

IUPAC Safety Training Program Report at

**The Woodbridge Group
Mississauga, Ontario, Canada**

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Prepared By

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Acronyms

CSP: Chemical Safety program

e-WIL Training: Electronic Woodbridge Institute of Learning - learning programs for Woodbridge employees.

FEI/ ECO SD: Federation of Egyptian Industries/ Environmental Compliance Office and Sustainable Development

HS&E: Health Safety and Environment.

IUPAC: International Union of Pure and Applied Chemistry

NGO: Non-governmental organization

RADAR: Recognize, Assist, Develop, Act Safely and Report.

STP: Safety Training Program

WFC: Woodbridge Foam Corporation

WHS: Work Health and Safety

Acknowledgement:

I would like to thank all who helped and supported me for this training program:

Sharotka (Xu) Simon from CSP, for giving all necessary support for getting the program done.

Galaal Elsamadicy, and **Leslie Adkins** from CRDF: for the perfect organizing and assistance to me, you made everything very easy and clear.

Dr Bernard West from IUPAC: for the nice welcome in the airport and great hospitality in Canada and for his help and support during the training period.

Dan Dubbelstyne, Dr Hamdy Khalil and all Woodbridge teammates; really it was pleasure to meet and work with you, you did a lot during these three weeks and you made me feel home and I was a member in your team from the first day and the farewell party was just amazing.

Eng. Ahmed Kamal from FEI-ECO SD: for giving the necessary help and support in this program.

Executive Summary

The Woodbridge Group hosted the participation of Noha Elbalky from Egypt in the International Union of Pure and Applied Chemistry (IUPAC) Safety Training Program (STP) in Ontario, Canada, which took place from May 12th -30th , 2014. The training program provided an opportunity to learn about chemical safety and security by visiting and completing a three-week customized training at the Woodbridge Group. During these weeks, I worked alongside health, safety and environmental professionals learning modern best practices and techniques in HS&E while gaining exposure to the host company knowledge and industrial standards that can be implemented in Egypt. There was a great opportunity for on-the-job training and to visit three sites of the Woodbridge Group's manufacturing facilities in Ontario and also visits to two other chemical companies. The first of the non-Woodbridge Group facilities was Fielding Chemical and the other company was Blachford Inc. Visiting these two facilities gave me a unique opportunity to visit and learn more about their HSE systems and standards for comparison to what I found in place at Woodbridge. It gave me more exposure and experience with different HS&E systems.

The training covered:

1. Overview of WFC's HS&E Management System (Standards, Toolboxes, Audit, Review, etc.).
2. HS&E Audit System, Reports Generated, Outputs, Plant Support Model.
3. HS&E Standards in detail and how they apply in different countries.
4. Corporate HS&E Management System Review and Department Meeting
5. Risk Assessment.
6. e-WIL training in HS&E Leadership 101, RADAR Safety and passed exams and got certification.

Introduction

The IUPAC Safety Training Program

The IUPAC Training for Safety and Environmental Protection in Chemical, Pharmaceutical and Biotechnological Research and Production is an activity undertaken by the [Committee on Chemistry and Industry](#) (COCI).

Each scientist or engineer accepted into the Safety Training Program is assigned to an IUPAC Company Associate in an industrialized country. The period of training is typically one to three weeks. Accommodation, subsistence and travel expenses are provided for all trainees. In recent years, Fellows from Turkey, Egypt, Nigeria, Kenya, China, and Uruguay, have received training at host Companies in the U.S.A., Japan, South Africa, and UK.

The current report is based on the experts personal views collected during the mission. The messages conveyed are consensual and derive from a training program.

The training held in global headquarters of the Woodbridge Group, Ontario, Canada by the support of CSP and CRDF under the IUPAC Safety training. The participants in the mission had the opportunity to learn about the HS&E systems, HS&E Standards and how to implement the same standard in different countries. Numerous field visits were conducted: to the three plants under The Woodbridge Group (Blenheim, Kipling and Kitchener) with different manufacturing processes and to two different companies (Fielding and Blachford). The mission programme continued with online training programs, and going through the HS&E system. In all occasions, I'm impressed by the warm and nice hospitality of the Woodbridge teammates and Dr Bernard West from IUPAC.

