



Naval Safety and Environmental Training Center Course Catalog

The provider of choice for occupational safety, industrial hygiene, and environmental training for all of the Department of Defense. We ensure quality, customer centric training by combining transformational leadership, cost effective principles, and delivery through current and emerging technologies.

Naval Safety and Environmental Training Center

Mission Statement

We provide quality education and training for military and civilian Navy and Marine Corps personnel, both afloat and ashore, in the areas of occupational safety, industrial hygiene, environmental protection, and emergency management leading to:

- Enhanced operational readiness
- A safer and healthier workplace
- Stewardship through compliance with applicable regulations
- Reduced worker's compensation costs
- More efficient mission

Reserving a Quota

All quotas must be reserved via eNTRS or by contacting the Training Support Center Hampton Roads (TSC-HR). All course communication will be provided via the email address provided when the quota is reserved. If an incorrect email is provided, the student will NOT receive course information or login information.

- eNTRS: <https://app.prod.cetars.training.navy.mil/eNTRS/>
- TSC-HR Email: Must provide student name, student DOD ID, correct student email address, course name, course CIN/CDP, and course dates. (tschrquotas@navy.mil)

Course Schedule/Locations

Course dates and locations are located on our course schedule. Course locations will be posted two weeks prior to the course start date. Use the link below to access the course schedule.

<https://navalsafetycenter.navy.mil/Learning/NAVSAFENVTRACEN/Course-Schedule/>

Global Online Course Information

Global Online Course Access:

Students will receive course access one (1) week prior to the course start date. Information regarding course access will be provided via the email address used to reserve the quota. If the email is incorrect, the student will not receive course access information.

Live Session:

NAVSAFENVTRACEN Global Online courses require daily live session attendance. Students will connect with the instructor and other students via Adobe Connect using headphones or speakers, a microphone or webcam is NOT required. Use the links below to test access to an example live session. If you are unable to connect contact your network administrator.

<https://navsafetc.adobeconnect.com/livesessiontest/>

https://navsafetc.adobeconnect.com/common/help/en/support/meeting_test.htm

Course Purpose, Scope, Prerequisites, and Special Notes

Afloat Environmental Protection Coordinator

Resident

CIN: A-4J-0021

CDP: 430U

Course Length: 2 days (16 Hours)/ 1.6 CEU

Class Size: 20

Global Online

CIN: A-4J-0022

CDP: 09ER

Course Length: 16 Hours*/1.6 CEU

Class Size: 20

*Students will have 5 business days to complete the course content.

Purpose: The Afloat Environmental Protection Coordinator course provides assigned collateral-duty shipboard Environmental Protection Coordinators with training to establish and operate a ship's environmental protection program according to SECNAVINST 5090.7 (series), SECNAVINST 5090.8 (series) and OPNAVINST 5090.1 (series).

Scope: Course content includes learning objectives focused on duties and tasks to advise the Commanding Officer on shipboard discharge events as identified in the OPNAVINST 5090.1 (series), use of Protective Measures Assessment Protocol for routine Navy training and exercises, protection of marine species and endangered animals and prevention and corrective actions for Oil Spill and Hazardous Substance releases.

Prerequisites: Senior enlisted and officer personnel assigned as Afloat Environmental Protection Coordinators or Environmental Compliance Officers on board ships, submarines, and afloat staffs.

Asbestos Inspector

Resident

CIN: A-493-0014

CDP: 3878

Course Length: 3 days (24 Hours)

Class Size: 25

Purpose: This course provides Navy military and civilian personnel with knowledge to perform inspections and evaluate/interpret previous inspection reports to determine if an adequate inspection was performed. Additionally, students will be given practical experience on how to obtain a bulk samples, and document appropriately according to regulatory standards. Personnel will be able to complete asbestos inspections of buildings/facilities at their activity.

Scope: This course is EPA accredited under TSCA, Title II, § 206. Course content includes the background, characteristics, and health effects of asbestos; understanding building systems; functions, qualifications and role of the inspector; inspecting for friable and non-friable asbestos containing building material (ACBM); bulk sampling; legal implications and liabilities; public relations; pre-inspection planning and records review; record keeping; regulatory review and a field trip in which inspection, hazard assessment, and sampling techniques are applied under the guidance of an experienced inspector.

Prerequisites: Civilian and military personnel who are designated as asbestos inspector for their respective activity/facility. All personnel must have at least 12 months from course date remaining in job assignment.

Asbestos Inspector Refresher

Resident

CIN: A-493-0015

CDP: 3879

Course Length: ½ Day (4 hours)

Class Size: 20

Purpose: The purpose of this course is to provide EPA-accredited annual recertification training for civilian and military personnel involved in inspections of buildings and facilities at their activity. This course is EPA accredited under TSCA, Title II, § 206.

Scope: Course content includes the background, characteristics, and health effects of asbestos; understanding building systems; functions, qualifications and role of the inspector; inspecting for friable and non-friable asbestos containing building material (ACBM); bulk sampling; legal implications and liabilities; public relations; pre-inspection planning and records review; record keeping.

Prerequisites: Personnel needing initial certification may not attend this course. Navy military and civilian personnel who are designated as Asbestos Inspector for their respective activity/facility. Personnel must provide evidence of initial or annual recertification prior to being granted a certificate from this course. Training certification expires 12-months from the date of the course, after which personnel must be recertified annually to continue to perform duties as an asbestos inspector. All personnel must have at least 12 months from course date remaining in job assignment.

Asbestos Management Planner

Resident

CIN: A-493-0019

CDP: 3882

Course Length: 2 days (16 Hours)

Class Size: 20

Purpose: This course provides Navy military and civilian personnel with knowledge to perform evaluations and interpretations of previous inspection reports to determine response actions, set priorities for abatement and develop an Operations and Maintenance Plan (O&M) according to regulatory standards. This course is EPA accredited under TSCA, Title II, § 206.

Scope: Course content includes the functions, qualifications and role of the management planner; legal implications and liabilities; evaluation and selection of control (abatement) options; development of an O&M plan; regulatory review; record keeping; assembling and submitting a management plan and financing abatement actions.

Prerequisites: Civilian and military personnel who are designated as Asbestos Management Planner for their respective activity/facility. Personnel seeking accreditation must complete an Inspector training course in conjunction with the Asbestos Management Planner training course. All personnel must have at least 12 months from course date remaining in job assignment.

