Steven F. Parkinson, PE City of Portsmouth 700 Islington Street Portsmouth, NH 03801
Michael J. Walls, Esq NH Attorney General's Office 33 Capitol Street Concord, NH 03301-6397	Barbara Bernstein WasteCap of NH 122 N. Main Street Concord, NH 03301	Everett P. McBride, Jr. NH Municipal Association c/o Town of Salem 66 Millville Street Salem, NH 03079
Donald Grogan, PE, DEE Consulting Engineers Council of NH c/o Roy f. Weston, Inc. One Wall Street Manchester, NH 03101	Wayne Bates Environmental Business Council - N.E. c/o Rizzo Associates PO Box 9055 Framingham, MA 01701-9005	Thomas E. Roy, PE NH Consulting Engineers Council c/o Aries Engineering, Inc. 46 South Main Street Concord, NH 03301
Michael Simpson, Director Resource Management & Administration Program Antioch - New England Graduate School 40 Avon Street Keene, NH 03431	Alan Borner, Executive Dir. The Environmental Hazards Management Institute 10 Newmarket Road PO Box 932 Durham, NH 03824	Elizabeth Todd Town of Londonderry 50 Nashua Road Londonderry, NH 03053
Linda Landis, Esq. NH Bar Association c/o Public Service of NH 1000 Elm Street, PO Box 330 Manchester, NH 03105	Jeffrey Myers, Esq. NH BIA c/o Verrill & Dana, LLP One Portland Square Portland, ME 04112-0586	Steven Dark Jaffrey Chamber of Commerce c/o Millipore Corporation 11 Prescott Road Jaffrey, NH 03452
Not on committee, but receive notifications and minutes, etc.:		
	Ms. Susan Arnold, Esq. Office of the Governor 107 North Main Street Concord, NH 03301	The Honorable Charles Royce Chairman, House Resources, Recreation & evelopment Comm. 113 Mountain Road Jaffrey, NH 03452-2118

June 24, 1998

Memo to: Members of the DES ISO 14000 Advisory Committee  
From: Bob Minicucci, DES  
Re: June 11, 1998 Advisory Committee Meeting

This memo serves to record the discussions at the June 11, 1998 meeting of the DES ISO 14000 Advisory Committee. The meeting started at about 1:10 PM, and ended at about 3:35 PM. The people who attended were:

Name	Representing
Ken Baker	Dartmouth College
Paul L. Adams	T.A.P.P.
Ellen O'Donnell	NH Business & Industry Association
The Honorable Naida Kaen	NH House of Representatives Science, Technology, & Energy Committee
Justin Richardson	NH Attorney General's Office
Lee Sollenberger	Consulting Engineers Council of NH
Jane Carpenito	Environmental Business Council - N.E.
Jean Holbrook	US EPA Region 1, New England
David Guest	US EPA Region 1, New England
Dana Bisbee	NH Department of Environmental Services (DES)
Bob Minicucci	DES

Following introductions, DES Assistant Commissioner Dana Bisbee made some introductory remarks. He thanked all Committee members for their willingness to help DES. He spoke of the 1997 NH legislation which directed DES to examine the usefulness of ISO 14001 environmental management systems (EMSs), and noted that this project that you are helping DES meets some of the requirements of that legislation (*ref: Chapter 295, Laws of 1997*), especially in how it examines what these EMSs can do.

I then described DES' ISO 14000 pilot project. We have begun to work with several firms at the Pease International Tradeport, helping them implement ISO 14001 EMSs by the end of 1998. We now have four firms working with us, Northern New England Warehouse dropped out after the first session because they decided that there was no net benefit to them from participating.

This is a research project for DES to determine what, if any, improvement in performance we can expect from firms that use these EMSs. All of the states doing these pilot projects are using a common data protocol developed by EPA and the University of North Carolina. Data from all projects will be fed into a common database.

Counting all the various pilot projects that will be providing information to this common database, there should be information on around 70 firms. Information is being gathered in the areas of compliance performance, pollution prevention, internal (to the firm) costs and benefits, stakeholder confidence, and condition of the environment. We hope that this database will allow us, in the fairly near future, to examine whether or not policy or regulatory changes related to EMS use are desirable. Someone at the meeting asked for a copy of our data protocols, so I have attached a copy.

Of the categories of data I listed above, condition of the environment is one that is challenging. In most cases, it seems to be very difficult to link a change in the condition of the environment to some sort of operating change at a single company. However, we're at least going to look. One reason Pease was attractive for this particular project is the amount of environmental data available for the area, both from the Superfund work done there and from other seacoast-specific sources such as some of UNH's work.

At this point, the meeting became a general discussion of issues associated with EMS use and the government's environmental oversight. I'll try to characterize these discussions using a question-and-answer format.

Q: Has EMS use been included in enforcement settlements in NH?

A: Not so far. There was some discussion on this point. EPA enforcement staff has been somewhat reluctant to use EMSs as part of settlements, if only because they don't know what improvements in performance can be expected. In any case where we use enforcement, a root cause is that a firm is not properly managing its environmental affairs, so requiring that an EMS be put in place seems to make sense. This option may be used more in the future, as regulatory enforcement staff become more comfortable with the concept.

Q: What regulatory incentives have other states used related to EMS use?

A: Inspection prioritization, technical assistance, and some limited penalty mitigation/amnesty for self-reported violations have been used.

Q: How do audit privilege provisions fit into this? Could the audits which a company does internally to run its EMS be hidden?

A: It doesn't appear that firms will be able to hide (or claim privilege on) anything more than they can otherwise. Firms participating in our pilot project have agreed to be fully open with us.

Q: Does EMS use assure full compliance?

A: There was quite a lot of discussion on this issue. Some say no, some say that you get assurance of better compliance. However, it seems clear that auditors checking an EMS don't "do" compliance with laws and regulations; they check the EMS. Apparently there are significant differences between auditors in how they view regulatory compliance issues vis-a-vis EMS compliance issues, or certification to the ISO 14001 standard. It was reported that the auditors that have been working at the three NH firms now certified to the ISO 14001 standard have in fact been evaluating regulatory compliance. It seems that the jury is still out on this question. The ongoing pilot projects will provide very useful data on this point.

Q: How could this apply to government agencies?

A: Quite well, we hope. Pilot projects by EPA and some states are examining this issue. I admitted that DES has had issues with the environmental performance of some of our sister agencies. An effort by all the New England states' Departments of Transportation to get into EMS use was mentioned. The Massachusetts DOT seems to be ahead of the others in this.