Throughout the journey, I gained a better understanding of not only HS&E and risk assessment, but also of current challenges and experience from different countries and cultures applying the same standard. Furthermore, many of the HS&E challenges presented were identified as common issues by all countries. This understanding paved the way for an exchange of views on the potential of future cooperation.

Health Safety and Environment situation in Egypt

In Egypt, the safety and health of workers has been a legal matter of concern since the beginning of the last century. The earliest legislation pertaining to occupational health in Egypt dates back to July 1909. It concerned the employment of children in cotton ginning factories. A number of Acts including sections dealing with health and welfare of factory workers followed. Employment of workers, employment conditions and agencies competent with occupational safety and health as well as penalty clauses were covered by Act No. 91, the first comprehensive 'Labour Law', adopted on 5 April 1959.

Regulations developed and expanded gradually in order to cover all hazards and economic sectors. It should be noted that the Egyptian legislation relating to OHS was extensively up-dated in July 2003, is to ensure safety and health of workers in all areas of work and production. It provides the necessary elements for such an objective to be met at the enterprise level and at the national level in particular in relation to the implementation of its requirements. These elements mainly consist in:

- Requirements for the selection and establishment of sites
- Responsibilities of employers to ensure safety and health at workplaces
- Establishment of the administrative authority to enforce its provision (OHS inspection)
- Organization of OHS at the enterprise level (OHS Committees)
- Obligation of employers to report accidents at work and provide related statistics
- Setting-up of consultative bodies at national and provincial levels (governorates)

Education, training and information mechanisms and institutions play a vital role in the progressive construction of a national OHS system. These are essential tools in the process of awareness-raising on hazards and preventive action at all levels and, considering the needs of the country in this respect, they should be given top priority.

The Woodbridge Group Co.

The Woodbridge Group® offers innovative urethane and bead foam technologies, to serve the automotive and commercial vehicle industry and several other business sectors around the globe. Since its inception in 1978, Woodbridge has grown to 60 facilities in 19 countries, throughout North and South America, Europe and Asia Pacific. In addition to its core manufacturing operations, Woodbridge offers a full complement of services including: chemical research and development, product and process engineering, tooling, technical support and accredited laboratory testing.

The Woodbridge Group supplies products that provide five functions, delivering comfort, acoustics, safety, structural and insulation advantages. Woodbridge supplies the automotive and commercial vehicle industries with: seat cushions and frames, head restraints, arm rests, headliners, acoustic insulators, cargo systems, safety components, assembly, sequencing and just-in-time, delivery services. Additionally, The Woodbridge Group serves a growing list of diverse sectors including: Recreational, Utility and Military Vehicles, Packaging and Commercial and Residential Building products.

The key competitive strength for The Woodbridge Group continues to revolve around its people and their commitment to improve everything they do. Woodbridge is focused on evolving workplace safety, sustainable environmental stewardship and enduring customer satisfaction.

Training Program Contents:

1. HS&E Management System Reviews

There are nine major components to the Woodbridge Corporate HSE Management System:

- (1) Vision & Mission Statements,
- (2) Corporate HS&E Policy,
- (3) 30 Corporate Standards,
- (4) Toolboxes to support and facilitate implementation of the Standards,
- (5) Other supporting Documents,
- (6) Corporate HS&E Audit System,
- (7) HS&E Training Programs,
- (8) Annual Objectives and Targets, and
- (9) Annual Management System Review



HEALTH, SAFETY AND ENVIRONMENTAL POLICY

The Woodbridge Group believes that protection of the health and safety of our employees and the natural environment is of utmost concern in the operation of our business. This policy applies to all Woodbridge locations and Joint Venture locations where Woodbridge is the managing partner.

