#### **DEPARTMENT OF THE NAVY**



U.S. NAVAL SUPPORT ACTIVITY PSC 817 BOX 1 FPO AE 09622-0001

> NAVSUPPACTNAPLESINST 5100.13B N35 5 Jul 23

#### NAVSUPPACT NAPLES INSTRUCTION 5100.13B

From: Commanding Officer, U.S. Naval Support Activity, Naples, Italy

Subj: CONFINED SPACE ENTRY PROGRAM (NON-MARITIME)

Ref: (a) OPNAVINST 5100.23H, Navy Safety and Health Program Manual

- (b) Occupational Safety and Health Awareness Standard (29 CFR Part 1910)
- (c) CNIC M-5100.1, Base Operating Support Safety Manual
- (d) Italian Legislative Decree 81/2008, Safety Manual
- (e) Italian Presidential Decree 177/2011, Confined Space Safety
- (f) NAVSUPPACTNAPLESINST 5100.14B

Encl: (l) Confined Space Entry Program (Non-Maritime) for U.S. Naval Support Activity, Naples, Italy

- 1. <u>Scope</u>. This instruction applies to Department of Defense (DoD) personnel under the authority of U.S. Naval Support Activity (NAVSUPPACT), Naples, Italy, satellite stations, and tenant commands including Naval Facilities Engineering Europe, Africa, Central, Public Works Department Naples, Italy, and U.S. Navy Medical Training and Readiness Center Naples, Italy.
- 2. <u>Purpose</u>. The purpose of this instruction is to provide mandatory guidelines to personnel engaged in confined space (CS) entry activities, and to prevent injury/illness or death to themselves and others.
- 3. Cancellation. NAVSUPPACTNAPLESINST 5100.13A
- 4. <u>Discussion</u>. All personnel are prohibited from entering or working on or in, or performing hot work adjacent to any compartment, tank, void or other CS until such time as the space has been tested, inspected and certified safe by the Confined Space Program Manager (CSPM) or the Assistant Confined Space Program Manager (ACSPM). CSPM and ACSPM are staff members of the NAVSUPPACT Naples, Italy Safety Department. Additionally, all employees who are or may be assigned to work in or around CS are to be adequately trained and protected from any and all hazards that may be encountered during such work. All CSs are to be considered dangerous until tested, inspected, and certified safe by qualified personnel. The need for an effective confined space entry program is essential since the environment within closed, confined, or restricted spaces may be dangerous to personnel for any of the following reasons:

- a. Oxygen deficiency or enrichment.
- b. Presence of flammable or combustible and explosive gases/vapors.
- c. Presence of specific/toxic hazards.
- d. Existence of general safety/health problems, i.e. slip, trip, or fall hazards, electrical hazards, burn or extreme physiological stress hazards, and toxicity. The severity of these dangerous conditions may be increased whenever hot work is performed in, on, or near such spaces. Reference (a) provides general guidelines for administering a confined space entry program.

#### 5. Records Management

- a. Records created as a result of this instruction, regardless of format or media, must be maintained and dispositioned per the records disposition schedules located on the Department of the Navy Assistant for Administration, Directives and Records Management Division portal page at: https://portal.secnav.navy.mil/orgs/DUSNM/DONAA/DRM/Records-and-InformationManagement/ Approved%20Record%20Schedules/Forms/ A 11 1 tems.aspx.
- b. For questions concerning the management of records related to this instruction or the records disposition schedules, please contact the local records manager or the OPNAV Records Management Program (DNS-16).
- 6. Review and Effective Date. Per OPNAVINST 5215.17A, NAVSUPPACT Naples will review this instruction annually on the anniversary of its effective date to ensure applicability, currency, and consistency with Federal, DoD, Secretary of the Navy, and Navy policy and statutory authority using OPNA V 52 15/40 Review of Instruction. This instruction will be in effect for 10 years unless revised or cancelled in the interim and will be reissued by the 10-year anniversary date if it still required, unless it meets one of the exceptions in OPNAVINST 5215.17A, paragraph 9. Otherwise, if the instruction is no longer required, it will be processed for cancellation as soon as the need for cancellation is known following the guidance in OPNAV Manual 5215.1 of May 2016.

STEWART.JAME Digitally signed by STEWART.JAMES.W.1160963766 Date: 2023.07.05 08:21:31 +02:00

J. W. STEWART

Releasability and distribution:

NAVSUPPACTNAPLESINST 52 1 6.4DD

Lists: I through IV

Electronic via NAVSUPPACT Naples website:

https://cnreurafcent.navy.afpims.mil/Installations/NSA-Naples/About/Installation-

Guide/Department-Directory/N1-Administration-Department/Instructions/



# CONFINED SPACE ENTRY PROGRAM (NON-MARITIME) For U.S. NAVAL SUPPORT ACTIVITY, NAPLES, ITALY

## Confined Space Program (Non-Maritime)

## Table of Contents

1. Definitions	1
2. Program Management	4
3. Confined Space Hazards	5
4. Non-Permit-Required Confined Space Procedures	6
5. Permit-Required Confined Space Procedures	7
6. Permit System	10
7. Emergency Evacuation Procedures	10
8. Emergency Rescue Procedures	10
9. Training	11
10. Duties and Responsibilities	11
11. Record Keeping	14
12. Sewer System Entries	14
13. Contractor Management Provisions	16
Appendix 1	A-1
Appendix 2	A-2
Appendix 3	A-3

#### 1. Definitions

- a. <u>Acceptable Entry Conditions</u>. Conditions that must exist in a permit space to allow entry and to ensure that employees involved with a permit-required Confined Space (CS) entry can safely enter into and work within the space.
- b. <u>Attendant.</u> An individual stationed outside one or more permit spaces who monitors the authorized entrants and who performs all attendants' duties assigned in the employer's permit space program.
- c. <u>Authorized entrant</u>. An employee who is authorized by the employer to enter a permit space.
- d. <u>Blanking or Blinding</u>. The absolute closure of a pipe, line, or duct by the fastening of a solid plate (such as a spectacle blind or a skillet blind) that completely covers the bore and that is capable of withstanding the maximum pressure of the pipe, line, or duct with no leakage beyond the plate.

