

Session 707

Reinventing Government Regulation: The EPA and the States

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I. Introduction

- Good afternoon, and thank you for inviting me to participate in your annual meeting.
- This session, as you know, is about **emerging regulatory trends and innovations**. In that context, I will discuss EPA's efforts to "reinvent" our approach to environmental and public health protection in general, and four areas in particular. They are:
 - EPA's recent Innovations Task Force Report
 - Sector Based Environmental Protection
 - Efforts in Coordinated Rulemaking; and
 - Project XL

II. What is Reinvention?

- First some background. For the past few years the EPA has been exploring ways to improve how we do business to help shape a new and better environmental management system for the next millennium.
 - In the **past**, EPA had much success with the "**command and control**" approach to solving environmental problems. However, the **challenges that remain today and emerging ones** are not suited to that approach. The problems of today tend to be more complex, and often **cross statutory, media, state, regional and international boundaries**. Other factors affecting our decision-making processes include rapidly emerging **innovative technologies** that offer new solutions we need to incorporate; **stakeholders** are more sophisticated and interested in being involved; and our **philosophical shift** from pollution control to pollution prevention.
 - All these point to a need to **move toward a future system** of environmental protection that, for example, offers **flexibility** in meeting our national standards, incorporates **economically sustainable strategies**, makes **public data** easily **accessible**, and closely involves co-regulators and affected **stakeholders**.
- In March of 1995, the President and Vice President announced a set of 25 actions that EPA would launch to reinvent environmental regulation. Reinvention at EPA is about **adapting our current system** of environmental protection to better align it with the changing world we live in. In essence, it is a way for this Administration to **push the Agency towards a new way of doing business**.

- There are 2 focal points for reinvention in the Agency:
 - **Our core programs (media specific)**; e.g. Brownfields, DMRs in OW, Superfund Reform, Title V in Air)
 - **The Office of Reinvention** (serves as impetus for **cross-media** initiatives, e.g. **The Innovations Task Force, Sector-based Environmental Protection, Coordinated Rulemaking, and Project XL**. They are all indicators of how the Agency will be working in the future.

III. Innovations Task Force

- The Administrator established an Innovations Task Force to **take stock** of EPA's reinvention work and to **find new approaches** to improve environmental compliance and performance. The Task Force was charged with developing a set of proposals that can be promptly implemented to improve or expand EPA's reinvention activities.
- The Report of the Task Force "**Aiming for Excellence**" (*I have copies if you are interested.*) focuses on getting more parts of our society to continuously improve environmental performance, which requires new ways of thinking and new ways of doing business. Clearly, one way is to do a better job in helping businesses and communities not only comply with the law, but go beyond compliance. To do that, we are **committing to a series of actions**.
 - **First**, we will use **incentives** to encourage actions beyond what is required. We will promote the use of **Environmental Management Systems** that can help organizations incorporate environmental issues into their business operations. And we will develop a "**performance track**" that rewards environmental leaders.
 - **Second**, we will provide timely and accessible **compliance assistance**. EPA will become a more effective "**wholesaler**" of compliance assistance information. We will deliver compliance assistance information for new "economically significant" rules, when and where it's needed. And we will use compliance assistance in strategic combination with enforcement, monitoring, and incentives to achieve environmental results.
 - **Third**, we will create **flexible and streamlined permitting**. We will be identifying approaches that **increase air permitting flexibility** while providing equal or better levels of environmental and public health protection, providing **incentives for pollution prevention**, and ensuring public participation in permitting decisions. We also will speed up the review and issuance of National Pollutant Discharge Elimination System (water discharge) permits. Finally, we will pilot the CSI PrintSTEP project in at least three states. This project creates a streamlined, yet environmentally protective, permitting process for the printing industry.
 - Our **final commitment** in the Task Force Report is to **help communities make sound environmental decisions**. Along with encouraging better performance among regulated entities, we must do more to support environmental management and problem-solving at the community level. At EPA, we have **already started** to help communities help

themselves. We have created tools to support environmental decision-making and established programs that enable communities to address problems such as abandoned waste sites, loss of wetlands, and poor air quality. There also are opportunities for community-based and sector-based approaches to work in tandem to address environmental issues.

IV. Sector-based Environmental Protection

- In 1998, four years after CSI began, the Administrator announced that it was time for the Agency to transition from a focused sector program like CSI to a **broader application of a sector approach** across the Agency. Thus, the Administrator directed the Agency to prepare an Action Plan to encourage that broader application and integration of sector-based approaches into Agency functions, where appropriate. She also asked that we work with our external stakeholders in the development and implementation of this Action Plan.
- **Lessons learned** from CSI:
 - CSI led to significantly **improved working relationships** among stakeholders, many of whom had only interacted as adversaries in the past.
 - A **consensus-based process** is very beneficial (e.g. more efficient and effective environmental management strategies)
 - There is great need for better coordination in information collection and accessibility, which contributed to the creation of EPA's **new Office of Information**, which will work towards **reducing regulatory burden** associated with collecting and reporting environmental data, **filling significant data gaps**, and **providing** integrated environmental and human health **information to the public**.
- In contrast to the traditional stovepipe media-by-media approach, we have started to move towards **using place-based, pollution-based, sector-based approaches**.
 - For example, based on our joint CSI efforts, the **Metal Finishing industry** is now pursuing pollution prevention strategies to achieve even cleaner operations, which could cut toxic emissions to air and water by 70 percent (compared to 1992 levels)
- How do we get from here to there? **In 1999 and 2000**, the focus is on building the **management infrastructure** and **capacity for stakeholder involvement and collaboration**, and on **integrating sector approaches** into core agency functions.
- **In 2001**, our plan is to use a sector-based approach in a **couple of sectors** in a highly visible way.

V. Coordinated Rulemaking

- An action resulting from our Sector Action Plan is Coordinated Rulemaking, meaning we would develop rules based on a **cross-agency, multi-program coordinated effort**.

- We need to create **routine processes** to ensure coordination of cross-Agency solutions to environmental challenges. We have, therefore, established an **annual planning process** to:
 - look at where coordination would **add value** to Agency priorities
 - make sure regulations **fit together for particular sectors** in a common sense way
 - ensure that regulations offer the **best environmental solutions possible** – especially regulations that avoid pollution transfer from one media to another.
- We have **identified several potential sectors** that will incorporate coordinated rulemaking efforts at the information gathering stage:
 - **mercury cell chloralkalai plants,**
 - **animal feeding operations,**
 - **POTWs, and**
 - **Petroleum refining**
- Multimedia, cross-office coordination is already underway on the **radon-in-drinking water rule**

VI. Project XL

- In 1995, Project XL began as an unprecedented effort to test innovative environmental solutions that have the potential to improve the national system of environmental protection, including the way EPA operates. Now, 4 years later, with much success and experience under our belt, we will **continue to test alternative approaches.**
 - [SLIDE 1] **Project XL:**
 - Allows the Agency to **experiment** within prescribed legal safeguards;
 - Develops and tests more **holistic, multi-media, or sector-based approaches** to address environmental challenges that cross statute, media, State, regional and international boundaries.
 - Tests and implements **technological advances** that provide new options for meeting environmental standards and allow environmental challenges to be addressed.
 - **Leverages the knowledge, experience, and resources** of the regulated community, co-regulators and stakeholders, as a means to provide additional expertise to identify better Federal approaches.
 - Supports and advances the **evolutionary shift** in protecting the environment through up-front rather than end-of-pipe pollution control, including pollution prevention and sustainability.
- **What Progress Have We Made and What are Our Accomplishments?**
 - Project XL has a **growing track record** of producing benefits for the environment, for participating project sponsors, and for the communities in which they're located. Each XL experiment is tackling significant environmental challenges in a new way.

- As of **August 1999**, XL has **14 projects in implementation**, and **31 project ideas under development and in negotiation**. Of the projects in implementation, **seven** have been **in implementation** for one year or more (Jack M. Berry, Intel, Weyerhaeuser, HADCO, Witco, Vandenberg AFB, and Merck). They now have enough data to show specific benefits to the environment, project sponsors and stakeholders. In fact, we have **published an evaluation** of the data that has been collected for these projects. You should have already received a copy of the summary as part of your conference materials. The report very much validates XL's effectiveness.
 - XL projects have both **immediate and long-term benefits**. As current project participants are willing to attest, for them the potential rewards of XL lie in the outcome, i.e., **superior results** for the local environment and the communities, and substantial **operational or financial benefits** for the project sponsors.
 - [SLIDE 2] **Good For the Environment** - XL projects have resulted in **reductions in air emissions, water discharges, solid waste and hazardous waste**. The slide shows cumulative environmental benefits of the 7 XL projects underway in 1997 and 1998.
 - [SLIDES 3 & 4] **Good For Project Sponsors** - Project XL has proven to be a great opportunity for project sponsors to **reduce costs and improve competitiveness**. Through implementing creative solutions that produce better results for the environment, project sponsors have also reaped the benefits.
 - [SLIDE 5] **Good For the Community** - One of the flexibilities that XL provides is the opportunity to **tailor stakeholder involvement processes and tools** to be more valuable to the stakeholder community. This has allowed firms to **redesign reporting mechanisms** in ways that enhance community understanding and trust, and involve stakeholders in designing the process.
- **From Pilot to Practice**
 - Project XL's greatest opportunity, and its greatest challenge, is taking successful ideas from **individual pilot projects to system-wide practice**. From its inception, XL was designed to use site-specific experiments to produce new solutions with broad applicability. EPA is now developing the next phase of Project XL, and making changes in our current system of environmental protection, that help put Project XL's lessons into full practice.
 - This **next generation** of environmental protection will provide **even stronger incentives** for good performance and going beyond compliance by developing approaches such as a new **"performance track"**. Lessons learned in Project XL will be integral to developing these high performance alternatives.