It is the policy of The Woodbridge Group to:

- Actively pursue process innovation and fundamental research to prevent environmental pollution through the reduction and elimination of all forms of waste from our operations, including the reduction of energy consumption and the resultant release of greenhouse gas emissions.
- Routinely review and assess our operations for the purpose of making health, safety and environmental improvements beyond those legally required, where such enhancements provide significant benefits.
- Comply with all Woodbridge HS&E Management System requirements, applicable laws, regulations and standards in its product development, manufacturing, marketing and distribution activities.

Using the established strategies, each facility is responsible for the development of annual health, safety and environmental goals, and the implementation of action plans in accordance with our corporate performance standards. Each facility will provide routine progress reports to ensure that its operations comply with this policy.

The Woodbridge Group will provide the necessary support and resources as its commitment to the goals and objectives of this policy.

This policy is posted in each facility reception area, in appropriate areas of each plant, and on the company Internet and Intranet sites. Our employees through effective participation are an integral element in ensuring continual improvement in workplace health and safety, and the prevention of environmental pollution. To support their participation, we document and maintain an integrated health, safety and environmental system.

PRESIDENT AND
CHIEF EXECUTIVE OFFICER March 1, 2014

VICE PRESIDENT,
HUMAN RESOURCES,
WORLDWIDE March 1, 2014

DIRECTOR, HS&E March 1, 2014

A policy is a principle or protocol to guide decisions and achieve rational outcomes. A policy is a statement of intent, and is implemented by a standard, procedure or protocol. Policies can be understood as management and administrative mechanisms arranged to reach explicit goals.

The Woodbridge-specific HSE Policy is available to the public upon request, and is posted in the Mississauga headquarters on each floor and in the lobby. The policy is signed by the Chairman and CEO, the VP of Human Resources, and the Director, HS&E. At the plant level, it is also signed by the Plant Manager and the Manufacturing Director of the Business Unit. It is reviewed and re-signed by these individuals on an annual basis. It is communicated to all new employees during their orientation process.

This policy provides a framework for establishing objectives and targets.

The Corporate HS&E Standards establish the minimum requirements needed to implement the HS&E Policy. These Standards are based upon regulatory requirements, current industry best practices and proven principles or technology. The Standards are reviewed and revised annually and as required.

The Toolboxes provide the tools essential to help the plant operations successfully implement the Corporate Standards. Toolboxes include: forms, guidelines, pictorials, technical data and drawings, etc. There are Toolboxes established to support nearly all of the 30 Corporate Standards.

Other Corporate HS&E Documents include: forms, guidelines, work instructions, and procedures to further support the Corporate HS&E Standards. Corporate Documents are generally developed in conjunction with a Standard or Procedure and are referenced by them. In most cases the Document would be a part of the development or modification process of a Standard or Corporate Procedure.

2. HS&E Audit System, Reports Generated, Outputs, Plant Support Model.

Woodbridge has developed its own fully electronic HS&E Audit System. Each facility is audited at least annually using this system, with the participation and under the direction of the Corporate HS&E group. This audit serves two main purposes: to coach/mentor the plant management team on their assigned HS&E responsibilities, and to ascertain compliance to legislation and the Corporate HS&E Standards. The entire system is audited and non-conformances are identified. At the conclusion of the audit, an electronic file is created that includes all of the areas of conformance and each non-conformance as a separate report (called a NCR). Each of the identified NCR's must have a root cause analysis performed, corrective actions identified, and a target date for completion. Correction of these NCR's are tracked through to completion.

3. HS&E Standards.

Woodbridge Standards established Thirty Standard (HS&E Leadership, HS&E Regulatory compliance, Risk management, work equipment, and ...) the minimum requirements needed to implement the HS&E Policy. These Standards are based upon regulatory requirements, current industry best practices and proven principles or technology. The Standards are reviewed and revised annually and as required.

Each standard includes:

- Purpose,
- Scope,
- Responsibility,
- Definitions,
- Requirements, and
- Reference Document.