## e. Confined Space (CS). A space that:

- (1) Is large enough and so configured that an employee can bodily enter and perform assigned work;
- (2) Has limited or restricted means for entry or exit (for example, tanks, vessels, silos, storage bins, hoppers, vaults and pits are spaces that may have limited means of entry);
  - (3) Is not designed for continuous employee occupancy.
- f. <u>Double block and bleed</u>. The closure of a line, duct, or pipe by closing and locking or tagging two in-line valves and by opening and locking or tagging a drain or vent valve in the line between the two closed valves.
- g. <u>Emergency</u>. Any occurrence (including any failure of hazard control or monitoring equipment) or event internal or external to the permit space that could endanger entrants.
- h. <u>Engulfment</u>. The surrounding and effective capture of a person by a liquid or finely divided (flowable) solid substance that can be aspirated to cause death by filling or plugging the respiratory system or that can exert enough force on the body to cause death by strangulation, constriction, or crushing.
- i. <u>Entry</u>. The action by which a person passes through an opening into a permit-required CS. Entry includes ensuring work activities in that space and is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into the space.
- j. <u>Entry permit (permit)</u>. The written or printed document that is provided by the employer to allow and control entry into a permit space.

k. <u>Entry supervisor</u>. The person (such as the employer, foreman, or crew chief) responsible for determining if acceptable entry conditions are present at a permit space where entry is planned, for authorizing entry and overseeing entry operations, and for terminating entry as required by this section.

NOTE: An entry supervisor also may serve as an attendant or as an authorized entrant, as long as that person is trained and equipped as required by this section for each role he/she fills. Also, the duties of entry supervisor may be passed from one individual to another during the course of an entry operation.

- 1. <u>Hazardous Atmosphere</u>. An atmosphere that may expose employees to the risk of death, incapacitation, impairment of ability to self-rescue (that is, escape unaided from a permit space), injury, or acute illness from one or more of the following causes:
  - (1) Flammable gas, vapor, or mist in excess of ten percent of its lower flammable limit (LFL);
    - (2) Airborne combustible dust at a concentration that meets or exceeds its LFL;

NOTE: This concentration may be approximated as a condition in which the dust obscures vision at a distance of five feet (1.52 m) or less.

- (3) Atmospheric oxygen concentration below 19.5 percent or above 22.0 percent;
- (4) Atmospheric concentration of any substance for which a dose or a permissible exposure limit is published in reference (b): Subpart G, Occupational Health and Environmental Control, or in Subpart Z, Toxic and Hazardous Substances, and which could result in employee exposure in excess of its dose or permissible exposure limit;

NOTE: An atmospheric concentration of any substance that is not capable of causing death, incapacitation, and impairment of ability to self-rescue, injury, or acute illness due to its health effect is not covered by the provision.

(5) Any other atmospheric condition that is immediately dangerous to life or health (IDLH).

NOTE: For air contaminants for which Occupational Safety and Health Awareness (OSHA) has not determined a dose or permissible exposure limit, other sources of information, such as safety data sheets that comply with the Hazard Communication Standard, section 1910.1200 of reference (b), published information, and internal documents can provide guidance in establishing acceptable atmospheric conditions.

m. <u>Hot Work Permit</u>. The employer's written authorization to perform operations (for example, riveting, welding, cutting, burring, and heating) capable of providing a source of ignition.

n. <u>Immediately Dangerous to Life or Health (IDLH)</u>. Any conditions that poses an immediate or delayed threat to life or that would cause irreversible adverse health effects or that would interfere with an individual's ability to escape unaided from a permit space.

NOTE: Some materials (for example hydrogen, fluoride gas, and cadmium vapor) may produce immediate transient effects that, even if severe, may pass without medical attention, but are followed by sudden, possibly fatal collapse 12-72 hours after exposure. The victim feels normal from recovery from transient effects until collapse. Such materials in hazardous quantities are considered to be IDLH. A base wide Confined Space Inventory was performed and as a result, no IDLH spaces were identified.

o. <u>Inert</u>. The displacement of the atmosphere in a permit space by a noncombustible gas (such as nitrogen) to such an extent that the resulting atmosphere is noncombustible.

NOTE: This procedure produces an IDLH oxygen-deficient atmosphere.

- p. <u>Isolation</u>. The process by which a permit space is removed from service and completely protected against the release of energy and material into the space by such means as: blanking or blinding; misaligning or removing sections of lines, pipes, or ducts; a double block and bleed system; lockout or tagout of all sources of energy; or blocking or disconnecting all mechanical linkages.
- q. <u>Line breaking</u>. The intentional opening of a pipe, line, or, duct that is or has been carrying flammable, corrosive, or toxic material, an inert gas, or any fluid at a volume, pressure, or temperature capable of causing injury.
- r. Non-permit Confined Space (CS). A CS that does not contain or, with respect to atmospheric hazards, have the potential to contain any hazard capable of causing death or serious physical harm.
- s. Oxygen deficient atmosphere. An atmosphere containing less than 19.5 percent oxygen by volume.
- t. Oxygen enriched atmosphere. An atmosphere containing more than 22.0 percent oxygen by volume.
- u. <u>Permit-required confined space (permit space)</u>. A CS that has one or more of the following characteristics:
  - (1) Contains or has a potential to contain a hazardous atmosphere;
  - (2) Contains a material that has the potential for engulfing an entrant;
- (3) Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-

section.

- (4) Contains any other recognized serious safety or health hazard.
- v. <u>Permit-required confined space program (permit space program)</u>. The employer's overall program for controlling, and, where appropriate, for protecting employees from, permit space hazards and for regulating employee entry into permit spaces.
- w. <u>Permit system.</u> The employer's written procedure for preparing and issuing permits for entry and for returning the permit space to service following termination of entry.
- x. <u>Prohibited condition</u>. Any condition in a permit space that is not allowed by the permit during the period when entry is authorized.
  - y. <u>Rescue service</u>. The personnel designated to rescue employees from permit spaces.
- z. <u>Retrieval system</u>. The equipment (including a retrieval line, chest or full-body harness, wristlets, if appropriate, and a lifting device or anchor) used for non-entry rescue of people from permit spaces.