• **What Innovations Are We Testing?**

- To date, a total of **35 innovative approaches** to environmental protection are being tested or are proposed to be tested. Twenty-five innovative approaches are being tested through projects in implementation, and 10 emerging innovations will be tested once the corresponding projects complete negotiations and sign final project agreements.
- The following chart reflects 1) **innovations that have already been integrated** into Agency core functions (Rules and Regulations, Permit Reform, and Information Management) and 2) what is still being tested:

XL Innovations as of July 1999 (✓= completed)

Core Function	Innovations
Rules and Regulations	<ul style="list-style-type: none"> ✓ participate in the Effluent Guidelines Voluntary Advanced Technology Incentives Program to secure additional time to comply with MACT standards under pulp and paper cluster ✓ participate in the Clean Condensate Alternative Program as part of the pulp and paper cluster rule to eliminate specific air emission control requirements. ✓ use pollution prevention technologies in kraft pulping operations to gain additional time compliance with pulp and paper rule. -test incentives in exchange for early compliance with the Miscellaneous Organic Chemicals NESHAP. ✓ amend the Magnetic Tape Manufacturing Operations NESHAP to allow more operational flexibility as long as there are no additional HAP emissions. -test RCRA options to encourage recycling
Permit Reform	<ul style="list-style-type: none"> - test the use of a Consolidated Multi-Media Operating Permit - test facility-wide permit emission caps
Information Management	<ul style="list-style-type: none"> - enhance public access to information through Internet reporting - enhance public access to information through expanded stakeholder input - test tiered reporting - test consolidated reporting

- [SLIDES 6-8] The true value of XL experiments is the possibility of producing new **solutions with broad applicability** to other facilities, communities or sectors nationwide. And in order to make the new solutions available and usable nationwide, EPA must change some of its routine. While it is far too early in the XL experiment to claim success in this area, Project XL is definitely **on the right track** to making system changes throughout the Agency.
- Since it was announced, Project XL has been held to a very high standard. Expectations were great for this program, which attempts to venture into the future of environmental protection. Despite the challenges, it has grown into an efficient and effective program that is producing environmental, economic and community benefits.

VII. Conclusion

- The EPA has been experimenting with change for the past several years. Because of the changing nature of environmental issues, **EPA must be prepared to address these challenges with new solutions**, and I believe we are on the right track.
- The **experimental learning** gained from our two regulatory innovation programs, Common Sense Initiative and Project XL, will be **integrated into our future system**. I hope you will **help us continue to identify, evaluate, and promote new approaches and tools** for improving environmental performance. Only together can we accomplish our goal.
- Thank you. I'll be glad to answer your questions.

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Leading To Greener Pastures

Adoption of the ISO 14001 management system standard is stalled at a crucial juncture. Business must prove that it can in fact lead the way on sustainable development. To do that, it must first be able to demonstrate that managing to the international standard can produce real-world environmental improvement

ERIK J. MEYERS

In the recent movie Babe, a screen fable about an anthropomorphic pig, the engaging porker wins the Scottish national championship for shepherding by inventing what organization gurus would surely call a "new management paradigm." Babe's singular advantage is his willingness to speak politely to the sheep in their own language. Instead of behaving like the typical sheepdog, barking and nipping, Babe compliments the animals and politely asks them to move. By seeking the sheep's collaboration, rather than their fearful obedience, Babe achieves unprecedented success at his calling.

Babe teaches the value of truly listening to what those whom you would lead have to say, and about the power of collaboration and humility. Applying such concepts to the world of the new international environmental management system standard is not as strange as it might seem. The ISO 14001 universe, populated by business interests and government promoters of trade and commerce, now regards its critics in regulatory agencies and public interest groups much as Babe's flock looked upon sheepdogs – as snarling wolves about to attack rather than as trusted guides to lead the way to safer and greener pastures. Using another management cliché, to be "pro-active," business proponents of a truly effective EMS standard and its widespread adoption would be wise to help those from the regulatory and non-governmental worlds master ISO 14001's new vocabularies and concepts to enable them to better listen, and to better participate.

The environmental community should listen up too. Unfortunately, many public interest organizations have already written off the international EMS standard as a "business thing" because it is not the usual type of regulatory issue with which they are familiar – or even worse, they suspect industry of trying to pull off a clever ruse. But the NGO community has an enormous stake in guiding industry's application of the standard. ISO 14001 can give environmental organizations a powerful new language for engaging business, because some of the

most basic human activities that affect the environment – the use of energy, water, and land, for instance – lie mostly outside the scope of governmental regulation, but not outside the scope of industry's ability to affect them, both positively and negatively.

Unfortunately, this dialogue with the business and regulatory communities may stall before it really gets going. And as a result, global implementation of the ISO 14001 standard is in danger of not following its promising new pathway to environmental improvement. To jump start the dialogue again and retake the initiative, business must be able to show the kind of leadership no one would have ever suspected. The Babe analogy is right on: business must prove to the environmental community and government that the corporate world can be their unlikely shepherd on the way to environmental quality.

Nothing less than demonstrable environmental improvement is a "metric," if you will, that will really interest the public. However, ISO 14001 was deliberately developed without specific environmental performance requirements, because the global business community and their brethren in the international standards community realized there were already a plethora of regulatory standards that vary from state to state and country to country. The needs for an EMS standard were to, simultaneously, provide a simple process that could raise under-performing enterprises to the baseline of compliance, and, second for other companies who had already gotten the basics down, to go well beyond regulatory requirements. The standards-writers reasoned that the best route would be to allow firms to set their own performance goals – with compliance to regulatory requirements a given, of course – and construct an environmental management system that would push for ever-improving results. As an important corollary, the standard allows for a system of certifying a company's EMS operation, which requires a willingness to demonstrate results and to continually adjust the EMS components to improve. That's what ISO 14001 is all about.

So far, several hundred companies have certified EMSs in place. But, depending on the outcome of several important ISO meetings this spring, the international business community can make the standard really stand for environmental improvement – or just a coat of green paint.

At this critical juncture, ISO 14001 faces three basic challenges. The challenges are sequential, not in the order in which they must be addressed – simultaneously would be best – but that the solution to each one logically requires the next to make the previous one work. The challenges are intertwined, and this article will not make an artificial pretense of completely separating them. If these challenges are successfully resolved, the ISO community of business and standards institutions will

begin to engage all of its broader constituencies, demonstrate success through implementation, and use proof of those successes to feed back into and strengthen the ISO 14001 process – engaging more businesses and the collaboration of a widening set of governmental agencies and public interest organizations.

Simply put, the challenges are:

- The challenge of aspiration. The growing numbers of organizations adopting the standard can set consistently high, even inspiring, environmental performance goals for their EMSs – or they can appear to be hiding behind a green label;

- The challenge of verification. Conformity assessment, the practice of verifying a company's compliance with the standard through an independent, third-party system, can be rigorous, transparent, and convincing to the public – or it can undermine the public's confidence in the value of industry leadership; and

- The challenge of engagement. Business can reach out to government and the environmental community to make the case for having achieved the first two challenges – or the public will not buy ISO 14001, progressive companies will not use it, and the market will not transmit the message about the business value of environmental protection to the wider business community.

International standards help businesses work together, and with their suppliers and customers. Everyone uses an international standard when they select the right roll of film, since the film speed conforms to an ISO standard. Bolts fit nuts because they are both made to an ISO standard. CDs work on all CD players – and so on. If you have ever tried to use an appliance overseas and been confounded by different voltages, plug configurations, etc., you are a supporter of international standard setting.

ISO is the International Organization for Standardization. Based in Geneva, Switzerland, since its founding in 1947, this non-governmental international organization has some 120 national standards-body members in three classes or categories. To date, ISO has produced over 9,000 product specifications, process standards, and similar technical guidance to facilitate worldwide business and trade. But of all this large number of ISO standards, only two series deal with management systems.

ISO 9000, a set of international quality management system standards, was the first, issued in 1987. ISO's QMS standards assure business customers about the subscribing supplier's implementation of systems to reliably supply products or services of a specified quality. The ISO 9000 standards do not set a performance standard for the product or service the company or other entity offers. Rather, they provide the means of assessing and demonstrating the organization's capacity to meet whatever level of quality it or its customers specify.