STANDARD	
CORPORATE HEALTH SAFETY AND ENVIRONMENT	
Title: Health, Safety and Environmental Leadership	Original Issue Date: September, 1999
Number: WGX-HSE-P-001	Revision Issue Date: November, 2012
Prepared By: Dan Dubblestyn	Approved By: Dan Dubblestyn

- I. **PURPOSE**
To provide a structured framework for the overall management of Health, Safety and Environment at Woodbridge facilities; to promote leadership, accountability, and continuous improvement in these areas; and to facilitate conformance with Woodbridge Group Corporate and legislative standards.
- II. **SCOPE**
This standard is applicable to all Woodbridge facilities, including joint venture facilities where Woodbridge is the managing partner.
- III. **RESPONSIBILITY**
The senior site manager will have overall responsibility for the management of all-applicable Health, Safety and Environmental (HS&E) programs to ensure compliance to legislative and Corporate standards. Department Managers are responsible for managing the HS&E programs assigned to them by the senior site manager.
- IV. **DEFINITIONS**
- | | |
|----------------------------|--|
| HS&E | Health, Safety and Environment |
| JAQ | Job Analysis Questionnaire |
| JHSC | Joint Health and Safety Committee – a committee made up of both management and hourly personnel which focuses on HS&E concerns and issues in the plant |
| Senior site manager | Same as Plant Manager or Focus Factory Manager (could be a V.P. for an office building) – this is the senior manager located at the facility with the direct responsibility for the operation of that facility |
| S.O.P. | Standard Operating Procedure(s) |
| External Audits | Audits conducted by parties external to the plant. Examples of these audits are Corporate HS&E Audits, Regulatory Compliance Audits, and BSI ISO 14001 audits) |

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Value of Standards

Standardization ensures that the company's minimum expectations are put in writing in a form that helps them to be easily implemented. Standards will ensure that things are done consistently and correctly, and help control or eliminate the possibility of mistakes occurring.

4. System Review

Corporate HS&E completes a review of the HS&E Management System annually using a pre-determined HS&E Management System Review Agenda contained within WGC-HSE-V-029 Corporate HSE Management Toolbox to drive continuous improvement, and to address the potential need for changes to policy, Standards, procedures or documents due to legislation, benchmarking, and incidents. Feedback from operations, both at the plant level and senior management is considered during this review. An action plan is developed, and responsibilities and target completion dates are assigned. The action plan is monitored via periodic departmental meetings and conference calls until all action items are completed. The HSE Director is responsible

for ensuring this process is followed.



5. e-WIL Training in HS&E Orientation, HS&E Leadership 101 and RADAR

The Woodbridge Group is dedicated to develop and maintain a culture of continuous learning, aimed at improving the competence of teammates at all levels through targeted learning programs to maximize the potential of Woodbridge by enhancing its capabilities to achieve business objectives and foster its Culture and Values.

Woodbridge's Learning & Development Values

- Learning endures where there is organizational support
- Access to learning must be targeted, based on relevancy and work-related needs
- Continuously develop teammates at all levels
- Learning is everyone's responsibility
- Accommodate individuals' unique learning styles
- Utilize the full range of available learning channels
- Make most of our shared knowledge and best practices
- Utilize new training technologies where appropriate.
- Evaluate the effectiveness and value of learning programs
- Engage existing resources within Woodbridge

After the training programs have to go through exams and pass it to have a certification.

RADAR for Leaders

This course is the main component of the Woodbridge First Time Safe Program. First Time Safe is a program that seeks to increase awareness on the level of personal control that we all have, over our exposure to hazards at work or at home. The training component of First Time Safe is called RADAR. The RADAR for Leaders program provides the same material as the program intended for all teammates, but focuses attention on supervisors and managers and engages them on a leadership level, to spend time on the plant floor actively managing and promoting health and safety in the workplace.

