

TO THE COMMITTEE ON CHEMISTRY AND INDUSTRY
REPORT ON IUPAC-UNIDO-UNESCO SAFETY TRAINING PROGRAM

Date : April 23 – May 5, 2000

Sponsor Company : BP AMOCO Chemicals

Places of Visit : BP AMOCO Chemicals – Naperville Complex
Naperville, Illinois USA

Illinois Institute of Technology Chemical and Environmental Eng.
Dept.
Chicago, Illinois USA

BP AMOCO Chemicals – Green Lake Complex
Port Lavaca, Texas - USA

1. Visit of BP AMOCO CHEMICALS – NAPERVILLE COMPLEX

April 24-April 27, 2000

A- Health And Safety Environmental (HSE) Nitriles Business Unit

Sue Rataj : Nitriles Business Unit Leader
Ann Goulet : Manager, HSE
Mike Markowicz : Health and Safety for Employees and Customers
Geoffrey Gilman : Environmental Affairs
Mark Webster : Emergency Response

Topics Covered:

HSE Projects 2000

- FDA Petition/Notifications for Beverage Bottle Uses
- MSDS and Label Review
- 1999 Health Risk Assessment follow-up
- HSE Support for Business Development
- Occupational Health Assessments
- Campaign to raise awareness of “Getting HSE Right” initiatives
- Chemical Weapons Convention Declarations

- ISO 14000 Certification

Product Stewardship

- Safety seminars for customers/licensee
- Individual customer seminars/training/audits
- Support customer request
- Safe Handling Brochures for Acrylonitrile, Acetonitrile, Catalyst

HSE Audits for 2000

Lima, Green Lake and Naperville Complex
Industrial Hygiene and Safety Health Risk Assessments
Environmental-Air and Water Site Permitting for Nitriles
Environmental, Emergency Response

RCRA- Hazardous Waste

- Waste Definitions
- Our Process and Listings
- UIC Waste Analysis
- Incinerators
- New Processes
- Site Environmental Auditing
- Disposal Site Auditing
- Regulatory Updates

Responsible Care

- Pollution Prevention
- Community Awareness and Emergency Response

Customer Support

- HSE Training at sites
- HSE Training at conferences

Emergency Response

- Facility Emergency Response Plan
- Naperville Notification Center
- Business Unit Support Plan/Pocket Cards
- Chemicals/GBC Support Plan
- Routine /Example Notifications

- Strike Teams/ On-site expert response
- BU Management Training/Drills
- Personal Protective Equipment
- Emergency Response and Environmental Data
- Safe Handling and Storage Guides

Ann Goulet, Mark Webster, Van Boone (Green Lake Complex) and Vern Shirley (Gulf Coast Coordinator) traveled to Yalova, Turkey after the earthquake on August 17,1999 to help to handle the spills which occurred at AKSA's AN Plant. This was the part of their HSE Policy, because of AKSA being a customer of the company.

B- Site Safety

Jay Kouba : Vice President – Technology
 John Frey : Health and Safety Specialist
 Tom Senn : Health and Safety Specialist
 Jim Saylor : Health and Safety Specialist
 Grace S. Chiang : Industrial Hygienist

Topics Covered:

Site Technology
Process Safety Reviews (I attended to one of the meetings)
Site HSE Policies
Waste Handling

- Waste definitions
- Waste classifications
- Waste analysis

Safe Handling and Storage Guides
Drills

C- Nitriles Research

Mark C. Cesa : Research Associate/Group Leader
 Rosemary McMahon : Research Scientist
 Steve Trail : Research Scientist
 Ann Venturelli : Research Scientist

Topics Covered:

Pre-Operation Safety Reviews
Process Safety Reviews
Lab. Safety Equipment
Waste Handling

*B-Safe (Behavior Safe) Program
Laboratory Reactor Operation
Site Safety Committee
Catalyst Preparation*

D-Nitriles Pilot Plant

Stig-Axel Carlsson : Manager of Pilot Plant
Scott A. Roberts : Senior Research Eng.

Topics Covered:

*Process and Instrument Design (P&I)
Pre-Operation Safety Reviews
Lab./Process Unit H&S Information Binders (yellow binders)
New Production Ideas*

2. Visit OF ILLINIOS INSTITUTE OF TECHNOLOGY

Chemical and Environmental Engineering Department
April 27- April 28,2000

Ali Çinar : Prof. of Chemical Eng.
Director of Main Campus Strategic Planning
Dean of the Graduate College
Nader Aderangi : Lecturer and Director of Laboratories
Prof. A.Lindhal : Health and Safety Director
Gülnur Birol : Dr. of Chem. Eng.
Inanç Birol : Dr. of Chem. Eng.
Ph.D. Students : Adam Dubek, Ali Bo, Hanwei Lei, Ecevit Bilgili, Hakim Iddir

Topics Covered:

*Lab Safety
Waste Handling
Research on Recombinant Yeast Cells
Safety and Quality Assessment and Improvement in Food Processing
Lab Health and Safety Binders
Personal Protective Equipment*

If I were to compare the safety programs of the IIT labs to those I have encountered in the BP AMOCO Complex, it would not be incorrect to state that IIT Labs need improvement in that respect.

