	File: SOP DPS 23 - Chemical Procurement Storage and Handling_r1_2015-06-19	
	Environmental Management System	Page 1 of 46


SOP DPS 23

Oil and Chemical Procurement, Storage and Handling

Revision List


Revision no.	Description	Written By/ Revised By	Date
0	First issue	N. Falzon	03.12.2010
1	Second issue	S. Scicluna, P. Conti	19.06.2015

Revised by: [Signed] P. Conti Environmental & Safety Coordinator	Verified by: [Signed] R. Briffa Capacity Planning & Dispatch Manager [Signed] J. Zammit Energy Services Manager [Signed] M. Degabriele Stores Coordinator [Signed] D. Griscti D3 Technical Manager [Signed] I. Bonello Procurement Manager	Approved by: [Signed] I. D'Amato Generation Manager [Signed] S. Scicluna Manager QA, RA, H&S and Fire
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	File: SOP DPS 23 - Chemical Procurement Storage and Handling_r1_2015-06-19	
	Environmental Management System	Page 2 of 46

Contents

1	Aim and scope	3
2	References.....	3
3	Terms and Definitions	3
4	Responsibilities.....	4
5	Operative Rules	7
5.1	Chemicals handling planning.....	7
5.2	General safety requirements	8
5.3	Chemicals Procurement	8
5.4	Labelling and identifying chemicals	10
5.5	Handling chemicals.....	11
5.5.1	General chemical handling	11
5.5.2	Handling of specific chemicals in Blk4	11
5.5.2.2	Transfer of Chemicals from the pressurized container	14
5.6	Storage of chemicals	16
5.7	Control and monitoring activities	18
5.8	Monitoring and Control of SDS	19
5.9	Abnormal conditions and emergency situations	21
5.10	Use of chemical products by third parties within Enemalta installation	22
5.11	Reporting	23
6	Documents	24
Annex 1	.....	25
Annex 2	.....	26
Annex 3	.....	28
Annex 4	.....	30
Annex 5	.....	34
Annex 6	.....	37
Annex 7	.....	40
Annex 8	.....	43
Annex 9	.....	45

	File: SOP DPS 23 - Chemical Procurement Storage and Handling_r1_2015-06-19	
	Environmental Management System	Page 3 of 46

1 Aim and scope

The objective of this SOP is to specify detailed rules, times and responsibilities related to the procurement, storage and handling of oils and chemicals (hereunder referred to as “chemicals”) at Delimara Power Station.


2 References

EN ISO 14001:04, clause 4.4.6

OHS Act 2000 – Occupational Health & Safety Authority Act 2000

3 Terms and Definitions

D3	Also referred to as Block 4 or Phase 3 Diesel engines
MRE	Responsible Engineer - Maintenance
ORE1	Responsible Engineer - Operations Phase 1 and Phase 2B
ORE2	Responsible Engineer – D3
PMO	Plant Maintenance Officer
MP	Maintenance Personnel
GO	Generation Officer responsible for Phase1 (turbine or boiler) and Phase 2B
SO	Senior Operator (includes phase 1 boiler or turbine auxiliaries operator or Phase 2B auxiliaries operator)
D3 SO FOT	D3 FOT Area Senior Operator
D3 SO AB	D3 Senior Operator Abatement Area
D3 GO	D3 Generation Officer
SOP	Standard Operating Procedure
ER	Environment Representative
H&S	Health and Safety
HSE	Health, Safety and Environment
HPD	Heavy Plant driver

	File: SOP DPS 23 - Chemical Procurement Storage and Handling_r1_2015-06-19	
	Environmental Management System	Page 4 of 46

SDS	Safety Data Sheet
DPS	Delimara Power Station
PPE	Personal Protective Equipment
COMAH	Control of Major Accident Hazard
IPPC	Integrated Pollution Prevention and Control
HFO	Heavy Fuel Oil
EWC	European Waste Catalogue
REACH	Registration, Evaluation, Authorization and Restrictions of Chemicals
SBC	Sodium Bicarbonate
FOT	Fuel Oil Transfer
DCS	Distributed Control System

4 Responsibilities

Responsible Engineer (MRE) - Maintenance


- Ensures that chemicals are labelled and placed on location according to this SOP
- 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

Responsible Engineer (ORE1 and ORE2) - Operations

- Regularly monitors and controls the use of the processes related chemicals in the station according to this SOP as directed by the Chemist

Plant Maintenance Officer (PMO)

- Receives and executes instructions from the MRE
- Coordinates the handling and transportation of chemicals from one location to another within Delimara Power Station

	File: SOP DPS 23 - Chemical Procurement Storage and Handling_r1_2015-06-19	
	Environmental Management System	Page 5 of 46

Maintenance Personnel (MP)

- Carry out handling of chemicals from one location to another
- Responsible to store and place chemicals on site, under the supervision of the Stores Officer or PMO

Generation Officer (GO)

- Receives and executes instructions from the ORE 1
- Coordinates the handling and dosing of chemicals within DPS as regards Phase1, Phase2B, CWP area, DM plant and CWP area chemical store.

D3 Generation Officer – (D3 GO)

- Receives and executes instructions from the ORE 2
- Supervises handling procedure of Urea and SBC unloading and coordinates the handling and dosing of the other chemicals associated with BLK 4

Senior Operator (SO)


- Monitors availability of chemicals in operation within Phase1, Phase2B, Phase3 (D3), CWP area, DM plant and CWP area chemical store depending on his area of operations
- Handles chemicals to perform necessary tasks (including dosing) within DPS as directed by the GO

D3 FOT Senior Operator Area (SO FOT)

- Supervise handling procedure of Urea and SBC unloading

D3 Abatement Area Senior Operator (D3 AB SO)

- Monitors availability of chemicals in operation in BLK 4
- Handles chemicals to perform necessary tasks (including dosing) by the D3 GO

	File: SOP DPS 23 - Chemical Procurement Storage and Handling_r1_2015-06-19	
	Environmental Management System	Page 6 of 46

Stores Officer/ Stores Manager

- Monitors and controls the supply, handling and proper storage of chemicals in Stores
- Monitors and controls the provision of their respective SDSs as described in this SOP
- Supervises the appropriate placement of received chemicals from supplier at Enemalta plc Stores

Chemist

- Responsible for the up-keep of the 'Chemical Register' as defined in this SOP
- Regularly updates the SDSs of chemicals included in the register when these are superseded and forwards any updates or changes to the H & S Responsible Officer

HSE Responsible Officer


- Responsible for maintaining the Controlled SDS Documents Database and the proper timely distribution of SDSs
- Responsible for regular checks required in the implementation of this SOP
- Responsible for the site inspection of chemical and their corresponding SDSs in all DPS Stores and other locations marked on the following drawings, at least twice annually:
 - Annex 1 - DPS/XZ/0143 –Phase 1 and Phase 2B Chemical Data Sheets, Injection and Storage Points
 - Annex 2 - DPS/XZ/0145 - D3 Chemical Data Sheets, Injection and Storage Points
 - Annex 3 - DPS/XZ/0092 - Location of Chemical and Oil Stores
- Ensures that the latest copies of SDSs are sent to the Portal Coordinator to update the SDS folder on the Enemalta Intranet Portal

Heavy Plant Driver (HPD)

- Operates Mafi, Terex trucks and forklifters to handle Urea ,SBC and waste containers as required by D3 Operations
- Receives instructions from D3 GO

All employees

- Act in accordance to the requirements of this SOP.