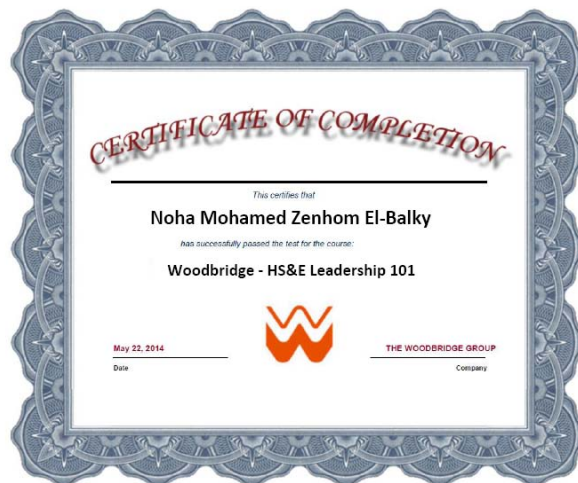
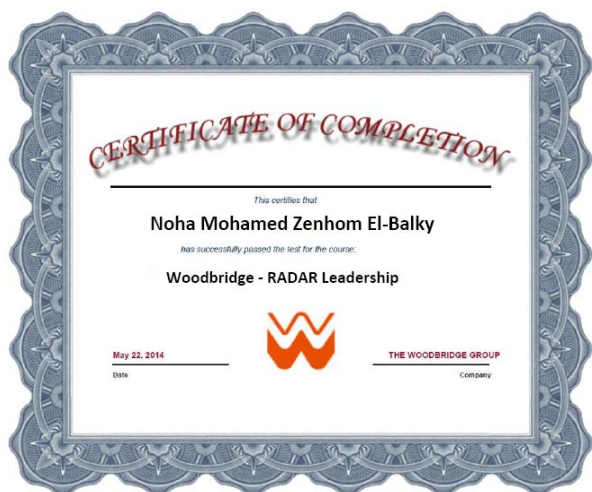
HS&E Leadership 101

This training program seeks to create an understanding that successful people leaders who possess a number of qualities. The training provides background information that will help them to:

- Lead with assurance.
- Set the example - Be a safety role model
- Recognize and reinforce good performance
- Develop solid coaching and mentoring skills
- Place a high value on team member safety
- Learn and practice what motivates teammates

Overall Impression of the Training

What impressed me about the e-learning training was the content and how easy it was for me to learn. The materials were presented both verbally and by pictures that related directly to the message. The program allowed me to proceed at my own speed and to review material if I needed to. A test at the end ensured that I understood the content.



Certification for training programs after pass the exam

6. Site Visits

6.1 HS&E Internal Audit - Blenheim, Ontario (observer).

It is an operation within the Assembly and Sequencing Business Unit which focuses its efforts on the assembly of automotive modules and sequenced delivery to the target automotive assembly plant. Current products include Front Suspension modules, Powertrain Dress modules, super modules, Rear Suspension modules, Vertical Suspension modules and Overhead system modules; all current business operates in a value added Assembly mode, which sources our assembly and sequencing efforts without requiring investment in the components used.

Internal Audits:

Auditing is defined as a systematic and independent examination of data, statements, documents and records, operations and performances of an enterprise for a stated purpose. In any auditing the auditor perceives and recognizes the propositions before them for examination, collects evidence, evaluates the same and on this basis formulates a judgment which is communicated through an audit report.

Woodbridge has determined that implementation will be measured via an annual internal audit of each manufacturing facility. Each facility will be required to engage their supporting Corporate HS&E Manager in the completion of this audit. Facilities which have HS&E performance numbers that are considered worst-in-class will receive a Corporate Audit, where two Corporate Auditors will complete the audit and the results communicated to senior management. HS&E Audits will be conducted with an eye on compliance with legislation and the Corporate HS&E Standards, but the overall tone will be a coaching/mentoring approach to helping the facility management team understand and fully implement their assigned HS&E responsibilities. The Corporation has a fully implemented audit system that includes: an electronic HS&E Audit Questionnaire, as well as associated procedures and an Auditor Guidance Manual.

