I have about 20 minutes to talk to you today, and I'd like to use that time to try to stress what ISO 14001 is, what it's all about, a little about what it is not, and finally on some of the benefits you might expect from your implementation.

*But first, permit me a short history lecture. I had what I consider to be the very fortunate opportunity to grow up in the environmental field. I started in this field in the 1960s. There were no environmental engineers, only chemical engineers – who were making enormous contributions to providing society with goods and services, while, with the very same technologies, regrettably creating many of our environmental problems. There were civil engineers who did their best to contain environmental problems in sewer lines and treatment systems, and then there were sanitary engineers who knew how to run those treatment systems. When I chose the environment as my career, I decided to enter it thru the chemical engineer route because it would allow me to influence how products are made. I did specialize in the environmental field, and over the years became one of the first in business to create an environmental strategic plan for my company, which ultimately became the framework for our fledgling environmental management system.*

*It was a different world in the 1950s and 1960s, businesses and governments dealt with every different environmental problem independently. In business, air pollution problems belonged to the power house folks, water pollution to manufacturing or utilities. In government, air pollution was managed, if at all, by the Department of*

*Health. Water issues might be addressed by Fish and Wildlife agencies.*
*In most businesses, nobody was in charge of the environment. Nobody was in charge of the environment at any level of government. Where the rubber met the road, at the local level, government was limited to reliance on nuisance laws to try to deal with growing environmental problems.*
*In 1962, a book called Silent Spring, written by a one time biologist from the US Fish and Wildlife Service, brought environmental problems forcefully to the attention of the public and to the attention of government creating the environmental movement.*

*The initial focus for the first decade of the environmental movement was on cleaning up the environment. We passed laws aimed at stopping pollutants from entering the environment. We passed laws defining healthy air and water. We passed a multitude of laws setting a minimum standard of performance. Those were the golden years of the environmental movement. You could see things improving. We developed technologies and built facilities. We built waste water treatment plants and sewers, we built scrubbers and incinerators, we began cleaning up pollutants released over decades.*
*Not everybody did their share, so, necessarily, we passed laws to drive compliance with the behavior laws.*

Over the past decade, we've drifted – in business as well as in government - from focusing on the environment, to focusing on compliance. Compliance is important, and I don't want to seem to

diminish its importance, but one of the most valuable offerings of ISO 14001 is to help us get back to improving the environment in the broadest sense.

If you've been working on West Point's EMS, you will remember that the very first step in your undertaking ISO 14001 was to evaluate environmental aspects. I'm sure Joe has emphasized that your environmental aspects might include environmental impacts, but that aspects are much broader.

Aspects are not just the environmental consequences of what you do, they are the combined consequences of what you do AND the consequences of what your business is. Yes, aspects would include emissions and releases and wastes, but also much more.

When we wrote "aspects" we hoped that when automobile manufacturers looked at environmental aspects they would think about the consequences of every household in Shanghai or Calcutta operating a car with an internal combustion engine.

We hoped that when architects looked at environmental aspects, they would think about the consequences of their building design.

We hoped that when municipalities looked at environmental aspects, they would think about the consequences of not planning growth.

And we hoped that looking at environmental aspects would bring back a focus on the environment and that in turn would lead to a sustainable world, populated with sustainable businesses and sustainable communities.

I'd be the first to acknowledge that most organizations start with the consequences of what they do and, initially at least, have a tough time with the consequences of their business. The auto companies set objectives for emissions and wastes long before they got serious about the internal combustion issue. Architects started with automatic light dimmers, heat recovery, low heat transmission glass – I'm not sure we know yet what a green building is. Municipalities started with recycling, but smart growth has now become a mandate.

That's what ISO 14001 is really all about – its value is not just in solving today's problems, but in preventing tomorrows' problems.

I cannot imagine what those aspects might be for a West Point academy. But for the automotive manufacturers, you need only watch what will be coming out of the Detroit auto show this week to see that environmental aspects for Toyota, Honda and now Ford and GM are no longer just emissions and wastes. Every one of these car makers will have an economically and functionally competitive hybrid fuel/electric vehicle. And in another decade, they plan to have functional fuel cell driven vehicles. We all have a lot invested in the hope that those will be effective steps in preventing tomorrow's problems.

So if ISO 14001 is aimed at environmental improvement, how does it do what it aims to?? Well, it looks to the setting of goals and objectives to deal with the identified aspects.

In the business world, we like to say we manage by objective, and I've seen a lot of companies describe their environmental objectives in terms like

Beyond compliance, Above the line, Best in class, - you may have your own.

What's good about these goals is that they're lofty goals, they can inspire everybody in the organization, not just environmental junkies. What's Bad is that they can mean something different to everyone in the organization, sometimes drastically different. An inspiring, but vague, goal can have different parts of the organization going off in different directions and lead to a total lack of consistency across the organization.