3. Visit of BP AMOCO CHEMICALS – GREEN LAKE COMPLEX

May 1 – May 5, 2000

A- Laboratory Team

Wayne E. Lacroix : Chemist, Lab Team Leader
Jeffrey Fellers : Chemist
Rusty Hall : Technician
G. Gilmore : Technician

Topics Covered:

Quarterly Lab Tours
Safety Inspections
Safety Meetings
Lab Safety Program Sheets
Planned Task Observations
Safety Recall Interviews
Critical Task Analysis
Safety Sampling
SOSO Review (Standing Order for Safe Operation)
Area Rules and Regulations
Critical Task Review
Chemical Hygiene Plan
Weekly Safety Checklist

B- Health and Safety Environmental Group

Van Boone : HSE Manager
Larry Hensley : Safety and Loss
Erica Dromgoole : Environmental Coordinator
Marsha Frederick : Occup. Nurse
R.M. Herrera : Environmental Air Permissions
Pat Daigle : Industrial Hygiene, Emergency Response, MSDS
Vern Shirley : Gulf Coast Coordinator (I attended his seminar about off-side emergency response)
Thad Taylor : Quality Management

Topics Covered:

Site HSE
Emergency Response
Incident Reports
Emergency Operating Procedures (EOP)
Standard Operating Procedures (SOP)
Personal Protective Equipment

Deep wells (waste handling)
Air sampling (Drager pumps, etc.)
Storm water sampling
Medical controls of employees
Medical waste handling

PLANS FOR MY UNIVERSITY

1. Departmental Laboratories:

- An HSE Team should be established
- Lab/Process Unit Health and Safety Information Binders for each experiment or research work.

Including:

- Instructions of using the binder
 - Standard operating procedures
 - MSDS (Material Safety Data Sheets) for each chemical used
 - Process and Instrumental Drawings
 - Utility Drawings
 - Inspections
 - Hazard Labels
 - Personal Protective Equipment
 - Audits
 - Manuals
 - Calibration Charts
-
- Training Technicians
 - Safety Recall Interviews
 - Planned Task Observations
-
- Quarterly Lab Tours
 - Safety Inspections
 - Weekly Safety Checklist
 - Safety Meetings
 - Lab Safety Program Sheets
 - Chemical Hygiene Plan
 - Safety Sampling
 - Emergency Response Team

2. Campus Site Safety:

- HSE Committee (should have a member from each faculty)
- Safety Council (members of each department – including fire and medical)
- Emergency Response Teams (for each department)
- Evacuation Procedures and Charts for each Building

- Drills (for fire and earthquake emergencies)

PLANS FOR THE INDUSTRY

Series of seminars and training programs

ARRANGEMENTS:

I consider myself very fortunate for being a guest of BP AMOCO Chemicals, in this Safety Training Program. BP AMOCO takes Health and Safety Programs very seriously and the implementation is perfect. They have also been an excellent host. It was a great pleasure working with BP AMOCO staff.

Arrangements were very satisfactory. The hosts were kind and generous. They escorted me all the time during my visit. Lunches and dinners were perfectly planned each time at different restaurants such that new acquaintances were made at every meal. They were all sophisticated restaurants and the atmosphere was informal and friendly during the meals. I enjoyed every minute.

Hotels were also perfectly suitable and comfortable. Different hosts provided transfers from hotel to the company and back. I think that was well thought also. Travel arrangements were sufficient. There was always a staff member to meet me wherever I went.

Trainers put all their efforts and time to enlighten me as much as they could within the limited time. I think they all did a great job. They were also very patient and willing to give answers to the questions I had. They also supplied many written material (booklets, procedures, etc.) which could facilitate the preparation of the necessary programs in Turkey. It has been an intensive training course. There were many topics to be covered in a two-week period, but I think we managed to cover all of it very well.

SUGGESTIONS ABOUT IUPAC SAFETY TRAINING PROGRAM:

This program was a worthwhile experience for me. The only suggestion I can think of would be to have a minimum of 2 or 3 interns at the same time since the companies are putting too much effort, time and money for this program. It will be more beneficial for both parties.

I am very happy for having the opportunity in participating in this program. I am going to try my best to improve Health and Safety Programs in my country.

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