Non-Conformances identified in these audits will require root cause analysis, and the identification of appropriate corrective actions, followed through to full implementation.

6.2 Site Tours – Kipling and Kitchener:

It is two different processes but the visit was mainly to see different processes and HS&E systems for different facilities.

Some highlights from site visits:

1. Coloured walkways show pedestrians where to walk so to avoid forklift travel areas and reduce the risk of being struck by a moving forklift.
2. Forklifts are fitted with leading blue lights that project forward onto the floor to warn pedestrians that they are coming.
3. Recognition plaques (record of no lost time accident one year or more bronze coin, for 5 years or more silver coin and 10 years or more Gold coin ,
4. Same Board in all plants, to communicate HS&E information although plants have different process and products.
5. Incidents records,
6. Kamishibai audit cards (specific audit just pick the card and go to audit this random card, random audit)
7. Same communication plan.

Dr Bernard West IUPAC coordinator program
Blachford facilities.



6.3 Fielding Co.

A clean-tech Company with over 55 years' experience specialized in the recycling of waste solvents, glycols and refrigerants. Through innovative custom processing, they claim to strive to save the planet one molecule at a time. Fielding has been serving the paint and coatings, manufacturing, pharmaceutical, aviation, printing and HVAC industries by giving new life to waste solvent, glycols and refrigerants.

During the visit there was a meeting held with MS Ellen McGregor Chair and Principal and we agreed on a future cooperation between Fielding and FEI/ECO SD in technology transfer, training in recycling of waste solvents, glycols and refrigerants and in Corporate Social Responsibility as in Fielding believes that the People element of Sustainability, often referred to as Corporate Social Responsibility is important to Fielding Co.

Their Stuff is their family, they care about the safety and well-being of every employee. We value and promote work life balance. And provides comprehensive health and wellness plans and we pride ourselves on an exemplary health and safety records.

Their commitment to the environment dictates that they leave this Planet a better place for the generations to come.

6.4 Blachford Co.

A chemical company with different products such as:

- Metal Working Fluids
- Chemicals for Rubber
- Plastics & Metallic Stearates
- Thermal Products



During the visit meeting held with Michael Cundari Vice President Manufacturing went through health, safety and wellness and learned that:

Safety is an intrinsic part of the Blachford culture. Their comprehensive Health & Safety, Waste Disposal, and Emergency Response policies, as well as our Responsible Care® ethic, help to ensure the safety and health of all employees and customers, as well as the protection of our environment.

At Blachford they are committed to ensuring that safety is considered in all that they do. Their goal is to prevent injuries and occupational illness by:

1. Adhering to the highest standards for the safe operation of our facilities
2. Ensuring that all of our employees adhere to our health, safety and environmental policies

3. Assessing health, safety and environmental aspects before starting new activities

They also encourage healthy lifestyles by providing options for wellness improvement, disease prevention and early detection of illness. Our Wellness Task Force has introduced some of the following initiatives at our various sites:

- Annual on-site health screenings
- Weight Watchers at work program
- On-site flu shot clinics
- Reimbursement for marathons/walks/dance classes, etc.
- 100% benefit level health plan coverage for Preventative Care such as mammograms, colonoscopies, etc.
- State-of-the-art Fitness Centre and professional trainer at Blachford Inc.
- Doctor visits for smoking cessation
- Company sponsorship for sporting events, soccer teams, hockey teams, etc.

The Training Arrangements:

The training program was very well organized with all travel arrangements and in WFC was very well organized with meetings, discussions and site visits, I was really surprised that WFC changed the annual meeting to May instead of July to have the opportunity to attend this meeting and it was very successful and useful to me. I'm impressed by the warm and nice hospitality in Toronto airport from Eng. Dan Dubbelstynne and Dr Hamdy Khalil from Woodbridge and Dr Bernard West from IUPAC; I was feeling at home and with my family.