Asbestos Management Planner Refresher

Resident

CIN: A-493-0020

CDP: 3888

Course Length: ½ Day (4 hours)

Class Size: 20

Purpose: This course provides Navy military and civilian personnel with EPA-accredited annual recertification training for the Asbestos Management Planner. This course is EPA accredited under TSCA, Title II, § 206.

Scope: Course content includes the functions, qualifications and role of the management planner; legal implications and liabilities; evaluation and selection of control (abatement) options; development of an O&M plan; regulatory review; record keeping; assembling and submitting a management plan and financing abatement actions

Prerequisites: Personnel needing initial certification may not attend this course. Navy military and civilian personnel who are designated as Asbestos Management Planner for their respective activity/facility. Personnel must provide evidence of initial or annual recertification in BOTH asbestos Inspector and Management Planner prior to being granted a certificate from this course. Training certification expires 12-months from the date of the course, after which personnel must be recertified annually to continue to perform duties as an asbestos Management Planner. All personnel must have at least 12 months from course date remaining in job assignment.

Asbestos Supervisor Initial

Resident

CIN: A-493-0069

CDP: 450U

Course Length: 5 days (40 Hours)

Class Size: 20

Purpose: This course provides Navy military and civilian workers and supervisors involved in asbestos removal operations with EPA-accredited training on asbestos regulations, inspecting and reporting of asbestos hazards, and managing removal operations. Graduates will receive a one-year NAVSAFENVTRACEN certificate that meets the TSCA, Title II, Section 206 - EPA Model Accreditation Plan certification requirements for "Asbestos Supervisor". This course meets all requirements established by the Asbestos Hazard Emergency Response Act (AHERA), Asbestos School Hazard Abatement and Reauthorization Act (ASHARA), National Emissions Standards for Hazardous Air Pollutants (NESHAP), EPA Worker Protection Rule, Occupational Safety and Health Administration (OSHA) standards, and regulations promulgated by the Department of Transportation (DOT).

Scope: Course content includes (See below topics) the physical characteristics of asbestos; potential health effects related to asbestos exposure; employee personal protective equipment; state-of-the-art work practices; personal hygiene; additional safety hazards; medical monitoring; air monitoring; relevant federal and state regulatory requirements; establishment of regulated work areas; and decontamination units. This course does not qualify personnel in bulk or air sampling nor becoming a respiratory protection program manager.

Prerequisites: Navy military and civilian personnel who may be assigned or required to perform or supervise all classes of asbestos removal operations. Due to the intensity of the course, it is strongly recommended that military personnel NOT stand duty while attending this course. All personnel must have at least 12 months from course date remaining in job assignment.

Asbestos Supervisor Refresher

Resident

CIN: A-493-0070

CDP: 450V

Course Length: 1 day (8 Hours)

Class Size: 20

Purpose: This course provides Navy military and civilian workers and supervisors involved in all classes of asbestos removal operations with EPA-accredited annual recertification training on asbestos regulations, inspecting and reporting of asbestos hazards, and managing removal operations.

Graduates will receive a one-year NAVSAFENVTRACEN certificate that meets the TSCA, Title II, Section 206 - EPA Model Accreditation Plan certification requirements for "Asbestos Supervisor".

Scope: Course content includes a review of relevant federal and state regulatory requirements, along with recent developments in state-of-the-art procedures. A review of selected topics from the A-493-0069 course will also be included.

Prerequisites: Personnel needing initial certification may not attend this course. Navy military and civilian personnel who may be assigned or required to perform or supervise all classes of asbestos removal operations who have acquired initial EPA certification require annual recertification. Personnel must provide evidence of initial or annual recertification prior to being granted a certificate from this course. Training certification expires 12-months from the date of the course, after which personnel must be recertified annually to continue to perform Class I, II or III asbestos work. All personnel must have at least 12 months from course date remaining in job assignment.

Aviation Safety Specialist

Resident

CIN: A-493-0065

CDP: 399A

Course Length: 3 days (24 Hours)

Class Size: 30

Global Online

CIN: A-493-0665

CDP: 10KW

Course Length: 24 Hours*

Class Size: 30

*Students will have 5 business days to complete the course content.

Purpose: The Aviation Safety Specialist course, in accordance with OPNAVINST 3750.6 (series), provides the student with the training to assist in the operation and management of the aviation activity's occupational safety and health program, ashore and afloat, to include the investigation and reporting of on and off-duty mishaps.

Scope: Key elements include coordinating safety related activities with Squadron Quality Assurance, identifying aviation safety award criteria, coordinating with local industrial hygiene and safety activities, implementing ORM principles, understanding of mishap reporting, explaining process for medical surveillance programs, safety inspection scheduling, and safety program management and training.

Prerequisites: Must be E-5 through E-9 assigned as an Aviation Safety Specialist. All personnel must have at least 12 months from course date remaining in job assignment.

Note:(1) Successful completion of this course is a prerequisite of SNEC 825A. Successful completion of this course does NOT award SNEC 825A.

Competent Person for Fall Protection Course

Resident

CIN: A-493-0103

CDP: 12JY

Course Length: 5 Days (40 Hours)

Class Size: 25

Purpose: The purpose of this course is to train, certify and equip Navy, Marine Corps and DoD Civilian full time safety professionals, site supervisors, Resident Officers-in-Charge of Construction (ROICC), Public Works Department (PWD) Personnel, construction inspectors and similar quality assurance

personnel who must also serve as the fall protection competent person at shore commands or activities. Participants are provided with class room instruction; assigned tasks, workshops, and field trip activities and (Hands-on exercises) designed achieve maximum proficiency about the requirements for working at heights, evaluation and effective management of fall hazards that meet all meet required program objectives of (i.e., OPNAV M-5100.23 series, Chapter 13; DON Fall Protection Guide for Shore facilities APPENDIX F; OSHA standards 29 CFR 1910, 1915, 1918, 1926, and 1960; American National Standards Institute (ANSI) Z359; and USACE EM 385-1- 1).

Scope: This course fulfills the training requirements delineated in OPNAV M-5100.23 (series), Chapter 13, ANSI Z359 Fall Protection Code, 29 CFR 1910, 29 CFR 1926 Subpart M and United States Army Corps of Engineers EM 385-1-1.

Prerequisites: Must be in GS-0018(Safety and Occupational Health Management), GS-0019 (Safety Technician), or GS-0803 (Safety Engineering) classification series, ROICC, Public Works Department Personnel, construction inspectors, or full time Naval military personnel. Military or civilian collateral duty safety personnel are eligible. All personnel must have at least 12 months from course date remaining in the job assignment.