There were a few questions that I posed:

Q: Does public perception and/or confidence of a firm's environmental performance change as a result of EMS use?

A: The short answer was: yes. Many possible conditions that would help to improve public confidence were mentioned. These included: explaining in some detail what the EMS includes; explicitly stating the goals and objectives; communicating that the firm doesn't just hope to improve, but has a plan to do so; and documenting commitment and achievements in pollution prevention and continual improvement of core metrics. Within the business community, simply being certified to ISO 14001 has value.

Q: If it is possible and/or desirable for DES to offer positive incentives to companies that use EMSs, what might these incentives be, and what incentives would be useful for the business

community, given that we wouldn't want to offer incentives that no one wants.

I prefaced the discussion by saying that DES probably wouldn't offer actual incentives for compliance with the laws and regulations. However, there are many matters that we don't regulate that we would prefer to see better performance on, e.g., quantity of solid waste generated, amount of energy consumed. What incentives could we offer to encourage greater performance either in non-regulated areas, or to bring performance beyond the minimum established in regulation?

A: This was another big topic of discussion. Possible incentives mentioned are listed below, in random order. Not all of these are, strictly speaking, in DES's field.

- Reduced inspection frequency.
- One-stop permitting and faster permit application review time.
- Public recognition as a good actor.
- Increased DES technical assistance.
- Tax credits.
- Reduced rates for government supported loans.
- Enhanced government procurement status.
- Reduced permit fees.

There was one more thing discussed at the meeting to put in these minutes. In the ISO 14001 EMS system, the environmental policy of the firm has to be explicitly written, and this policy forms the base from which the EMS grows. The firms DES is working with have drafted environmental policies. I have policies from three of the four participating firms, and I handed these out (copies are attached). **I welcome any comments you may have on these policies.** I'd like to add a note about the Air National Guard's policy. The phrase "above the standard" in the last paragraph is not meant to imply that the regulations don't apply to them. I've pointed out to them that this phrase could be easily misconstrued, and they will change it. The intent of that statement is to show a commitment to reach performance beyond the minimums required in the regulations.

That generally covers the discussions at the meeting. In the spirit of encouraging free discussion, I've avoided attributing comments. If this does not meet your expectations, we can certainly discuss that. I expect to ask you to meet again in the fall, when I'll have more information on our firms' EMSs.

During the meeting, I mentioned an EPA document I just received that includes a fairly comprehensive description of what appears to be all state and federally-sponsored ISO 14000 pilot projects. That document is "The ISO 14000 Resource Directory", EPA document EPA/625/R-97/003, October 1997. I have also attached an EPA fact sheet on the ISO 14000 series of standards.

Yet another item I've attached is a short document that I received from the University of North Carolina and the Environmental Law Institute, who are handling data management aspects of all the state pilot projects for EPA headquarters. It helps clarify what we're trying to learn from this.

If you want to discuss any of these issues, I am available to meet with you at any time. I can come to you, or meet with your group if you would like, including during the evening. DES is very interested in your input. My E-mail is rpm2@des.state.nh.us, please feel free to use it, or to call me at 603-271-2941.

And finally, I'd like to add my own thanks to Assistant Commissioner Bisbee. I'm very much aware that you are all taking time out of your busy schedules to help us, and we're grateful for your assistance.

Attachments: Data protocols Draft environmental policies  
EPA fact sheet "ISO 14001 Pilot Projects - Questions to be Explored"

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November 4, 1998

Memo to: Members of the DES ISO 14000 Advisory Committee

From: Bob Minicucci, DES

Re: October 22, 1998 Advisory Committee Meeting

This memo serves to record the discussions at the October 22, 1998 meeting of the DES ISO 14000 Advisory Committee. The meeting started at about 1:00 PM, and ended at about 3:10 PM. The people who attended were:

Name	Representing
Steven Dark	Jaffrey Chamber of Commerce
Craig Ruberti	own of Londonderry
W. Gary Wilson	QST Environmental, Inc. (DES contractor)
The Honorable Naida Kaen	NH House of Representatives Science, Technology, & Energy Committee
Henry Mullaney	UNH Industrial Research Center
Linda Landis	NH Bar Association
Ann Reid	Great Bay Watch
Mike Walls	NH Attorney General's Office
Andy Bodnarik	H Department of Environmental Services (DES)
Bob Minicucci	ES

Following introductions, I outlined the meeting agenda and asked if there was any feedback from the previous meeting minutes. None were offered. I noted that the only feedback I had received since the last meeting was a note that the data protocol we're using for the research aspect of our pilot project appeared large and unwieldy.

I updated the committee on DES' ISO 14000 pilot project. We now have three facilities working with us, Universal Powdercoat has dropped out because they could not devote the time required to participate. The remaining three are finishing the process of ranking their environmental impacts and are proceeding into implementation.

I passed out a list of environmental aspects and impacts for the Pease Development Authority and Fenris Technology Research. (I've attached these to these minutes.) Comments on these are very welcome. I do not have such a list for the third participant, the NH Air National Guard unit at Pease, because their list of aspects and impacts fill six loose leaf binders. I'm trying to get a condensed digest from them.

There was some discussion of recruiting companies to participate in a second round of training. I got some good suggestions from those present, which I've followed up on. If any of you know of a firm that would like to participate, let me know or ask them to get in touch with me. I hope to get the second round of training started in January 1999.

We then discussed the process of revising and updating the actual ISO 14001 standard. The standard is due for update by 2001. This process has started, and DES is participating, through a "Multi-State Working Group on Environmental Management Systems" (MSWG). I have attended two meetings of the MSWG so far, and I'll be at another one next week. DES is now trying to find funding to allow on-going participation in the MSWG. MSWG includes state environmental agencies, USEPA, private sector representatives, and environmental non-governmental organizations. The environmental groups are led by the Community Nutrition Institute.

Areas of the standard that MSWG would like to see improved are:

- Clarifying and strengthening the link to compliance with relevant laws and regulations;
- Adding to requirements for reporting and communication with the public, and;
- Adding language to the ISO 14001 section calling for “prevention of pollution”, calling for a hierarchy of activities beginning with source reduction, similar to that used in US Pollution Prevention programs.

Our private sector representatives both said that their employers (Millipore Corp. and PSNH) make regular environmental reports and that this has helped them internally and externally. Apparently about half of the Fortune 500 firms do this.

