Strategic Environmental Management Program
(Sound Environmental Practices – SEMP)

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Assistant District Executive for Maintenance
Pennsylvania Department of Transportation
Let me briefly tell you about Engineering District 10 in Pennsylvania . . .

- We are 1 of 11 Engineering Districts in the State of Pennsylvania
- We are comprised of a District Office and 5 County Maintenance Organizations
- The population in District 10 is 425,000
Engineering District 10 (cont.)

- We have 3,178 linear miles of State Highway -- of which 81 miles are Interstate.
- We have 1,618 bridges
- We have 572 County Maintenance Employees, which is 70% of the total number of employees in the District
Engineering District 10 (cont.)

- We have 5 County main office/garage locations and 30 stockpile locations throughout the District.
- Our 5-year average salt usage: 64,000 tons
- Our 5-year anti-skid average: 103,000 tons
Our journey to becoming ISO 14001 Registered . . .

Began in August 2000
Our journey to becoming ISO 14001 Registered . . .

- I received a call from the District Engineer informing me that we would be the State pilot in obtaining ISO Registration in Maintenance.

- Our pilot project would involve 3 major aspects pertaining to environmental stewardship in Maintenance:
  - Stockpile and Garage Management
  - Highway Maintenance Activities (Erosion and sedimentation control)
  - Winter Services (material management)
Our Journey (cont.)

- I said to the District Engineer, “Gee, that’s a great idea!”

- I said to myself, “Gee, I wonder what this ISO 14001 Registration is all about!”

- I soon found out that ISO 14001 Registration is built as a “Plan-Do-Check-Act” model for a management system that facilitates continuous improvement.
Our Journey (cont.)

- I also found out -- and want to emphasize -- that to be truly successful in this endeavor, it required us to weave environmental stewardship throughout our business plan and in our planning and performing of “every day” maintenance activities.
Our Journey (cont.)

Tasks Involved

- Gain and ensure management level “buy in” and support of developing the processes required to gain registration.
- Utilize guidance of Central Office (Executive and SEMP Offices) and TLI Management Consultants
- Required identification and time commitment of a Sound Environmental Practice process owner. In our District, this individual was identified by the District Engineer at a Strategic Management Committee meeting. This individual is a member of the District’s Environmental Unit.
Our Journey (cont.)

Tasks Involved (cont.)

- Establish a “core” support group of County Labor Leaders and rank-and-file employees who would take part in the development, training, and championing of environmental stewardship and our quest to obtain registration.
Our Journey (cont.)

Tasks Involved (cont.)

- Establish a District Implementation Team. The team was comprised of management, labor leaders, and rank-and-file level representatives from each organization.
  - Their task was to develop process mapping, procedures, measurements and training to accomplish the various “action items” that form the foundation of the District’s Sound Environmental Management Program (SEMP)
Our Journey (cont.)

 Tasks Involved (cont.)

 A County Implementation Team was established in each organization comprised of County Management, Labor Leaders, and Rank-and-File level representatives.

 Their task was to implement and monitor the process mapping and procedures outlined by the District Implementation Team, as well as, provide various related training during non-snow removal hours in the winter.
Our Journey (cont.)

- Tasks Involved (cont.)
  - Develop a Champions/Communications Team. Once again, comprised of management, labor leaders, and rank-and-file level representatives.
    - Their task was to assist in the development of visual aids and also promote the Sound Environmental Practice Effort to their peers within the County organizations.
Our Journey (cont.)

Tasks Involved (cont.)

- Develop a nucleus of internal auditor teams comprised of management, labor leaders, and rank-and-file level representatives. Each team was comprised of a lead auditor and two supporting auditors.
  - Their task was to conduct an internal audit of the Sound Environmental Management Practice efforts in an adjacent county for the purpose of obtaining objectivity as per the ISO standard.
Our Journey (cont.)

- A total of 73 District 10 employees participated on the various teams developing, guiding, and implementing our efforts to obtain ISO 14001 Registration.
Benefits of ISO 14001 Registration . . .

- Real benefits will be reaped by future generations (ex: water, trout streams, wildlife, and forestry for our grandchildren)
- Built labor/management relations with a common goal. (Not solely a management or union issue.)
- Increased prestige of District 10’s Maintenance organization
- Forces accountability
Benefits of ISO 14001 Registration . . . (cont.)

- Provides for uniformity and standardization across the District’s Maintenance Units
- Showcases District 10’s commitment to environmental stewardship to sister agencies (i.e., PADEP, PFBC, County Conservation Districts)
- Drives commitment to continual improvement within core business activities
Benefits of ISO 14001 Registration . . . (cont.)

- Requires internal Surveillance Audits semi-annually to evaluate need for corrective/preventive action plans
- Requires external Surveillance Audits semi-annually to allow for 3rd party review of our Environmental Management System
- Provides for proactive management rather than reactive management
Cost Prevention

- **Wetland Replacement**
  - Emergent - 1:1 = $5,000/acre
  - Scrub shrub - 2:1 = $5,500/acre
  - Forested - 10:1 = $10,000/acre

- **E & S Impacts (Failure to utilize 6146)**
  - 1 incident = 76.5 hours/man hours = $2,600
Salt Intrusion into Drinking Wells

- Provide bottled water = $25/month/residence
- Treatment system = $2,000/residence
- Difference between fair market value and depreciation of property = $$$$$
- Municipal water = $20,000/residence
Winter Services
Winter Services (cont.)
Winter Services (cont.)
Winter Services (cont.)
Stockpile Management
Stockpile Management (cont.)
Stockpile Management (cont.)
Erosion & Sedimentation
Erosion & Sedimentation (cont.)
Erosion & Sedimentation (cont.)
This effort lead to our successful ISO 14001 Registration on December 31, 2002
Certificate of Registration

This certifies that the Environmental Management System of

PA DEPARTMENT OF TRANSPORTATION

Engineering District 10-0
2550 Oakland Avenue
P.O. Box 429
Indiana, PA 15701

has been assessed by NSF-ISR and found to be in compliance with the following standard(s):

ISO 14001:1996

Scope of Registration:

PENNDOT Engineering District 10's Strategic Environmental Management Program (SEMP) focuses on winter services, stockpile and garage management and highway maintenance (erosion and sedimentation controls) in the counties of Armstrong, Butler, Clarion, Indiana and Jefferson.

Certificate Number: 7Z631-E1
Certificate Issue Date: 12/31/2002
Date of Initial Registration*: 12/31/2002

Kevan P. Lawlor, President
NSF-ISR

*Company is certified for compliance at certain intervals. To verify registration call (888) NSF-9000 or visit our website at www.nsf-isr.org.
Thank you for your attention.

I appreciate the opportunity you have given me to review our journey to ISO 14001 Registration.