PROTECTION AND RESTORATION
OF ENVIRONMENTALLY
SUSTAINABLE PETROLEUM
OPERATIONS IN DEVELOPING
COUNTRIES

An International Training Program Specifically Designed to Help Prevent, Plan for, and Remedy Oil Spills in Developing Countries

This certification program has been developed by the National Spill Control School (US) at Texas A&M University-Corpus Christi, Texas, USA

The NSCS has been providing oil spill training programs for the US and the world since 1977. We have been training West Africans (Nigeria) since 1984 and South Americans (Ecuador) since 1999.

“The environment in some parts of Nigeria have been so significantly compromised that water supplies both at the surface and in underground water have become contaminated. This has further affected water available for human consumption and agriculture.” (UN, 2012)

Who Should Attend?

Petroleum exploration and production operations as well as local inhabitants who observe the economic development and petro-based expansion may cause spills. Some are inclined to take reckless actions. For example, more than 600 petroleum releases into the environment of Nigeria have been cited annually. This results in losses of product, revenues, and environmental sustainability.

Without addressing fault, the NSCS will discuss the causes of these losses, citizen and petroleum company responsibilities, and ways to prevent, prepare for, & remediate such losses.

Attendees in this training program will be interested in sustainable oil industry operations. They will include:

- Spill response organizations
- Emergency responders
- Oil industry operators
- Exploration & Production Company Managers
- Oil industry environmental managers
- Oil industry safety managers
- Transportation industry managers
- Pipeline managers
- Port and shipping industry managers
- Heavy Construction industry managers
- Government Employees
  - Dept. of Petroleum Resources
  - National Oil Spill Detection and Response Agencies
  - Ministry of Petroleum Resources
  - National Petroleum Corporations
  - Ministry of the Environment
- Pollution response equipment suppliers
- Community / public interest groups
- University scientists and researchers

Location

These classroom activities will be offered at the National Spill Control School, a part of Texas A&M University in Corpus Christi, Texas. The campus is on an island in Corpus Christi Bay. (see photos)

This beautiful coastal region is known for beautiful beaches and pleasant year-round weather. It is also known for having the 5th largest port in the U.S., more than 17 refineries, petrochemical, and metal production facilities, and still maintaining a pristine natural environment. Attendees will have the opportunity to realize excellent training in a variety of natural habitats from ocean beaches to tidal estuaries and rivers.

Attendees will visit some of the best and oldest oil spill response organizations in the world, and see how an economy that revolves around oil can still offer excellent respect for natural resources. While spills do sometimes occur in this area as a result of the exploration, production, refining, storage, shipping, and pipelines, spill response is always quick and efficient.

Corpus Christi is served by an international airport and an interstate highway. Lodging and excellent restaurants are located throughout the city and the region.
ENVIRONMENTALLY SUSTAINABLE PETROLEUM OPERATIONS

Course Overview

The National Spill Control School at Texas A&M University-Corpus Christi has developed a series of courses for Nigerians who need professional training and certification prior to involvement with safe and technologically sound oil and hazardous materials emergency planning, spill response, and remediation in their home country.

Each of these courses will result in Professional Safety Certification from the National Spill Control School (US). Some certifications will meet the technological and safety certificate requirements for Spill Response and HazMat workers in the US and/or internationally.

This curriculum offers three modules, each with basic and advanced training tracks. Attendees who are not able to attend both weeks may choose only the first week, or both modules over the two weeks. Some advanced attendees with significant experience or previous training may attend only the second week within each module.

Module 1 – Oil Spill Response

Module 2 – Hazardous Materials Safety

Module 3 – Petrochemical Safety

Module 1 - Week 1 - Basic Oil Spill Response
1. Basic Awareness, Planning, & Safety
2. Port and Inland Waterways Spill Response
3. Oil Spill Response Strategies/Tactics

Module 1 - Week 2 - Advanced Oil Spill Response
4. GIS and GPS for Spill Response
5. Shoreline Clean-up Assessment Techniques
6. Advanced Oil Spill Training in Rivers & Inlets
7. Environmental Spill Response Conference or Vendor & OSRO Facility Tours

Module 2 - Week 1 - HAZMAT Safety Training
8. Basic Safety & First Aid & CPR
9. HAZWOPER

Module 2 - Week 2 – Fire Response Training
10. Fire Response In Petroleum Industry

Module 3–Week 1–Managing Petrochemicals Safely
11. Environmental Awareness
12. Storage and Transport of Hazardous Materials
13. Chemical Safety for HazMat Responders

Module 3 – Week 2 – Safety Management & Industrial Hygiene in the Workplace
14. Industrial Hygiene

Program & Course Dates
- June 1-13, 2015
- September 2-14, 2015

COSTS:
- $7,500 USD Per 2 Weeks Per Trainee
- Students or their sponsors are responsible for all travel arrangements, visas, passports, lodging, meals, and any admission fees to conferences.
- KPEL provides lunch on class days

Training/Timing Arrangements
Registrations as well as visas and travel arrangements for these courses must be made at least 60 days in advance of the course date. Foreign students must submit copies of travel documents to the University.