Gary Wilson explained the structure of national and international Technical Committees and Technical Advisory Groups and sub-Groups that produce consensus positions at the national level, and then at the international level. It appears to your correspondent that, with the ISO 14001 standard, ISO unexpectedly found itself in the area of public policy. In this regard, this particular standard is fundamentally different from standard machine part sizes, or even from the quality management standard (ISO 9000). Apparently, ISO's base structure did not allow for participation by “interested parties.” This is now changing at least to some extent. At an international meeting in San Francisco this summer, environmental groups had a voice, and are getting a place at the table, apparently at the national level. The basic process of national consensus, followed by consensus at the ISO level between the national groups, remains.

ISO, as an overall group, is pushing to bring ISO 9000 and ISO 14000 groups together, perhaps to combine the standards. This is one reason why the ISO 14001 revision process is starting so soon.

The research project that this DES pilot project is part of got some attention at the San Francisco meeting. The overall project is the leading research in the world into the effectiveness and performance of EMSs, and people from several countries expressed an interest in the project.

We then discussed the question of what incentives the government might be able to offer companies that have environmental management systems. RCRA inspections should be easier for a company with an EMS. Inspection frequency is an incentive that is commonly mentioned, but given the number of RCRA waste generators compared to the number of inspectors we have, it doesn't seem clear what difference that would make operationally.

Andy Bodnarik gave quite a discussion of the disparity between measurements that a company uses to manage its own affairs and the measurements required for operating permits, especially in the air programs. He suggests that regulatory reporting should be changed to more closely correspond with the company's operational measurements.

I asked about New Hampshire's audit privilege law, was anyone using it? Those present seemed to think that no-one was. I brought this up because of the worry that some have expressed that, for companies using an EMS, there would be more information shielded from public oversight because of audit privilege laws. It isn't clear whether or not this will be a real issue. As most of you know, EPA has expressed some concerns about this audit privilege law, and these concerns are being addressed at the legislative level.

We discussed the possibility of reduced rates for government-supported business development loans. This seems a possibility, but most such loans are for small businesses, which are less likely to have EMSs. Apparently, Swiss Bank, and possibly others in Europe, are asking companies about their EMS as part of loan applications, and using that information as part of the financial negotiations.

There was some interesting discussion as to whether NH agencies could express a preference in procurement to favor suppliers with EMSs. The attorneys present were able to give some pertinent advice on this. We would have to avoid “sole-sourcing,” that is, eliminating competition, wherever

possible. The legislation authorizing procurement would have to be checked to see if the agency is obliged to select the lowest bidder. In some cases, we would be able to state in a request for bids that we would accept an x% higher bid from a company with an EMS, over the lower bidder without one. Assuring that all bidders get clear information is very important. Some support was expressed for new legislation to more explicitly allow this preference.

The private sector is beginning to do this in their purchasing decisions. One of the driving forces leading to ISO certifications is letters from large customers - IBM and Nokia for example - strongly encouraging their suppliers to certify to the ISO 14001 standard.

That generally covers the discussions at the meeting. I expect to ask you to meet again in January or February, when I'll have more information on our firms' EMSs.

Thank you very much for your assistance. If you want to discuss any of these issues, I am available to meet with you at any time. I can come to you, or meet with your group if you would like, including during the evening. DES is very interested in your input. My E-mail is b\_minicucci@des.state.nh.us, please feel free to use it, or to call me at 603-271-2941.

Attachments: EMS Aspects & Impacts information for PDA & Fenris

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March 3, 1999

Memo to: Members of the DES ISO 14000 Advisory Committee  
From: Bob Minicucci, DES  
Re: February 17, 1999 Advisory Committee Meeting

This memo serves to record the discussions at the February 17, 1999 meeting of the DES ISO 14000 Advisory Committee. The meeting started at 1:10 PM, and ended at 3:15 PM. The people who attended were:

Name	Representing
Steven Dark	Jaffrey Chamber of Commerce
Jeffrey Meyers	NH Business & Industry Assoc./NH Bar Assoc.
The Honorable Naida Kaen	NH House of Representatives Science, Technology, & Energy Committee
David Guest	USEPA Region 1
Jean Holbrook	USEPA Region 1
Linda Landis	NH Bar Association
Paul Adams	T.A.P.P.
Laurel Brown	NH Business & Industry Assoc.
Ned Beecher	Northeast Biosolids & Residuals Assoc.
Lee Sollenberger	Consulting Engineers Council of NH
Bob Minicucci	DES

Following introductions, I outlined the meeting agenda and asked if anyone had any feedback from the previous meeting minutes. None were offered.

I updated the committee on DES' ISO 14000 pilot project. Two of our three participating facilities (the Air Guard and the PDA) are proceeding slowly; they are at the stage of implementing their systems by

getting such things as training and operational procedures together. Fenris seems to be all set with that, and they are waiting for the other two to catch up. One problem that the PDA has had is that the work has generally been done by only one person, and this just does not work. He has recently reached out to staff, so we hope things will go on better from here.

I passed out a list of ranked environmental impacts for the Air Guard. (I have attached this to these minutes.) This list is limited to the impacts they judged to be "significant", and it is still 7 ½ pages long. Comments on these are very welcome. A note on the scoring system we have used - if a given impact is regulated, it automatically scores the maximum of 25. Someone asked how the Air Guard would go about annually reviewing their significant impacts, I replied that we don't know yet. Time will tell.

We also discussed the Air Guard's list of draft list of first year Objectives & Targets (attached with the ranked impacts). At our last training session, we spent a fair amount of time discussing these. You will see my handwritten notes in several places indicating where we advised the Guard that a particular item was better addressed under "Operational Control" as opposed to Objectives and Targets. The line between the two is somewhat fuzzy. We briefly discussed the difference between the two at this meeting. In our opinion, if we're talking about maintaining or continuing an existing program, then the matter fits into the ISO 14001 framework better as an Operational Control. On the other hand, if the matter involves a discrete project or markedly improving some aspect of your business or another, then it would go under Objectives and Targets, with a defined program to achieve that Objective. Admittedly, there is some choice as to which route you take for a given matter.

There was some discussion of recruiting companies to participate in a second round of training. This second round will probably start in late March or early April. It looks like we have three or four ISO 9000 registered firms interested. This is an interesting contrast with the first, perhaps less sophisticated, group. We hope having these two contrasting groups will give us better data. If any of you know of a firm in the seacoast area that would like to participate, there's still time, so let me know or ask them to get in touch with me.

I reported on the overall research work on EMS effectiveness. The Multi-State Working Group on Environmental Management Systems has been meeting with academics around the country, and there's a lot of interest in this work (DES's project is just one small part of the overall research.). A Research Summit is scheduled at the Brookings Institute in Washington, DC in October of this year. I can dig up more information if you want.

