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SOP-044

Oil and Chemical Storage Handling and Spill control for contractors

Last Review Details – Refer to QPulse for full history


Review Comments	Review Owner	Date
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Latest Revision Details – Refer to QPulse for full history

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1 Aim and scope

The objective of this SOP is to specify detailed rules, times and responsibilities related to the use, storage and handling of oils and chemicals (hereunder referred to as “chemicals”) within Enemalta installations and working areas by any third party such that the Contractor adopts the same behaviour of Enemalta personnel when using chemical products within Enemalta.

All tenders are supplied with the guidelines for contractors relating to environmental concerns are stated in SOP-085 – **Procurement Clauses related to Enemalta/IESC Environmental and Safety Management System.**

This document is to be given by the Enemalta Responsible person to the Contractor when the contract becomes effective. The Responsible Engineer shall ensure that the Contractor has clearly understood these good practices for chemical handling and shall abide by them. Enemalta Plc shall demand that any identified breach or failure to abide to ENE’s practices shall be remedied immediately.


2 References

EN ISO 14001:15, clause 8.1

OHSA Act 2000 – Occupational Health & Safety Authority Act 2000

3 Terms and Definitions

ENE	Enemalta Plc
SOP	Standard Operating Procedure
SDS	Safety Data Sheet
H&S	Health and Safety
HSE	Health Safety and Environment

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- HS&E Health, Safety and Environment Officer
- PPE Personal Protective Equipment
- COMAH Control of Major Accident Hazard
- HFO Heavy Fuel Oil
- EWC European Waste Catalogue
- REACH Registration, Evaluation, Authorisation and Restriction of Chemicals

4 Responsibilities

Responsible Person


- Enemalta personnel responsible for the task assigned to the Contractor
- Coordinates with Contractor and ensures that the Contractor is working in accordance with this SOP
- Provides the SDS to the HS&E Officer

Contractor

- Ensures that personnel assigned to handle and transport chemicals are properly trained and equipped to handle chemicals safely, and prepared to contain and clean accidental spills
- Ensures that chemicals are labelled and placed in designated location according to this SOP
- Provides Safety Data Sheet of the chemicals to be used to the responsible person

Contractor Personnel (CP)

- Carry out handling of chemicals from one location to another
- Responsible to place chemicals on site, under the supervision of the Contractor

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HSE Officer

- Responsible for filing the SDSs and forward them to the Portal Coordinator

5 Frequency

[This document should be reviewed and updated every twenty-four (24) months, unless it is deemed necessary that it should be reviewed prior.]

6 Detailed Procedural Rules

The Responsible Person from Enemalta is to ensure that the pertaining sections of these procedures are followed when handling chemicals. This procedure also defines the training requirements, handling methods and precautions to be taken during transportation of chemicals from one site to another, in order to minimize any hazards these chemicals might pose to human beings as well as to the environment.


6.1 Chemicals handling planning

- The person planning the transfer of chemicals must be informed of quantities to be transferred, the type of packaging and the scheduled locations when assessing the methods and means necessary for the handling.
- The person in charge of the transfer and/or handling of chemicals must:
 - CLEARLY identify the chemical and be aware of the hazards involved.
 - Consult Safety Data Sheet or seek expert advice when in doubt.
 - Ensure that the chemicals being sanctioned for transfer are stored and stacked in a correct and safe manner as detailed in the subsequent clauses of this SOP to avoid accidental spills and possible injuries.
- The Contractor must provide his personnel with the Personal Protective Equipment (PPE), adequate means of transportation and spill control materials.

6.2 General safety requirements

When a hazardous chemical is handled, the following recommendations should be observed:

- Where necessary, the contractor must supply Enemalta with a risk assessment and a safe work method statement for all tasks / works prior commencement of works.
- The Contractor must ensure that his personnel are trained in chemical handling and spill management.