ISO 14001, the environmental management system standard, similarly does not set performance levels. Performance levels are a function, first, of the implementing company's basic commitments to legal compliance and pollution prevention and, second, of the additional goals set by its corporate managers, which will depend on the company's size, services or products mix, customer demands, and other market influences – and its vision. What a registered ISO 14001 EMS assures is that the organization has the capacity to meet whatever environmental performance levels it has set in responding to all these factors.

Adopted in 1996, ISO 14001 was the product of countless meetings held around the globe among a wide variety of participants. While varied, these participants were predominately from business interests and official standards bodies, some governmental and some not. It is also the case that the international EMS standard, especially in these early stages of development, was the product of developed nations, not those of the developing world.

ISO 14001 came about in response to a variety of influences on increasingly multinational businesses: the dominant position of the environment as a global issue; increasing national regulation of activities and products that affect the environment; and rising demand by customers, shareholders, communities, and environmentalists that business improve its environmental stewardship. The ISO process was propelled by the emergence of national EMS standards, such as BS 7750, the United Kingdom's early model, as a means of forestalling the proliferation of national EMS standards.

The resulting EMS standard has a broader set of interested parties than its QMS cousin. The ISO 9000 series is concerned principally, if not exclusively, with the relationship among a business and its suppliers and customers. ISO 14001 is concerned with that business relationship as well, but it also recognizes the legitimate interests and influence of governments at all levels, public interest organizations, labor unions, and local community groups in improving environmental quality.

Only 14001 is a true standard in the ISO 14000 series. While ISO 14000-numbered documents provide guidance for such activities as environmental auditing, environmental performance evaluation, environmental labeling, life cycle analysis, and so forth, ISO 14001 is the only document in the series intended to be auditable and subject to third-party assessment for conformance to the standard.

ISO 14001 mandates five basic elements in an environmental management system:

- an environmental policy statement (including certain mandatory commitments);

- planning components, including a determination of significant environmental aspects, identifying legal and other requirements, setting objectives and targets, and defining an environmental management program. This portion of the standard, when combined with corporate policy commitments, is the engine of environmental improvement;
- a requirement for an implementing structure, traditionally the assignment of responsibility for implementation and operations;
- a requirement for establishing and maintaining a means of checking the EMS operation and taking whatever corrective actions are needed on a timely basis; and
- a requirement that top management regularly review the EMS's performance.

ISO 14001 comprises only five pages of text, 14 pages in total with annexes and introductory material. A useful comparison here can be made to the National Environmental Policy Act of 1969, which is only three pages long. NEPA's drafters were not trying to reverse decades of environmental degradation in a few thousand words, but, rather, to set the standard: that environmental protection is the policy of the nation, including the federal government and all of its components. How that would be done, and what levels of environmental performance would actually be required, would be worked out later, depending on varying circumstances. Likewise, ISO 14001's drafters established a framework for making progress, leaving to others the level of detail on delivering that progress.

According to ISO's most recent survey of national standard body members, at the end of 1997, ISO 14001 had over 5,000 separate certificates in 55 countries. Interest has been greatest in Japan and Asia generally followed by Europe, but has, at least until recently, lagged in North America and lags in South America and Africa. In the United States there is new evidence of rising interest. This evidence includes EPA's March 1998 Federal Register pronouncement cautiously endorsing ISO 14001 and similar EMSs as potentially helpful tools for realizing environmental improvement objectives. In fact, as a federal agency, EPA sees itself obliged to participate in ISO 14000 standards development and related activities due to the mandate of the National Technology Transfer and Advancement Act, which requires federal agencies, to the extent possible, to use and participate in developing private standards rather than to create new governmental requirements. The evidence also includes the effort of the Multi-State Working Group, a loose coalition of a dozen states plus EPA, business, public interest, and academic parties, to collect data on a diverse range of ISO 14001 implementing facilities. Several of the states involved hope the data will be helpful to shaping new public policy

approaches using ISO. And informal surveys of ISO 14001 registrars show a decided uptick in registrations during 1998.

But those who question the value of the standard also abound. To maintain positive momentum for ISO 14001, the skeptics will have to be proven wrong. The challenge of aspiration is first on the list. Setting high environmental performance goals will demonstrate to the public the kind of environmental improvement ISO 14001 registered businesses can produce. Companies such as BP, Ford Motor Company, International Business Machines, Lockheed Martin, Lucent Technologies, and Xerox are not only business leaders with respect to their products and services but also have reputations for leadership in socially responsible business practices. They have now chosen to implement ISO 14001 as a means of further demonstrating their leadership. Their implementation of the EMS standard is a motivator for the best to get even better at environmental performance.

Think of the standard as a building code: it defines a minimum system design specification, but leaves the level of craftsmanship and actual design to the builder and architect. The performance goals then, in the building code analogy, are less a function of the code and more a product of the level of commitment, skill, and vision the individual builder and architect bring to a given edifice. To carry the metaphor further, one can use the same building code to build a cottage or a mansion. Both may meet the basic functional requirement, but only the latter will attract attention and motivate emulation. Similarly the shape an EMS assumes from the environmental goals it aims to produce is subject more to the aspirations of – or constraints imposed by – its individual EMS designers and carpenters than by the standard itself.

A building code is to great architecture as an EMS is to great environmental performance. The same materials, depending upon vision and execution, can produce dramatically varied outcomes. Both can be used to achieve outstanding results, but may also produce an ugly result that nonetheless adheres to the standards. It is up to those who would be leaders to show the way.

If leadership companies can show through their implementation of the standard that it encourages innovation and improvement in environmental performance, their actions will help ISO 14001 gain endorsers and enthusiasts and thin the ranks of critics. Similarly, if more modestly positioned entities can show clear and significant improvement, the standard also will gain credibility as a tool for achieving environmental baselines. But, conversely, if ISO 14001 conformance merely adds a coat of green paint on a poorly designed or executed EMS, the standard's reputation will suffer.

It will take more than setting high goals to counter the skepticism. It will take solid evidence of performance results. The MSWG has taken the first step toward enabling ISO implementing companies to show their improvement. A data protocol collecting voluntarily submitted information will provide evidence of how and in what respects an EMS helps produce performance improvements. The next three years will generate needed data, instead of more rhetoric, about ISO implementation.

Some critics of the MSWG believe the data protocol is actually adding elements to the standard, not just gathering information. They express concern that these additives, like the effect of the famous homonymous food additive, will lead to subsequent headaches for EMS implementers. This is a cramped view of ISO 14001, however, and at odds with the language of the standard and the surrounding explanations of general principles and approaches. The ISO 14000 series clearly encourages the organization adopting the standard to give particularized attention to everything from determining its significant aspects to setting targets and objectives, which include both legal and "other requirements to which it subscribes." The central virtue of ISO 14001 is its capacity for upward flexibility; while no two organizations will start in exactly the same posture, all should be capable of designing and implementing a standard-conforming EMS and making improvement from their particular baseline. The work of the MSWG will provide data on what can happen, although not necessarily what will always happen, when various organizations pursue an ISO 14001 EMS over time. Credible evidence is needed to show that ISO 14001 more likely than not will lead to clear improvement in environmental performance.

The challenge then is for implementing organizations to clearly demonstrate their performance improvements and for the standard itself to incorporate some clearer requirement on the necessity of so doing. The results in these areas will have a significant effect on the future acceptance, and application, of the standard.

Another event on the near horizon that can help silence the critics is the scheduled re-issuance of ISO 14001 as a revised standard – known as the U.S. TAG – is whether ISO 14001 should be modified to require external communication about an EMS. Many in the U.S. TAG feel that the standard should require provision of information on an organization's EMS and its performance. At present, the standard requires only that an organization "consider processes for external communication on its significant environmental aspects and record its decision."

The debate over external communication underscores ISO 14001's second major challenge, the challenge of verification.

Conformity assessment is a process completely independent from the ISO standard. Many important stakeholders, business and non-business, want more than the say-so of the implementing organization; they require an independent, qualified third-party to review and verify the organization's EMS and its implementation. This process is known as registration.

Conformity assessment practices are equal in importance to the standard's content in ensuring the credibility of ISO 14001 as a tool for environmental improvement; independent verification of an organization's commitment to achieving aspirational goals is as critical as the goals themselves.

Conformity assessment has two major components: "registration" (or "certification" – the two terms are used interchangeably) and "accreditation." Registration is the process of checking an organization's conformance to ISO 14001 by an independent party – independent from the company and independent from the entire international ISO apparatus and its national and non-governmental units. The process of evaluating the competence of these third-party registrars to perform such an assessment is called accreditation – a process performed by yet another independent body. The twin building blocks – registrars and accreditation bodies – form the foundation of formal ISO 14001 conformity assessment.

It must be noted, however, that the ISO EMS standard does not require registration but in fact allows for a "self-declaration" of conformance as well as for the use of an unaccredited registrar. Obviously, if a large number of companies follow these less-rigorous routes, the standard's reputation may suffer.