Also, another study is starting up - a control study. The question has always been out there, our pilot study firms show improved performance compared to *what*? This control study is intended to answer this question. Several categories of controls are contemplated:

- 1) ISO-registered firms that are not part of state pilot studies.
- 2) Firms with EMSs that are not ISO 14001, and are not part of state pilot studies.
- 3) Firms with no EMSs

To me, the third category is the important one. The others are interesting but not as important, at least in my opinion.

Our representative from the Northeast Biosolids & Residuals Association (NEBRA) briefly described what they are doing in the EMS field. In order address some of the questions surrounding their work, which has generated some controversy lately, NEBRA is working with a National Biosolids Partnership, which is funded by the US Congress, to see how an organized environmental management system might be used in their line of work. They have not determined yet whether they will follow the ISO 14001 model.

We then had some discussion of how EMSs could work in an enforcement situation. EMSs are sometimes used as part of an enforcement settlement, specifically as a "Supplemental Environmental

Project" (SEP). An SEP is work done by a violator. The monetary value of that work is credited toward the fine. For a project to qualify as an SEP, the project has to benefit more than just the violator, and it has to involve more than just bringing the violator into compliance. An example would be: a company dumps solid waste at a point in a river, an SEP for them could be to organize and run clean-up days for a larger stretch of the river. In the case that DES is looking into, environmental benefit from an EMS would accrue to the larger organization, not just the facility that had the problems. There is an enforcement case being negotiated with DES currently that includes, as an option, implementing an ISO 14001 EMS as part of the violator's work to correct environmental deficiencies. Since this case is still pending, I cannot go into much detail. An EMS has been included as an SEP in several enforcement cases around the country, but details are hard to come by.

It was also noted that the presence of an EMS could be a "Mitigating Factor" under federal sentencing guidelines.

This part of the discussion moved right into the question of how EMSs may effect environmental regulation in the future. Once again, reduced inspection frequency and expedited permitting were brought up as possible incentives. A question was raised as to how to verify a that a facility is achieving high level of performance - a standard ISO audit may not assure this, but the government is not interested in starting up a whole new system. Streamlining of reporting was briefly discussed. DES is just starting up a "One Stop" permitting program to address this issue, among others. I agreed to try and get the coordinator of the One Stop program to speak at our next meeting.

Under the ISO system, self-declaration of compliance with the ISO 14001 standard is allowed. Some scepticism was expressed as to the value of a self-declaration. However, it was said that self declaration with public reporting may give better assurance of performance than a third-party registration, given that ISO 14001 has very few requirements for public reporting. We did not reach any conclusion on this issue.

We agreed that I would try to get an ISO auditor to speak at our next meeting. Having the chance to ask an auditor these questions should prove very interesting. Topics we'd like to quiz a registrar on include: the registration process, performance verification, and the future of this ISO standard.

It was reported that the NH Business & Industry Association did a survey of its membership on NH's audit privilege law. They got anyone 70 to 100 responses, which seemed to indicate that no one had done an audit to meet this law's definitions. New Hampshire's audit privilege law is being examined for possible revisions. While nothing is certain, ISO 14001 may be specifically was referenced in a revised statute, possibly as a route to incentives or as a mitigating factor on enforcement issues.

I mentioned that the State of Oregon had started up a new tiered permitting program, with a firm's EMS being one of the criteria for which tier, and therefore what level of incentives, a firm can get. I have enclosed information on that program. Also, when I was digging up the Oregon information, I came up with a list of "Innovative" state permitting projects that you may be interested in, so I'm enclosing that also.

We had a quick discussion of the proposed Londonderry Eco-Industrial Park. For a firm to move into this park, the firm must have an ISO 14001-like EMS, and must additionally report environmental information to the public, which sounds (to me) like the European EMAS model.

The Committee would also like to hear from Liz Todd at the Town of Londonderry to hear about the Town's EMS project and the Eco-Industrial Park. I'll try and arrange that.

Discussions ended with that. It was a productive meeting, and I'd like to thank you all for your contributions. I expect that we'll meet again in May. The agenda for the next meeting will probably feature guest speakers.

Attachments: EMS Impacts information for the Air National Guard at Pease

Oregon Green Permit information  
State Innovation, Reinvention and Common Sense Initiatives

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May 18, 1999

Memo to: Members of the DES ISO 14000 Advisory Committee  
From: Bob Minicucci, DES  
Re: May 6, 1999 Advisory Committee Meeting

This memo serves to record the discussions at the May 6, 1999 meeting of the DES ISO 14000 Advisory Committee. The meeting started at 1:10 PM, and ended about 3:10 PM. The people who attended were:

Name	Representing
Steven Dark	Jaffrey Chamber of Commerce
The Honorable Naida Kaen	NH House of Representatives Science, Technology, & Energy Committee
David Guest	USEPA Region 1
Jean Holbrook	USEPA Region 1
Linda Landis	NH Bar Association
Joel Savalonis	National Standards. Authority of Ireland, Inc.
Richard Bernier	National Standards. Authority of Ireland, Inc.
Gary Wilson	QST Environmental, Inc.
Bob Minicucci	DES

Following introductions, I outlined the meeting agenda and asked if anyone had any feedback from the previous meeting minutes. None were offered.

Richard Bernier of the National Standards Authority of Ireland, Inc. (NSAI, Inc.) then gave a presentation. NSA, Inc. is an auditing firm which can certify the ISO 14001 standard. Their position is somewhat unusual for a US operation. The base organization of NSAI is a branch of the Irish government. NSAI, Inc. is a non-profit corporation here in the US. Apparently, in Europe, it is usual for organizations that are privately run here in the US, like Underwriters Laboratory or the American Society for Testing and Materials (ASTM), to be governmental bodies. One of NSAI's jobs is to write Irish standards, just like ASTM writes US standards. Once we got past that conceptual surprise, Mr. Bernier gave a short presentation of the ISO certification process as practiced by NSAI, Inc. He mentioned that he thought that the cost savings that companies find as a result of having an EMS come about in the preparation & planning stages. He feels that, first, the automotive industry, and secondly technology, are leading the way to certifying EMSs in the US.

