

EHS Management Systems: Trials and Tribulations on the Road to a Leading Indicator

**John Kandler
James “Skipper” Kendrick, CSP
Textron Inc.**

Overview

At Textron, our vision is to be the premier multi-industry company. In order to accomplish that vision and consider ourselves premier, our safety performance must rise to levels of excellence similar to all other business components; cost, quality, customer service, schedule, etc.

Our safety vision is to achieve zero injuries. This is a lofty goal and it takes a strong effort to get there. It is also something that cannot be achieved overnight. So it's important to measure our performance and project milestones so that we continue to improve toward our vision. In order to establish our pathway to premier performance we developed the Textron Environmental, Health and Safety Management System. Today we would like to share with you this system and some lessons learned along the way.

History

Our journey started in 1997 when a core team of safety professionals was tasked by our EHS Council to make recommendations of a management system that would lead us to continuing improvement. The groups began a barnstorming benchmark tour which included visits and information sharing with Allied Signal, DuPont, GKN, Alcoa, UTC and TRW; all leading performers in the field of safety and health at the time. On gathering literally reams of data and information, the team gathered in a hotel conference room and over a period of one week, developed the basics of the system we will share with you today.

This system was then introduced to a select group of Textron operating executives to receive their comments and suggestions. With their suggestions and buy in, the system was presented to the EHS Council and approved for a Corporate-wide rollout in 1999.

Business units throughout Textron went about conducting their first round of self-evaluations following a communication campaign and training as to what the system entailed and providing

examples of activities to ensure alignment with system elements, . Based on these initial self-evaluations, a series of soft goals were set and efforts to drive system improvement implemented. This approach was sustained until 2003.

In 2004 the EHS Council began discussions as to how we might accelerate improvements. These discussions led to an enterprise-wide objective to obtain definitive improvements over a period of the next 3 to 4 years. Discussions with Textron senior management during 2005 resulted in these improvement goals becoming a part of Textron's CEO's personal goals which are cascaded to all his direct reports and business unit heads. Specific targets were set out for each year and an audit process was implemented to determine how closely the business units were aligned with the system elements and progressing toward goal attainment. Using Textron's goal deployment process, activity to achieve desired results flowed down from senior management all the way to individuals within the business units.

These efforts produced results and as the system matured, the EHS Council looked for ways to improve and fine tune the process. In 2006 a major project was undertaken to conduct a complete review of the system. As a result of that review, a low risk version and office version of the system were introduced in recognition of the differences in both risk and operational aspects for our offices and smaller operations within business units.

In our drive for continual improvement, the EHS Council in 2008 has once again asked that we look a "what's next". As we reach our intended targets and the system matures, what is needed to drive us to the ultimate goal of zero injuries?

The following is a description of our journey. We will share lesson learned along the way and give you a preview of our current vision of "what's next".

Context

Within Textron our EHS process is championed by the Textron Leadership Team and senior management. They give us our vision and goals and challenge us to drive for premier safety and health performance. Our EHS Council transforms these visions and goals into operating principles, policies, standards and the management system within which these will be achieved. The Council established metrics for determining how we are progressing and set up a methodology of monthly and quarterly reporting and tracking to ensure progress. The Council also provides the necessary tools and training to assist the business units in reaching their targets. The business units then develop policies, standards, practices and action plans that are necessary to address any unique aspects for the structure and operational culture of the business. Site specific objectives and metrics are developed and reported which may reach individual department or cost center level.

Our EHS Council reports to the Executive VP and General Counsel of Textron, who in turn reports to the CEO. It is chaired by the Executive Director of EHS within Textron. Council membership is comprised of the senior EHS representative from all business units as well as several members of the Corporate EHS staff.

Our Textron Vision is shown below along with our Operating Principles. These provided the framework from which our system was built.

Textron Vision

“We are committed to the health and safety of our employees, contractors, and communities. We will actively champion environmentally sound practices and safe behaviors. We will continuously improve our processes, require individual accountability and demonstrate leadership to achieve zero injuries and illnesses, eliminate adverse environmental impacts, and contribute positively to the communities in which we operate.”

Textron Operating Principles

- No job or activity is worth risking injury
- All injuries, illnesses and environmental incidents are preventable
- Working safely and in an environmentally responsible manner is a condition of employment
- Each of us is responsible for the safe behavior of ourselves and others
- Environmental, Health and Safety is led by senior management, implemented by line management, with each level accountable to the one above and responsible for the one below
- We will design and integrate Environmental, Health and Safety into our facilities and into our management process
- All employees will be provided the necessary knowledge, skills and abilities to work safely
- Strong environmental, health and safety performance is good business

An important concept within our Operating Principles is that this is an evergreen “process” led by senior management. EHS is, not a program, project or initiative.

If successful, this system and process will lead to:

- Protection for the employees and community
- Compliance assurance
- Accommodation of Textron’s global expansion
- Managing Textron’s organizational diversity
- Provide alignment with international standards
- Continual improvement
- Reduction in injuries and illnesses

These Operating Principles and the EHSMS have allowed us to reduce our injury rate approximately 75% since its introduction. Though not statistically validated, there is strong anecdotal evidence that injury rates fell as system scores improved. These performance levels have put us at the edge of premier performance as compared to industry groups.

The System

We modeled our EHSMS after ISO 14000 and OSHA VPP. We took the ISO approach a step farther to address H&S. Since that time, OSHAS 18000 and ANSI Z-10 have been developed. We have evaluated these emerging H&S standards and find that Textron's EHSMS conforms with them as well.