	File: SOP DPS 23 - Chemical Procurement Storage and Handling_r1_2015-06-19	
	Environmental Management System	Page 7 of 46

5 Operative Rules

The ORE's, MRE and/or the Stores Officer/Manager are responsible to ensure that the pertaining parts of these procedures are followed when handling chemicals.

This procedure 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 that these chemicals might pose to human beings as well as to the environment. Refer to drawings:


- Annex 1 - DPS/XZ/0143 – Location of Phase 1 and Phase 2B Chemical Data Sheets and Chemical Injection and Storage Points
- Annex 2 - DPS/XZ/0145 - Location of Block 4 Chemical Data Sheets and Chemical Injection and Storage Points
- Annex 3 - DPS/XZ/0092 - Location of Chemical and Oil Stores

These drawings are available on the Enemalta Intranet Portal at location:

[Documents/Environmental Management System \(EMS\)/Drawings/DPS](#)

5.1 Chemicals handling planning

- The person in charge of 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 (SDS) 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 PMO must ensure the availability of competent personnel.
- Personal Protective Equipment (PPE), adequate means of transportation and spill control materials must be provided.

	File: SOP DPS 23 - Chemical Procurement Storage and Handling_r1_2015-06-19	
	Environmental Management System	Page 8 of 46

5.2 General safety requirements

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

- MP assigned should be trained in chemical handling and spill management.
- The PMO must ensure that adequate manpower is assigned to the task in order to carry out the job safely.
- PMO has to ensure that the competent personnel are provided with the appropriate PPE.
- MPs must be given appropriate means to be able to move the chemicals around such as fork lifters and trailers. MPs must avoid spills during transportation.
- Adequate materials should be readily available for spill management and the Action to be taken in case of Oil and/or Chemical Spills defined in the **EP 1 - DPS Emergency Plan** is initiated. This document is available on the Enemalta Portal at location:

[Documents/Emergency Plans/](#)


- The MRE and/or ORE's are to be informed accordingly and an **Incident/Exercise Report Form**, available on the Enemalta Portal at the location below, compiled:

[Documents/Environmental Management System \(EMS\)/EMS Forms/Incident/Exercise Report Form](#)


5.3 Chemicals Procurement

When purchasing chemicals by direct order or by tender, the purchasing officer (Engineer, Procurement Officer, Chemist and Stores Officer) has to ensure that the following rules/recommendations apply:

- Wherever possible, chemicals and their compounds shall be purchased free from Mercury, Chromium, and Zinc (refer to IPPC permits).
- CFC and HCFC-free sprays and products should be chosen.
- Chemicals must be REACH registered in compliance with S.L. 427.66 plus any amendments. Tenderer must submit the registration details and certificate/documentation of the chemical being purchased. If a supplier does not yet possess a certificate showing that a substance has been registered because the chemical has not yet been issued with a certificate, the officer should request a confirmation letter proving that the substance is in the process of being registered.

	File: SOP DPS 23 - Chemical Procurement Storage and Handling_r1_2015-06-19	
	Environmental Management System	Page 9 of 46

- Chemicals must also be CLP compliant according to S.L. 427.69.
- When a new hazardous or non hazardous chemical is needed or a new product is proposed by a supplier, Enemalta Procurement Section shall ask the supplier to send the “Safety Data Sheet (SDS)” prior to adjudication. If necessary, procurement may consult with the Health and Safety responsible person and the Environmental Coordinator (or with the Environmental representative) to check for any health, safety and environmental aspects. A chemical risk assessment should also be carried out and forwarded to the Health & Safety Office for vetting and filing.
- Furthermore, the officer who intends to purchase a chemical already in use must ask for the latest updated SDS of the particular chemical at the quotation/tendering stage prior to the purchase of the chemical and the bidder must supply it. Only offers that are accompanied by the relevant SDS sheet will be considered.
- When chemicals are purchased through a purchase order, the Stores Officer is to ensure that the latest updated SDS is supplied with the goods.
- The supplier should be informed that he is obliged to supply Enemalta with any updates:
 - (a) as soon as new information which may affect the risk management measures, or new information on hazards becomes available
 - (b) once an authorization has been granted or refused
 - (c) once a restriction has been imposed
- The new, dated version of information, identified as ‘Revision: (date)’, shall be provided free of charge on paper or electronically to Enemalta within the preceding 12 months. Any updates following registration shall include the registration number.
- Wherever possible, buying toxic and very toxic substances as well as carcinogenic substances should 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)

	File: SOP DPS 23 - Chemical Procurement Storage and Handling_r1_2015-06-19	
	Environmental Management System	Page 10 of 46


- Suppliers are to be asked to forward any information related to new products that are less dangerous and that could be better suited for the application in the future.
- Chemicals with container/drum that are damaged or not labelled properly or unidentified products are not to be accepted.
- Before buying more products, it must be ensured that any legal limit (for example the total quantity that can be stored) is not exceeded.

5.4 Labelling and identifying chemicals

A list of chemicals currently being used at Enemalta can be extracted from SAP®. The persons responsible for the handling and storage of chemicals shall ensure that the following rules are put in place:

- All bunded areas and basins, vessels, drums or cans and pipelines containing dangerous 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, Enemalta personnel 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 dangerous 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 or trade 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 handling it. Moreover, each container should depict pictograms to indicate constituent chemical properties. The original label on the old container is to be removed from the old container to eliminate any possibility of incorrect use of the container.
- When identifying containers, cans, etc. of chemicals, it is to 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.

Whenever any of the above listed rules are not followed, the personnel who have identified the non-conformity should inform the person responsible for that chemical or site of this so that the latter will take proper corrective action to address it.

	File: SOP DPS 23 - Chemical Procurement Storage and Handling_r1_2015-06-19	
	Environmental Management System	Page 11 of 46

5.5 Handling chemicals

5.5.1 General chemical handling

All 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 is 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 impermeable 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.
- Mixing of dangerous 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).
- Dangerous chemicals are never to be left unattended.

5.5.2 Handling of specific chemicals used only in D3

5.5.2.1. Unloading, storage and re-loading of Urea and SBC pressurized containers:

- Urea and SBC are brought inside the plant in pressurized containers as shown in Figure1 below.

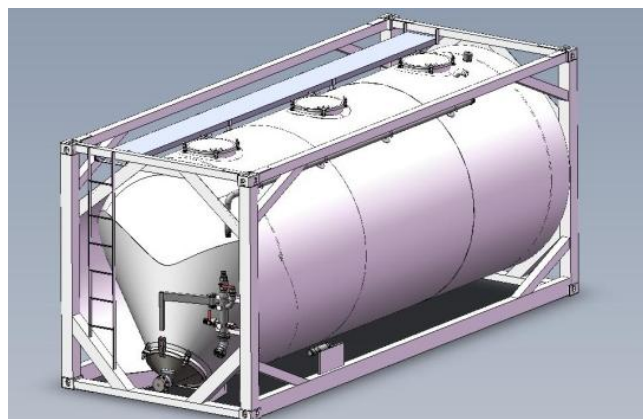


Figure 1: Pressurized container storing Urea and SBC

- The pressurized containers are brought inside the plant by private contractors and after being weighed are stacked by the TEREX vehicle and stored inside the yard (in the FOT Area shown in Figure 2) as shown in Figure 3 and Figure 4.