Note:

(1) Students must bring safety glasses, hearing protection and safety shoes for field exercise. Students are encouraged to bring a clean set of utilities work clothes or coveralls (civilians: clothes suitable for a field exercise.)

Confined Space Safety

Resident

CIN: A-493-0030

CDP: 286X

Course Length: 5 days (40 Hours)

Class Size: 25

Purpose: The purpose of the course is to provide Confined Space Program Managers, Gas Free Engineers, and their assistants with the training to establish and oversee a shore maritime and non-maritime Confined Space Entry/Gas Free Engineering Program. The course teaches the application of the standards outlined in NAVSEA S6470-AA-SAF-010, OPNAV M-5100.23 (series) and pertinent OSHA standards.

Scope: The course content includes the reasons for gas testing; toxicology and health hazards; chemistry; ventilation requirements and calculations; procedures, responsibilities and program requirements; hot work, space cleaning, inerting and pressing-up procedures; selection and use of gas detection instruments; and personal protective equipment. This is a very rigorous and intensive course, which will require after-hours homework such as reading and problem solving.

Prerequisites: Must be designated in writing as the shore activity Confined Space Program Manager, Gas Free Engineer, or assistant. All personnel must have at least 12 months from course date remaining in job assignment.

Note:

(1) Students must have a strong background in basic algebra and geometry.

(2) A minimum test score of 90% (on a 100-Point Scale) is required to graduate from the course and receive a certificate of completion.

(3) Students must receive an overall course grade of 90% to pass the course.

(4) Students must be able to achieve a score of 90% or better if applying for Gas Free Engineer certification. The Instructor will annotate final grade on student certificate.

(5) Students are encouraged to bring a clean set of utilities or coveralls (civilians: clothes suitable for a field exercise) and safety shoes are suggested. Students must bring a calculator to the course and be able to solve basic algebra and geometric equations.

Construction Safety Standards

Resident

CIN: A-493-0021

CDP: 18BN

Course Length: 5 days (30 Hours)

Class Size: 35

Purpose: The purpose of this course is to provide students with the training necessary to identify, interpret, and apply the 29 CFR 1926 standards at a construction site. Additionally, participants will receive information specific to the Naval Construction Forces (NCF) safety and occupational health program.

Scope: Course content includes OSHA construction standards; walking and working surfaces; electrical safety; fire protection and prevention; welding and cutting; material handling and storage; tools (powered and non-powered); excavations; signs, signals and barricades; concrete and masonry construction; construction specific operations; occupational health and environmental controls; personal protective equipment; and hazard recognition, evaluation, and control. Successful completion of this course satisfies the SNEC B22A - Safety Inspector course requirements. Consult the Navy Enlisted Classification Manual for additional NEC information.

Prerequisites: Enlisted personnel (E6 - E8) in one of the following ratings: BU, CM, SW CE, UT, EO and EA. All personnel must have at least 12 months from course date remaining in job assignment.

Note:

(1) Students are encouraged to bring a hard hat, safety glasses, and safety shoes for a field trip.

Electrical Standards

Resident

CIN: A-493-0033

CDP: 287A

Course Length: 4 days (32 Hours)

Class Size: 30

Purpose: The purpose of this course is to provide full-time Safety and Occupational Health (SOH) personnel, designated collateral duty SOH managers, and safety officers at shore activities with introductory training necessary to interpret and apply electrical safety standards to ensure hazard-free workplaces. Note, this is an introductory course and does not provide electrician certification.

Scope: The course content includes how to define and describe basic electrical concepts; identify requirements as defined in 29 CFR 1910 Subpart S, 29 CFR 1926 Subpart K, NFPA 70E and OPNAV M-5100.23 series, including hazardous locations; interpret standards and apply them to the workplace; describe properly grounded systems; and understand and be able to use electrical test equipment.

Prerequisites: Must be in GS-0018 (Safety and Occupational Health Management), GS-0019 (Safety Technician), GS-0803 (Safety Engineering) classification series or full time military safety personnel.

Military or civilian collateral duty safety personnel, facility managers, and industrial hygiene officers are eligible but must be designated in writing as the activity Safety and Occupational Health manager or safety officer at Navy shore activities. All personnel must have at least 12 months from course date remaining in job assignment.

Note:

(1) Students must bring safety glasses, hearing protection and safety shoes for a field exercise.

Emergency Asbestos Response Team

Resident

CIN: A-760-2166

CDP: 438J

Course Length: 2 days (16 Hours)

Class Size: 25

Purpose: The purpose of the course is to provide members of a ship's three-person asbestos response team with training on underway procedures.

Scope: The course content includes discussion of health hazards and the Navy's asbestos control program, in addition to a laboratory session in personal protective equipment (PPE) use, and an insulation removal/repair mock-up. The course deals only with limited, at-sea asbestos removal, repair, and clean up allowed when three (3) nautical miles or more from U.S. shores.

Prerequisites: Personnel must be assigned to a ship's three-person asbestos response team. All personnel must have at least 12 months from course date remaining in job assignment.

Facility Response Team (FRT) Five Day

Resident

CIN: A-493-0012

CDP: 3682

Course Length: 5 days (40 Hours)

Class Size: 25

Purpose: This course covers response to oil spills in harbors and near-shore environments. It provides personnel assigned to the installation Facility Response Team (FRT) with the basic skills needed to perform as a member of the FRT.

Scope: Each course is specifically adapted to the spill potential and response equipment at the host facility. Therefore, students from the host facility will benefit more from the course than students from other facilities. The course offers one day of classroom training and four days of on-water practical training. The final day includes an exercise that is designed to test the team members in executing their local Facility Response Plan (FRP). On-water emphasis is to teach the FRT how to contain and recover oil on water as well as executing sensitive area protection strategies as outlined by facility plans. Students gain an understanding of oil spills, regulations concerning their own roles, the FRP and area contingency plan, and how to operate and apply all Naval Facilities Engineering and Expeditionary Warfare Center (NAVFAC EXWC) supplied equipment during a spill event. The safety subjects covered by this course meet the OSHA requirements in 29 CFR 1910.120(q) for First Responder Operations Level.

Prerequisites: Civilian and military personnel who are, or may be designated as leaders and/or team members on the Facility Response Team, or facility spill management team members.

Note:

(1) Students must wear a clean set of utilities or coveralls for on the water training.