NOTE: "Non-entry rescue" retrieval equipment must be approved by the Confined Space Program Manager (CSPM) or Alternate Confined Space Program Manager (ACSPM) and maintained, inspected, tested by the equipment's owner. List of equipment must be maintained in owner's location [i.e. U.S. Naval Support Activity (NAVSUPPACT), Naples, Italy, Public Works Department (PWD)] and in CSPM/ACSPM office.

aa. <u>Testing</u>. The process by which the hazards that may confront entrants of a permit space are identified and evaluated. Testing includes specifying the tests that are to be performed in the permit space.

NOTE: Testing enables employers both to devise and implement adequate control measures for the protection of authorized entrants and to determine if acceptable entry conditions are present immediately prior to and during entry.

#### 2. Program Management

- a. <u>Commanding Officer</u>. The NAVSUPPACT Naples, Italy Commanding Officer (CO) is ultimately responsible for all safety and health issues at the Installation. In cooperation with other members of the management team, the CO will provide continuing support, both motivational and financial, to ensure that the Installation's confined space entry program remains effective. The CO will designate, in writing, a qualified CSPM.
- b. <u>Confined Space Program Manager</u>. The designated CSPM is a staff member of the Installation Safety Department. The CSPM, in collaboration with line managers, supervisors, and employees, will manage all facets of this program. The CSPM must successfully complete course number A-493-0030, Confined Space Safety, conducted by the Naval Occupational

Safety and Health and Environmental Training Center or equivalent. In addition to formal training, a written proficiency evaluation is required to ensure the CSPM possess the understanding, knowledge, and skill necessary for the safe performance of duties. The CS program evaluation must be performed within six months of appointing the CSPM. The CSPM has the authority to designate qualified persons to assist in the management and implementation of the CS entry program. The written designations include the ACSPM and the qualified person (QP).

- c. <u>Assistant Confined Space Program Manager</u>. An ACSPM may be authorized to perform the duties equivalent to those of the CSPM and must meet the same qualifying and training criteria.
- d. <u>Qualified Person (QP)</u>. A QP must complete formal training conducted by the CSPM or ACSPM. The QP written designation will remain in effect for one year. After an annual proficiency evaluation, the QP can be re-appointed.
- e. <u>Tenant Commands</u>. Tenant Commands may have a designated ACSPM provided they meet the training requirements listed in this instruction or may have the Installation CSPM manage and administer the CS Program through a written agreement signed by both parties (e.g. BOS Agreement).

## 3. Confined Space Hazards

- a. Oxygen Deficient Atmosphere. It is not an acceptable entry condition if measured below 19.5% by volume; cannot be entered without approved supplied air equipment.
- b. Oxygen Enriched Atmosphere. It is not an acceptable entry condition if measured above 22.0% by volume; must not be entered under any condition until purged and resampled.
- c. <u>Toxic Atmosphere</u>. It exists when there is a concentration of airborne contaminants in excess of the Permissible Exposure Limit (PEL). The PEL is defined by OSHA as the maximum concentration of contaminants that a worker may be exposed to in eight hours. PEL is equivalent to the Threshold Limit Value (TLV). Use of Time Weighted Average (TWA) is also strongly suggested when PEL cannot be determined. Most substances (liquids, vapor, gases, mists, solid materials, and dusts) should be considered hazardous in a CS. Toxic substances can come from a product used or stored in the space, the work being performed in the space or from areas adjacent to the CS. Examples of dangerous contaminants which can be found in a CS are:
  - (1) Fuel gases such as natural gas (methane) or liquid petroleum gases;
- (2) Vapor from liquid fuels and solvents, such as gasoline methyl chloroform, Freon, and other hydrocarbons;
- (3) Gases from the breakdown of organic matter, such as methane, carbon dioxide, hydrogen sulfide, and mixtures of these or other gases;

- (4) Products of combustion, such as carbon monoxide or carbon dioxide.
- (5) Gases and volatile substances in industrial waste or drainage.
- d. <u>Flammable Vapor Atmosphere</u>. It exists when a flammable vapor or gas is present in a concentration in excess of 10% of the LFL. The LFL is the minimum concentration of vapor or gas in air that will ignite upon contact with an ignition source. The LFL was formerly identified as the Lower Explosive Limit (LEL).
- (1) Two elements make an atmosphere flammable: the oxygen in the air, and a flammable gas, vapor, or dust in the proper mixture. If an ignition source (hot work spark, or an electrical tool) is introduced into a space containing a flammable atmosphere, an explosion can/will result.
- (2) A secondary concern in relation to flammable vapor is: they are also toxic. Both conditions must be evaluated with equal concern before entering a CS.
- e. <u>Electrical Shock</u>. Any equipment or fixtures electrically energized must be isolated and properly locked and tagged before entry can take place.
- f. <u>Fall Hazard</u>. Fall protection must be utilized by entrants when the distance is over five feet (approx. 1.5 meters).
- g. <u>Head Protection</u>. Entrants must wear approved head protection from possible falling objects within the space as well as through overhead entranceways.
- h. <u>Engulfment</u>. Authorized Entrants can be injured or killed by encroachment of foreign matter such as water, fluids, and solid material that can flow or readily shift.
- i. <u>Confined Space Inventory</u>. The CS inventory is the master list of all CS for the NAVSUPPACT Naples, Italy Installation, including U.S. Naval Hospital (USNH). The master list is maintained in NAVSUPPACT Naples, Italy, Safety Department, a copy of it is transmitted to NAVSUPPACT Naples Italy, Fire Department, PWD and USNH.