For the training arrangements IUPAC, CRDF and CSP did an extremely good job starting from:

1. All required documents for having a Canadian visa.
2. Travel Arrangements: all travel information, flight tickets and hotel information and per diem transferred to my bank account before travel.
3. Hotel was good choice as it was very close to the Woodbridge Group head office and the room was comfortable.
4. All arrangements were very satisfactory and always on time.
5. Site visits were well organized by the team of Woodbridge and Dr Bernard West from IUPAC.

In the end of the training I got the training certification from IUPAC and the Woodbridge, and a very nice farewell party from all Woodbridge teammates.



Proposed Action plan in Egypt

Recently, the federation of Egyptian industries is planning to create a specialized unit for health, safety and environmental protection which is dedicated to assist factories to undertake its activities in a manner that is safe, healthy and environmentally sustainable and Noha Elbalky will be the coordinator for all HSE activities under FEI/ECO SD. It is a major contribution to the wellbeing of labours and management of factories to create a positive working environment.

1. Creating a cluster under FEI/ECO SD for HSE in Egypt in cooordination with different ministries such as (Ministry of Industry, Ministry of Environment...), R&D institutions as (Universities, Research institutions), NGOs, factories and industrial plants from different industrial sectors to strengthen the application of HSE, Awareness about hazardous, toxic chemicals, Risk assessment, emergency response plans developmentEtc.

2. HSE Policy,

Provide a draft of FEI/ECO SD HSE policy that states the organization commitment to HSE and outlines specific review and update regularly.

3. HSE guidelines including writing standards and HSE management system.
4. FEI/ECO SD will hold a workshop to disseminate the information of HSE and the training experience in Woodbridge and lessons learned there and how to transfer the knowledge to Egypt.
5. Support FEI members to establish Health and Safety Committee.
6. Training: Identify safety training needs and develop training plans
7. Raise the Awareness for different industrial sectors through different channels (FEI-ECO SD website, ECO magazines, Conferences and workshops)
8. Hazard/ Incident/Accident reporting for each facility:
 - identify work related hazards and commit to a schedule for addressing these hazards
 - report incidents and injuries within 24 hours of occurrence
 - investigate incidents and submission of corrective actions
 - completion of corrective actions and close these in RiskWare on time
 - Assign responsibility for coordinating local emergency response
 - practice emergency procedures

- assign responsibility for providing first aid service, or communication details of neighboring service
- ensure Work Health Safety induction of new workers
- arrange training to help workers manage Work Health Safety risks relating to their work
- develop and periodically review safe work methods
- include WHS in contract specifications
- ensure contractors are qualified, informed of local hazards, inducted and supervised
- conduct quarterly walkthrough WHS inspections
- Assess WHS implications of equipment and materials being purchased (eg ergonomics, weight, noise, dust, heat, toxicity, radiation, electromagnetic emission etc).
- Sign-post hazardous areas and restrict access where appropriate.
- Keep up-to-date manifests of hazardous substances and segregate incompatible substances.

Each action item should be clearly assigned to an appropriate worker and time frame specified for achievement.

Suggestion for the IUPAC Program

- Increasing the number of trainees to three or four from different countries will be very useful for exchanging information.
- If Energy management can be added to the training program beside the safety and environment will be very useful.
- Establish a network for previous IUPAC program trainees for the same country, to exchange information and help each other's in the implementation of the action plan in their country, and FEI-ECO SD can be an umbrella for IUPAC Egyptian alumina and can host periodical meetings to exchange experience.
- FEI-ECO SD can be a hub for IUPAC activities in Egypt and can be the focal point in Egypt and for MENA Region and ECO will give all logistics assistance for this job. And as ECO is very active in many development areas, so ECO can perform as a focal point in MENA region.

One last word I learned from Pam Wardell HSE Coordinator in Woodbridge:

"Safety is not a job, it is a culture attitude"

Thanks again and looking forward fruitful and successful future cooperation.