Typically those organizations seeking registration of their EMS have a mix of internal and external reasons for doing so. In such far-flung enterprises as IBM, for example, the internal value of managing a number of facilities scattered across the globe to a single EMS and set of internally set objectives is quite substantial. All employees and shareholders can see the value the company places on environmental protection and quality improvement activities. Viewed from a global implementation perspective, the certification to the ISO standard also provides some external basis for assuring that the registered organization knows, and that its EMS supports, compliance with local "black letter" law even in the absence of governmental regulatory enforcement capacity. And IBM's worldwide registration by an accredited registrar provides a reasonable basis for relying upon its representations that it manages to a consistent set of globally acceptable standards. For the small enterprise, the motivations – and rewards – may look very different.

There are external reasons for registration as well as internal. Specific customer requirements, access to markets, and access to voluntary governmental initiatives such as Project XL are among the possible motivations. There is also a more generalized recognition of the value that a broad set of stakeholders – communities, regulatory agencies, and environmental and consumer groups – might place on an ISO 14001 registration. Admittedly, the present level of knowledge among most external and internal audiences about third-party registration is low. To build the credibility of third-party registration, this system must start by showing its integrity and rigor.

In the United States there is a single national accreditation program for ISO 14001 that is carried out under the joint auspices of the American National Standards Institute and the Registrar Accreditation Board. A U.S. EMS Council, whose members are balanced among environmental, governmental, business, and accreditation interests, has developed program criteria for the accreditation of registrars and votes on each application. Each country may create its own accreditation body and process, subject to some international norms.

Final comments on a single draft international guide for EMS accreditation have been submitted by national accreditation bodies, including the U.S. EMS Council. National representatives have already agreed to accept and apply the new guide without additional requirements. This commitment may prove to be problematic. Interpretation of key issues, conflict of interests, for example, may differ from country to country. Because the verification process itself needs to show validity, questionable or backward steps in the rigor of assessment of third-party registrars would undermine confidence in both the standard and those implementing it, in domino fashion. Institutions and processes are at a critical stage – of building credibility or fatally undercutting it. External verification is a crucial pillar on which the future of ISO 14001 rests.

At present, the first tentative steps are being taken toward mutual recognition agreements between national accreditation bodies. Some standards professionals hope for an eventual worldwide, or at least multilateral, recognition system involving all major standards-using countries. At the moment, however, accreditation practices differ from country to country. Moving too quickly to a mutual recognition scheme on a broad scale may jeopardize the emerging credibility the U.S. system has gained. Steps toward international mutual recognition should be made only when there are adequate assurances of equivalency and a means of periodically re-confirming those assurances. This is exactly the approach now being taken between the United States and Canada on a mutual ISO 9001 recognition agreement. It

applies with even greater force where external parties, such as the public and government agencies, in addition to business customers and suppliers, must have confidence in the declarations made by registrars of ISO 14001 conformance.

Registration must show that the company in question has demonstrated by clear and convincing evidence to a professional third-party assessor that its EMS is designed and implemented according to its plan and the ISO standard. This verification can provide confidence to those making judgments about whether the organization will meet legal compliance and other external and internal objectives. The registrar must consider the data it gathers on the organization's legal compliance and the manner in which its EMS responds to non-compliance. For example, the registrar may find that a legal violation indicates a failure to address one or more elements of the EMS standard. Conversely, it may find that the organization's EMS responded as designed and corrected the non-compliance, and addressed root causes such as training and assignment of responsibility in accordance with the standard. In the latter case, there is assurance that similar exceptions are unlikely to recur. In any event, a registrar would not base its decision on whether or not to register an organization (or to suspend its current certificate) unless the compliance failure is indicative of a major EMS deficiency. The test is always of the system and EMS conformance to the requirements of ISO 14001 in both design and implementation.

Is this an adequate test? Consider the traditional legal compliance audit. While it may have value, it is by nature backward looking. It can say little about the likelihood of future compliance failure. A systems audit, by contrast, should assess organizational capacity to assure compliance, now and in the future. This is a critically important role, but it often gets less attention than the louder debate over the standard's lack of an absolute compliance requirement. There is no point in having a rigorous accreditation and registration system if the standard lacks in meaningful requirements.

The final challenge facing ISO 14001 is the challenge of engagement. If the EMS standard is to realize the promise of its drafters and proponents, and to create the return on investment that those businesses implementing it hope to earn, then those in environmental public interest organizations and governmental regulators must understand and feel involved in developing the standard and conformity assessment practices. And that engagement can come about only if these parties are shown this new tool has merit and is delivering on its promise.

ISO 14001 is a new kind of standard. It involves a range of interested parties who fall outside the usual set of customers and suppliers. These new stakeholders may include regulatory agencies, purchasing agencies, sub-national units of government,

and a myriad of non-governmental environmental, consumer, and other public interest organizations. ISO encourages these new parties to be involved in the standard's development by working with the relevant national standards body. ISO, the EMS standard's body and its national members, have an immediate opportunity to engage these non-traditional interests in the standard's development process – and by so doing to provide additional evidence of merit. This opportunity is present in the ISO 14001 reassessment and revision process currently underway. Initiated by ISO late last year, this process is centered on creating greater compatibility between ISO 14001 and ISO 9001, but it opens the door to other revisions. The external communications component of ISO 14001, as indicated, has garnered interest from individuals on the U.S. TAG, especially those from government at federal and state levels, and from the public interest community. Generally, their interest, which is shared by some of the business community, is for a more definitive requirement for external communication about a company's EMS. In May, the full ISO Technical Committee meeting in Seoul, Korea, will take up specific amendments on the matter of external communication. The U.S. TAG, supported by U.S. corporations, could play a key role at this important meeting. Fairly or not, the outcome of this revision proposal will strongly influence outside views of the value of ISO 14001 for performance leadership.

The rapid transformation of the world economy into a closely linked trading system in the last decade has thrust ISO into a pivotal role. In a meeting last summer with the chairman's advisory group for the ISO Technical Committee, a group of NGOs expressed their concern that some national standards bodies had done little to facilitate or include participation by public interest representatives in their national-level standards development discussions or process. The ISO Technical Committee approved a voluntary survey of the 55 participating national standards bodies to gather data on how NGOs participated in the national organization. A task force of the chairman's group was also assigned to meet with NGO representatives to request their views on ISO 14001 and participation in the ISO process.

A survey of both standards groups and NGOs will be presented and discussed at the Technical Committee's meeting in Seoul. While increased interest by and support from NGOs in ISO 14001 is far from assured, it is a virtual certainty that, unless ISO and its national members, such as the U.S. TAG, prop open the door wider to participation by NGOs and other interests, that those interests would more likely act like snarling sheepdogs than like Babe.

ISO 14001 does not promise a short cut or quick path to sustainable development. ISO is a long journey fraught with many

challenges. But the EMS standard, for all its limitations, has intriguing potential to reshape the way in which business regards the environment and, consequently, the ways in which other parties look at business's role in environmental protection.

The challenges – which amount to implementing organizations' showing their commitment to sustainable development through inspiring goals and demonstrated environmental performance through ISO EMSs – are not insurmountable. Attention and concerted effort are needed, to be sure, but a failure to meet one or more of the challenges will make the path to a greener future that much harder to find.

Babe chose an unorthodox career. He could, undoubtedly, have been happily mired in the same environment as his brethren had for generations. But Babe gained recognition and acclaim by picking an unlikely goal and achieving it by unorthodox means. Business can be like Babe, articulating an unprecedented position of leadership on environmental matters and showing the way. And ISO 14001 just might be that common language that leads to greener pastures. •