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- The Contractor must ensure that adequate manpower is assigned to the task in order to carry out the job safely.
- The Contractor has to ensure that the competent personnel are provided with the appropriate PPE.
- The Contractor must be equipped with appropriate means to be able to move the chemicals around such as fork lifters and trailers, avoiding spills during transportation. These means of transportation could be provided by Enemalta, depending on the contract details.
- Adequate materials should be readily available for spill management and the action to be taken in case of Oil and/or Chemical Spills should include:
 - Use of appropriate PPE
 - Ensure that the necessary spill kit material is handy and used
 - Isolate source
 - Inform responsible person so he can inform the required personnel so that the spill can be contained with minor consequences.
 - Contain spill as far as possible, especially if it can go into the road or drains
 - Inform the responsible person if the spill is in the road and can cause a hazard to traffic such that he can place warning signs and advice Police to assist controlling traffic, if necessary
 - Recover spill using suitable means:
 - (i) Bucket & shovel / dustpan work well on smooth floors
 - (ii) Absorbent pads which can each absorb (approx) 1 litre
 - (iii) Sand or other oil absorbing particulates
 - Recovered chemical and absorbent material is to be dealt with as “hazardous waste”. Refer to **SOP-045 - Waste Management Procedure for Contractors**
- In case the spill occurs in the sea, the following actions must also be taken:
 - Shut down all transfer operations
 - Contain with booms (PU/PVC booms are preferred as they are reusable, whereas absorbent booms are quick to deploy but cannot be re-used after contamination)

6.3 Chemicals Usage

When using chemicals on Enemalta premises, the Contractor has to ensure that the following rules/recommendations apply:

- Wherever possible, chemicals and their compounds used shall be free from Mercury, Chromium and Zinc (refer to IPPC permits).
- Use CFC and HCFC-free sprays and products.
- Chemicals used must be REACH registered in compliance with S.L. 427.66 plus any amendments. Chemicals used must also be CLP compliant according to S.L. 427.69.
- All chemicals used are to be accompanied by the “Safety Data Sheet (SDS)”.

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- Wherever possible, the use of toxic and very toxic substances as well as carcinogenic substances shall be avoided.
- Preference should be given to products with less dangerous characteristics: for example water-based paints instead of solvent-based paints, paints without “heavy metals” (such as lead or chromium), cleaning products with a low chlorine content. The toxicity of different chemicals can be compared by checking the lethal concentration 50 percent kill (LC50) or the lethal dose 50 percent kill (LD50)
- The Contractor should ensure that any chemicals used within Enemalta premises are not stored in a damaged container/drum and that they are labelled properly.

6.4 Labelling and identifying chemicals

The Contractor should ensure that:

- All bunded areas and basins, vessels, drums or cans and pipelines containing hazardous chemicals shall be properly labelled. The label/s shall not be removed and should be replaced if damaged or faded.
- In case the container or packaging needs to be changed or substances are to be transferred to a smaller container for safer handling, the Contractor must fix a label to the new container. It must be ensured that the label is firmly affixed to the container or alternatively, the name of the hazardous chemical, as indicated in the original label, is to be clearly written directly onto the new container. Apart from the chemical name, the common name of the chemical is also to be written on the container to ensure that the container’s content is easily understood by the personnel who will be using it. Moreover, each container should depict pictograms to indicate constituent chemical properties.
- When reusing a container, it must be ensured that the original label on the old container is removed to eliminate any possibility of incorrect use of the chemical.
- When identifying containers, cans, etc. of chemicals, it must be ensured that a permanent marker is used and text is written clearly (preferably in block letters) and in an adequate font size to allow for easy identification.

6.5 Handling chemicals

All Contractor personnel handling chemicals should adhere to the following rules and recommendations:

Handler/end user should be trained in chemical handling prior any handling

Use of PPE is mandatory


The specific SDS of the chemicals are always to be consulted prior to the handling of a chemical

Chemical SDSs for each chemical being used, and safety and environmental information shall be available on site where the chemicals are being used

Mixing or pouring of chemicals should be performed on waterproof surfaces to prevent soil contamination

Handling of hazardous chemicals (transportation, change of containers, etc.) should always be kept to a minimum

Chemical containers are not to be left open and are always to be kept closed when not in use

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Mixing of hazardous chemicals should be avoided since mixing of incompatible chemicals can induce emissions of toxic gases and other dangerous reactions

The right amount of product is to be used (check product instructions to dilute chemicals)

Hazardous chemicals are never to be left unattended

6.6 Storage of chemicals

If any chemicals are to be stored on Enemalta premises for the duration of works, the Contractor must ensure that the following rules are put into practice:

It should be verified that all legal limits related to chemical storage are being met (e.g.: maximum quantities declared in the safety report submitted to the COMAH Competent Authority).

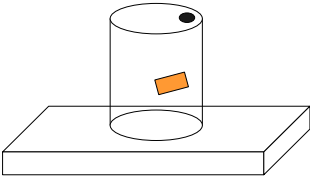
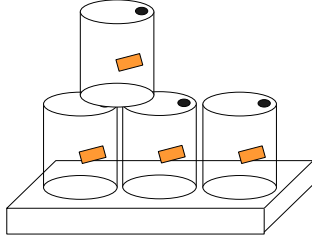
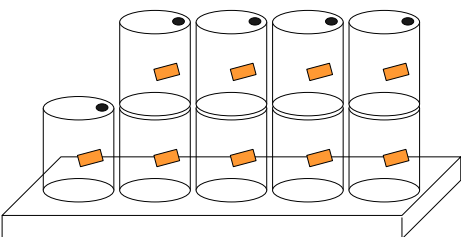
Storage areas for the chemicals are to be defined.

