SAFETY PLANNING

FACILITATING TENNESSEE’S CULTURE CHANGE

Category: Planning & Management
Technical Division: Planning and Management
Entrant Organization: Tennessee Department of Environment and Conservation, Materials Management Section

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SWANA Member Number: 828700
Jurisdiction: State of Tennessee
Population: Residents: 6.5 MILLIONS
Executive Summary - TDEC Safety Initiative

Tennessee Department of Environment and Conservation (TDEC) Division of Solid Waste Management conducts environmental oversight for 95 counties. This oversight includes administration of grants, recovered materials, waste tires, compliance inspections, and Household Hazardous Waste (HHW). The Materials Management (MM) program authored the 2015-2025 Solid Waste and Materials Management Plan that serves as the roadmap for sustainable materials management. With the local government interaction and the allocation of grant funding, the MM section takes an interest in safety of all parties we touch. TDEC demonstrates a comprehensive approach towards compliance and safety issues within the regulated community. Utilizing tools such as grant funding allows TDEC to guide safety and environmental compliance associated with HHW collection. Many levels of partnerships have developed through multi-agency interaction supporting training in solid waste management in the form of a statewide training academy (TTA) which supports increased safety data collection and measurable improved outcomes.

TDEC Loves Safety Monday

TDEC is a statewide government organization that interacts with public partners in the ninety-five counties and 340+ cities. This interaction extends to other partners within the private and nonprofit organization sectors for the management of each aspect of solid waste & organics management and through recycling options. The weekly Safety Monday postings are a key initiative shared with our partners. TDEC promotes this Safety Monday messaging to all staff within the program who then share this concepts and messages to many of the 95 counties and municipalities.

The value of this SWANA product supports TDEC’s planning and management goals shared across the state to improve safety in our industry. The solid waste safety focus allows internal staff and external customers to utilize learning time most effectively in an industry specific
manner. Using the SWANA focused classes and materials has driven the identification of additional organizations that build on resources used by the solid waste professionals across the state through the new Tennessee Training Academy (TTA). The TTA has engaged multiple organizations that contribute many resources on multiple levels to support training development, presentations, and follow up. TDEC Division of Solid Waste Management knows the benefits of having highly trained staff and supports the use of SWANA training courses as a base line for staff development. Management encourages staff to continue their professional development to the level of SWANA faculty and share not only within the state, but with national training venues to include WASTECON and SWANApalooza.
**How TDEC measures progress**

*How do you measure results for your safety program?* In 2017, TDEC’s annual cost for claims was $229,632. Costs used associated with claims included the frequency of accidents or injuries, workers compensation claims, amount paid for claims, and the cost of reducing hazards.

TDEC as well as other organizations have many and varied matrixes for safety metrics. Our Office of Emergency Services (OES) maintains a database to support the various program initiatives within TDEC. OES staff record all injuries, claims, liabilities, and financial risks for approximately 2200 statewide employees. The Division of Solid Waste Management (TDEC-DSWM) consists of approximately 145 employees located in 9 office locations. Employees routinely inspect or conduct work at solid and hazardous waste facilities. Within the solid and hazardous facilities, these division employees travel over 3 million miles annually to remote complaint sites, landfills, convenience centers, manufacturing facilities. Many of the site visits are by lone employees that may not have the extra set of eyes of a coworker to act as lookout for hazards. This puts a tremendous burden on the staff members to be more vigilant and have a conscious effort to maintain situational awareness of the potential risks. These staff must plan for hazards they may encounter while traveling and conducting the site evaluation. The risks encountered while conducting site visits range from mechanical hazards, biological exposure, terrain, chemical, and other physical hazards that may produce both acute and chronic reactions.

> “TDEC Staff evaluated my classroom and made recommendations about how to store and dispose of my chemicals in the safest method possible.” -Tennessee Science Teacher

When staff are aware of potential hazards, they are better able to plan and respond in a preventive manner. Annual cost of claims and lost work days are two areas that have been chosen for this award submission. To help support safety improvement, management shares...
consistent safety reminders through the Safety Monday information distribution and a program tie in to this message. This information provides a quick and consistent message that effectively reinforces and communicates a culture of safety to the individual staff member.