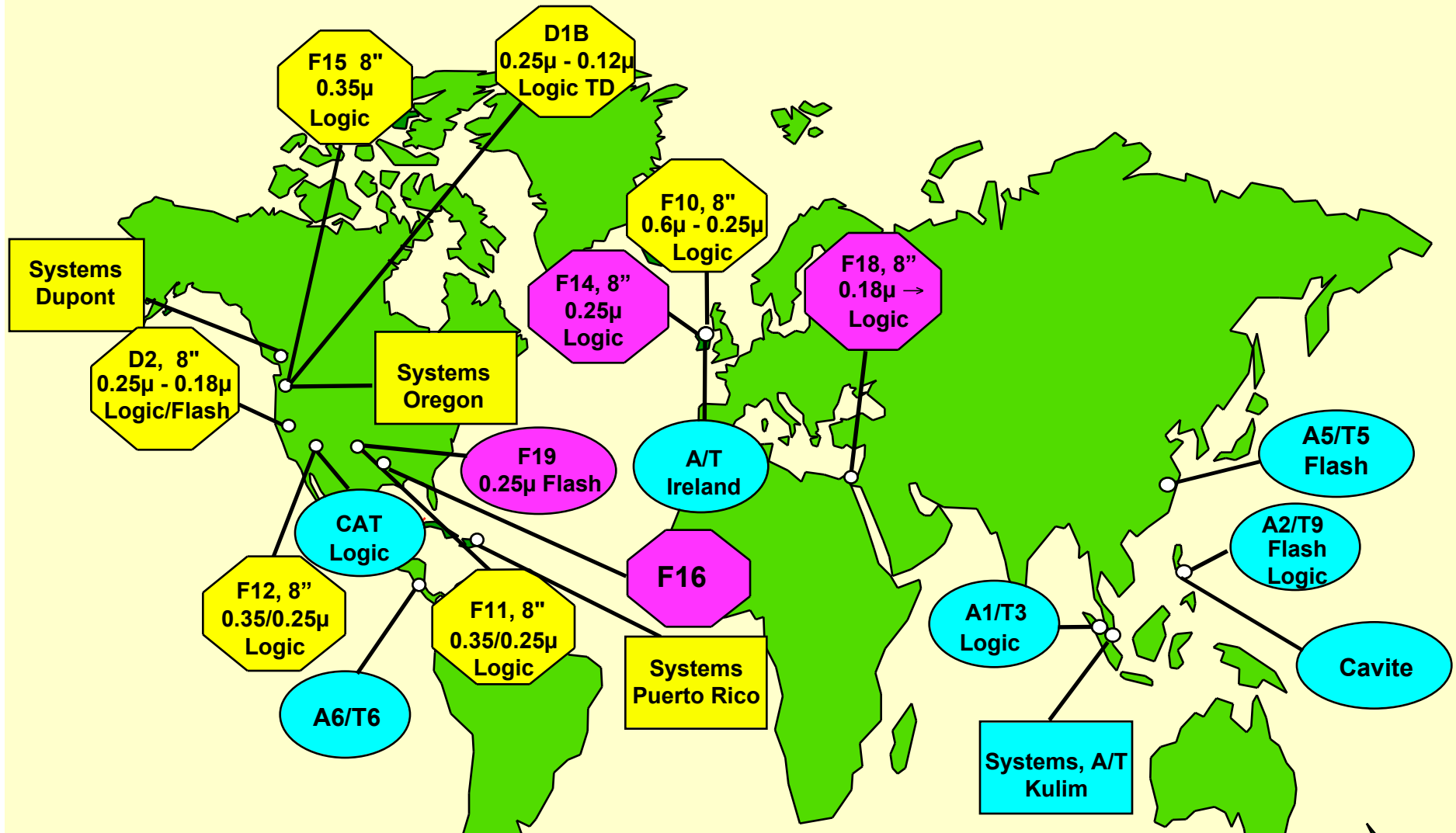
PROJECT XL AT INTEL CORPORATION

A Systems Approach to Solving Environmental Problems



Tim Mohin
Corporate Environmental Manager

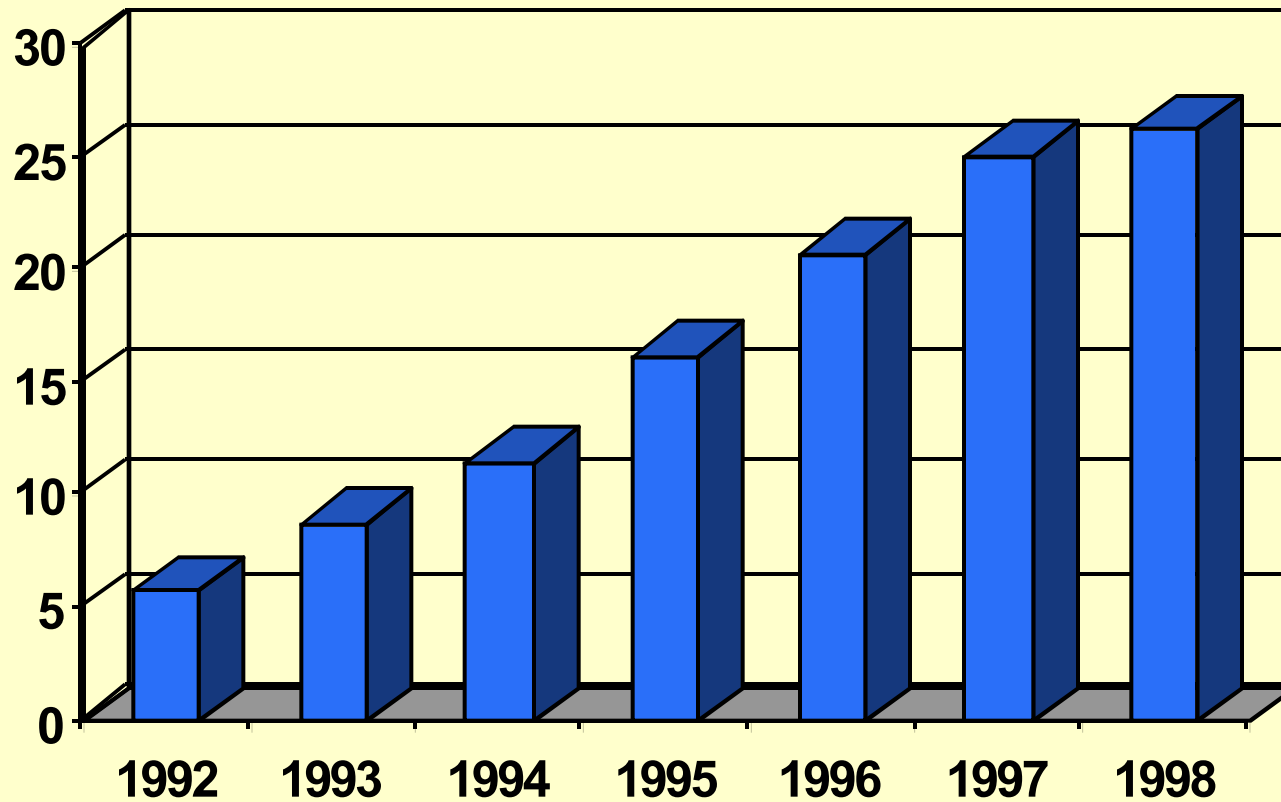




0.25μm Capable Fabs; Assembly/Test and Systems



Intel Net Revenues (\$ billions)



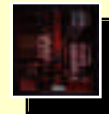
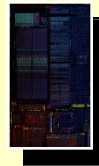
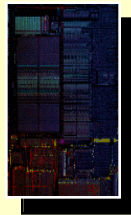
Product/Process Technology

Silicon Process Technology 1.0 μ 0.8 μ 0.6 μ 0.35 μ 0.25 μ 0.18 μ

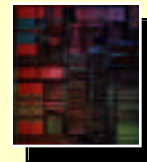
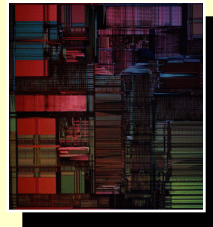
Intel386™ DX Processor



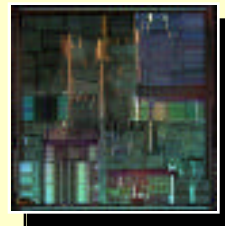
Intel486™ DX Processor



Pentium® Processor

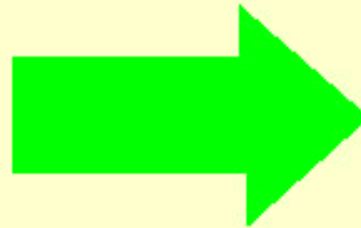


Pentium® Pro & Pentium II® Processor

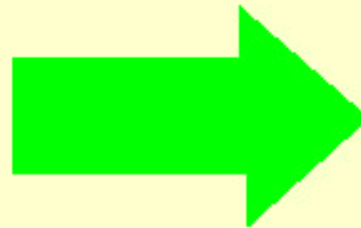


Acceleration of PC Technology to the Consumer

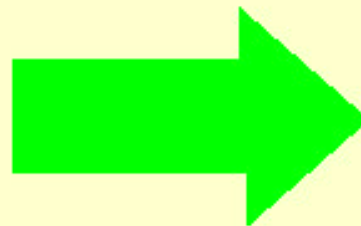
Time to \$2,000



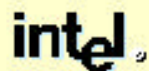
5 Years



4 Years



1.5 Years



Change Management is Critical for Intel to be Competitive

- **Reduced cycle time in obtaining environmental permits**
- **Flexibility to make operational changes**
- **Less agency micro-management in administering permits**



Project XL

"We will provide the flexibility to test alternative strategies to achieve environmental goals. The most notable of these initiatives is Project XL. This program will give a limited number of responsible companies the opportunity to demonstrate eXcellence and Leadership. They will be given the flexibility to develop alternative strategies that will replace current regulatory requirements, while producing even greater environmental benefits."