Facility Response Team (FRT) Three Day

Resident**CIN:** A-493-0013**CDP:** 3683**Course Length:** 3 days (24 Hours)**Class Size:** 15

Purpose: This is a shortened version of the FRT 40-hour course, designed for facilities in need of a shorter course.

Scope: Each course is specifically adapted to the spill potential and response equipment at the host facility. Therefore, students from the host facility will benefit more from the course than students from other facilities. In a brief classroom session, the students review safety requirements and the Facility Response Plan (FRP). The on- water portion of the course is similar to the 40-hour course: responding to spill events using Naval Facilities Engineering and Expeditionary Warfare Center (NAVFAC EXWC) supplied spill equipment.

Prerequisites: Civilian and military personnel who are, or may be designated as leaders and/or team members on the Facility Response Team, or facility spill management team members.

Note:

(1) Students must wear a clean set of utilities or coveralls for on the water training.

Fall Protection Program Manager Course (Global Online)

Global Online**CIN:** A-493-0099**CDP:** 12JW**Course Length:** 24 Hours***Class Size:** 30

*Students will have access to the course content for 3 business days.

Purpose: The purpose of this course is to train, certify and equip Navy, Marine Corps and DoD Civilian full time safety professionals, supervisors of competent persons, site supervisors, Resident Officers-in-Charge of Construction (ROICC), Public Works Department (PWD) Personnel, construction inspectors and similar quality assurance personnel who must also serve as the Fall Protection Program Managers at shore commands or activities. This course provides training for Fall Protection Program Managers Ashore, review the DON Fall Protection Guide for afloat and aviation training requirements. Participants will be trained on how to recognize and identify Fall-Hazards at workplaces; understand best practices, criteria and requirements for development and managing Fall Protection program; understand hazard and risk assessments; identification selection, safe use, and limitations of Fall Protection systems and equipment; understand proper storage, care, and maintenance of the equipment; identify applicable Fall Protection regulations; understand program audits and evaluate criteria; understand duties, responsibilities and training requirements for personnel involved in the Fall Protection program that meet all required program objectives of (i.e., OPNAV M-5100.23 series, Chapter 13; DON Fall Protection Guide for Shore facilities APPENDIX F; NAVMC DIR 5100.8 Chapter 18; OSHA standards 29 CFR 1910, 1915, 1918, 1926, and 1960; American National Standards Institute (ANSI) Z359; and USACE EM 385-1- 1).

Scope: This course fulfills the training requirements delineated in Department of The Navy Fall

Protection Guide July 2017, OPNAV M-5100.23 (series), Chapter 13, NAVMC DIR 5100.8 Chapter 18, ANSI Z359 Fall Protection Code, 29 CFR 1910, 29 CFR 1926 Subpart M and United States Army Corps of Engineers EM 385-1-1.

Prerequisites: Must be in GS-0018(Safety and Occupational Health Management), GS-0019 (Safety Technician), GS-0803 (Safety Engineering) classification series, ROICC, PWD Personnel, construction inspectors, supervisors of competent persons, or full time Naval military personnel. Military or civilian collateral duty safety personnel are eligible. All personnel must have at least 12 months from course date remaining in the job assignment.

Fire Protection and Life Safety

Resident

CIN: A-493-0075

CDP: 714U

Course Length: 4 days (32 Hours)

Class Size: 30

Purpose: The course introduces the student to the recognition of potential fire hazards and emergency procedures.

Scope: Topics include the chemistry of fire, types/effectiveness of extinguishing agents, means of egress, detection and alarm systems, fire brigades, fire prevention plans, and the Life Safety Code (NFPA 101). 29 CFR 1910, Subparts E and

Prerequisites: Must be in GS-0018(Safety and Occupational Health Management), GS-0019 (Safety Technician), GS-0081 (Fire Protection and Prevention), GS-0803 (Safety Engineering), GS-0804 (Fire Protection Engineering) classification series, or full-time military safety personnel. Military or civilian collateral duty safety personnel are eligible but must be designated in writing as the activity SOH manager or safety officer. All personnel must have at least 12 months from course date remaining in job assignment.

General Industry Safety Standards

Resident

CIN: A-493-0061

CDP: 288E

Course Length: 5 days (30 Hours)

Class Size: 30

Purpose: The purpose of this course is to provide full-time Safety and Occupational Health (SOH) personnel and designated shore collateral-duty SOH managers/safety officers, fire protection specialists, building/facility managers and others assigned responsibility for conducting/supervising inspection efforts at shore activities, with the training to identify and interpret OSHA standards and apply those standards to their work environment. Students completing this course will receive a 30 Hour OSHA certification card by mail 60 days following the course convening.

Scope: The OSHA Outreach Training Program for General Industry teaches general industry workers about their rights, employer responsibilities, and how to file a complaint as well as how to identify, abate, avoid and prevent job related hazards. The course topics include: Introduction to Occupational Safety and Health Administration (OSHA) standards, Managing Safety and Health, Walking-Working Surfaces, Exit Routes, Emergency Action Plans, Fire Prevention Plans, and Fire Protection; Electrical Standards; Personal Protective Equipment; Materials Handling; Hazard Communication; Hazardous Materials; Permit-Required Confined Spaces; Lockout/Tagout; Machine Guarding; Welding, Cutting, and Brazing; Industrial Hygiene; Bloodborne Pathogens; Ergonomics, Fall Protection; Powered

Industrial Vehicles.

Prerequisites: Must be in GS-0018 (Safety and Occupational Health Management), GS-0019 (Safety Technician), GS-0640 (Health Aid and Technician/IH Tech), GS-0690 (Industrial Hygiene), GS-0803 (Safety Engineering) classification series, building/facilities managers, Industrial Hygiene Officer or fulltime military safety personnel at Naval shore activities. Military or civilian collateral duty safety personnel are eligible but must be designated in writing as the activity SOH manager or safety officer. All personnel must have at least 12 months from course date remaining in job assignment.

Hazardous Material Control and Management (HMC&M) Technician

Resident

CIN: A-322-2600

CDP: 438D

Course Length: 3 days

Class Size: 30

Global Online

CIN: A-322-2604

CDP: 10ZZ

Course Length: 24 Hours*

Class Size: 30

*Students will have 5 business days to complete the course content.

Purpose: The Hazardous Material Control and Management Technician course (A-322-2601) provides Afloat (Ships & Submarines) military HMC&M Technicians with the training required to safely handle, use, store, dispose, transfer and offload hazardous material (HM) in accordance with SECNAVINST 5100.10 (series) and OPNAVINST 5100.19 (series).