#### 4. Non-Permit Required Confined Space Procedure

- a. The entry supervisor must initiate the process for CS entry. Non-permit required CS have been pre-determined to be normally free of atmospheric hazards capable of causing death or serious injury, however, Non-Permit Required Entry is not authorized until the CSPM or ACSPM has confirmed that acceptable entry conditions have been attained.
  - b. The CS must meet acceptable entry conditions before entry is allowed:
    - (1) Normal oxygen content approximately 21%;

- (2) LFL at 0.0% by volume;
- (3) No toxin above its respective PEL, TWA, or action level (lowest value);
- (4) Corrosives: none present, either liquid, solid, or vapor;
- (5) Temperature: not to exceed 37 degrees Celsius (100 degrees Fahrenheit);
- (6) Electrical energy isolated (locked, tagged, and tried);
- (7) All inlet/outlet lines disconnected or "blanked" (excludes continuous running pipe with no flanges or valves that carry only treated or untreated "clean" water);
  - (8) Ventilation at minimum of one complete air change every three minutes;
- (9) Adequate lighting to perform task safely and to exit the space quickly in an emergency, 12 volt electrical system;
  - (10) Entry way barrier installed to protect from intrusion by pedestrians and vehicles;
  - (11) Adequate egress ladder(s) where applicable;
  - (12) No water accumulation other than dampness or minor accumulations on floors.
- c. The CSPM or ACSPM must conduct a gas test with a currently calibrated National Institute of Occupational Safety and Health (NIOSH) approved and CE marked direct reading gas detector. He/she must test for oxygen first, then LFL, then for toxicity. People who are to enter the CS have the "right" to observe the testing of the atmosphere prior to entering. Proper Multi-Gas Meter Detectors are kept at the NAVSUPPACT Naples, Italy, Safety Department.
- d. Once it has been confirmed that the atmosphere is acceptable for entry, the entry supervisor must complete the CS entry procedure as per appendices (1) and (2) and the confined space may be entered.
- e. Periodic testing of the atmosphere must be conducted by the CSPM or ACSPM as needed and determined by the CSPM or ACSPM. Entrants must evacuate the space immediately should a hazard or contaminant be detected.

#### 5. Permit-Required Confined Space Procedures

- a. The entry supervisor must initiate the process for CS entry. For permit required CS entries it is strongly suggested the entry supervisor hold a pre-entry safety planning meeting with the major participants to ensure a smooth and complete operation.
  - b. The entry supervisor may enlist the advice of the CSPM or the ACSPM prior to the entry.

- c. The entry supervisor must assemble all required equipment, for the entry process including summoning the Fire Department for rescue standby. The entry supervisor must ensure the CS is purged, rinsed, ventilated, or prepared as required and then call for the pre-entry gas free test from the CSPM or ACSPM.
- d. The CS must meet acceptable entry conditions before the permit is issued. Acceptable entry conditions (without utilizing Class A, B, C, or D protection):
  - (1) Oxygen content between 19.5% and 22.0% by volume;
  - (2) LFL at 10.0% or less by volume;
  - (3) Toxicity of any kind less than the PEL (use TLV if no PEL is available);
  - (4) Corrosives: none present, either liquid, solid, or vapor;
  - (5) Temperature: not to exceed 37 degrees Celsius (100 degrees Fahrenheit);
  - (6) Electrical energy isolated (locked, tagged and tried);
- (7) All inlet/outlet lines disconnected or "blanked" (excludes continuous running pipe with no flanges or valves that carry only treated and untreated "clean" water);
  - (8) Ventilation at minimum of one complete air change every three minutes;
- (9) Adequate lighting to perform task safely and to exit the space quickly in an emergency, 12 volt electrical system;
  - (10) Entry way barrier installed to protect from intrusion by pedestrians and vehicles;
  - (11) Adequate egress ladder(s) where applicable;
  - (12) Uncontaminated water level less than 30 centimeters (approximately 1 foot).
- e. The CSPM or ACSPM must conduct a gas test with a currently calibrated NIOSH approved and CE marked direct reading gas detector. CSPM/ACSPM must test for oxygen first, the LFL, then for toxicity (with the ventilation system off). The entry supervisor may witness the readings. All entrants also have the right to request witnessing the test. Entrants may request re-test any time during the entry process.
- f. There must be intrinsically safe forced air ventilation provided into the space during the entire entry process. The air must be maintained clean from any contaminating sources.
- g. The permit must be completed and signed by the entry supervisor. The CSPM or ACSPM, and the crew foreman or work leader will then read and sign the permit. In instances where only one person or two people shall be entering the space, and no foreman or lead is present one of the entrants will sign the permit. It must be posted as close to the entry ways as is

possible in a prominent position, see appendices (1) and (2) for the permit example. All entrants must review the signed permit and acknowledge to the entry supervisor that they fully understand and agree to abide by entry requirements listed on the permit. Entrants must always don an approved full body harness and shall be attached to a lifeline for entries deeper than 1.5 meters (five feet).

NOTE: The entry supervisor with the consent of the CSPM or ACSPM may waive the lifeline requirement, if the lifeline creates a greater danger to the entrants than not wearing one. Also the lifeline requirement may be waived in large open pit entries because rescue access is not considered to be difficult. The reason for the waiver must be noted on the permit. A fall protection/retrieval device must always be used for vertical entries. If the confined space is so configured that entrants will not be within direct line of sight with the attendant, radios shall be provided to the entrants as well as the attendant. The entry supervisor must ensure that participants using radios are adequately familiar with them.

- h. When applicable the entrants will be provided approved personal protective equipment (PPE). It may be minimum protection such as gloves and coveralls or more extensive protection such as fully encapsulated suits. NAVSUPPACT Naples, Italy, Safety Department and USNH Industrial Hygiene Department must be consulted by the entry supervisor to determine the appropriate PPE where PELs and/or TWAs could be exceeded.
- i. When supplied air is required, the attendant may be required to utilize supplied air also. In such instances a rescue team on stand-by is mandatory with self-contained breathing apparatuses.
  - j. Once the entry has begun, the attendant will assume full duty responsibility.
- k. As entry time progresses, the entry supervisor must ensure that all facets of this instruction are followed. If the CS is abandoned temporarily for example, to eat lunch, etc., the manway entrance must be secured by barricade tape or similar device and the "Permit Required Confined Space" sign must be posted across the opening also. Should the CS be abandoned and unattended for 30 minutes or longer, the atmosphere must be re-tested and documented on the permit for oxygen, LEL, carbon monoxide, and hydrogen sulfide (H2S) before re-entry occurs.
- 1. Upon completion of the entry process, the permit will be taken down, prominently marked complete, and returned to the CSPM for filing. The entry supervisor will conduct an out brief with all participants to identify any problems or difficulties encountered during the process, and shall be so noted on the permit or attached to the permit. Protective guards/barriers must be removed and the CS entryway shall be closed. The CS identification sign must be re-posted.