ISO 14001 *IS NOT* a road map to lead an organization to "beyond compliance" or to show the way to be "best in class" – *IT IS* a tool, a place, to define for the organization – for everybody in the organization – the goals and objectives. It's about what are you going to DO to be "beyond compliance" or "best in class", or whatever you want to be. Nowhere in ISO 14001 will you find that one action is good, but another one is better. Nor does it say you should aim to be the best, or even to be better than some baseline. It does say you should aim to be better tomorrow than you were yesterday.

The reality is that implementing ISO 14001 will NOT make you any better than you want to be!! But it will help you to be as good as you want to be, as good as you are able to be with the resources and commitment you can muster.

ISO 14001 is about what you're going to do, how you are going to do it, who's going to do what. It's about organizing to meet the objectives, it's about bringing the right resources to bear – people, facilities, equipment, management attention. It's about what you plan to do to meet the goals and objectives you designed to deal with your environmental aspects.

*Those of us who grew up in this business in the 70's and 80's learned how to do that by trial and error. But we each had a different situation, a different experience, and we each created a different program to respond to environmental pressures. Everything was ad hoc. When the laws and regulations focused on facilities, we put in place facilities. When the laws and regulations focused on compliance, we added programs for compliance. Over time, these ad hoc responses matured. We began sharing programs for facilities and compliance and writing papers on how we managed. We began to appreciate the interrelation of environmental issues with business drivers. Some companies found that their business issues were environmental issues. We began to appreciate the importance of the larger sustainability issues. We realized that managing environmental aspects demands more than just an environmental department's attention, it demands the organization's commitment and it demands the involvement and commitment of a lot of people who never felt they had environmental responsibilities.*

*In 1990, when we sat down to write ISO 14001, each of us brought our own ad hoc experiences to the table. We evaluated the EMS's that had already been written down – BritishStandard 7750, the International Chamber of Commerce Charter, the EU Environmental Management and Audit System – each had its strong points, and we brought the best of each into ISO 14001. This was an incredibly mammoth effort. The US alone had over 400 participants. Joe was the first chair of the US organization, called the Technical Advisory Group. I took over the leadership about a year ago.*
*Internationally, it was routine to have over a hundred people from dozens of countries sitting down to work on a consensus environmental management system standard. Its almost a miracle that anything at all came out of the process, much less the robust, functional standard, ISO 14001; the standard that, thru this process, the world has agreed to use in place of the myriad of local and national standards that had proliferated.*

Yet, with all of its robustness and functionality, you cannot pick up a copy of ISO 14001 and say "this is my system for managing environmental aspects". When you pick up that copy of ISO 14001, its robustness and functionality will help you build your system within the framework of ISO 14001 - it will help you create your system for your business.

Developing your system will demand many choices and decisions. What to focus on first? – nobody can do everything at once!

How to organize? – things need to get done and they don't happen without organization!
What resources go where, and when? Goals and objectives need resources to be available in the right time frame – if they're not, scale back the goals or provide more resources!
The list will go on, but if you do it well the list will be manageable, doable and will get you to your goals.

I said that the business world likes to think it manages by objective. My experience is that business really manages by what it measures, if the organization truly measures progress toward the objectives, then the organization will eventually meet the objectives. But if the organization measures something else, then it will get what it measures, which may well be very different from the objective. I've seen far too many well-meaning and otherwise well-managed companies, and governments, and NGOs, become so consumed by the need to meet some numerical objectives that they totally lose sight of the meaning of the numbers and the true objective.

My advice is that if you decide to set a metric, be very sure that that's what you really want to meet and that you really want to do what the organization will do to meet it.

I'd like to close with some thoughts about what benefits you might expect from your EMS.

I have to mention compliance, if I don't you'll ask anyway!! If your compliance record is already excellent, then ISO 14001 won't hurt it, but if there's not much room for improvement, what can you expect – compliance is compliance! You may have a higher level of assurance, you may have a better early-warning system if there is a problem, you may even worry about it less. But trying to measure improved performance may prove difficult and even be counter-productive.
If compliance is a problem, then ISO 14001 – focused on compliance improvement – will very likely improve compliance and you probably can measure the improvement. But watch it when you get close to perfection – you don't want careers hanging in the balance because of a single NOV. Think about fixing compliance, but measuring instead the environmental improvement resulting from the improved compliance.

I mentioned assurance – assurance flows from the design of the system. It begins with the transparency of the management, from planning and setting goals, through measurements, reports, audits, and management reviews. It comes from a consistency of expectations, from the institutionalization of the programs, from the structured approach to management.

Will ISO 14001 reduce your costs?? I might as well mention that one too. Another "if this, then that" answer, I'm afraid.  If you are spending too much and getting too little for it, ISO 14001 could both reduce the "too high" cost as well as increase the "too little" benefit. If you're not now spending enough to provide the resources you need to meet

your objectives, you'll either have to scale back the objectives or increase your spending.

I could go on listing the benefits I would expect, better relations with communities and regulators, improved support from management and other employees, it might be better for you to propose the kinds of benefits you need, and then to work together to design your EMS in a way that maximizes those benefits to you. Then the West Point EMS will not be my system or ISO's system, or Joe's system, it will be your system.