Scope: Course content includes requisition, receiving, issuing, stowing, inventorying, offloading and responding to HM spills. Successful completion of this course satisfies the SNEC 830A course requirements. Consult the Navy Enlisted Classification Manual for additional NEC information.

Prerequisites: E-5 through E-9, any rating: aviation squadron (that have detachments to a ship), surface ship, submarine personnel either serving in, or en route to an authorized SNEC 830A billet. All personnel must have at least 12 months from course date remaining in job assignment. All ratings, grades (E-5 to E-9) remain eligible for training and utilization of SNEC 830A when in Hazardous Materials Minimization Center billets. (Resident)

Hazardous Substance Incident Response Management (HSIRM)

Resident

CIN: A-493-0077

CDP: 0381

Course Length: 3 days (24 Hours)

Class Size: 25

Purpose: This course provides personnel with the knowledge and skills necessary to respond safely and effectively to releases of, or substantial threats of releases of, hazardous substances, in compliance with applicable federal, state, and USN environmental regulations and instructions.

Scope: This course fulfills the training requirements established by regulations delineated in 29 CFR 1910.120(q) Emergency response to hazardous substance releases, and 29 CFR 1910.120(p)(7)(i) Operations conducted at a transfer, storage and disposal (TSD) facility. The appropriate installation representative or their designee will provide TSD site- specific training. This also fulfills the training requirements in OPNAVINST 5090.1(series), and OPNAV M-5100.23 (series).

Prerequisites: Civilian and military personnel ashore who may serve as activity Emergency Response

personnel, as well as the following: Fire and Police Department personnel; Environmental Engineers, Specialists, and Technicians; Environmental Managers and Supervisors; SOH personnel; Waste Handlers and TSD facility personnel; Hazardous Materials Minimization Center (HAZMINCEN) personnel; Warehousemen and Laboratory personnel. Shipboard personnel will be granted quotas, space available, upon verification of membership on the shipboard spill response team. All personnel must have at least 12 months from course date remaining in job assignment.

Hazardous Substance Incident Response Management (HSIRM) Refresher

Resident

CIN: A-493-0083

CDP: 339E

Course Length: 1 day (8 Hours)

Class Size: 30

Purpose: This course provides personnel with annual refresher training necessary to respond safely and effectively to releases of, or substantial threats of releases of, hazardous substances, in compliance with applicable federal, state, and USN environmental regulations and instructions.

Scope: This course fulfills the training requirements established by regulations delineated in 29 CFR 1910.120(q) Emergency Response to hazardous substance releases, and 29 CFR 1910.120(p)(7)(i) Operations conducted at a Transfer Storage & Disposal (TSD) facility. This also fulfills the training requirements of OPNAVINST 5090.1(series) and OPNAV M-5100.23 (series).

Prerequisites: Civilian and military personnel who have previously met the training requirements of HAZWOPER regulations delineated in 29 CFR 1910.120(q), and 29 CFR 1910.120(p)(7)(i), and are required to receive refresher training to maintain their competencies.

Incident Command System 300 (ICS 300)

Resident

CIN: A-493-2300

CDP: 993F

Course Length: 2 days (16 Hours)

Class Size: 30

Purpose: This course is designed to assist facilities and/or regions with compliance with the Oil Pollution Act of 1990 (OPA 90). This course provides a comprehensive description of the responsibilities of the organizational elements within each section of the ICS. A scenario-driven tabletop exercise is included in the course. It is adapted to each facility and/or region so that the facility and/or region can claim National Preparedness for Response Exercise Program credit.

Scope: This course content includes the comprehensive duties of each organizational element, terminology, staffing considerations, reporting relationships, and organizing for incidents and/or events, incidents resource management, air operations, and incident and/or event planning.

Prerequisites: Tailored to Navy civilian and military personnel, as well as contractor and other non-Navy government agency personnel including local and state personnel who work at or support an Oil Pollution Act 1990 (OPA) facility.

Additionally, these personnel should be assigned to the Navy On-Scene Coordinator (NOSC) Oil and Hazardous Substance (OHS) Contingency Plan and/or Facility Response Plan (FRP) Spill Management Team or be designated to provide specific support, expertise, or equipment to the NOSC Spill Management Team and/or Facility Spill Management Team. This may include upper management, spill response team leaders, public affairs personnel, safety and health personnel, natural resources

personnel, environmental personnel, finance and contract personnel, logistics and support personnel, security, force protection and emergency management personnel.

Incident Command System 300 (ICS 300) Refresher

Resident

CIN: A-493-2301

CDP: 05ZD

Course Length: 1 day (8 Hours)

Class Size: 30

Purpose: This course is designed to assist facilities and/or regions with compliance with the Oil Pollution Act of 1990 (OPA 90). This course provides a description of the process of operational incident planning and the function of the Incident Command System (ICS) forms used in preparing an Incident Action Plan. A scenario-driven tabletop exercise is included in the course. It is adapted to each facility and/or region so that the facility and/or region can claim National Preparedness for Response Exercise Program credit.

Scope: Course content includes a review of organizing for incidents and/or events, the importance of planning, essential Incident Action Plan (IAP) elements, and the planning process to include the working relationships of each section, meetings as related to the planning process, upkeep of the situation display board, how resources will be tracked, and how the sections should operate when Section Chiefs are absent. Additionally, planning for demobilization and developing the IAP are discussed. Students will prepare an IAP using the ICS forms and processes.

Prerequisites: Tailored to Navy civilian and military personnel, as well as contractor and other non-Navy government agency personnel including local and state personnel who work at or support an Oil Pollution Act 1990 (OPA) facility. Additionally, these personnel should be assigned to the Navy On-Scene Coordinator (NOSC) Oil and Hazardous Substance (OHS) Contingency Plan and/or Facility Response Plan (FRP) Spill Management Team or be designated to provide specific support, expertise, or equipment to the NOSC Spill Management Team and/or Facility Spill Management Team. This may include upper management, spill response team leaders, public affairs personnel, safety and health personnel, natural resources personnel, environmental personnel, finance and contract personnel, logistics and support personnel, security, force protection and emergency management personnel.