**Establishing a Baseline Safety Measurement**

TDEC has historical data to track the progress of safety programs. Management and other agencies commonly reference this information to provide improved decision making for safety. TDEC-SWM is moving forward from minimal safety tracking to more robust management and data gathering. TDEC has designated 2015 as the baseline to measure the positive progress of the safety program in both annual costs of claims as well as lost workdays. From the baseline, there were fluctuations in the cost of claims, but through increased safety awareness, the Department realized a 52% decrease in cost of claims. Health and safety related lost workdays continue its decline from the baseline with a 2% for the award year as displayed graphically below. A 14% reduction in recordable cases demonstrates the effectiveness and desired downturn. This indicates positive results from increased awareness, identifying hazards, management communicating to staff how critical safety to the organization safety is as well as to the individual team member. TDEC incorporates safety into its many management team members through their individual performance plans establishing and reinforcing this principal through their many projects.
2017 Safety in Review

Reduction in the annual cost of claims. TDEC-DSWM as a statewide government agency, provides technical, planning, and management assistance to counties, municipalities, not-for-profit and private organizations. The annual cost of claims is an area TDEC tracks with over 8 million annual miles driven, by TDEC in 2017. The reduction in the annual cost of claims has occurred as department management share more safety emphasis with employees. The efforts identify driving distractors and provide training in defensive driving practice with hands on experience. TDEC during this period has identified the creation of a safety board that will investigate staff accidents and make recommendations on disciplinary action if the problem was chronic issue or proper training was not followed.

Safety...Cultural Change and Awareness

It is critical to engage employees with safety initiatives and bring home the WIFM or “What's in it for me?” to fully ingrain these safety initiatives. Staff will often emulate their peers in order to be accepted. As TDEC identifies internal team and staff leaders, these leaders can demonstrate their individual safety-first attitude and initiate a change culture that will spread across the entire work environment. Improvements in all areas of business and operations can only be fully...
realized when safety data and the supporting tools such as reports and matrixes are established and routinely used for comparison.

TDEC knows improvements in all business areas of operations can only be determined when the Department establishes data comparison matrixes. As TDEC had minimal documentation and tracking of safety matrixes, we are now able to make tremendous strides. With established benchmarking, TDEC knows where to plot a change course for higher benchmarks in safety compliance. While showing great safety improvements in question four, TDEC recognizes the need for continued vigilance and provide safety resources in training to support future accident and injury prevention.

**TDEC Safety First**

TDEC values the hard work and safety initiatives that the Department implemented into this process. As we have improved safety, we have demonstrated an investment in all the work and focus that thousands of public, private and nonprofit workers and volunteers have devoted to manage the many components of an integrated solid waste program across the state. This is evident as they comply with the program's planning and management guidelines. This distinction provides TDEC with a valuable management tool to identify key efforts and initiatives that have changed the culture of Tennessee not only influenced the safety awareness of staff in the work place but at home with their family and friends after work. Others have been recognized contributing and supporting these concepts from management goals for increased productivity, compliance, and staff longevity. Fortunately, past safety issues have not been a large or overwhelming issue. As TDEC-SWM has moved forward with our program development, we value the need to continue to make training important, to initiate a strategic approach to that training that will provide knowledge of accident and incident prevention instead of providing programs driven by post accident outcomes and processes.

While evaluating the many programs TDEC has oversight, we identified Household Hazardous Waste (HHW) as a central point to highlight. Tennessee has four municipalities and counties
that have five permanent facilities with four constructed in the 1990's to early 2000's. As TDEC has increased emphasis on safety with both permanent and temporary HHW operations, we saw a need to evaluate safety and operational procedures, facilities, and equipment operation at these locations. TDEC contracted with Special Waste Associates a company with extensive experience in HHW facilities across the US to evaluate our facilities. Following the evaluation of the four permanent sites, Special Waste Associates provided detailed reports of improvements that would enhance both operational and safety conditions at the permanent sites. Armed with these recommendations, TDEC offered $1,000,000 in grants for facility upgrades to mitigate the identified problems.

Through the awarding of the 1 million dollar improvement grant, TDEC's ability to provide oversight and suggestions on safety issues has expanded at these permanent facilities. The Department implements this oversight through site visits and candid discussions of the issues and concerns. These efforts bring a team approach that allows all to be at the table to implement safety protocols in an effective manner. As the Department addresses concerns, each interaction serves as a venue to share and disseminate information through conference calls, training class development, presentations, and sharing lessons learned. SWANA qualified faculty with TDEC serve as mentors for the facilities and often share information gleaned from other.