NOTE: In case of multiple entrants, where contractors enter the CS in conjunction with DoD personnel, the contractor must issue his own separate permit. At no time shall contractor personnel enter a CS under the Installation's permit or certification. The contractor must generate a specific Work Safety Plan, as per references (a) through (f), including possible risks resulting from work interferences. The Work Safety Plan must be submitted for CSPM or ACSPM review/acceptance. If, upon the review, any deficiency is found, the contractor will correct the deficiency before the Installation allows work to proceed. Pre-entry findings must be

shared/compared between both parties. NAVSUPPACT Naples, Italy, Contracting Officer must inform the contractor that the contractor retains legal obligation for the safety of contractor personnel. In all cases involving contractor operations, the Contracting Officer must ensure that the contractor's CS entry personnel are adequately qualified. In addition, the contractor must conduct all operations per the statutory and regulatory requirements applicable to Department of the Navy (DoN) personnel, ship, and facilities that may also be at risk. NAVSUPPACT Naples, Italy, Contracting Officer shall inform the contractor of any and all hazards and potential hazards associated with the CS entry on the written contract or in writing during the first communication in relation to the project. Also a "day training" (minimum 8 hours) will be conducted by the CSPM or ACSPM as per reference (e).

NOTE: The contractor will be responsible for providing any and all equipment, gas detectors, PPE, etc. required for his own personnel. The DoN will not issue or loan any CS related equipment or instruments to contractors due to liabilities and DoN regulations. All emergencies must be coordinated with the emergency dispatch center.

- m. Excavations deeper than five feet constitute a CS and must be treated accordingly. Proper shoring and equipment must be on site and in place prior to entry and inspection.
- n. For Italian workforce onboard NAVSUPPACT Naples, Italy, all CS will be treated as Permit Required Confined Spaces. All emergencies will be conducted in accordance with the standard operating procedure in appendix (3).
- 6. <u>Permit System.</u> A written permit is required for all permit required CS entry. The form [see appendices (2) and (3)] must be completed in its entirety in triplicate by the entry supervisor. Any blank space on the form that need not to be addressed or does not apply will be marked: N/A. The names of all authorized entrants must be listed on the permit. Permits must be consecutively numbered. Numbering must reflect the year and progressive consecutive numbers during the calendar year. The original must be returned to the CSPM once the entry process is completed, the second copy will be retained by the entry supervisor, and the third will be retained by the CSPM to be later attached to the returned original and retained for three years. The CSPM must review the cancelled permits on an annual basis to conduct and document a self-assessment of the CS Program, and implement necessary changes to the program when deficiencies are discovered.
- 7. Emergency Evacuation Procedures. The attendant must be responsible for ordering the entrants to evacuate the CS when necessary. This can become necessary due to conditions either inside or outside the space. The announcement can be verbal, audible (horn, whistle, voice) or by radio communication. The specific noise and space configuration shall dictate the communication mode. The attendant must be trained to recognize various situations that require abandoning a CS.
- 8. <u>Emergency Rescue Procedures</u>. For all CS, two rescues alternatives will be available depending on the risk factors of the entry: (1) self-rescue and (2) rescue team.
  - a. Under both plans, there must be a retrieval device assembled and in place at the manway

entrance prior to entry. It must be approved by NIOSH and CE marked, for CS entry personnel retrieval activities. The manufacturers' requirements shall be met in relation to maintenance and periodic testing. Rescue equipment must not be used for anything other than emergency personnel rescue. Records must be maintained by the equipment owner to document testing and maintenance. CS rescue equipment must be maintained in good operating condition and free of corrosion, damage and contaminants. Potential operators must be adequately trained / certified to set up and operate the equipment. Retrieval equipment may also be utilized as fall arresting equipment as necessary, assuming it is designed for it. Retrieval equipment will be purchased by the department carrying out entry operations. All personnel must be properly trained on self-rescue procedures.

- b. The rescue team must consist of NAVSUPPACT Naples, Italy, Fire Department members. They may be required to be on "Stand-by Alert" at the station or at the entry site, depending on the risk of the entry. When Stand-by Alert is in effect the authorized attendant must have direct radio contact with the fire station dispatch during the entry process. Team members must be trained in confined space rescue operations by certified instructors and institutions, must have in place a pre-plan for each confined space, must conduct at least one annual drill, and document the critique and corrections as a result of drill findings.
- c. List of self-rescue equipment is maintained in the department owning the equipment (i.e. NAVSUPPACT Naples, Italy, PWD Office) and in NAVSUPPACT Naples, Italy, Safety Department.
- 9. Training. Training levels and frequency must be as follows:
  - a. CSPM and ACSPM as required by OPNAVINST 5100.23H;
- b. Entry Supervisor four hours initial, two hours annual refresher thereafter by CSPM/ACSPM;
  - c. Authorized Entrant two hours initial, two hours annual refresher by CSPM/ACSPM;
  - d. Authorized Attendant four hours initial, two hours annual refresher by CSPM/ACSPM;
- e. Entry supervisor, authorized entrant, and authorized attendant four hours initial, two hours annual refresher thereafter on self-rescue procedures by NAVSUPPACT Naples, Italy Fire Department and CSPM/ACSPM.
- f. Emergency Rescue Personnel as required by current approved schools/institutions to meet and maintain current certification.

#### 10. Duties and Responsibilities

a. Installation CO is responsible for establishing, conducting, and evaluating the program; appointing in writing the CSPM and issuing local instructions defining the CS Entry Program procedures and responsibilities.