Incident Command System 400 (ICS 400)

Resident

CIN: A-493-0216

CDP: 12X8

Course Length: 2 days (16 Hours)

Class Size: 30

Purpose: The purpose of the course is to provide training and resources to assigned personnel who are expected to perform in a management capacity in an area command/complex incidents environment and who require advanced application of the ICS. The course emphasizes large-scale organization development, roles and relationships of the primary staff, the planning, operational, logistical and fiscal consideration related to large and complex incident and event management. It describes the application of Area Command and the importance of interagency coordination on complex incidents and events. This course expands upon information covered in ICS-100 through ICS-300

Scope: Experience using concepts and principles from ICS 100, 200, 300, 700 and 800 and use of skills in an operational environment before taking ICS 400 provides necessary context and understanding of skills that will develop when they take ICS 400. The program includes the following course topics: Introduction to ICS 400, Fundamentals Review for Command and General Staff, Major/Complex

Incident Management, Area Command, Multi-Agency Coordination. These course topics will explain how major incidents cause special management challenges, describe the circumstances in which an area command is established and describe the circumstances in which multi-agency coordination systems are established.

Prerequisites: Tailored to Navy civilian and military personnel, as well as contractor and other non-Navy government agency personnel including local and state personnel who work at or support an Oil Pollution Act 1990 (OPA) facility. Additionally, these personnel should be assigned to the Navy On-Scene Coordinator (NOSC) Oil and Hazardous Substance (OHS) Contingency Plan and/or Facility Response Plan (FRP) Spill Management Team or be designated to provide specific support, expertise, or equipment to the NOSC Spill Management Team and/or Facility Spill Management Team. This may include upper management, spill response team leaders, public affairs personnel, safety and health personnel, natural resources personnel, environmental personnel, finance and contract personnel, logistics and support personnel, security, force protection and emergency management personnel.

Industrial Noise and Hearing Conservation Program

Resident

CIN: A-493-0092

CDP: 5891

Course Length: 3 days (24 Hours)

Class Size: 25

Purpose: The objective of the course is to introduce and familiarize the student to basic concepts of noise propagation and basic elements of a Hearing Conservation Program. The course will introduce the student to federal and Navy regulations regarding noise and hearing conservation.

Scope: The content of the course is intended for full-time and collateral duty safety personnel, industrial hygiene personnel, personnel assigned responsibilities for conducting Occupational Safety and Health programs, personnel assigned to supervise Occupational Safety and Health programs, and personnel at naval shore activities directly involved with the Hearing Conservation Program. Topics include introduction to theory and propagation of sound, anatomy and physiology of the human ear, overview of the Federal and Department of Defense regulations for the Hearing Conservation Program, worksite sound analysis techniques and instrumentation.

Prerequisites: Must be a full-time Occupational Safety and Health professional, GS-0018 (Safety and Occupational Health Management), GS-0019 (Safety Technician), GS-0640 (Health Aid and Technician/IH Tech), GS-0690 (Industrial Hygiene), GS-0803 (Safety Engineering) classification series, Occupational Health Nurse or Industrial Hygiene Officer. Military and civilian collateral duty personnel are eligible but must be designated in writing as the activity OSH manager/safety officer. All personnel must have at least 12 months remaining in the current job assignment, after completion of the course.

Note: Students are encouraged to bring a clean set of utilities or coveralls or clothes suitable for a field exercise, safety glasses, hearing protection and safety shoes.

Introduction to Hazardous Materials (Ashore)

Global Online

CIN: A-493-0331

CDP: 10UG

Course Length: 24 Hours*

Class Size: 40

**Students will have access to the course content for 3 business days.

Purpose: Introduction to Hazardous Materials Ashore introduces civilian and military personnel assigned to full- time or collateral Safety and Occupational Health (SOH), or other duties involving the management of hazardous materials with the training to identify hazardous materials control requirements and methods ashore. This course is equivalent to the Introduction to Hazardous Materials (Ashore), CIN: A-493-0031.

Scope: The course content includes definitions and types of hazardous materials; chemistry of hazardous materials; human toxicology; Hazard Communication (HAZCOM) program to include OSHA's Globally Harmonized System; identification, labeling, marking, storage and transportation of hazardous materials; Hazardous Waste Operations and Emergency Response (HAZWOPER); Operational Risk Management; and management of a Navy Shore Hazardous Materials Control & Management (HMC&M) program.

Prerequisites: Personnel must be in GS-0018 (Safety and Occupational Health Management), GS-0019 (Safety Technician), GS-0640 (Health Aid and Technician/IH Tech), GS-0690 (Industrial Hygiene), GS-0803 (Safety Engineering) classification series, Industrial Hygiene Officers, or military personnel who may serve in full time or collateral duty safety/hazardous material duties, as well as those civilian or military personnel involved in the management of Hazardous Material Minimization Center (HAZMINCEN) operations. All personnel must have 12 months from course date remaining in job assignment.

Introduction to Industrial Hygiene for Safety Professionals

Resident

CIN: A-493-0035

CDP: 287C

Course Length: 4 Days (32 Hours)

Class Size: 30

Global Online

CIN: A-493-0335

CDP: 09ND

Course Length: 32 Hours

Class Size: 30

**Students will have access to the course content for 4 business days.

Purpose: This course provides primary and collateral-duty shore- based military and civilian safety personnel with training to independently implement, maintain and manage a comprehensive safety program ashore.

Scope: Topical discussions will include an introduction to toxicology, identification and anticipation of hazards in the workplace, measurements of hazards, application of federal and Department of the Navy standards and regulation, and an overview of standard control measures.

Prerequisites: Must be in GS-0018 (Safety and Occupational Health Management), GS-0019 (Safety Technician), GS-0640 (Health Aid and Technician/IH Tech), GS-0690 (Industrial Hygiene), GS-0803 (Safety Engineering) classification series, Occupational Health Nurse, Industrial Hygiene Officer, or full-time military safety personnel. Military or civilian collateral duty safety personnel are eligible but must be designated in writing as the activity OSH manager/safety officer. All personnel must have 12 months from course date remaining in job assignment.

Introduction to Naval Safety and Occupational Health [Ashore]

Global Online

Resident

CIN: A-493-0050

CDP: 287T

Course Length: 4 days (32 Hours)

Class Size: 30

Global Online

CIN: A-493-0550

CDP: 09K5

Course Length: 32 Hours*

Class Size: 30

*Students will have access to the course content for 4 business days.

Purpose: This course provides primary and collateral duty shore-based military and civilian safety personnel with training to independently implement, maintain, and manage a basic safety program ashore. This course is equivalent to the Introduction to Navy Occupational Safety and Health (Ashore) course, CIN: A- 493- 0050.