We had a long and interesting discussion of how a certifying auditor looks at compliance with regulations. Mr. Bernier said that NSAI, Inc. looks for objective evidence to back up claims of compliance, such as finding out who does monitoring, checking for documentation of monitoring and reporting to the agencies. They can check for the presence of permits. They can check for compliance with reporting requirements in permits, but they can not check whether any or all of the monitoring tests indicate actual compliance or not through EMS auditing. He said that they report potential non-compliance with environmental regulations as a 'major' deficiency in the EMS which must be reported to company management and fixed within 60 days. He feels that NSAI, Inc. would be in breach of contract if they reported to the agencies, but checking if the company reported would be auditable and could lead to findings of non-compliance with the EMS. (To explain for a minute,

having enough findings of non-compliance with an EMS leads to losing one's certification.) If it's "self-evident" that a permit is needed, but the company doesn't have one, they ask why. Mr. Bernier went so far as to say that the standard requires compliance. Interestingly, he also said that he feels EPA auditors treat companies with a certified EMS somewhat differently than companies that do not have such an EMS.

We learned that ANSI/RAB (the body that accredits certifying auditors) requires an "environmental technical expert" be present at (at least) initial certification audits. This is a way to ensure that someone on the audit team has knowledge of the regulations. We also learned that RAB is strongly considering adding a new certification category for auditors (individuals) - "Environmental Auditor." Over the last few years, there has been much discussion in the business of the relative importance of auditors with regulatory knowledge v. auditors with management system auditing knowledge. These items seem to indicate that ANSI/RAB is now leaning toward requiring both for certification purposes.

In discussion, it was proposed that, in a way, ISO 14001 requires compliance audits. Section 4.5.1 states "The organization shall establish and maintain a procedure for periodically evaluating compliance with relevant environmental legislation and regulations." The thinking is, if you don't do compliance audits, how do you do this and how do you demonstrate conformance with this section of the standard?

I'm learning more and more that you've got to read the standard about 100 times and fully digest the interactions between all the sections to understand what the standard delivers, especially regarding compliance. Focusing on just one or two sections doesn't seem to be enough. For myself, I'm beginning to think that the standard *taken as a whole*, may lead more surely to improved compliance than I had thought previously. If you have repeat violations, how are you showing a commitment to continual improvement? Basically, the auditor will check to see that you meet the standard, but perhaps more importantly, they will check to see if you actually do what you said you were going to do.

However, and I think this is important, we seemed to agree at this meeting that there are still differing interpretations taken by certifying auditors regarding linkage between regulatory compliance and conformance with the ISO 14001 standard.

One last question was whether anyone brought an attorney along to provide legal/regulatory interpretations. No one had heard of that happening.

NSAI, Inc. left a copy of their "Particular Regulations" which show in more detail how they do business, and what a company needs to do in order to keep an NSAI Inc. certification. As a close look at how a certifying auditor works, I have attached a copy of them to these minutes. They also left a "Technical Questionnaire" for companies seeking certification. I can send you a copy of the certification if you want one.

All in all, it was a fascinating discussion, and I thank NSAI, Inc. for coming. Dave Guest handed out a copy of an official Interpretation by the US Technical Advisory Group for ISO 1401 on what the "commitment to comply" in Sec. 4.2c of ISO 14001 means. I have attached a copy of this Interpretation. Mr. Guest advises that this document should be considered final, even though it is labeled "draft".

We briefly discussed an incident that I had only learned of that morning. Apparently, a paper mill in Pennsylvania, a PH Glatfelter Co, had received an ISO 14001 certification on the same day that USEPA hit them with a fairly major package of fines. I'm afraid that I've only got third-hand information about this, but if any of you want to learn more, I can probably point you in the right direction. A couple of points:

- a) The timing was certainly not good. It may be just a coincidence, although I've also heard rumors that EPA timed it that way on purpose after they were invited to Glatfelter's party to celebrate certification.

- b) The fines may or may not have anything to do with *current* conditions. I've heard both.
- c) I'm told that this was part of an EPA investigation of several paper mills, and that Glatfelter was the most non-cooperative of the bunch.
- d) Even if nothing else is wrong now at Glatfelter, this is a PR problem for Glatfelter and for the ISO 14001 standard *as a product*. However, the defenses of Glatfelter and the standard which I got with the news of this incident were all of the "shoot the messenger" variety.

I updated the committee briefly on DES' ISO 14000 pilot project. Our first group of companies is proceeding slowly, but we hope to get them going again soon. As I'm sure you'll understand, the Air Guard has been very busy lately. The second group has started the series of workshops. The second workshop, on identification of aspects and impacts, for the second group was May 12.

I had asked the manager of DES's "One Stop" project to attend this meeting. Unfortunately, he had to be in Washington, DC on May 6th, but one of his team members was able to brief me on the project. Briefly, the One Stop project is looking into ways to consolidate reporting (*not* permitting) for facilities that have to report environmental information to the agency. Once progress is made toward consolidation, they want to move toward making the actual reported data available to the public, hopefully via internet. It is public information after all. More information on the One Stop project is available on the DES website at <http://www.state.nh.us/des/onestop/>.

As you all know, we've been discussing the concept of the environmental agencies offering positive incentives or some sort of regulatory relief to companies with EMSs. I noted, as this meeting was drawing to a close, that this subject hasn't drawn much interest here in New Hampshire. In other states, companies are beating on the agencies' door to get regulatory relief because they have EMSs. I asked, why isn't that happening here? Someone proposed an answer: Here in New Hampshire we have a history of working together to solve environmental/regulatory problems. It's not perfect of course, but the relationships are simply not as adversarial as they are elsewhere. That being so, perhaps companies don't feel that they have to go outside normal channels to get better treatment. It's an interesting idea, and I invite your thoughts on the subject.

Discussions ended with that. It was a productive meeting. To those of you who made it, thank you for your contributions. To those of you who didn't make it, you missed out on the Thin Mints®. I expect that we'll meet again in August or September.

Attachments: NSAI, Inc. "Particular Regulations"  
USTAG "Interpretation on Compliance (Draft)"

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November 19, 1999

Memo to: Members of the DES ISO 14000 Advisory Committee  
From: Bob Minicucci, DES  
Re: November 4, 1999 Advisory Committee Meeting

This memo serves to record the discussions at the November 4, 1999 meeting of the DES ISO 14000 Advisory Committee. The meeting started at 1:10 PM, and ended about 3:10 PM. The people who attended were:

Name	Representing
Steven Dark	Jaffrey Chamber of Commerce

The Hon. Naida Kaen	NH House of Representatives Science, Technology, & Energy Committee
Jeffrey Myers	NH Bar Association
Paul Adams	T.A.P.P.
Peter Roth	NH Dept., of Justice/Attorney General's Office
Donald Grogan	Consulting Engineers Council of NH (new member, replacing Lee Sollenberger)
Bob Minicucci	DES

Following introductions, I outlined the meeting agenda and asked if anyone had any feedback from the previous meeting minutes. None were offered.