- b. <u>CSPM (and ACSPM)</u>. The CSPM duties and responsibilities include, but are not limited to:
- (1) Ensuring completion of surveys of the Installation to identify existing and potential CS;
- (2) Maintaining a list of all CS and ensuring the hazards associated with them are characterized to the extent necessary to minimize losses;
- (3) Auditing the training of the employees involved in CS entry to assure they are able to demonstrate proficiency in the requirements of the CS Program;
  - (4) Conducting spot checks of CS entries to ensure proficiency and Program compliance;
- (5) Assuring investigation and correction of identified deficiencies prior to subsequent entry into identified CS;
- (6) Ensuring, to the feasible extent, review of entry permits/entry certificates on a periodic basic sufficient to allow identification of problems that could compromise the CS Entry Program;
- (7) Facilitating schedule or documentation of an annual rescue exercise from actual or representative permit space.
- c. Qualified Person (QP). The CSPM or ACSPM conducts formal classroom proficiency training for personnel assigned as QP. The training includes the proper use, maintenance, calibration, and operational check of equipment used. In addition, training includes procedures for testing atmospheric hazards, recognition and control of hazards related to CS, responsibilities of personnel entering and working in CS and emergency procedures. The list of QP is kept both in NAVSUPPACT Naples, Italy, Safety Department and in the department performing the CS emergency procedures. The duties and responsibilities of the QP are limited to:
  - (1) Performing atmospheric testing in CS and inspecting for physical hazards;
- (2) Determining whether acceptable entry conditions exist, authorizing the entry, overseeing entry operations, terminating the entry, and canceling the permit.

#### d. Line Manager. Responsible for:

- (1) Ensuring that applicable provisions and procedures of this instruction within departments are fully complied with, and notifying the CSPM or ACSPM of any new CSs or old ones not previously identified;
  - (2) Ensuring that all entrants are medically fit to enter and conduct the stated activity;
- (3) Ensuring that only properly trained personnel on self-rescue procedures and PPE use are employed for the task.

#### e. Entry Supervisor must:

- (1) Be familiar with OPNAVINST 5100.23H, chapter 27 as it relates to his/her personnel and operations (list of entry supervisors is kept in NAVSUPPACT Naples, Italy, Safety Department);
- (2) Act positively to eliminate any potential CS hazards under the entry supervisor control;
  - (3) Ensure that all employees under his/her control are aware of associated CS hazards;
  - (4) Strictly enforce safety and health requirements on CS entry permits;
- (5) Promptly report to proper authorities any unsafe condition and terminate any operation deemed to be unacceptable to the health and safety of CS entry participants (until corrected);
  - (6) Prohibit unauthorized entry into CS under their control.

#### f. Attendant must:

- (1) Not assume any collateral duties other than "man watching" until the entry is terminated:
- (2) Not enter the CS to rescue anyone unless properly relieved, equipped, and trained to do so:
  - (3) Only allow people into the CS authorized by the entry supervisor;
- (4) Remain at his post until the entry is terminated or is relieved by another authorized attendant;
  - (5) Evacuate all entrants should any applicable hazards or dangers become existent;
  - (6) Maintain constant visual or verbal communication with those inside;
  - (7) Know how to and have the capability to summon emergency rescue personnel;
- (8) Know what hazards entrants will face during entry, be aware of possible behavioral effects of hazard exposure, continuously maintain a count of entrants and monitor activities inside and outside the space;
- (9) Warn unauthorized personnel to stay away from the permitted space, order the evacuation of any unauthorized entrants from within the space;

- (10) Prevent any unauthorized person from attempting rescue;
- (11) List of authorized attendants is kept in NAVSUPPACT Naples, Italy, Safety Department.

#### g. Entrant must:

- (1) Be medically fit for the duty;
- (2) Properly use all required protective and other equipment;
- (3) Read the permit prior to entry, comply with all requirements;
- (4) Maintain constant communication with the authorized attendant;
- (5) Alert the attendant whenever a warning sign or symptom of exposure to a dangerous situation is recognized or if a prohibited situation is detected within the space;
  - (6) Exit from the permitted space as quickly as possible when:
    - (a) The order to evacuate is given by the authorized attendant;
- (b) A warning sign or symptom occurs, or a prohibited condition necessitating evacuation occurs;
  - (c) An evacuation alarm or an emergency alarm is heard;
- (d) It becomes apparent that the attendant is not at his post or communication is broken:
- (7) The list of authorized entrants is kept in NAVSUPPACT Naples, Italy, Safety Department.
- h. <u>Safety, Occupational Health, Industrial Hygiene, and Fire Protection Managers</u> must coordinate their respective programs with the CSPM/ACSPM and provide assistance in the evaluation and control of CS hazards.
- 11. <u>Record Keeping</u>. The CSPM must maintain CS entry records and documents for a minimum of three years. All others included in this instruction shall maintain records for at least two years.

#### 12. Sewer System Entries

- (a) Sewer system entries differ in three vital respects from other permit required entries:
  - (1) There rarely exists any way to completely isolate the space (a section of a continuous

systems) to be entered;

- (2) Because isolation is not complete, the atmosphere may suddenly and unpredictably become lethally hazardous (toxic, flammable or explosive) from causes beyond the control of the entrant or employer;
- (3) Experienced sewer workers are especially knowledgeable in entry procedures as their line of work requires frequent entry into permit required CS. Unlike other employers, where permit space entry is a rare and exceptional event, sewer worker's usually work environment is a permit required CS.
- (b) <u>Adherence to procedure</u>. Entry will be permitted to only those employees who are thoroughly trained in the command sewer entry procedures and who have demonstrated that they follow these entry procedures exactly as prescribed.
- (c) <u>Atmospheric Monitoring</u>. Entrants should be trained in the use of, and be equipped with, atmospheric monitoring equipment which sounds an audible alarm. In addition to its visual readout, the alarm settings must be set to alarm whenever one of the following conditions encountered. Oxygen concentration less than 19.5% or greater than 22.0% by volume; flammable gas or vapor at 10% of LFL; H2S at or greater than 10 PPM; carbon monoxide at or greater than 35 PPM.
- (1) Atmospheric Monitoring equipment must be calibrated according to the manufacturer's instructions. The oxygen/broad range sensor is best suited for initial use in situations where the actual or potential contaminants have not been identified, because broad range sensors, unlike substance-specific sensors, enable employers to obtain an overall reading of the hydrocarbons (flammables) present in the space. Such sensors, however, only indicate that a hazardous threshold of a class of chemicals has been exceeded. They do not measure the levels of contamination of specific substances. Therefore, substance-specific devices, which measure the actual levels of specific substances, are best suited for use where actual and potential contaminates have been identified. The measurements obtained with substance specific devices are of vital importance to the Command when decisions are made concerning the measure necessary to protect its employees (such as ventilation of personal protective equipment) and the setting and attainment of appropriate entry conditions. Since the sewer environment may suddenly and unpredictably change, the substance-specific devices may not detect the potentially lethal atmospheric hazards which may enter the sewer environment.
- (2) Although OSHA considers the information and guidance provided above to be appropriate and useful in most sewer entry situations, the Command emphasizes that each supervisor must consider the unique circumstances. The supervisor should include the unpredictability of the atmosphere of sewer permit spaces in the preparation/planning process based upon his/her knowledge and experience with permit spaces in sewer systems.
- (3) Selected testing instrument should be carried and used by the entrant in sewer line work to monitor the atmosphere in the entrant's environment. This will warn the entrant of any deterioration in atmospheric conditions. Where several entrants are working together in the same immediate location, one instrument used by the lead entrant is acceptable.