Scope: The course content includes terms, principles, concepts, and requirements for mishap prevention; safety, environmental, and occupational health programs in the Navy; fundamentals of mishap causation; and hazard recognition, evaluation, and control. Also included are specific safety programs such as mishap investigation and reporting, safety occupational and health standards, hazard abatement, respiratory protection, hearing conservation, sight conservation, ergonomics, energy control, the basic Operational Risk Management (ORM) process, job safety analysis, confined space entry, motor vehicle, and off-duty safety.

Prerequisites: Must be in GS-0018 (Safety and Occupational Health Management), GS-0019 (Safety Technician), GS-0640 (Health Aid and Technician/IH Tech), GS-0690 (Industrial Hygiene), GS-0803 (Safety Engineering) classification series, Occupational Health Nurse, Industrial Hygiene Officer, or full-time military safety personnel. Military or civilian collateral duty safety personnel are eligible but must be designated in writing as the activity OSH manager/safety officer. All personnel must have 12 months from course date remaining in job assignment.

Machinery and Machine Guarding Standards

CIN: A-493-0073

CDP: 714S

Course Length: 4 days (32 Hours)

Class Size: 30

Purpose: The course familiarizes the student with various types of machinery and related safety standards.

Scope: Guidance is provided on hazards associated with various kinds of machinery and the determination of proper machine safe guards. The course presents an approach to machine inspection that enables participants to recognize hazards such as those created by points of operation, rotating parts, flying chips, and provides options to achieve abatement. The course also includes an introduction to robotics.

Prerequisites: Must be in GS-0018 (Safety and Occupational Health Management), GS-0019 (Safety Technician GS-0803 (Safety Engineering), Industrial Hygiene Officer, or shop manager. Military or civilian full time or collateral-duty safety personnel are eligible but must be designated in writing as the activity safety and occupation health manager or safety officer. All personnel must also have 12 months from course date remaining in job assignment.

Special Requirements: Students must bring safety glasses, hearing protection and safety shoes for a field exercise.

Mishap Investigation

CIN: A-493-0078

CDP: 1228

Course Length: 5 days (40 Hours)

Class Size: 30

Purpose: The purpose of this course is to provide full-time SOH personnel, safety officers, and designated activity collateral- duty managers or safety officers at Navy and Marine Corps activities with the training to investigate and report mishaps involving personnel and material deficiencies both on- and off-duty. This course covers investigation and reporting for Class A, B, C, D and E mishaps.

Scope: The course content is based on the OPNAVINST 5102.1 (series) and includes: administrative considerations; change and energy-barrier target analysis; definitions; human factors analysis and classification system (HFACS); types of mishap investigations; requirements to ensure reporting of all mishaps; near miss reporting; mishap reporting program of record (RMI); mishap investigation training; SIB requirement's reporting and recording procedures; Commanding Officer review of lost time mishaps; mishap analysis procedures that apply to Navy mishap investigations; reporting and recordkeeping requirements for recreation, athletics, military offduty, and motor vehicle mishaps.

Prerequisites: Personnel must be in GS-0018 (Safety and Occupational Health Management), GS-0019 (Safety Technician), GS-0640 (Health Aid and Technician/IH Tech), GS-0690 (Industrial Hygiene), GS-0803 (Safety Engineering) classification series, Industrial Hygiene Officers, or full-time military safety personnel. Military or civilian collateral duty personnel are eligible but must be designated in writing as the activity SOH manager/safety officer. All personnel must have 12 months from course date remaining in job assignment.

Navy Ergonomics Program (Global Online)

CIN: A-493-0085

CDP: 3555

Course Length: 32 Hours

Class Size: 30

*Students will have access to the course content for 4 business days.

Purpose: This course provides safety and occupational health specialists, managers, industrial hygienists, and occupational health professionals the training required to effectively evaluate ergonomics risk factors in the work place and manage an ergonomics program.

Scope: The course is an online course with a blend of self-paced case study exercises and online group discussions. Upon completion of the course students have a firm understanding of the ergonomic principles affecting their work environment, and common methods of measuring risk and controlling or reducing work place hazards. The course content includes work-related musculoskeletal disorders, hand tool selection, manual material handling, computer and industrial workstation set-up and evaluation, the DoD Computer/Electronic Accommodations Program (CAP), the NAVFAC Mishap Prevention and Hazard Abatement (MPHA) Program, and the utilization of the Ergonomic Survey Tools from OPNAV M-5100.23 (series). Participants conduct an ergonomic assessment using a case study of scenario requiring an analysis of the data to make ergonomic recommendations.

Prerequisites: Must be in GS-0018 (Safety and Occupational Health Management), GS-0019 (Safety Technician), GS-0610 (Nursing Series), GS-0640 (Health Aid and Technician/IH Tech), GS-0690 (Industrial Hygiene), GS-0803 (Safety Engineering) classification series, or Industrial Hygiene Officers. Military or civilian collateral duty safety personnel and acquisition personnel are eligible, but must be designated in writing as the activity OSH manager or safety officer. All personnel must also have 12 months from course date remaining in job assignment.

Oil Hazardous Substance Spill Response Tabletop Exercise (OHS TTX)

CIN: A-493-2501

CDP: 05ZE

Course Length: 1 day (8 Hours)

Class Size: 30

Purpose: This course is designed to assist facilities and/or regions with compliance with the Oil Pollution Act of 1990 (OPA 90). This course supports the National Preparedness for Response Exercise Program (PREP) requirement that at least one spill management team tabletop exercise shall involve a worst-case discharge scenario during each triennial cycle. Additionally, this course is a tool for continuous improvement of the Navy On-Scene Coordinator (NOSC) Oil and Hazardous Substance (OHS) Contingency Plan, the Facility Response Plan (FRP), the Area Contingency Plan (ACP), the Regional Contingency Plan (RCP) and the national response system.

Scope: The OHS TTX is an 8-hour exercise utilizing the various plans during a worst-case discharge managed under the Incident or Unified Command System. The response plans are utilized to ensure familiarization with the plans and assist with the development of the Incident Action Plan (IAP). A worst-case scenario-driven tabletop exercise is specifically adapted to each facility and/or region.