Reinventing Environmental Regulation

President Bill Clinton March 16, 1995



Project XL

- **What I see in Project XL is a real Paradigm shift. The old way of doing business was that government disctates every move a business must take to protect the environment. The new system, envisioned by Project XL, is to work cooperatively and focus on results: a cleaner environment; a faster, less costly system; and more input from the local community.”**

Gordon Moore

Chairman Emeritus, Intel



Project XL

- **An alternative to traditional regulatory compliance system**
- **White House announcement on 11/03/95 of first eight pilot projects**
- **Intel Fab 12 in Chandler, Arizona selected**
- **EPA has added projects over time - “rolling admissions”**
- **Intel Stakeholder Team formed Jan. 1995**
- **Intel Final Project Agreement signed 11/19/96 - First Major XL Agreement**



Intel's Initial Proposal

- **Site-wide master plan**
 - integrate all requirements in one document
 - Focus on results - Improve results
 - Coordinate 5 layers of regulators
- **Cap-Type, Pre-Approval Air Permit**
 - Pioneered at Intel OR.
 - Minor changes pre-approved under Cap
- **Fab 12**
 - New facility (had yet to operate)
 - Great relationships with community/regulators
 - Lousy air permit

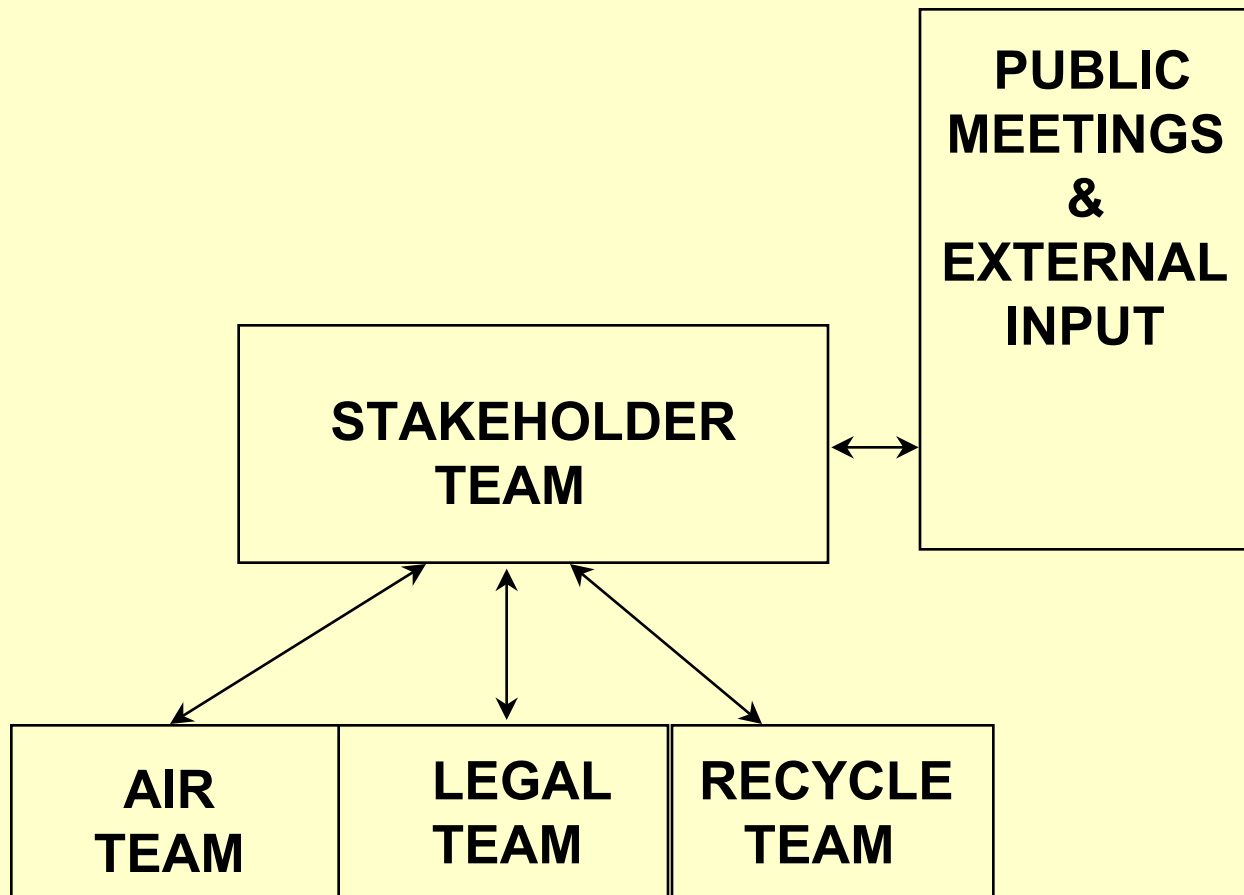


Fab 12 Facility

- **720 acre campus in Chandler, Arizona**
- **Appox. \$1.3 billion capital investment**
- **Manufacturing Pentium® microprocessors**
- **Over 150,000 square foot Class I clean room**
- **First production summer 1996**
- **Several major ramps since then**



Intel's XL Process



Stakeholder Involvement

- **Principal stakeholders include Community, Regulators and Intel**
 - **Community members self nominated from existing CAP (selected for balance)**
- **Community residents comprised one third of the Stakeholder Team**
- **Regulators: EPA HQ, Reg. IX, AZDEQ, MCESD, City of Chandler**
- **Employee participation and bulletins**
- **Multiple opportunities for public input**



Key Commitments

- **Site wide emissions caps (PSELS)**

VOC	40 TPY
NOx	49 TPY
CO	49 TPY
PM10	5 TPY
SOx	5 TPY
Inorganic HAPs	10 TPY
Organic HAPs	10 TPY
Phosphine	4 TPY
Sulfuric acid	9 TPY

intel ● **PSELS are below major source thresholds**

Key Commitments

- **Preapproval for process, equipment changes**
- **Preapproval for new fab - must remain below emissions caps**
- **Health risk based evaluative approach to protect public health (modeled HAPs concentrations compared to AAAQGs)**
- **New Chemicals subject to same process**
- **Production based performance for HAP, VOC emissions**
- **Stakeholder Team monitors progress (quarterly and annual reports)**



FPA Elements

- **Solid Waste Recycle**
- **Wastewater Reclamation/Reuse**
- **Reinjection/Reuse of Treated City Water**
- **Hazardous Waste Recycle**
- **Non-hazardous Chemical Waste Recycle**
- **Stormwater Management**
- **Environmental Education/Mentoring**
- **Property Setbacks**
- **Equipment Donations**
- **Design for the Environment**
- **Public Accountability and Reporting**
- **Consolidated Emergency Planning**
- **Trip Reduction Program**

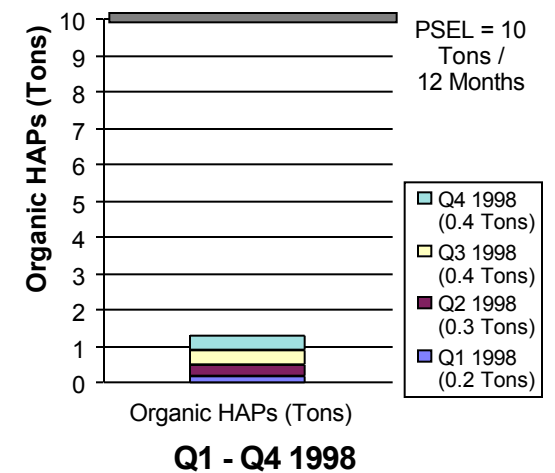
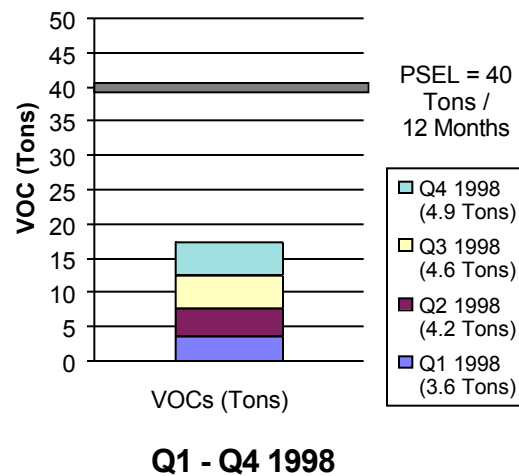
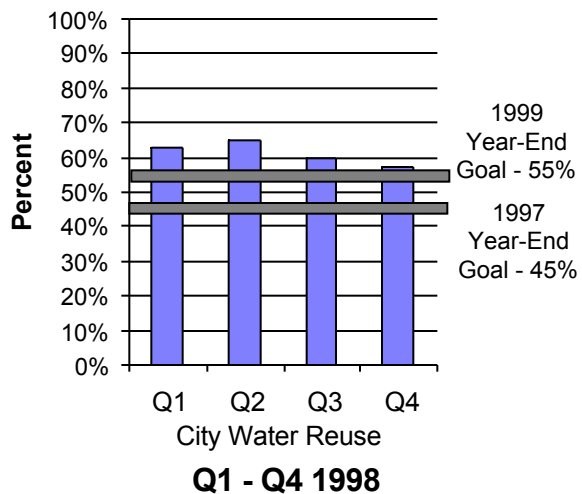
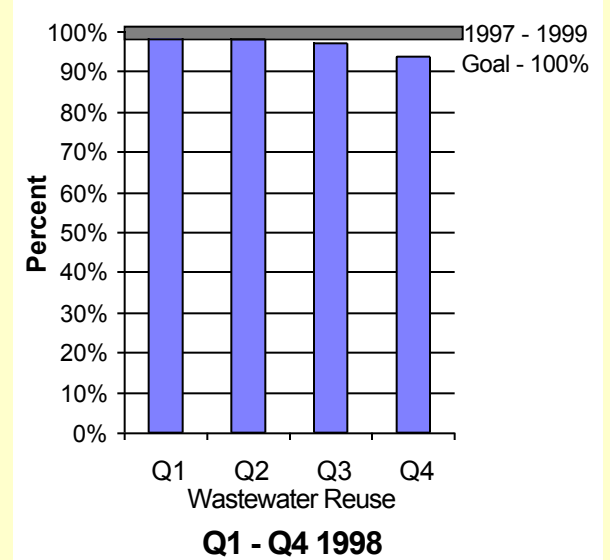
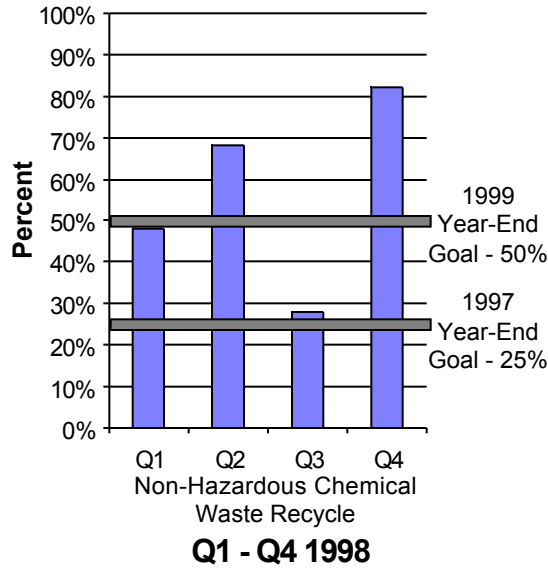
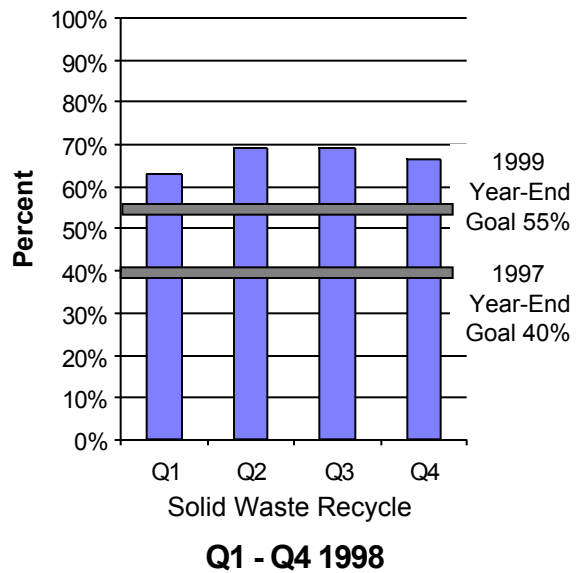