- d. <u>Surge Flow and Flooding</u>. Sewer crews should develop and maintain liaison, to the maximum extent possible, with the local weather bureau and fire and emergency services in their area. Sewer work must be delayed or interrupted and entrants withdrawn whenever:
  - (1) Sewer lines might be suddenly flooded by rain or fire suppression activities;
  - (2) Industrial or transportation accidents occur;
  - (3) Flammable or other hazardous materials are released into sewers during emergencies;
- e. <u>Special Equipment</u>. Entry into large bore sewers may require the use of special equipment. Such equipment will include (but is not limited to):
  - (1) Atmospheric monitoring devices with automatic audible alarms;
- (2) Escape self-contained breathing apparatus (ESCBA) with at least ten minutes of air supply (or other NIOSH approved self-rescuer breathing apparatuses);
  - (3) Waterproof/intrinsically safe flashlights;
- (4) Optional items would include boats and rafts, radios (intrinsic) and rope stand-off for pulling around bends and corners as needed.

#### 13. Contractor Management Provisions

- a. <u>Responsible Party Actions</u>. The party responsible for requesting that the contract work is performed is personally responsible for ensuring that the work is carried out per the contract provisions. The party responsible included: Tenants, engineering technicians, construction managers, performance assessments representatives, contracting officer representatives and/or contracting officer. This party must take the following actions to ensure an efficient contractor CS entry program:
  - (1) Inform the contractor that the installation contains permit spaces;
  - (2) Explain to the contractor why a space is considered to be a permit-required CS;
- (3) Share knowledge of the hazards that have been identified through experience with the space;
- (4) Inform the contractor that his/her personnel may only enter permit required CS only upon reviewing training completion, equipment certifications, self-rescue, permit form, Installation dispatch notification and other requirements per this instruction. Ensure contractors can provide documentation to validate training completion and qualifications to perform CS operations, including self-rescue;
  - (5) Apprise the contractor of any precautions or procedures that the Installation has

implemented for the protection of employees in or near permit spaces where contractor personnel will be working (for example draining, flushing, isolating, etc.);

- (6) Coordinate entry operations with the contractor, so that contractor and Installation employees do not compromise each other's safety;
- (7) Debrief the contractor at the conclusion of the entry relative to any hazards confronted or created during entry operations;
- (8) Oversee contractor's work performance to ensure compliance with all requirements, including self-rescue as primary means for rescue.

NOTE: If the contractor or responsible party fails to notify or validate whether rescue services are available, the risk and responsibility will rely on the contractor and/or responsible party. The Installation Fire and Emergency Service Rescue Team may possible be engaged in other functions or emergency responses, limiting their ability to perform a rescue in a timely manner.

Appendix 1

CONFINED SPACE/HAZARDOUS AREA ENTRY PERMIT  NAVEUR NAVSUPPACT NAPLES 5512/16 (New 9-01)										
TYPE OF ENTRY (Check One):				DATE:						
☐ Pump Station ☐ Pump Station ☐ Manhole ☐ Other (Explain):  Dry Well Wet Well				PERMIT#		EXI	PIRES AT			
			olain):	DATE:	TIME:					
Dry Well Wet Well				DATE.	I IIVIL.					
REASON FOR ENTRY:										
JOB LOCATION (ADDRESS):										
ENTRY SUPERVISOR:										
SPECIFIC HAZARDS THAT MAY BE ENCOUNTERED: ATMOSPHERIC PHYSICAL OTHER (explain)										
AUTHORIZED ENTRANTS				TIME IN TIME OUT						
ATTENDANT				N/A N/A			N/A			
CONTROL OF HAZARDS										
PHYSICAL HAZARDS REQUIREMENTS	YES	NO		ATMOSPHERIC REQUIREMENTS						
FALL PROTECTION EQUIPMENT				LE LIMITS FOR E						
LIGHTING (EXPLOSION PROOF)			OXYGEN		19.5% - 22%	$(O_2)$				
HEARING PROTECTION			COMBUSTIBLE GAS (LEL) 10% MAX (CH <sub>4</sub> )							
LOCKOUT/TAGOUT ELECTRICAL								•		
SECURE AREA AND MONITOR			CARBON MONOXIDE 35 PPM (CO)							
PERSONAL SAFETY EQUIPMENT			RESULTS	TIME	O <sub>2</sub>	CH₄	H₂S	CO		
HARD HATS			PRE-ENTRY							
ON-SITE RESCUE EQUIPMENT REQUIRED	YES	NO	15 MIN							
FIRE EXTINGUISHER			30 MIN							
RESPIRATOR/SCBA			45 MIN							
COMMUNICATIONS DEVICES			60 MIN							
MECHANICAL RETRIEVAL EQUIPMENT			75 MIN							
			/ J IVIIIN	<u> </u>			<u> </u>			
ATMOSPHERIC EQUIPMENT REQUIRED	YES	NO	GAS DETECTOR INFORMATION							
GAS DETECTOR			UNIT# OPERATIONAL							
BLOWER / PURGE / VENTILATE			LAST CALIBRATED BATTERY CHECK							
OTHER RESCUE INFORMATION CONCERNING THIS ENTRY  OTHER PERTINENT INFORMATION CONCERNING THIS ENTRY										
<b>EMERGENCY RESCUE INFORMATION</b> : In the event of a life threatening emergency, from a DSN telephone DIAL 911 or, from a Cellular phone DIAL 081-568-4911										

I certify that I have evaluated the situation, the assigned personnel and the procedures to be followed are in compliance with the confined space procedures.