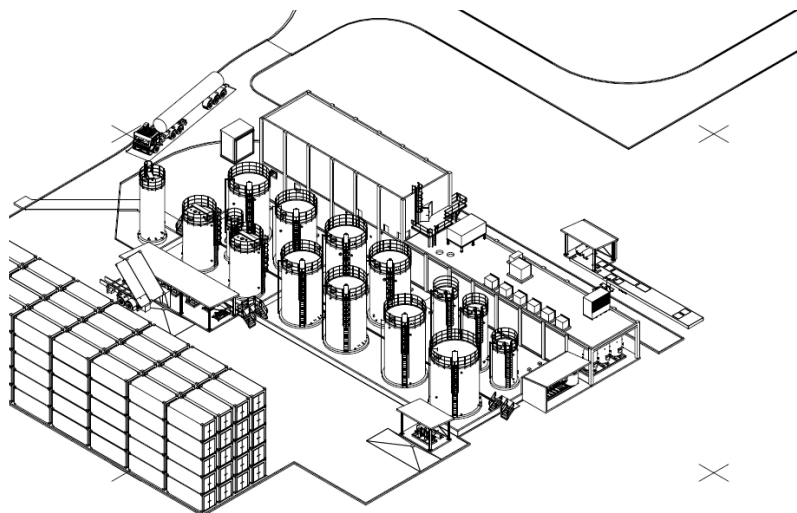


Figure 2: FOT Area



Figure 3: Storage of pressurized container in yard

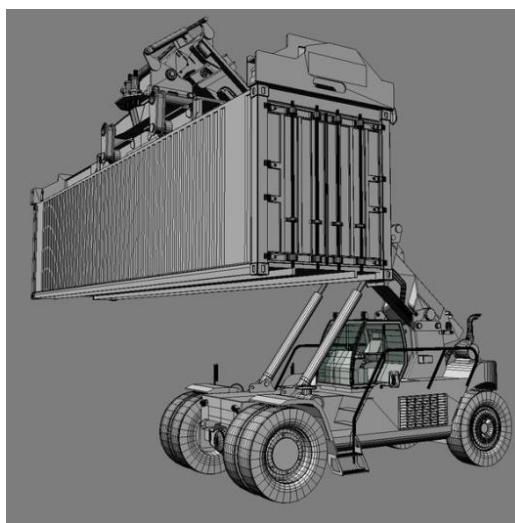



Figure 4: TEREX vehicle

- When chemical Urea injection or SBC silo top-up is required the container is again transported by the TEREX vehicle (shown in Figure 4) and placed on the MAFI vehicle. Weighing is again carried out.

	File: SOP DPS 23 - Chemical Procurement Storage and Handling_r1_2015-06-19	
	Environmental Management System	Page 13 of 46

- The Senior Operator responsible for the FOT area of D3 (D3 FOT SO) together with the Heavy Plant Driver should at all time supervise the above handling procedure. They should ensure that when the Contractor's trailer arrive on the weigh bridge with the container :
 - The contractor's driver must follow the traffic directions and speed limits imposed in the station.
 - The container is properly placed on the trailer.
 - All the container's manholes and valves are closed properly and there is no chemical leakage from any part of the container.
 - The container is properly labelled so as to indicate which of the two chemicals it contains.
- When the container is being removed from the trailer by the TEREX vehicle they should ensure that:
 - The TEREX is in good working condition.
 - The employee driving the TEREX is a trained and fully licensed person.
 - The container is placed in the spaces reserved for the particular chemical and can be placed on top of similar containers as shown in Figure 3. In such cases, it must be ensured that the pressurized container is placed correctly on the container below it and that it is not stacked too high to be easily handled by the TEREX when the chemical needs to be used.
 - Should ensure that no person is in the vicinity of the TEREX while it is operating.
- When the Urea is going to be injected or the SBC is going to be transferred inside the silos, the containers are transported to the relevant site from the storage yard by the MAFI truck after the container is place on the MAFI truck by the TEREX. They should ensure that:
 - The MAFI truck is driven by a trained and fully licensed employee and that it is driven safely within the speed limit of the station.
 - The container is properly placed on the MAFI.


	File: SOP DPS 23 - Chemical Procurement Storage and Handling_r1_2015-06-19	
	Environmental Management System	Page 14 of 46




Figure 5: MAFI and TEREX

5.5.2.2 Transfer of Chemicals from the pressurized container

5.5.2.2.1 Urea

- Urea in granules is mixed with water in the FOT area before being injected to the diesel engines exhaust system. The mixture is stored in the relevant tank found in the FOT area. The transfer of the urea powder from the pressurized container to the mixing tank is conducted with the pressurized container still on the MAFI truck. The container will be lifted and inclined from front to back to ensure proper unloading and thus, the Heavy Plant Driver and the D3 FOT SO must ensure that:
 - The MAFI truck lifting mechanism is working properly. They must check for any hydraulic leakages etc.
 - The MAFI trailer and truck is properly chained to the relevant holding rings found bolted to the ground. Also they must ensure that the MAFI stabilizers are pulled out and properly placed.
 - The flexible piping from the pressurized container to the urea unloading manifold and the compressed air pipe are properly connected and no leakages are present.
 - All personnel are equipped with the necessary PPE.
 - All personnel are aware of the chemical data sheet contents and that it is readily available.
 - The urea unloading area is properly labelled as regards the chemical routes and safety wear required.

	File: SOP DPS 23 - Chemical Procurement Storage and Handling_r1_2015-06-19	
	Environmental Management System	Page 15 of 46


- The storage tanks involved are properly labelled
- The storage tanks, manifolds and piping are leak free.
- The area is left free from chemical spillage.

5.5.2.2.2 SBC

- SBC transferred from the pressurized containers to one of the two SBC day silos. The transfer of the SBC powder from the pressurized container is conducted while the pressurized container is still on the MAFI trailer. Since the container needs to be tilted from front to back for proper unloading, the Heavy Plant Operator and the D3 AB SO must ensure that:
 - The MAFI truck lifting mechanism is working properly and must also check for any hydraulic leakages etc.
 - The MAFI trailer and truck is properly chained to the relevant holding rings found bolted to the ground. They must also ensure that the MAFI stabilizers are extended and properly placed on the ground.
 - The flexible piping from the pressurized container to the Urea unloading manifold and the compressed air pipe are properly connected and no leakages are present.
 - All personnel are equipped with the necessary PPE.
 - All personnel are aware of the chemical data sheet contents and that it is readily available.
 - The SBC unloading areas are properly labelled as regards the chemical routes and safety wear required.
 - The area is left free from chemical spillage.

5.5.2.2.2 Lube Oil

- The 8 diesel engines require constant topping up of the lube oil sumps. Hence the plant is regularly supplied with lube oil consignments. These consignments are delivered in by a private contractors' road tanker (bowser) and are unloaded to the relevant tank inside the FOT area. The road tanker (bowser) should first be weighed on the weigh bridge and then proceeds to be unloaded in the storage tank.

	File: SOP DPS 23 - Chemical Procurement Storage and Handling_r1_2015-06-19	
	Environmental Management System	Page 16 of 46

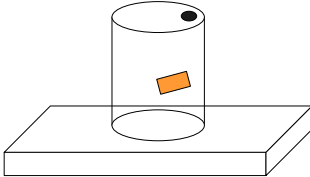
- The D3 GO and the D3 FOT SO must ensure that:
 - the bowser is driven within the speed limits of the plant.
 - the bowser is free from any leakages and is equipped with the necessary safety equipment.
 - spillage material is available.
 - the bowser is properly connected to the tank through a flexible pipe of the right specifications.
 - the operators wear all the PPE required for oil handling.
 - fire-extinguishers and other fire fighting equipment are readily available.
 - the unloading area is left free from any spillages.
 - the unloading must be inspected at all times both from the control room and locally.