Prerequisites: Tailored to Navy civilian and military personnel, as well as contractor and other non-Navy government agency personnel including local and state personnel who work at or support an Oil Pollution Act 1990 (OPA) facility. Additionally, these personnel should be assigned to the Navy On-Scene Coordinator (NOSC) Oil and Hazardous Substance (OHS) Contingency Plan and/or Facility Response Plan (FRP) Spill Management Team or be designated to provide specific support, expertise, or equipment to the NOSC Spill Management Team and/or Facility Spill Management Team. This may include upper management, spill response team leaders, public affairs personnel, safety and health personnel, natural resources personnel, environmental personnel, finance and contract personnel, logistics and support personnel, security, force protection and emergency management personnel.

Operational Risk Management Application & Integration Global Online

CIN: A-570-0100

CDP: 18B7

Course Length: 16 Hours

Class Size: 30

*Students will have access to the course content for 4 business days.

Purpose: The Operational Risk Management (ORM) Applications and Integration course is an in-depth, hands-on curriculum focused on training unit-level leadership and resource owners in the ORM Process. IAW OPNAVINST 3500.39 (series) each command is required to have one officer and one senior enlisted qualified as command ORM instructors.

Scope: Course contains review of key ORM concepts, principles, five-step process and Time Critical Risk Management (TCRM) to various on- and off-duty scenarios.

Prerequisites: Completion of the Operational Risk Management courses in NKO is strongly recommended; all courses are listed below. This course is intensive and comprehensive and students are encouraged to take all Navy Knowledge Online ORM training prior to their convening class date. Students should bring an actual problem or situation to which they feel the ORM process should be applied. Several issues will be chosen for group work and resolution in class. The NKO courses are as follow: Individual-Managing Your Risk (CPPD-ORM-MYR-1.0), Supervisor-Managing Your Team's Risk (CPD-ORM-MYTR-1.0), Assistant-Leading Risk Management Integration (CPPD-ORM-LRMI-1.0) and

Respiratory Protection Program Management

CIN: A-493-0072

CDP: 713U

Course Length: 4 days (32 Hours)

Class Size: 30

Purpose: The course is designed to provide military and civilian personnel serving as Respiratory Protection Program Managers (RPPM) at shore commands and Respiratory Protection Managers on all classes of Navy ships with training necessary to effectively establish, maintain and monitor respiratory protection programs within their command/activities/ships. The course is also designed to provide Industrial Hygienists and Industrial Hygiene Officers with the training to effectively evaluate and inspect respiratory protection programs during industrial hygiene surveys.

Scope: Course content includes an introduction to respiratory hazards, air contaminants, and the elements of the respiratory protection program. Additional topics covered include respirator types, selection, cartridge change out, medical surveillance requirements, fit testing, (both qualitative and quantitative), inspecting and cleaning of equipment, breathing air quality, standard operating procedures and program administration. This course covers the requirements of the OSHA Respiratory Protection standard 29 CFR 1910.134, as well as the OPNAV M-5100.23 series and OPNAVINST 5100.19 (series).

Prerequisites: Civilian employees must be in the GS-0018 (Safety and Occupational Health Management), GS-0019 (Safety Technician), GS-0640 (Health Aid and Technician/IH Tech), GS-0803 (Safety Engineering), GS-0804 (Fire Protection Engineering), 0610 (Nursing), or GS-0690 (Industrial Hygiene) classification series. Military personnel must be assigned duty as the command/activity/ship RPPM and/or related safety duties and program management. Participation in the qualitative and quantitative fit testing workshop does not require medical qualification to wear an air-purifying respirator. All personnel must also have at least 12 months from course date remaining in job assignment.

Safety Programs Afloat

Resident

CIN: A-493-2099

CDP: 438G

Course Length: 2 days (16 Hours)

Class Size: 30

Global Online

CIN: A-493-2098

CDP: 09WW

Course Length: 16 Hours*

Class Size: 100

*Students will have 5 business days to complete the course content.

Purpose: The Safety Programs Afloat course provides surface ship Divisional Safety Petty Officers with the basic knowledge and skills required to perform their duties and responsibilities in accordance with OPNAVINST 5100.19 (series).

Scope: This course teaches the facilitation, implementation and maintenance of an effective divisional safety program. This course identifies how Safety Petty Officers support the command Safety Officer in maintaining an effective shipboard safety program which includes; divisional safety training; mishap investigation and reporting; shipboard safety organizational development; safety equipment maintenance; and operational risk management application.

Prerequisites: Must be E-5 through E-9 assigned safety duties afloat. All personnel must have at least 12 months from course date remaining in job assignment.

Note: (1) Successful completion of this course is a prerequisite of SNEC 825A. Successful completion of this course does NOT award SNEC 825A.

Submarine Safety Officer

Resident

CIN: F-4J-0020

CDP: 961Z

Course Length: 2 days (16 Hours)

Class Size: 6

Purpose: The purpose of this course is to provide submarine officers, chief petty officers, and selected first class petty officers (designated Primary Assistant to the Command Safety Officer) who have been assigned as collateral duty Safety Officers aboard U.S. Navy submarines, with the training to implement, and maintain an effective submarine safety program.

Scope: The course encompasses aspects of the Navy Safety Program as they relate to the submarine community underway and in port. The content includes safety organizations and references; risk management and deficiency abatement (including inspections and surveys), mishap reporting and investigation, asbestos, lead, hazardous material, respiratory protection, gas free engineering, sight and hearing protection, heat stress, electrical safety, topside safety, off-duty and traffic safety, and program implementation.

Prerequisites: Selected submarine qualified E-6 personnel (designated Primary Assistant to the Command Safety Officer), and all submarine qualified chief petty officers, and commissioned officers. For E-6 personnel assigned as the Primary Assistant to the Command Safety Officer, a statement must be included on the quota request indicating that the person is serving in that capacity. All personnel must have at least 12 months from course date remaining in job assignment.

Tank Managers Course

Resident

CIN: A-493-0217

CDP: 12X3

Course Length: 5 Days (40 Hours)

Class Size: 25

Purpose: The purpose of the course is to provide Tank Managers, Facility Response Plan (FRP) and Spill Prevention, Control and Countermeasure (SPCC) Installation Program Managers and Operators with the knowledge and skills to enable them to establish and manage a Tank Program.

Scope: Upon completion of the course, the students will be able to:

- explore storage tank technology, materials selection and design considerations
- develop strategies for optimization of storage tank life and performance
- gain knowledge of safety hazards and mitigation measures related to storage tanks
- understand the different types of inspections applicable to storage tanks
- explain the concept of metal degradation
- clarify need for cathodic protection and tank bottom lining