Course Instructors
Director, H.A. Tony Wood
Course Details

Module 1 – Basic Oil Spill Response (Week 1)

1. Basic Awareness Level Training for Oil Spill Response – This is an introductory safety course designed for oil spill response support managers and workers. It is an introduction to management and control of response teams using Incident Command Systems (ICS).

2. Oil Spill Management and Control - This basic level classroom course covers oil spill safety, equipment, recovery systems, decontamination, and environmental disposal techniques.

3. Oil Spill Response Strategies and Tactics for Ports and Inland Waterways - This course includes the actual hands-on deployment of spill response systems including boats, boom, and skimmers. Participants learn about boat operation and marine safety, communications, oil behavior in open water and in ports, marinas, and waterways. Primary spill response strategies are discussed. All equipment including life jackets are provided.

Module 1–Advanced Oil Spill Response (Week 2)

4. GIS and GPS for Spill Response – This course is designed to provide basic training in the use of Geo-Positioning Systems (GPS) and Geographic Information Systems. Managers and other attendees may bring their own laptop computers with them to the course. Standard emergency and spill response software programs will be downloaded during the class. Training will teach attendees how to characterize environmental releases of oil and hazardous materials and to model the projections of how contaminants will disperse, weather, and be transported in the environment.

5. Shoreline Cleanup Assessment Techniques - This course is designed to assist the participants in identifying oil spills, quantifying the amount of spilled oil, and developing the appropriate strategies and tactics for cleaning up oil spills from shores and riverbanks. Attendees will learn the importance of proper documentation and standardized forms, photographic records, and the use of a GPS. Various habitat types will be visited including ocean beaches, jetties and riprap, tidal flats, oyster reefs, mangrove swamps, deep and shallow bays, estuaries, and rivers. This course does not include deployment of boats or boom.

6. Advanced Oil Spill Training – This course will provide spill response managers a higher level of oil spill response strategies, tactics, and experience. It will include advanced training in the development of a command center, management of personnel, and advanced response techniques. Additional areas and facilities such as rivers, pipelines, and other special settings will be will be used to demonstrate the preferred response procedures and techniques.

7. Environmental or Spill Response Conference or Vendor Day & Oil Spill Response Organization Facility Tour - The NSCS will facilitate a tour from our facility to a regional or national environmental conference if one is underway on these dates. This was a common request from Nigerian oil company representatives in the past. Otherwise the NSCS will coordinate an OSRO tour and vendor day so that attendees can see products and meet with vendors and state and federal regulatory agencies.
Module 2 - Week 1 - HAZMAT Safety Training

8. Basic Safety & First Aid & CPR
   This course addresses basic medical attention administered immediately after a workplace injury at or near the location where it occurred. Such short-term and one-time first aid treatment may save lives and can include cleaning minor cuts, scrapes, or scratches; treating minor burns; applying bandages and dressings; the use of non-prescription medicines; draining blisters; removing debris from the eyes; and methods to relieve heat stress. Cardiopulmonary Resuscitation (CPR) may help to revive or keep someone alive who is not breathing or lacks a pulse until medical assistance arrives.

9. HAZWOPER – This 40 hour course is designed to provide responders safety training for hazardous materials and hazardous waste emergencies. Course topics include site safety, decontamination, safe storage, shipping, elementary chemistry and industrial hygiene. Necessary for safe hazardous materials storage, disposal, and emergency spill response. Training includes the use of respiratory protection, protective clothing, and analytical instruments necessary for safe response.

10. Fire Response in the Petroleum Industry
    This course will be taught by professional firefighters and trainers associated with Refinery Terminal Fire Company. Their equipment and facilities will give attendees the opportunity to learn how to deal with petroleum fires in refineries and loading operations. Attendees will have to provide or rent their own turnout gear for the week. If renting, sizes must be provided at least 10 days in advance.

Module 3 – Week 1 – Managing Petrochemicals Safely

11. Environmental Awareness
    This course will focus on the various aspects of the environment that define the nexus of human economic enterprise and environmental sustainability. Awareness
    • Land Resources
      o Geology
      o Soil Science
      o Stratigraphy & Petroleum Resources
      o Terrestrial Habitats
      o Land disposal of waste
    • Air Resources
      o The Atmosphere
      o Weather
      o Contaminants
    • Water Resources
      o The Water Cycle
      o Oceans
      o Deep water – Tour to Texas State Aquarium to observe underwater rig

Module 3 – Week 2 – Safety Management & Industrial Hygiene in the Workplace

12. Storage and Transport of Hazardous Materials
    • Documentation
    • Modes of Shipment & Shipping Containers
    • Placarding & Labeling

13. Chemical Safety
    • Chemical Compatibility
    • Emergency Response Guides
    • Computer Resources for Emergency Response

14. Introduction to Industrial Hygiene
    A comprehensive introduction to safety and toxicology in the workplace including air monitoring, chemical safety and toxicology.

National Spill Control School
Texas A&M University-Corpus Christi
6300 Ocean Drive, Unit 5850, NRC 1100
Corpus Christi, TX, 78412, USA
http://www.nscs.tamucc.edu/
Telephone (01) (361) 825-3333