5.6 *Storage of chemicals*

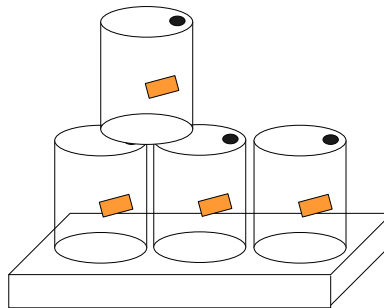
Persons responsible for the storage of chemicals (Stores Officers, PMO, MRE, ORE's) shall ensure that the following rules are put into practice:

- 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 chemicals are to be defined and it should be ensured that their respective personnel are informed of the practices as indicated in this SOP. 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).

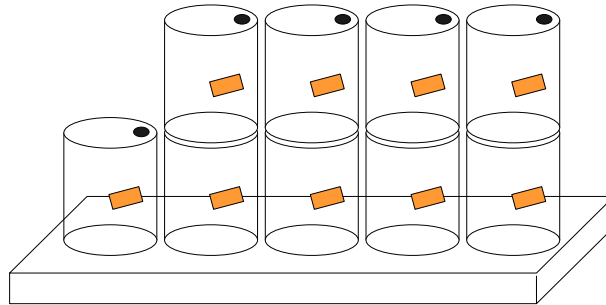
CASE 1: The capacity of the containment basin should be equal to 110% of the total capacity of the container.




CASE 2: The capacity of the containing basin should be equal to 110% of one of the four containers.



CASE 3: The capacity of the containing basin should be 25% of the total volume of the drums.



- 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 follows:
 - Contaminated absorbent pads under waste code 15 01 02*;
 - Contaminated aqueous liquid (if any) (Refer to Regulation 200/532/EC)
- 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 at all times.
- 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.
- Ideally, chemicals should not be stored under direct sunlight, in warm areas or near heat sources.


	File: SOP DPS 23 - Chemical Procurement Storage and Handling_r1_2015-06-19	
	Environmental Management System	Page 18 of 46

- When storing chemicals, the label and SDS provided by the supplier 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.
- MPs must first remove any empty chemical containers or bags from the site where the new containers are to be stored. These must be disposed of Hazardous Waste under EWC code 15 01 10 *.
- Whenever necessary, MPs are to connect the new chemical containers and check for any damages and/or leakages prior to leaving the site. They must inform the PMO if any mishaps have occurred, who in turn should report the incident using the **Incident/Exercise Report Form**, available on the Enemalta Portal at the location below:
[Documents/Environmental Management System \(EMS\)/EMS Forms/ Incident/Exercise Report Form](#)
- Chemicals which are no longer in use or whose information on the application or use is unavailable should be stored segregated from used chemicals and disposed of as hazardous waste as soon as possible.

5.7 Control and monitoring activities

The Operations REs for Delimara Power Station have the responsibility to:

- Check periodically for correct identification, handling, use and storage of process related 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;


	File: SOP DPS 23 - Chemical Procurement Storage and Handling_r1_2015-06-19	
	Environmental Management System	Page 19 of 46

- Check periodically on the correct use of products by Enemalta operations personnel. If necessary, the Operations RE shall request to Enemalta Training Section that personnel undergo the required specific training;
- The Stores Officer shall conduct monthly checks within the storage areas, as indicated in **Annex 7 – Template 23.4 - Chemicals Stores and Lube Oil Stores**, performing and recording the checks included in the said template. This is to be endorsed by the designated HSE Officer every six months.
- Visual checks shall suffice;
- Checks shall be done weekly and recorded in:
 - **Annex 4 – Template 23.1 - Phase 1 - Turbines and Boilers**
 - **Annex 5 – Template 23.2 - Phase 2B**
 - **Annex 6 – Template 23.3 – CWP Area**
 - **Annex 8 – Template 23.5 – DM Plant Area**
 - **FRM 2.1 - DPS Phase 3 Weekly Checklist (HFO, DO, Sludge, LO, SBS, Residual) for Areas 9, 10 and 11**


5.8 Monitoring and Control of SDS

DOC 1 – Tender Clauses related to Enemalta Environmental Management System clearly indicates that all relevant chemicals are to be accompanied by an SDS. It is important to ensure that the following procedure is implemented:

- When new chemicals are required the procedure stated in Clause 5.3 - Chemicals Procurement needs to be followed.
- The Chemist is responsible for the Chemical Register which is a register of all chemicals used in the plant. All chemicals listed in this register require an SDS.
- The Stores Officer is to ensure that all chemicals arriving at the Enemalta plc Stores are accompanied by an SDS. In the event that an SDS is not submitted, the Stores Officer is to contact the supplier to submit the SDS. The SDS is to be forwarded to the Chemist and the Stores Officer will keep a copy of the SDS, stamped “unofficial” in a file. This file is to be stored in the Stores and marked as “unofficial”. The responsible HSE Officer will pick the file contents every month to ensure the official SDS versions are the latest.

	File: SOP DPS 23 - Chemical Procurement Storage and Handling_r1_2015-06-19	
	Environmental Management System	Page 20 of 46

- The Chemist is to update the Chemical Register indicating clearly the date and version of the SDS.
- The Chemist is to forward all SDSs to the responsible HSE Officer. SDSs are to be organized by scientific/brand name and active ingredient.
- The responsible HSE Officer is to place the SDSs on site and inform the Station Manager of the location of these SDSs.
- The responsible HSE Officer is responsible for distribution of the SDSs. The SDSs will be distributed as follows:
 - (i) **On the Portal.** These can be found on the following link [Document/Environmental Management System/Safety Data Sheets/Safety Data Sheets \(SDSs\)/Delimara Power Station](#) , with chemicals listed in alphabetical order according to the scientific/brand name followed by the active ingredient.
 - (ii) At the **Stores** where the chemical is kept
 - (iii) To the **Security Guards** and **Maintenance Workshop**
 - (iv) To the **HSE Officers' offices**
- The HSE Responsible Officer is to ensure that inspections are carried out according to drawings **DPS/XZ/0143**, **DPS/XZ/0145** and **DPS/XZ/0092** to ensure that the distribution and placement of the SDSs has been effective. The HSE Responsible Officer is also to carry out diurnal checks of all chemicals and their corresponding SDSs in locations 1 to 19 according to his template **Annex 9 – Template 23.6 - SDS Site Checklist (DPS)**
- Every year, the Stores Manager is to forward a list extracted from SAP® of the chemicals in stock to the Chemist. The Chemist will review the list and update the Chemical Register. If chemicals have been exhausted, they are to be removed from the list. If new chemicals are in use and require an SDS, the Chemist is responsible for obtaining the SDS. The SDS will then be distributed to the HSE Responsible Officer and the procedure above is to be followed.
- When all stock of a chemical is exhausted and will no longer be purchased, the Health & Safety officer, in consultation with the Station Manager, Stores Manager and Chemist, shall inform the Enemalta Portal administrator to remove the SDS from the Enemalta Intranet Portal. Records of these obsolete SDSs are maintained by the HSE Responsible Officer.

	File: SOP DPS 23 - Chemical Procurement Storage and Handling_r1_2015-06-19	
	Environmental Management System	Page 21 of 46


5.9 *Abnormal conditions and emergency situations*

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

- Necessary safety protection devices (gloves, glasses, etc.) are to be worn;
- The dangerous chemical causing the problem is to be identified;
- The Emergency Response Team is to be informed so as to intervene;
- If the level of risk is acceptable, all valves are to be isolated in order to stop the spills 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 accident area is to be cordoned off;
- 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.
- Proper absorbent materials should always be readily available for use close to all chemical storage and handling areas.