I updated the committee briefly on DES' ISO 14000 pilot project. The two groups of companies have been merged, because they are at similar stages in their EMS development. It appears that the remaining firms will complete their EMS development this winter.

The first public report of the national research effort that we're part of is available at <http://www.eli.org/isopilots.htm>. The second report should be out in a couple of months. During 2000, we should see two or three very substantial reports about the nature and performance of EMSs being implemented in the US. Meanwhile, the academic community is beginning to work on the policy implications of EMS use. There was a research meeting at the Brookings Institute in Washington in early November, and another meeting the same week sponsored, I believe, by the National Academy of Public Administration. I have copies of several papers; what I am attaching to these minutes is the executive summary of a paper describing the national research project that we're participating in.

Discussions after that ranged over several EMS-related subjects. Steve Dark pointed out his own experience that a company shouldn't even begin the EMS program until their compliance situation was entirely under control. Steve's employer (Millipore) is moving toward certification to ISO 14001 soon. He reported that the cost of the certification itself will probably be about \$15,000, which covers a full three-year cycle.

It appears that supply-chain considerations are driving US certifications. (note that Ford and GM have only recently publicly said that all their suppliers must be certified within a few years.) This is not PR-value only, liability for environmental problems can move quickly up and down a supply chain. Millipore is apparently certifying due to international concerns, wanting to maintain a strong presence in international markets. Donald Grogan reported that DMC Electronics certified to get competitive advantage, similar to Compaq's (formerly Digital) facility in Hopkinton.

We discussed how EMSs work with small businesses. It was mentioned that incremental costs of implementing seem larger for smaller shops. I repeated my hypothesis that if the management of a shop does not understand and practice an organized type of plan-do-check-act management, that is if all they do is react to crises, then doing an EMS is not possible. The corollary to this is that smaller shops are more usually run by people not schooled in management science. A mixed blessing perhaps.

There was some discussion of auditing and NH's audit law. It was reported that some firms' legal departments were doing audits in hopes of keeping them under attorney-client privilege. NH's audit privilege law seems to have amounted to nothing, as it does not appear that anyone is using it.

I then asked if anyone had comments or suggestions to include in the project report. Mr. Myers said that the business community wanted DES to look into how we can recognize ISO certification in such areas as inspection strategies, expedited permitting, reduced permit fees, and/or preferential entry (a "leg up", as he put it) into Project XL. After some discussion, the conclusion was that NHBIA wanted DES propose a "Green Track" (my term) program in which companies showing exemplary results would get preferential treatment and/or incentives. I said that DES at least would not reject the idea, and I am beginning to follow up with DES management.

This thought brought out a number of topics. Self-certification of compliance is possible, and could be a useful program for small businesses. MADEP has such a program, I am trying to follow up and see how it's working. I did see some press recently about a company in Massachusetts that got itself in an enforcement case for (apparently) falsifying a self-certification. In a self-certification program, auditing results and enforcement follow-up is important.

Simply giving certifying firms positive publicity and a plaque for their lobby was mentioned as having value. I pointed out that we do not know how many firms in NH have certified; there is no requirement to inform anyone when you certify. I personally find this frustrating. I am often asked how many NH firms have certified. On the face of it, this is a very answerable question, but I can't answer it.

Paul Adams pointed out that lack of public involvement would be a weak spot. He added that companies would make their own benefits of certifications through their own PR.

To build a NH "Green Track" program, perhaps similar to Wisconsin's or Oregon's, enabling legislation would be needed. Representative Kaen indicated, as far as possible, that this could get a favorable hearing.

It has since occurred to me that we would also need to reach an agreement with EPA on such a program. Fortunately, there is an overall agreement in place between EPA and the national organization of environmental commissioners which lays out a process for such regulatory innovations.<sup>1</sup> Also, EPA Region 1 seems to be fairly open to these ideas; they are putting a lot of time and effort into EMS-related matters.

Since I will proceed toward a project report soon, the question rose of DES's future role in EMS matters and the ISO Advisory Committee's future role. Possible DES roles that were mentioned were: setting up consortiums for EMS implementation; providing technical assistance including maintaining lists of consultants; and sponsoring training and conferences.

The Advisory Committee could have a role in setting up this prospective "Green Track" program. I also intend to give the Committee draft material from our project report for your review and comment, without burdening you with every word of every draft. I was asked to make another effort to get environmental NGO's to the table, I will do that.

Discussions ended with that. It was a productive meeting. Thank you all for your contributions.

Attachments: "The National Database..."

July 6, 2000

Memo to: Members of the DES ISO 14000 Advisory Committee

From: Bob Minicucci, DES

Re: June 22, 2000 Advisory Committee Meeting

This memo serves to record the discussions at the June 22, 2000 meeting of the DES ISO 14000 Advisory Committee. The meeting started about 1:10 PM, and ended about 3:45 PM. The people who attended were:

Name	Representing
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<sup>1</sup>This agreement is available at <http://www.sso.org/ecos/reginno.htm>

Dana Bisbee	DES
Martha Curran	USEPA
Naida Kaen	NH House of Rep's
Jean Holbrook	USEPA
Pam Monroe	DES
Peter Roth	NH DOJ/AGO
Gretchen Rule	DES
Nancy Girard	Conservation Law Foundation
Vince Perelli	DES
Julie Hart	DES
Paul Lockwood	DES
Bob Minicucci	DES

Following introductions, I outlined the meeting agenda. I updated the committee briefly on DES' ISO 14000 pilot project. Our five companies are well into implementing their EMSs. The last training session was on June 29 (between the Advisory Committee meeting and the preparation of these minutes). At that training session, DES's Assistant Commissioner Dana Bisbee thanked the firms for their participation and presented them with plaques. At the Advisory Committee meeting, I passed one of these plaques around for the members to see.

Now that the active training is done, DES will stay in contact with the firms to continue gathering data about their environmental performance and the operation of their EMSs to support the overall research effort.

The first substantial public report of that national research effort is now available at <http://www.eli.org/isopilots.htm>. I had hard copies available at the meeting. Since this report is fairly lengthy, to save on paper and mailing expense, I have not attached copies to these minutes. The report is available at the website above, or I can send you a hard copy at your request.

Over the next year to 18 months, we will see more substantial reports about the nature and performance of EMSs being implemented in the US.

In other news, in late April, the President issued an Executive Order on greening the federal government. This Executive Order, among other things, requires that relevant federal facilities implement EMSs. The Executive order is available at <http://www.pub.whitehouse.gov/uri-res/I2R?urn:pdi://oma.eop.gov.us/2000/4/24/10.text.2>. Again, I can provide hard copies on request.