All dangerous chemicals must be located in the appropriate storage area unless currently in use.


Storage areas should always be bunded and covered to avoid leaching of pollutants through rainwater.

The capacity of the chemical storage basin or containment should always be the greater of the following two options:

- Either 110% of the capacity of the largest container in the bunded area (CASE 1 or CASE 2);
- Or 25% of the total volume of chemical containers in the bunded area (CASE 3)

<p>CASE 1: The capacity of the containment basin should be equal to 110% of the total capacity of the container.</p> 	<p>CASE 2: The capacity of the containing basin should be equal to 110% of one of the four containers.</p> 
<p>CASE 3: The capacity of the containing basin should be 25% of the total volume of the drums.</p> 	

Any spill occurring within the bunded storage area shall be isolated from the drainage and sewage systems. Resulting waste will be disposed of as hazardous waste as per **SOP-045 – Waste Management Procedure for Contractors:**

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It must be ensured that the capacity and characteristics of storage areas, shelves and any other device used to store chemicals are adequate for the specific operation.

Good housekeeping must be ensured in storage areas

Chemicals cannot be stored and/or located in areas such as passageways, vehicles, and so on.

It must be ensured that incompatible chemicals are segregated within the storage areas. Chemical products must be stored according to their compatibility. Acids are to be stored away from bases (such as Alkalis). Flammable products are to be stored away from all other products and especially away from potential fire hazards.

Storage areas for explosives shall be designed in such a way as to prevent hits, falls or any other potential cause of explosion and to protect the surroundings against explosions.

Chemicals should ideally not be stored under direct sunlight, in warm areas or near heat sources.

When storing chemicals, the label and SDS are to be consulted for correct storage of each substance.

Certain chemicals or substances have to be stored in well ventilated areas or at a specific humidity and temperature.

It must be ensured that all containers such as drums and their lids are in good condition, are safe to use and there is no possibility for spills or leakages.

6.7 Control and monitoring activities

The Contractor has the responsibility to:

Check periodically for correct identification, handling, use and storage of process chemicals at point-of-use;

Check periodically that all waterproof areas where chemicals are located are in good condition and that there are no surface irregularities or cracks. This is especially important for storage of large containers;

Check periodically for spills and leaks;

Check periodically on the correct use of products by his personnel and give adequate training if deemed necessary.

Visual checks shall suffice.

6.8 Abnormal conditions and emergency situations

In case of an accident or emergency such as spills, dangerous chemical reactions, etc, the Contractor shall ensure that the following recommendations are followed:


Necessary safety protection devices (gloves, glasses, etc.) are to be worn

The hazardous chemical causing the problem is to be identified

If the level of risk is acceptable, all valves are to be isolated and taps turned off in order to stop the spill from spreading further out in the accident area as well as to contain the spill as much as possible and stop it from reaching unprotected areas, such as areas which are not waterproof, sewage discharges, etc;

The Enemalta Responsible Person is to be informed so as to intervene;

The accident area is to be cordoned off;

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Given that the danger level is acceptable, appropriate materials are to be used to clean up the spill. Rags, sawdust or other combustible materials are not to be used to collect combustible agents or flammable chemicals;

Access to the area is only to be allowed when the spill has been contained, cleaned and the area is risk free.

In case of damage to a container, this is to be replaced and it must be ensured that the container is clearly and correctly identifiable and disposed of in the appropriate manner.

Proper absorbent materials should always be readily available for use close to all chemical storage and handling areas.

6.9 Documents from the Contractor

The document, **FRM-042 - Contractor's Briefing & Employee Training** is also given by the Enemalta responsible person to the Contractor who needs to sign, declaring that he has received and understood the contents of this SOP and other relevant documents, as well as committing himself to train his/her employees working on the contract, on the contents of environmental related documents. This training may be carried out in conjunction with Enemalta personnel depending on the nature and duration of the work.

7 Reference documents

SOP-045 - Waste Management Procedure for Contractors

SOP-085 - Procurement Clauses related to Enemalta/IESC Environmental and Safety Management System

FRM-042 - Contractor's Briefing & Employee Training