Any accidents should be recorded by the person reporting together with the Engineer in the **Incident/Exercise Report Form**, which is available on the Enemalta Portal at location:

[Documents/Environmental Management System \(EMS\)/EMS Forms/Incident/Exercise Report Form](#)

	File: SOP DPS 23 - Chemical Procurement Storage and Handling_r1_2015-06-19	
	Environmental Management System	Page 22 of 46

5.10 Use of chemical products by third parties within Enemalta installation

The good practices listed in this SOP must be followed by any other party which handles and uses dangerous chemicals within Enemalta installations and working areas. Particularly, this means that providers/contractors must adopt the same behaviour of Enemalta personnel when using chemical products within Enemalta. The guidelines for contractors relating to environmental concerns are stated in **DOC 1 – Tender Clauses related to Enemalta Environmental Management System** which is supplied in all tenders.


When the contract becomes effective, the responsible engineer is to provide the contractor with the following documents:

- **DOC 12 – DPS Briefing Document for Contractors and Visitors**
- **SOP DPS 23 - Oil and Chemical Procurement, Storage and Handling**
- **SOP MPS 29 – Waste Management Procedure**
- **DOC 2 - Contractor's Briefing & Employee Training** which the contractor needs to sign, declaring that he has received and understood the contents of the above mentioned 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 plc personnel depending on the nature and duration of the work.

DOC 1, DOC 2 and DOC 11 are available on the Enemalta Portal at location:

[Documents/Environmental Management System \(EMS\)/Contractors](#)

The Responsible Engineer shall make sure 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 Enemalta plc's practices shall be remedied immediately.

	File: SOP DPS 23 - Chemical Procurement Storage and Handling_r1_2015-06-19	
	Environmental Management System	Page 23 of 46

5.11 Reporting

In the case of an incidental chemical spill, the person reporting together with his responsible Engineer shall submit an **Incident/Exercise Report Form**. A copy of this report shall be handed over to the Station managers, Risk Officer and Environmental Coordinator for further action.


The following forms are to be filled in weekly by the Operations ORE. Once a month the Operations ORE is to forward the original copy to the Operations Manager and retain a copy for reference.

- **Annex 4 – Template 23.1 - Phase 1 - Turbines and Boilers**
- **Annex 5 – Template 23.2 - Phase 2B**
- **Annex 6 – Template 23.3 – CWP Area**
- **Annex 8 – Template 23.5 - DM Plant Area**

The form, **Annex 9 – Template 23.6 – SDS Checklist** is to be filled in by the HSE Responsible every 6 months and is to be stored at the HSE Officers' office, and a copy forwarded to the Environmental Coordinator and to the Station Manager.

Annex 7 - Template 23.4 - Chemicals Stores and Lube Oil Stores is to be filled in monthly by the Stores Officer, endorsed six-monthly by the HSE Responsible Officer and the original copy is to be forwarded to the Stores Manager a copy retained for reference.

FRM 2.1 is to be updated on weekly basis by the ORE2 and forwarded to the Operations Manager.

	File: SOP DPS 23 - Chemical Procurement Storage and Handling_r1_2015-06-19	
	Environmental Management System	Page 24 of 46

6 Documents

DPS/XZ/0143

DPS/XZ/0145

DPS/XZ/0092

SOP DPS 29 - Waste Management Procedure

DOC 1 – Tender Clauses related to Enemalta Environmental Management System


DOC 2 – Contractor's briefing document

DOC 12 - DPS Briefing Document for Contractors and Visitors

Incident/Exercise Report Form

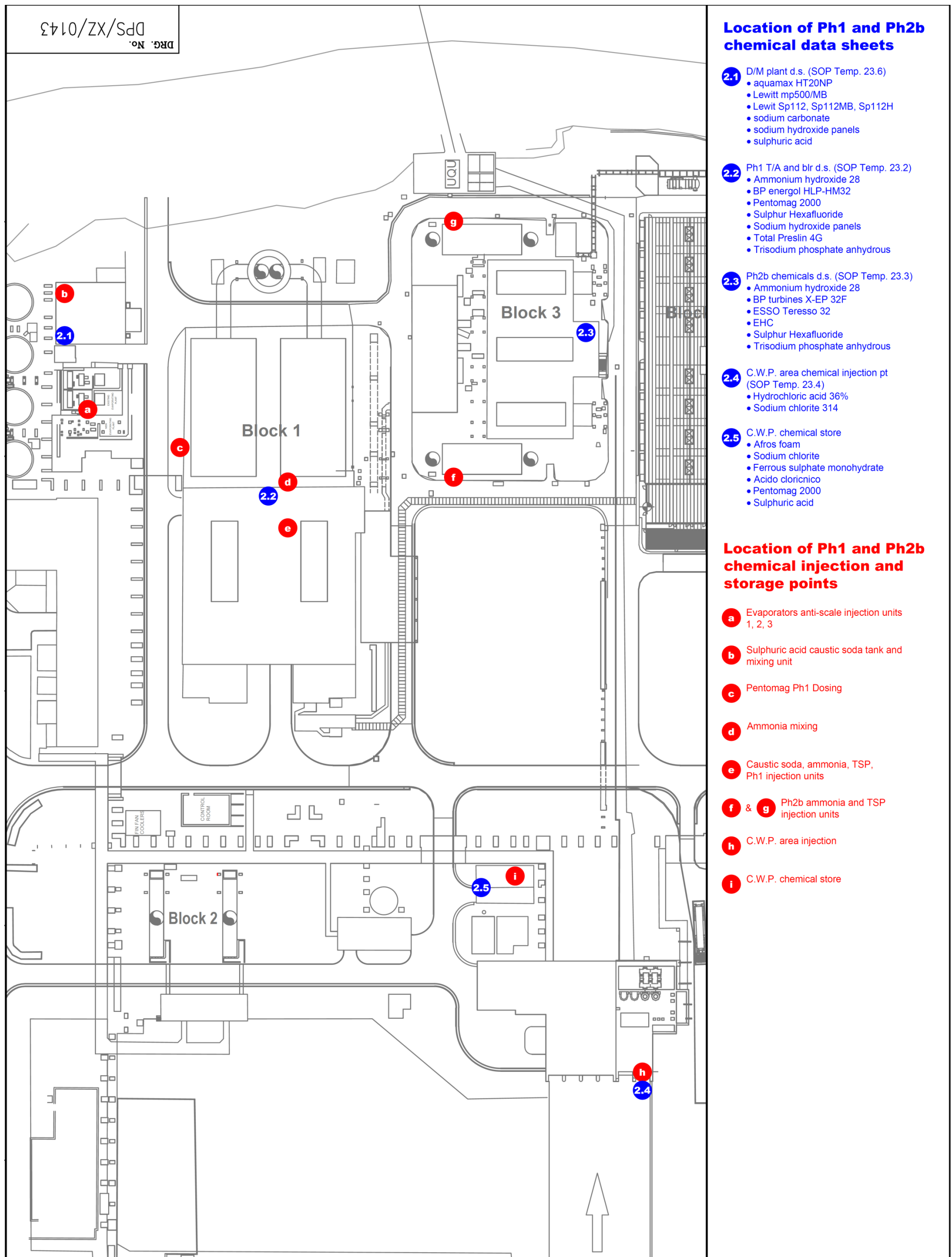
Chemical Register


FRM 2.1 - DPS Phase 3 Weekly Checklist (HFO, DO, Sludge, LO, SBS, Residual) for Areas 9, 10 and 11

	File: SOP DPS 23 - Chemical Procurement Storage and Handling_r1_2015-06-19	
	Environmental Management System	Page 25 of 46