Martha Curran of USEPA Region 1, New England, then gave a presentation on a new EPA program, National Performance Track. This is a program to recognize organizations that show good environmental performance and to encourage even better performance. The program was officially announced in Washington on June 26. Information is available at <http://www.epa.gov/performancetrack/>.

Specific items of Martha's presentation which I noted are:

- a) EPA is taking a fairly tough line on requirements for a good compliance record that an organization would have to meet in order to enter the program, but
- b) They are still working out just what would constitute 'significance', in a compliance context, to determine if an organization should enter, or be forced out of, the program. EPA is still working on many administrative details of the program, and they are working with the states on this.
- c) The National Performance Track will replace Region 1's StarTrack program.
- d) National Performance Track does not see itself as a Project XL-type regulatory change

program, at least now. In mid-2001, EPA intends to start up the final phase of the program, called "Stewardship Track," which may allow for facility-specific rule making to provide facility-specific incentives.

- e) Applications will go to EPA Headquarters in Washington, who will then send them to the Regions and the states.

Dana Bisbee then made a few remarks. He thanked the Committee members for participating and noted that DES depends heavily on this kind of outside stakeholder input. He noted DES's interest, and his own personal interest, in providing assistance to companies to gain better environmental performance. DES encourages the use of EMSs. DES is also, at this Committee's request, proposing to start a program to recognize organizations that perform well environmentally and to encourage better performance.

I then made a presentation on DES's proposal, following the discussion paper you have already received. The intent is to build tools that will move overall environmental performance toward sustainability. Enforcement remains in place to push people up to the compliance level, but other tools are needed to move the mass of organizations in the middle and the better performing companies further along toward sustainability<sup>2</sup>.

A long and vigorous discussion followed. Points that were raised included:

- The need for state and federal programs to smoothly interface. For the state program to be successful, it will have to be recognized by EPA. Mutual recognition may be desirable.
- Related to the last issue, what is the value of a state program which may only duplicate a national one? Points pro and con were raised. The state program we've proposed may fit different market niches. As proposed, NH's recognition/award is easier to get than EPA's first level, the "Achievement Track." The second track in each program seem to be quite similar, except that NH is proposing to start with legislative authorization.
- Again on state-federal coordination, we should be careful to avoid confusion between the two. In general, EPA approves of states pursuing regulatory innovation, but coordination is necessary. I was asked to find the existing agreement between the Wisconsin Department of Natural Resources and EPA for Wisconsin's similar program. I have done that; the agreement is available at <http://www.dnr.state.wi.us/org/caer/cea/ecpp/epa/moa.htm>. Again I can provide hard copies on request.
- Public buy-in is essential. In this light, we were reminded that we must be aware of how organizations will use recognition as a marketing tool, this could become a problem if recognized organizations are perceived as not really being good environmental performers.
- There was more discussion on what constitutes the right incentives to offer. Contact with the business community – NH BIA – is needed and I will pursue that. At this point, we should probably keep all possible incentives on the table.
- Consolidated reporting was mentioned as a useful incentive to offer. Expedited permit review is also seen as useful, New Jersey's program includes this.
- DES may want to be careful with offering reduced permit fees, since permit fees supply a significant part of our budget.
- Promotion of the concept and training may be more valuable than tangible regulatory

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<sup>2</sup> For the purpose of discussion, I follow the Brundtland Commission and define 'sustainability' as "Meeting the needs of the present without compromising the ability of future generations to meet their own needs."

incentives. DES should develop a more comprehensive strategy. Awards act as publicity and become part of the process of increasing awareness – this has happened with the Governor's Pollution Prevention Award.

- The usefulness of the usually mentioned incentives – reduced inspection frequency, reduced permit fees, expedited permit review, enforcement/penalty discretion was discussed. An interesting point was that even if these incentives are of minimal real value, they still might serve to catalyze changes in environmental performance in the relationship between DES and regulated organizations.
- We were warned that the concept of enforcement and/or penalty discretion may be misunderstood. We must be clear that the idea is not to let people get away with things, but rather to encourage people to self-report and self-correct. Too many organizations will not self-report because they only get fined for it. For regulatory violations that involve minimal risk to human health and the environment, this may be counter-productive over the long term.
- In an enforcement case, the existence of an EMS may serve to indicate that they should have known better, especially if there are repeat offences. One response to this is that if the EMS is inadequate, i.e. if it doesn't correct problems and/or correctly identify the obligations the organization is subject to, then there should be no penalty mitigation. It was suggested that in such a situation penalties should be increased.
- In programs such as we are proposing, organizations may get in under false pretenses, perhaps just for the publicity. If this is found out, DES will need to rely on the Attorney General's Office for assistance in litigating against the organization.
- This last item raised an important policy issue for the state to deal with: how much risk are we willing to take to encourage a beneficial activity? The beneficial activity is moving environmental performance toward sustainability. The risk is that some organizations will cheat the system.
- Tax incentives similar to existing property tax exemptions for pollution control equipment were discussed. Expenses incurred in implementing and maintaining an EMS may (emphasize the 'may', please) be recognized by the IRS as a deductible business expense; they apparently do recognize the expenses associated with an ISO 9000 system. Something similar may be possible with NH's Business Enterprise and Business Profits taxes.
- Preferred procurement may be possible. We may be able to arrange state procurements to give preference to suppliers or contractors with EMSs. Another possibility was mentioned – apparently non-profit organizations in NH can purchase office supplies, etc. at the state warehouse. This represents a great cost savings to the non-profits. Perhaps we could offer the same privilege to organizations recognized under a new EMS program? This could be especially important to smaller businesses.
- We were urged to be creative in thinking of incentives – for example, a recognized company could get special vehicle license plates without paying the extra fee.
- In a recognition program, DES could include a requirement for the recognized organization to provide EMS mentoring. NHBIA was mentioned as a partner to produce a mentoring network.
- On the subject of unified permits, we learned that the NH Office of State Planning may be pursuing such a program for the NH seacoast region. I will follow up on this to find out what they're doing.
- And a final item – this program needs a name. I'm drawing a blank. Suggestions are quite welcome.

All told, it was quite a discussion, and I thank all the attendees for their contributions. Having heard nothing to indicate that DES should not proceed with developing our program, the immediate items I have to follow up on are:

1. Contact NH BIA and engage them in discussions.
2. Find out more about incentives that we had considered outside of DES jurisdiction – tax incentives, procurement status, license plates, etc.
3. Contact Office of State Planning about their program.
4. Stay in touch with EPA's program.