Project XL Documents

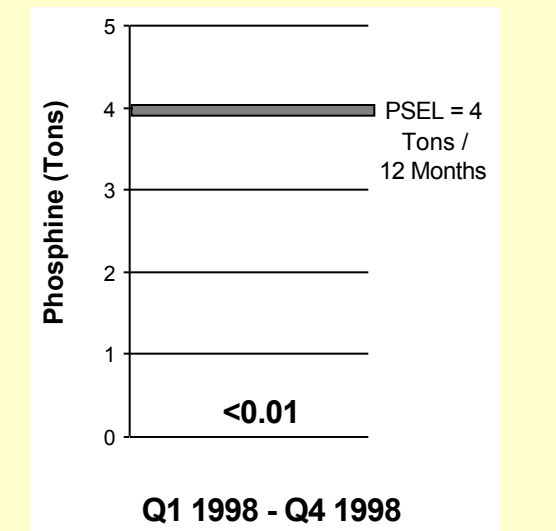
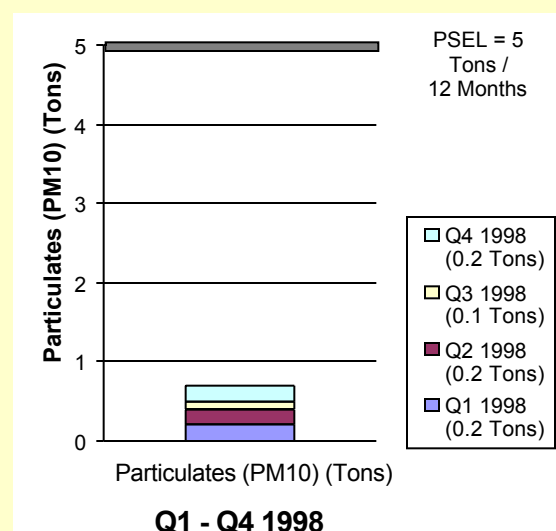
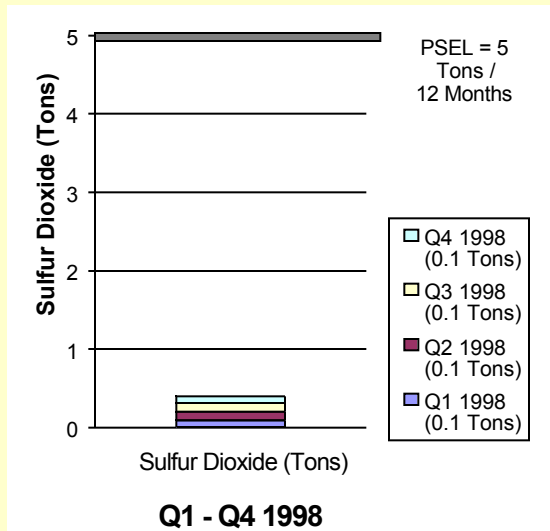
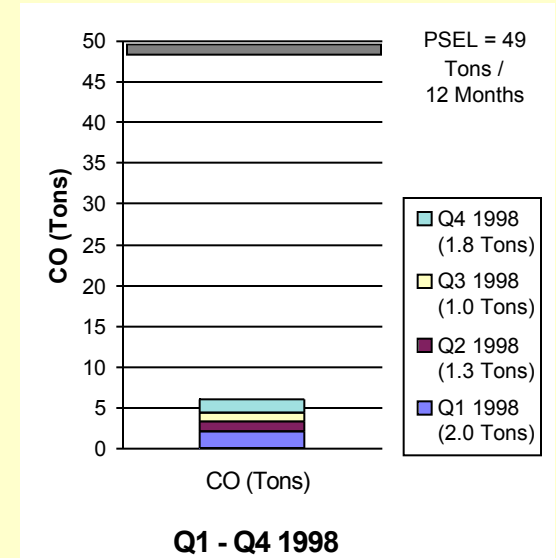
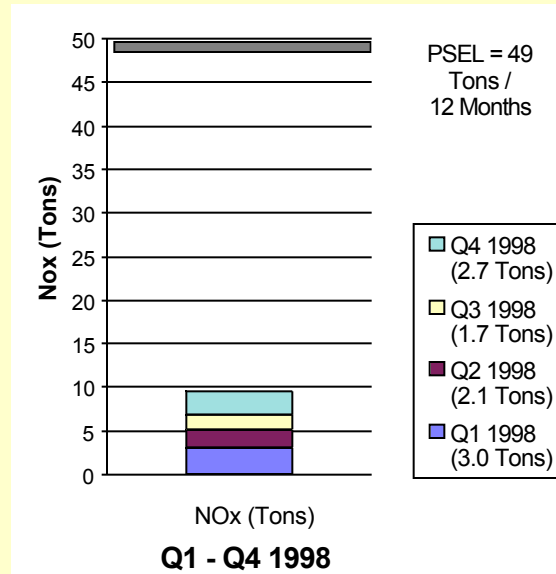
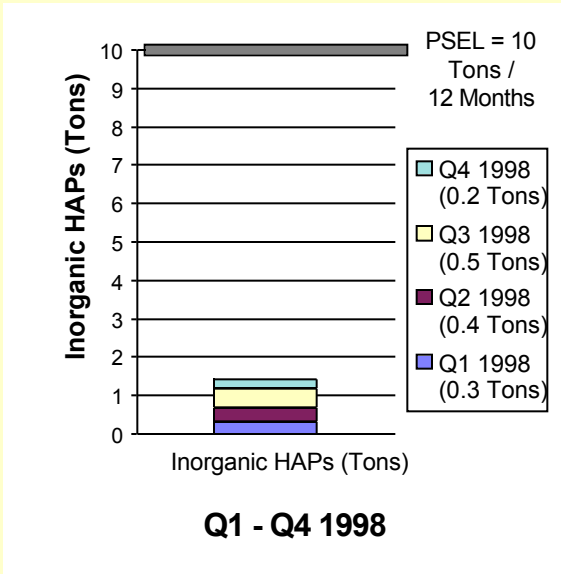
- **Final Project Agreement (FPA) - Voluntary**
- **Air Quality Permit, Industrial User Permit - Enforceable**
- **Documents on the World Wide Web**
 - **Public meeting summaries**
 - **Stakeholder meeting summaries**
 - **Final Project Agreement**
 - **Air quality permit, industrial user permit**
 - **Press information**
- **<http://www.intel.com/intel/other/ehs/projectxl/index.htm>**



RESULTS!