Annex 1

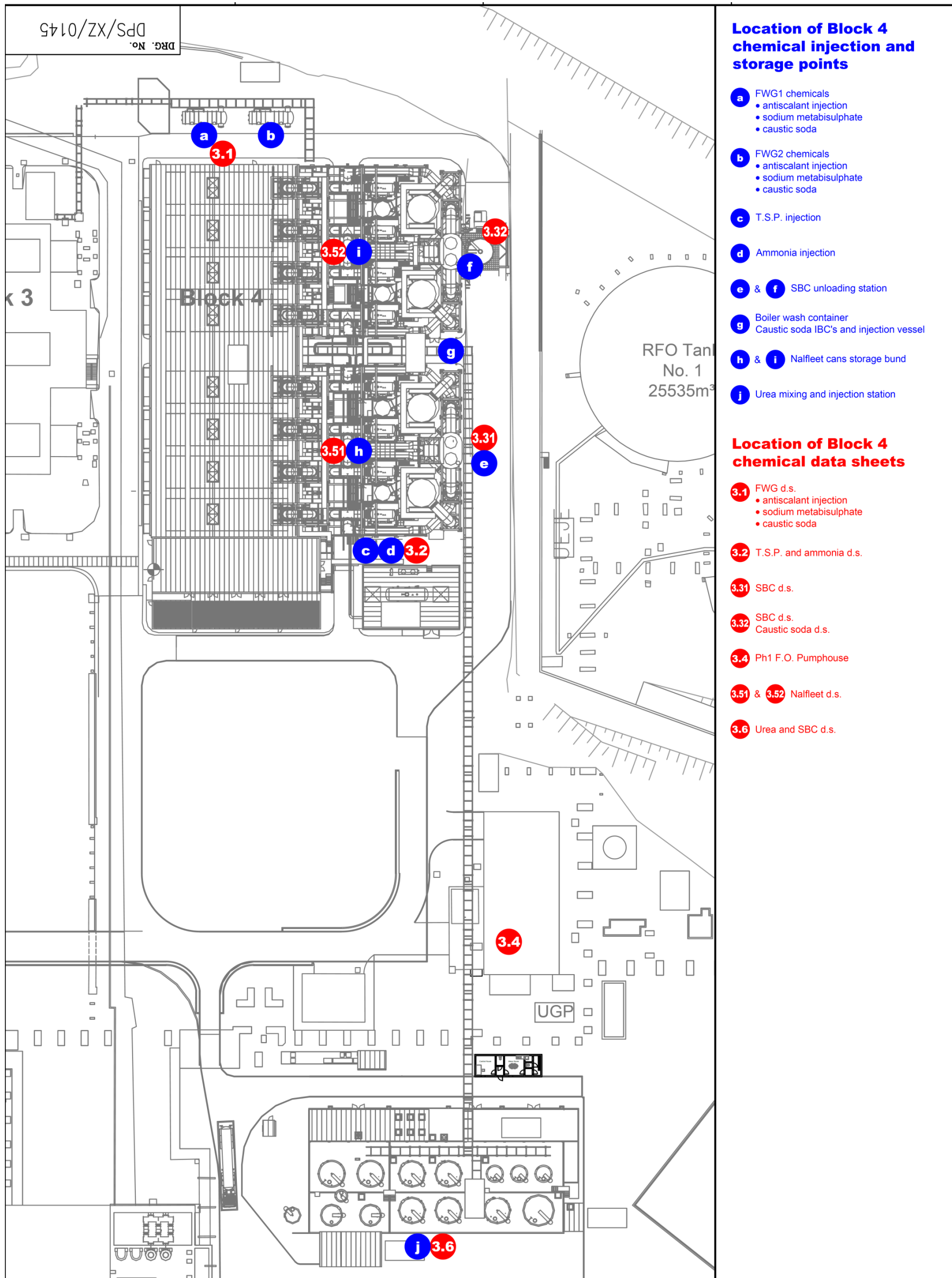
DPS/XZ/0143 - Phase I and Phase 2B Chemical Data Sheets, Injection and Storage Points




	File: SOP DPS 23 - Chemical Procurement Storage and Handling_r1_2015-06-19	
	Environmental Management System	Page 27 of 46

Annex 2

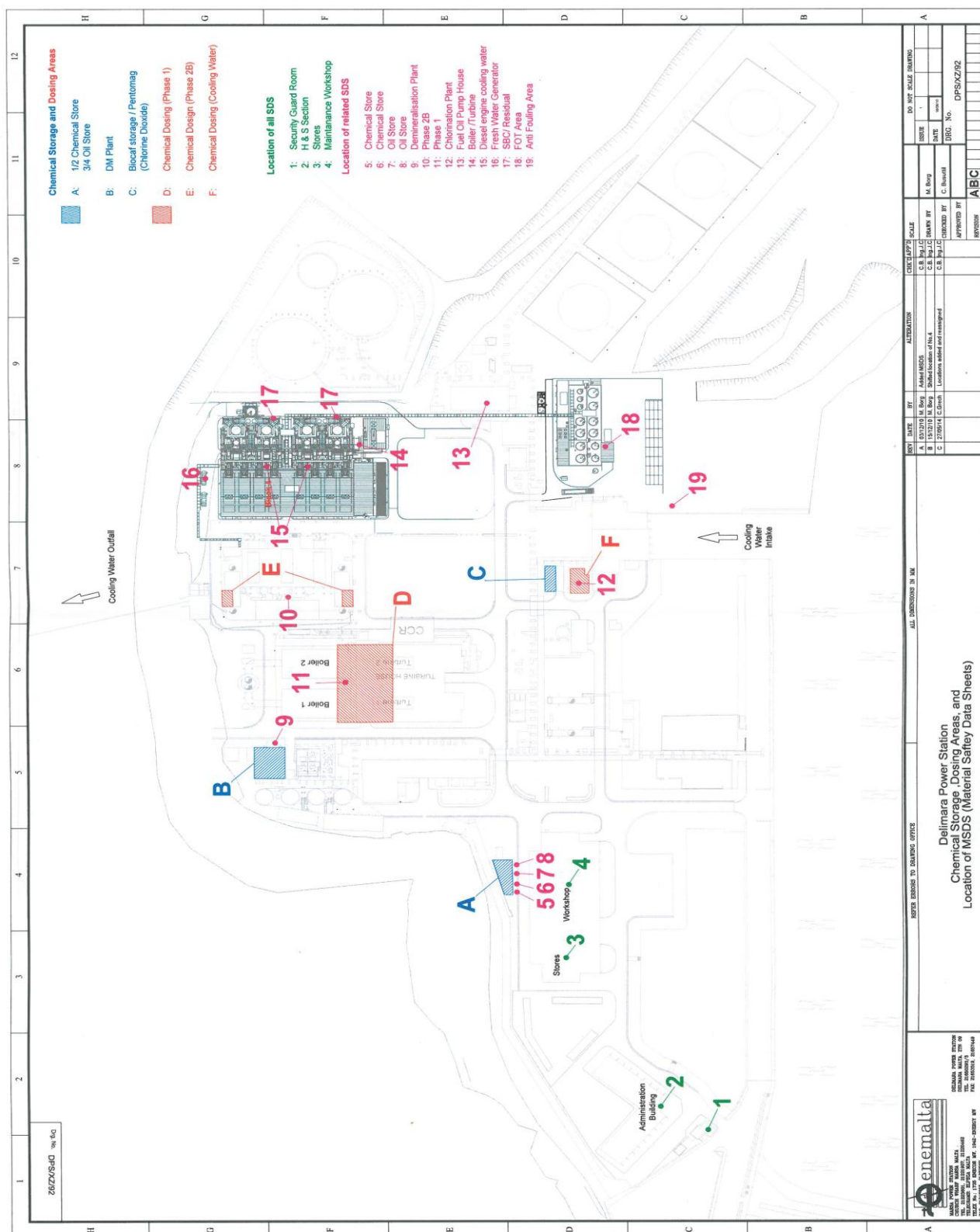
DPS/XZ/0145 – Block 4 Chemical Data Sheets, Injection and Storage Points