SIGNED

Upon completion of entry:
Original to Confined Space Program Mgr.
Copy to Entry Supervisor
Copy to Safety Office

THIS PERMIT MUST REMAIN ON-SITE DURING ENTRY (Use Reverse if Necessary)

## Appendix 2

<u>rppenuix 2</u>												
PERMESSO D						R SPAZIO 16 (New 9-01)	CON	FINA	то			
TIPO DI ENTRATA (Check One):					DATA:							
, , ,				PERMESSO N. SCADENZA								
☐ Stazione di ☐ Stazione di ☐ Tombino ☐ Altro (Specificare)  Pompaggio Pompaggio												
Pozzo Secco Pozzo Bagnato					DA.	IA:	ORA	<b>\</b> :				
MOTIVO DELL'INGRESSO												
LUOGO DEL LAVORO (INDIRIZZO):												
SUPERVISORE ALL'ACCESSO:												
PERICOLI SPECIFICI CHE SI POSSONO TRO	VARE:	☐ ATM	OSFE	RICI 🗆	FISIC	CI □ ALTRI	(spiega:	zione)				
PERSONE AUTORIZZATE ALL'INGRESSO					ORA D'INGRESSO				ORA	ORA D'USCITA		
ATTENDENTE:					N/A				N/A			
CONTROLLO DEI PERICOLI					I	14/71				14/71		
PROTEZIONE DAI PERICOLI FISICI	SI	NO				CONTR	ROLLI A	TMOS	ERICI			
PREVENZIONE DALLE CADUTE			LIMITI ACCETTABILI									
ILLUMINAZIONE (ANTIDEFLAGRANTE)				SIGENO			9.5% - 2		(O <sub>2</sub> )			
PROTEZIONE UDITO						10% MAX (CH <sub>4</sub> )						
BLOCCO ELETTRICO (LO/TO)			IDROGENO SOLFORATO 10 PPM (H <sub>2</sub> S)									
ZONA DI SICUREZZA E MONITOR			MONOSSIDO DI C			1						
DISPOSITIVI PROTEZIONE INDIVIDUALI			RISULTAT		ATI	ORA		O <sub>2</sub>	LEL CH₄	H₂S	CO	
ELMETTO DI PROTEZIONE			PRE INGRES									
E' Richiesto Equipaggiamento per salvataggio IN-SITO?	SI	NO	15 MIN									
ESTINTORE			30 MIN									
AUTORESPIRATORI			45 MIN									
SISTEMI DI COMUNICATIONE			60 1	60 MIN								
ATTREZZATURA PER IL RECUPERO			75 MIN									
E' Richiesta Strumentazione per la rilevazione della qualita' dell'aria?	SI	NO	INFORMAZIONI RELATIVE AL RILEVATORE DI GAS									
RILEVATORE DI GAS			UNIT# OPERATIVITA'									
VENTILATORE/ASPIRATORE			DATA ULTIMA CALIBRAZIONE CONTROLLO BATTERIE									
ALTRE INFORMAZIONI NERENTI IL SOCCORSO ALTRE INFORMAZIONI INERENTI L'ACCESSO												
In caso di pericolo telefonare da una linea DSN al 911. Se si usa un telefono cellulare digitare 081-568-4911  Certifico che ho valutato questo spazio, Il personale designato e le procedure da seguire sono in conformita' con la legge.												
Certifico che ho valutato questo spazio, Il pe Copia di questo permesso per:	rsonale d	designat	o e le	procedure	e da s	seguire sono	in confor	mita' c	on la legge.			

•	Originale: Al Confined Space Program Manager	FIRMA
•	Copia: Al Supervisore all'accesso	QUESTO PERMESSO DEVE ESSERE ESPOSTO SU
	Conica NCA Cofety Office	(Day acceptively note of manner of consens if maters of microst

Copia: NSA Safety Office modulo.)

(Per eventuali note, si prega di usare il retro di questo

## Appendix 3

#### Confined Space Entry/Rescue Standard Operating Procedure

#### 72 hours prior to entry\*\*

- \* Conduct a Site Survey (Fire and Safety)
- \* Make operational risk management recommendations for equipment applications if applicable.
- \* Inform dispatch about the programmed entry and give Confined Space location, date and time of entry.

#### Day of entry\*\*

- \* Confined Space Program Managers (CSPM) and Entry Supervisor inspect the space and complete the permit.
- \* Inform the Fire Department "Duty Asst. Chief" on his cell phone and have a final space's combined inspection conducted.
- \* CSPM and Entry Supervisor conduct an on-the-job training brief to all participants establishing rules and responsibilities in reference to the specific entry and space configuration (Pre-Entry Safety Planning Meeting).
- \* Entry Supervisor reviews and signs the permit.
- \* Signed permit shall be posted by the C.S. entrance.
- \* Inform Dispatch about the location, # of entrants and time of entry.

#### In case of emergency\*\*

- \* Space's attendant calls 911 or 081-568-4911 from a cell.
- \* Dispatch shall call NAVSUPPACT Naples, Italy, Fire Department, the Emergency Room at U.S. Naval Hospital and the Italian Emergency Services (115 and 118).
- \* NAVSUPPACT Naples, Italy Fire Department arrives to the scene and starts all rescue procedures as appropriate.
- \* Once the injured Italian worker is withdrawn from the space, he/she shall be stabilized for life threatening issues (per Bureau of Medicine and Surgery approved protocols and in accordance with NAVSUPPACTNAPLESINST 5100.14B). Once stabilized, they will wait for Italian Emergency Services to arrive or meet them at the gate as requested.

Above Standard Operating Procedure applies to Italian workforce only.

For US workforce, the <u>only</u> difference is about the "non-applicability" of the NAVSUPPACTNAPLESINST 5100.14B, which applies only to Italian Workforce.

\*\*Exceptions may be approved by the Commanding Officer, Executive Officer, Command Duty Officer or Fire Chief in emergency cases.