MORE RESULTS!



Other Activities That Benefit the Environment

Property Setback:

Through a recent expansion at Ocotillo, Intel maintained the 1,000 foot setback from the closest manufacturing-related building structure on the Ocotillo site to residential property



Conclusion

- **Intel's experience and Results are overall very positive**
- **First mover penalties are now paid**
- **XL's challenge to industry**
 - **If you have issues with the system...Change It!**
- **Next Steps: More experiments & Proliferation "Pilots to Programs"**



Why Project XL? The value of Project XL to EPA is considerable, because it:

- ✓ Experiments with alternative approaches within legal safeguards.
 - ✓ Tests holistic, multi-media, or sector-based approaches
 - ✓ Tests and implements technological advancements
 - ✓ Leverages the experience and resources of the regulated community, co-regulators and stakeholders.
 - ✓ Advances the shift from pollution control to pollution prevention and sustainability.
-

Project XL is Good for the Environment

Cumulative Total Environmental Benefits 1997-1998

Project XL is Good for Sponsors*Operational Flexibilities*

- ✓ expediting or consolidating permitting;
- ✓ reducing the amount and/or frequency of record keeping and reporting; and
- ✓ authorizing facility-wide emissions caps.

Benefits

- ✓ improved administrative or technological efficiency;
 - ✓ industry recognition and leadership;
 - ✓ better leveraging of employee expertise;
 - ✓ better community and stakeholder relations, and
 - ✓ improved relationships with regulators.
-

Project XL is Good for Sponsors-- Financial Benefits

GAINED

- ✓ Weyerhaeuser saved \$176K by consolidating reporting; and saving \$200K a year recovering and reusing lime mud.
- ✓ Intel gained competitive edge in quick-to-market industry; avoided \$millions in production delays by eliminating 30-50 permit reviews each year.

ANTICIPATED

- ✓ Weyerhaeuser will avoid \$10 million in future capital spending
 - ✓ Witco will save \$800K over 5 years; \$500K per year through waste minimization/ pollution prevention
 - ✓ Merck will gain competitive edge in first-to-market industry and avoid \$millions in production delays
-

Project XL is Good for the Community

- ✓ Forging trust with the project sponsor
 - ✓ Improved access to information
 - ✓ Receiving reports in easy-to-understand formats
 - ✓ Better understanding of a facility's operations
 - ✓ Input into a company's environmental performance decisions
 - ✓ Help with community projects
-

Innovations Rulemaking

MACT Regulations

RCRA Regulations

Innovations Permit Reform

Innovations Information Management

AMERICAN CORPORATE COUNSEL ASSOCIATION

Reinventing Government Regulation: The EPA and the States

ROBERT D. STEPHENS, Ph.D.
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

Government environmental agencies around the country have become increasingly interested in fundamental reevaluations of how they carry out their mission. This process is driven by many factors, some political, some economic, but the greatest motivation is derived from a belief that the existing system will not meet the needs of the next century. Many approaches are being used to learn of and evaluate these new approaches. Most have in common aspects of new partnering relationships between parties as well as reliance on environmental management systems (EMS) such as ISO 14001. A broad multi-state working partnership has been formed which includes many other non-governmental stakeholders which is called the Multi-State Working Group on Environmental Management Systems (MSWG) to address this important public policy issue.

As the name implies, MSWG is a working group of state environmental officials. What the name does not imply is reality. The MSWG is in fact a broad coalition of many interest groups, which includes other government bodies at the federal as well as local level, representatives from both small and large businesses, public interest groups representing both national as well as local grass roots organizations, and a growing number of academic institutions. The working group is bound together by a common idea that environmental protection, environmental restoration to the degree possible, can and must consider new more intelligent and effective models if we are to be successful in creating a sustainable environment and economy, two aspects of the same system, in the next century.

To understand how the MSWG is approaching this challenge, why it is constituted as it is, and why it felt that this event was important to sponsor, it is helpful to understand our basic assumptions and premises, for it is these basic assumptions and premises which structure and guide the work of our group. I will attempt to frame this structure reflecting as best I can the views of a very diverse group. I have not asked for a consensus on the points I will discuss, however it is my belief that these positions reflect something very close to a consensus. As there are many MSWG members in attendance today, we will likely determine how correct I am in my assertion.

Our basic objective, our prime directive is enhanced environmental protection. There are many ancillary objectives which play an important role in our considerations such as efficiencies in achieving an environmental result, the economic and social benefits of environmental protection and restoration, the economic benefits derived from increased efficiencies and less wasteful operations both in the public and private sectors, and even the benefits derived from more cooperative relationships between government and the private sector. To restate for emphasis however, our principle driver is an interest in advancing environmental performance of organizations beyond the minimally acceptable level commonly referred to as the compliance

level. This common basic objective of enhanced environmental protection has spurred a wide variety of state based programs designed to develop the understanding, policy framework, and practical knowledge as to how governments, in partnership with other sectors, might advance this objective. Even though there are a diversity of state based programs represented within MSWG, I believe we share a common set of assumptions or premises which defines the boundary conditions of our vision. An understanding of these assumptions is key to understanding why we, MSWG, do what we do, and why we would sponsor a meeting such as this, why the agenda has been structured as it has, and why the range of issues we see on that agenda have been teed up.

I will list and discuss briefly several of these assumptions and premises. This list is not fully complete, however I believe it does represent many of the most important issues.

1. The agencies represented within MSWG have many names, which include words such as environmental quality, environmental protection, natural resources, as well as others. The mission of all of these agencies, both at the state and federal level, is protection and restoration of environmental quality. One tool to accomplish this mission is the promulgation of regulation and enforcement of those regulations. Regulations and their enforcement is an important tool for our agencies, but it is not the only tool, it is but one of many. We are not departments or agencies of environmental regulation, we are departments and agencies of environmental protection.
2. Systematic management of environmental affairs will produce superior results. An EMS is an example of such a systematic tool. There are many examples EMS's which differ in details but share common features of systems management focused at articulated goals with aspects of corrective action and continual improvement (The plan-Do-Check-Act cycle). ISO 14001 is an excellent example of an EMS, but it is not the only example nor is it the only example of a good EMS.
3. Integration of environmental management into core business management will produce superior results. Environmental performance equates to economic performance with collateral social benefits. To the degree agency policies can encourage this integration, they should be developed and deployed.
4. Environmental benefits come from outcomes, not the means to achieve outcomes. Governmental environmental protection programs should focus on outcomes. Measurable performance or quality of the environment goals will produce better result. Goals established by a multi-stakeholder consensus processes will be more successful in achieving improved outcomes. Goals send messages to all, including government, businesses and the public, that change is necessary. Agreeing on targets stimulates national debate on how much environmental improvement is necessary, possible, or desirable. Target should focus on environmental outcomes(i.e. steps toward the achievement of long term environmental goals) and on decision making (what are the sources of problems and what actions can be taken to minimize or prevent them)

5. New models of environmental protection programs established to achieve long range consensus goals should and must be based on much greater levels of trust and cooperation between affected parties. Adversarial, litigious models will be of limited success in achieving superior environmental performance or long term sustainability.

6. Quality information is the most powerful tool for producing change both internally and externally. Considerable improvement is possible in the quality of information generated regarding environmental management and environmental aspects, particularly that information generated by and for governmental environmental protection programs.

7. Environmental aspect and impacts go far beyond that which is regulated. Compliance or the so-called command and control systems relate to the bottom, minimum tier of environmental performance. Beyond compliance environmental performance must be based on a firm foundation of compliance with existing legally established performance standards. Achieving an acceptable level of environmental quality in the 21st century will require moving beyond compliance driven standards. Much of what is in the "beyond compliance" tier would be difficult and inefficient to address with traditional command and control and enforcement tools.

8. Incentives will encourage beyond compliance performance. Incentives should be of value to both the public and private sectors. Specific incentives should be related to actual characteristics of an EMS and to its documented performance. Participation in a regulatory excellence tier, with attendant benefits, should be voluntary and earned.

9. The development of knowledge and understanding of EMS's, how they function, what they produce, and their public policy implications should be done in a systematic and a transparent manner. Pilot projects systematically collecting information on the outcomes of EMS implementation represent such an approach.

10. Information about EMS's, their performance, and the resultant public policy implication should be fully public. All interested parties should be given an opportunity and the means for meaningful participation in the public policy debate. Future models of excellence based regulatory programs will likely require new federal, state, and local laws. This legislation should be based on a body of credible information on how such models perform. The national pilot project effort, the National Environmental Performance Data Base co-sponsored by the USEPA and the MSWG will play a significant role in providing this body of information.

It is these principles which drive the national research effort by the MSWG. It is these principles which frame our vision of the environmental protection programs of the next century. It is these principles which form the basis for our efforts to reach out to a broad community of stakeholders. We in MSWG see as one of our most important roles in this very important public policy debate that of a convener and facilitator for the stakeholders in this process. It is clear that the body of expertise represented by ACCA will play an important role in the development of new public policy, particularly as it relates to new relationships with the regulated community. I hope this meeting will prove to be a meaningful step in that process.