	File: SOP DPS 23 - Chemical Procurement Storage and Handling_r1_2015-06-19	
	Environmental Management System	Page 29 of 46

Annex 3

DPS/XZ/0092



	File: SOP DPS 23 - Chemical Procurement Storage and Handling_r1_2015-06-19	
	Environmental Management System	Page 31 of 46


Annex 4

Template 23.1 - Phase 1 - Turbine and Boilers - Chemical Handling - Weekly Monitoring

Week: _____

Chemical Dosing Skids	HP Dosing		LP Dosing		GSCW Dosing	
	Yes	No	Yes	No	Yes	No
Is skid and/or container properly labelled?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are the appropriate warning and instruction signs in place?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is container damaged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are all covers in place?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is there any evidence of leaks on pumps and piping?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is there any evidence of leaks from bund or its drain?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are the bunds clean and empty?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are drain valves or drain taps closed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the chemical's latest version of SDS accessible?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are the chemical's supply bags in closed container?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the nearby safety shower fully functional?						
Are the recommended PPE being used during handling?						
Is spill clean-up material and equipment accessible?						

[illegible]

	File: SOP DPS 23 - Chemical Procurement Storage and Handling_r1_2015-06-19	
	Environmental Management System	Page 33 of 46

Template 23.1 - Phase 1 - Turbine and Boilers - Chemical Handling - Weekly Monitoring (pg 2 of 2)


180 Ltr Ammonia Reserve Tanks	GSCW Dosing	
	Yes	No
Are containers properly placed above bunds?	<input type="checkbox"/>	<input type="checkbox"/>
Are there any leaks from container?	<input type="checkbox"/>	<input type="checkbox"/>
Are containers properly sealed?	<input type="checkbox"/>	<input type="checkbox"/>
Are containers properly labelled?	<input type="checkbox"/>	<input type="checkbox"/>
Are there any leaks from containment bund and its drain?	<input type="checkbox"/>	<input type="checkbox"/>
Are bunds clean and empty?	<input type="checkbox"/>	<input type="checkbox"/>
Are drain valves or drain taps closed?	<input type="checkbox"/>	<input type="checkbox"/>
Is the chemical's latest version of SDS accessible?	<input type="checkbox"/>	<input type="checkbox"/>

Boiler' MgO dosing skid		
	Yes	No
Is skid and/or container properly labelled?	<input type="checkbox"/>	<input type="checkbox"/>
Are the appropriate warning and instruction signs in place?	<input type="checkbox"/>	<input type="checkbox"/>
Is the IBC properly placed above secondary containment?	<input type="checkbox"/>	<input type="checkbox"/>
Is container damaged?	<input type="checkbox"/>	<input type="checkbox"/>
Are all covers in place?	<input type="checkbox"/>	<input type="checkbox"/>
Is there evidence of leaks on pumps and piping?	<input type="checkbox"/>	<input type="checkbox"/>
Is the pumps' drip-tray clean?	<input type="checkbox"/>	<input type="checkbox"/>
Is the bunds' drain valve or plug closed?	<input type="checkbox"/>	<input type="checkbox"/>
Are bunds clean and empty?	<input type="checkbox"/>	<input type="checkbox"/>
Is the chemical's latest version of SDS accessible?	<input type="checkbox"/>	<input type="checkbox"/>

Comments:


Date: _____

Engineer's Signature: _____

	File: SOP DPS 23 - Chemical Procurement Storage and Handling_r1_2015-06-19	
	Environmental Management System	Page 34 of 46

Annex 5

Template 23.2 - Phase 2B - Chemical Handling - Weekly Monitoring


	File: SOP DPS 23 - Chemical Procurement Storage and Handling_r1_2015-06-19	
	Environmental Management System	Page 35 of 46

Template 23.2 - Phase 2B - Chemical Handling - Weekly Monitoring (pg 1 of 2)

Week: _____

HRSB 3A Area	Tri-sodium Phosphate		Ammonia	
	Yes	No	Yes	No
Is skid and/or container properly labelled?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are the appropriate warning and instruction signs in place?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is container damaged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are all covers in place?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is there any evidence of leaks on pumps and piping?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is there any evidence of leaks from bund or its drain?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are the bunds clean and empty?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are drain valves or drain taps closed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the chemical's latest version of SDS accessible?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the nearby safety shower fully functional?				
Are the recommended PPE being used during handling?				
Is spill clean-up material and equipment accessible?				

HRSB 3B Area	Tri-sodium Phosphate		Ammonia	
	Yes	No	Yes	No
Is skid and/or container properly labelled?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are the appropriate warning and instruction signs in place?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is container damaged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are all covers in place?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is there any evidence of leaks on pumps and piping?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is there any evidence of leaks from bund or its drain?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are the bunds clean and empty?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are drain valves or drain taps closed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the chemical's latest version of SDS accessible?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the nearby safety shower fully functional?				

	File: SOP DPS 23 - Chemical Procurement Storage and Handling_r1_2015-06-19	
	Environmental Management System	Page 36 of 46

Template 23.2 - Phase 2B - Chemical Handling - Weekly Monitoring (pg 2 of 2)


180 Ltr Ammonia Reserve Tanks	Tank 1		Tank 2	
	Yes	No	Yes	No
Are containers properly placed above bunds?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are there any leaks from container?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are containers properly sealed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are containers properly labelled?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are there any leaks from containment bund and its drain?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are bunds clean and empty?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are drain valves or drain taps closed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the chemical's latest version of SDS accessible?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Turbine Hall – Waste Oil Container	Yes	No
Is the container properly placed above bunds?	<input type="checkbox"/>	<input type="checkbox"/>
Are there any leaks from container?	<input type="checkbox"/>	<input type="checkbox"/>
Are containers properly fitted with a funnel?	<input type="checkbox"/>	<input type="checkbox"/>
Are containers properly labelled?	<input type="checkbox"/>	<input type="checkbox"/>
Is container full and needs replacement?	<input type="checkbox"/>	<input type="checkbox"/>
Are there any leaks from containment bund and its drain?	<input type="checkbox"/>	<input type="checkbox"/>
Are bunds clean and empty?	<input type="checkbox"/>	<input type="checkbox"/>
Are drain valves or drain taps closed?	<input type="checkbox"/>	<input type="checkbox"/>
Are there visible signs of spills?	<input type="checkbox"/>	<input type="checkbox"/>
Is spill containment and cleaning material accessible?	<input type="checkbox"/>	<input type="checkbox"/>

Comments:


Date: _____

Engineer's Signature: _____

	File: SOP DPS 23 - Chemical Procurement Storage and Handling_r1_2015-06-19	
	Environmental Management System	Page 37 of 46

Annex 6

Template 23.3 – CWP Area - Chemical Handling - Weekly Monitoring

	File: SOP DPS 23 - Chemical Procurement Storage and Handling_r1_2015-06-19	
	Environmental Management System	Page 38 of 46

Template 23.3 – CWP Area- Chemical Handling - Weekly Monitoring (pg 1 of 2)

Week: _____


Anti-Fouling chemicals' containers and skids:	Sulphuric Acid		Sodium Chlorite	
	Yes	No	Yes	No
Is skid and/or container properly labelled?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are the appropriate warning and instruction signs in place?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are the containers damaged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are all covers in place?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is there any evidence of leaks on pumps and piping?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the bunds' sump valve/plug closed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are the bunds and sump clean and empty?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the chemical's latest version of SDS accessible?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the nearby safety shower fully functional?				
Are the recommended PPE being used during handling?				
Is spill clean-up material equipment accessible?				