I anticipate meeting again in the early fall. I hope to have more specific proposals at that time. Thank you all for your attention. If you want hard copies of the referenced documents, or want to discuss any of this, please feel free to call. I can come to your organization if you would like. I can be reached at 603-271-2941 or [rminicucci@des.state.nh.us](mailto:rminicucci@des.state.nh.us).

## APPENDIX F

Blank Cooperative Agreement Between DES & Participating Company

### **Cooperative Agreement Between**

**the New Hampshire Department of Environmental Services**

**and**

**Company, Inc.**

**for**

### **Voluntary Use of ISO 14000 Environmental Management Systems**

This Cooperative Agreement is entered into by the New Hampshire Department of Environmental Services ("DES") and **Company, Inc.s'** facility at [the Pease International Tradeport, Portsmouth, New Hampshire] ("CO").

#### **1. INTRODUCTION**

The International Organization for Standardization ("ISO") has developed a standard for environmental management systems ("EMSs"), entitled ISO 14001, which was developed through an international consensus process. DES strongly supports the use of EMSs for management of environmental affairs and is interested in the application of the the ISO 14001 model in New Hampshire.

Information on the regulatory and environmental performance of companies that have implemented an ISO 14001 EMS in New Hampshire, and throughout the United States, is not yet available. Through this Cooperative Agreement, DES's objective is to assist CO to implement an ISO 14001 EMS and to collect information from CO, to allow DES to more accurately assess the effectiveness of the ISO 14001 EMS. This DES project is one of ten being conducted by different states under one United States Environmental Protection Agency (EPA) pilot program.

#### **2. PURPOSE**

The purpose of this Cooperative Agreement is to document the expectations of each party. DES will provide technical assistance and training to CO so that CO can implement an ISO 14001 EMS, and provide appropriate recognition to CO. CO will provide information to DES relating to CO's development and implementation of an ISO 14001 EMS.

#### **3. AGREEMENTS**

DES and CO agree that:

## **A. Implementation of Environmental Management System**

The CO facility at [the Pease International Tradeport, Portsmouth, NH], will implement an ISO 14001 environmental management system by December 31, 1999. DES will, as funds allow, provide training and assistance to CO to accomplish this. CO understands that one or more audits of environmental management system performance and regulatory compliance performance will be conducted by DES or its contractors during the life of the project, and CO agrees to cooperate fully with the parties conducting the audits.

## **B. Sharing of Information**

CO will perform the following under this Cooperative Agreement:

1. Document and disclose to DES changes in CO's regulatory and compliance performance, using a format to be provided by DES;
2. Document and disclose to DES any quantitative changes in environmental performance, such as wastes generated, natural resources used, or environmental releases, using a format to be provided by DES;
3. Document and disclose to DES details about internal decisions made during EMS design and implementation, using a format to be provided by DES;
4. Notify DES of meetings related to EMS development, and allow DES personnel to be present;
5. Document and disclose to DES the advantages and disadvantages of implementing an ISO 14001 EMS, and to provide DES with information for potential development of case studies; and
6. Provide comments concerning how DES could better coordinate and foster the development of ISO 14001 and EMSs in general.

DES will accept this information directly from CO. CO is not required to submit this information to EPA. DES will forward the data directly to EPA's data management contractor, the University of North Carolina (UNC). UNC is committed to protecting the confidentiality of firms involved in this project. A copy of the Data Management Guidelines for the National Database is attached.

## **C. Confidentiality**

Information submitted to DES by CO may be claimed as confidential. To assert a claim of confidentiality, CO must mark any such information "**CONFIDENTIAL BUSINESS INFORMATION**" or with a similar designation, and must bracket all text so claimed. Information with this designation will be disclosed by DES only to the extent required by state (RSA 91-A) and federal law (40 CFR Part 2). If CO fails to claim the information as confidential upon submission, it may be made available to the public without further notice. DES cannot guarantee that information submitted as confidential will be immune from disclosure under state and federal Freedom of Information laws. Compliance status cannot be held confidential.

## **4. CONDITIONS**

### **A. Modifications**

This Cooperative Agreement may only be modified upon written addendum agreed to and signed by an appropriate representative from each of the Parties. The obligations of all Parties to this agreement may be terminated with 30-days written notice by any Party to the other Parties.

## **B. Duration**

This Cooperative Agreement shall take effect on signature by all parties, and shall terminate on September 30, 2000.

## **C. Limitations and Indemnifications**

By entering into this Cooperative Agreement, DES does not waive, limit or reduce CO's requirement to comply with any local, state or federal requirements to which CO is or may be subject. DES recognizes that ISO 14001 is a voluntary environmental management initiative and that the ISO 14001 EMS provides no additional regulatory authority over CO's operations beyond existing local, state, and federal requirements.

CO agrees to indemnify and save and hold harmless the State of New Hampshire, its agencies, departments, agents, and employees, from any and all claims or causes of action arising solely from or on account of acts or omissions of CO or their officers, employees, agents, independent contractors, receivers, trustees, and assigns in carrying out activities required by this Cooperative Agreement. This indemnification shall not be construed in any way as affecting or limiting the rights or obligations of the Parties to the Agreement under their various contracts. CO shall not be responsible for indemnifying the other Parties to the Agreement for claims or causes of action solely from or on account of acts or omissions of the other Parties to the Agreement.

This Cooperative Agreement shall have full force and effect beginning on the date last executed, and terminates on September 30, 1999.

Notwithstanding anything in this Cooperative Agreement to the contrary, all obligations of the State hereunder are contingent upon the availability and continued appropriation of funds. In the event of a reduction or termination of those funds, the State shall have the right to suspend this Cooperative Agreement until such funds become available, if ever, and shall have the right to terminate this agreement immediately upon giving CO notice of such termination.

No informal advice, guidance, suggestions, or comments by DES or its consultants regarding reports, plans, specifications, schedules or any other writing submitted to CO will be construed as relieving CO of its obligations under law.

his Cooperative Agreement shall be executed in duplicate counterparts, each of which shall be deemed an original, but which together shall constitute one and the same instrument.

## **D. SIGNATURES**

I have read, understood, accept, and agree to abide by the above Cooperative Agreement.

name, title  
CO name  
address  
address  
Town, State, zip

\_\_\_\_\_  
Date

Robert W. Varney, Commissioner  
New Hampshire Department of Environmental Services  
Six Hazen Drive  
Concord, NH 03301-6509

\_\_\_\_\_  
Date