These are the elements of our management system. Each element is rated on a 1-5 scale. A (1) indicates that the minimal effort is being put forth. A (5) indicates a management system that would conform with ISO 14001/OSHAS 18001 for that element.

Our EHSMS is composed of 14 elements as shown below:

- EHS Policy and Management Commitment
- Leadership and Employee Involvement
- EHS Hazard Recognition
- Awareness of Legal Requirements
- Objectives and Targets
- EHS Management Program
- Organization and Responsibility
- Training and Education
- Communication
- EHSMS Documentation
- Operational Control
- Emergency Preparedness and Incident Response
- Monitoring, Assessment and Measurement
- Review, Improvement and Recognition

The system is designed such that in order to move from one level to another all requirements of a particular level must be in place. While a business unit may be performing some activities at a higher level, they must show completion and validation of all preceding activities in order to take credit for that elevated score. Each individual element is scored on the scale of 1 to 5 and then all 14 elements are averaged to produce the overall EHSMS score. These scores are entered into a tracking database, updated monthly, reviewed on a frequent basis and then audited to ensure compliance and improvements.

The EHSMS has been modified to conform to the PLAN, DO, CHECK and ACT model. The first 7 elements fall within the PLAN stage and deal with specific strategy and tactical activities to reach goals. Elements 8 through 12 fall within the DO stage and are focused on implementation of the plans and strategy. Element 13 confirms the CHECK part of the cycle while element 14 drives the review, assessment and action necessary to revise the PLAN. Thus the cycle starts all over again.

Several years ago Textron's senior management set a goal of petitioning for the SHINGO GOLD LEVEL designation. SHINGO is similar to other business barometers such as the Baldwin Award. It is designed to test and certify the overall effectiveness of the entire business process. In order to align our efforts with this process, we developed the Textron Business System

Assessment (TBSA). This self assessment guides us to continual improvement through the various levels to achieving GOLD status. We have found that through effective utilization and implementation of our EHSMS, there is a strong alignment within TBSA to the reach the desired objective. This is an excellent example of systems integration.

Lessons Learned

Along the way, there have been numerous successes as well as a few bumps in the road. Our initial win-win was the inclusion of Operations Management in the design and approval of the overall system. Having them look at the product and present constructive comment prior to rollout prevented some major obstacles during initial introduction. They were able to assist with communicating the process within their own business units and address initial concerns and potential issues.

Our initial challenge came in the form of us being too kind to ourselves in the self-assessments. We found that we took credit for activities if they were in place in one location rather than looking for the depth and breadth within the organization. Our internal audit process started to point to these issues as the system moved to maturity.

Our audit system provided another challenge. The third party auditors were very adept dealing with compliance issues but were not as well prepared and focused when looking at management systems elements. Another challenge within the audit process was consistency of definitions within the elements and scoring. A level 3 assessment by one auditor may not be the same when reviewed by another auditor. Our audit process has been revised so as to have one primary auditor looking at management systems. This drives and ensures consistency. In another improvement, the compliance portions of the audit are driven by the overall effectiveness of the EHSMS scores. Good systems drive good performance; good systems drive good compliance efforts.

A major step forward was the inclusion of an EHSMS target in the goals of our CEO. Through our goal deployment process, this drove performance expectations down throughout the entire enterprise. What's important to the boss is important to me. What gets measured gets done. With this process we are cautious to look at the performance in achievement of the overall EHSMS score. Our challenge was to make sure the process is solid and that we are not just chasing a number.

Providing the enterprise with the proper tools to define, assess and measure progress presented a challenge. We started with a paper system but soon discovered we needed a more robust data collection system if we were going to have valid, consistent results. A tool was designed and integrated into our existing EHS data system to allow business units to enter and collect data on system progress. This system also enhanced our abilities to monitor at the enterprise level, the progress of business units throughout the world. Modifications have continued which led to our most recent change providing a "to do" list of activities needed for improvement each time the system is updated. The system now does a continual gap analysis and provides a listing of specific activities necessary to move to the next level.

As we dealt with system maturity, we came to the conclusion that the EHSMS score was not a finite number. It is a constant variable that reflects the current state of EHS at a business.. With

each change in leadership at the business unit level, with each new business added or divested, with each new process, the EHSMS score is subject to change. This realization led to a true process way of thinking in that in order to sustain performance, the system must be robust and adaptable while at the same time providing stability over the long term.

The original system was designed to address the manufacturing or operations side of our business. As we matured, realization was that we needed to include the rest of the enterprise in order to reach true premier status. Office environments, laboratories, research facilities, etc. need to be working their EHSMS systems. Recognizing the different risk and operational characteristics of these functions, a low risk and office branch of the EHSMS was developed taking into account the uniqueness of these business elements.

The Results

Since the introduction of the EHSMS, recordable injury rates have declined by approximately 75%. A similar reduction in cases with days away from work has been noted. EHSMS scores during this same period have risen from an overall average of 2 to an EHSMS score of 4.6 for 2007. While not a direct statistical correlation, this improvement gives credence to the theory - work the system and the system will work for you.

What's Next

Given that this is a process and we need to strive for continual improvement, the EHS Council has commissioned a team in 2008 to review this EHSMS and make recommendations for improvement so that we might include any improvements/modifications into planned activities for 2009. All in keeping with our overall Vision –ZERO INJURIES.