Chemicals' IBC Storage

Which chemicals are being stored?

	Yes	No
Are there any compatibility issues among chemicals stored?	<input type="checkbox"/>	<input type="checkbox"/>
Are all IBC's properly labelled according to chemicals?	<input type="checkbox"/>	<input type="checkbox"/>
Are the appropriate warning and instruction signs in place?	<input type="checkbox"/>	<input type="checkbox"/>
Are any of the IBC's damaged?	<input type="checkbox"/>	<input type="checkbox"/>
Are the IBC's properly stacked?	<input type="checkbox"/>	<input type="checkbox"/>
Are all IBC's properly sealed or properly closed?	<input type="checkbox"/>	<input type="checkbox"/>
Are all IBC's lying within the containment bunds?	<input type="checkbox"/>	<input type="checkbox"/>
Are there any signs of spills?	<input type="checkbox"/>	<input type="checkbox"/>
Is the bunds' sump empty and clean?	<input type="checkbox"/>	<input type="checkbox"/>
Are the latest SDS versions available?	<input type="checkbox"/>	<input type="checkbox"/>
Is spill clean-up material and equipment accessible?	<input type="checkbox"/>	<input type="checkbox"/>

Engineer's Signature: _____

	File: SOP DPS 23 - Chemical Procurement Storage and Handling_r1_2015-06-19	
	Environmental Management System	Page 40 of 46

Annex 7

Template 23.4 – Chemical Stores and Lube Oil Stores - Chemical Handling – Monthly Monitoring

Template 23.4 – Chemical Stores and Lube Oil Stores – Chemical Handling – Monthly Monitoring (pg 1 of 2)

Month: _____

Chemicals store 1		Yes	No
1.	Is the store properly locked?	<input type="checkbox"/>	<input type="checkbox"/>
2.	Is the store lighting sufficient?	<input type="checkbox"/>	<input type="checkbox"/>
3.	Is the store clean and well maintained?	<input type="checkbox"/>	<input type="checkbox"/>
4.	Are all containers placed above secondary containment?	<input type="checkbox"/>	<input type="checkbox"/>
5.	Are all containers properly labelled?	<input type="checkbox"/>	<input type="checkbox"/>
6.	Are all containers properly sealed or tightly closed?	<input type="checkbox"/>	<input type="checkbox"/>
7.	Are chemicals placed according to assigned location?	<input type="checkbox"/>	<input type="checkbox"/>
8.	Are there any issues of chemical incompatibility?	<input type="checkbox"/>	<input type="checkbox"/>
9.	Are any of the containers damaged?	<input type="checkbox"/>	<input type="checkbox"/>
10.	Is there any evidence of leaking container/s?	<input type="checkbox"/>	<input type="checkbox"/>
11.	Are there any signs of spills?	<input type="checkbox"/>	<input type="checkbox"/>
12.	Are the secondary containments clean?	<input type="checkbox"/>	<input type="checkbox"/>
13.	Are all the latest SDSs available?	<input type="checkbox"/>	<input type="checkbox"/>
14.	Is a spill kit available?	<input type="checkbox"/>	<input type="checkbox"/>
15.	Is the eyewash kit available and in order?	<input type="checkbox"/>	<input type="checkbox"/>
16.	Is the nearby external emergency shower fully functional?	<input type="checkbox"/>	<input type="checkbox"/>
17.	Is the fire fighting equipment in place?	<input type="checkbox"/>	<input type="checkbox"/>

Chemicals store 2		Yes	No
1.	Is the store properly locked?	<input type="checkbox"/>	<input type="checkbox"/>
2.	Is the store lighting sufficient?	<input type="checkbox"/>	<input type="checkbox"/>
3.	Is the store clean and well maintained?	<input type="checkbox"/>	<input type="checkbox"/>
4.	Are the bags properly stacked?	<input type="checkbox"/>	<input type="checkbox"/>
5.	Are the bags properly labelled?	<input type="checkbox"/>	<input type="checkbox"/>
6.	Are the bags located on assigned shelving?	<input type="checkbox"/>	<input type="checkbox"/>
7.	Are there any issues of chemical incompatibility?	<input type="checkbox"/>	<input type="checkbox"/>
8.	Are there any damaged bags?	<input type="checkbox"/>	<input type="checkbox"/>
9.	Are there any dry spills?	<input type="checkbox"/>	<input type="checkbox"/>
10.	Is a spill kit available?	<input type="checkbox"/>	<input type="checkbox"/>
11.	Is the eyewash kit available and in order?	<input type="checkbox"/>	<input type="checkbox"/>
12.	Are all the latest SDSs available?	<input type="checkbox"/>	<input type="checkbox"/>

Template 23.4 – Chemical Stores and Lube Oil Stores – Chemical Handling – Monthly Monitoring (pg 2 of 2)

Turbine Oil Store		Yes	No
1.	Is the store properly locked?	<input type="checkbox"/>	<input type="checkbox"/>
2.	Is the store lighting sufficient?	<input type="checkbox"/>	<input type="checkbox"/>
3.	Are all drums properly stacked?	<input type="checkbox"/>	<input type="checkbox"/>
4.	Are all drums properly labelled?	<input type="checkbox"/>	<input type="checkbox"/>
5.	Are all drums/containers properly sealed?	<input type="checkbox"/>	<input type="checkbox"/>
6.	Are any of the drums damaged or heavily corroded?	<input type="checkbox"/>	<input type="checkbox"/>
7.	Are small oil containers properly stacked on shelving?	<input type="checkbox"/>	<input type="checkbox"/>
8.	Is there any evidence of leaking container/s?	<input type="checkbox"/>	<input type="checkbox"/>
9.	Are all the latest SDSs available?	<input type="checkbox"/>	<input type="checkbox"/>
10.	Is a spill kit available?	<input type="checkbox"/>	<input type="checkbox"/>
11.	Is the sump clean of any spills or other material?	<input type="checkbox"/>	<input type="checkbox"/>

Lube Oil Store		Yes	No
1.	Is the store properly locked?	<input type="checkbox"/>	<input type="checkbox"/>
2.	Is the store lighting sufficient?	<input type="checkbox"/>	<input type="checkbox"/>
3.	Are all drums properly labelled?	<input type="checkbox"/>	<input type="checkbox"/>
4.	Are any of the drums damaged or heavily deteriorated?	<input type="checkbox"/>	<input type="checkbox"/>
5.	Are any of the spouts fitted to 'in use' drums leaking?	<input type="checkbox"/>	<input type="checkbox"/>
6.	Are all "in use" drum spouts lying above drip-trays?	<input type="checkbox"/>	<input type="checkbox"/>
7.	Are drip-trays empty and clean?	<input type="checkbox"/>	<input type="checkbox"/>
8.	Are all the latest SDSs available?	<input type="checkbox"/>	<input type="checkbox"/>
9.	Is a spill kit available?	<input type="checkbox"/>	<input type="checkbox"/>
10.	Is the sump clean of any spills or other material?	<input type="checkbox"/>	<input type="checkbox"/>


Comments:

Stores Officer Signature: _____

Date: _____

HSE Responsible Officer: _____

Date: _____

	File: SOP DPS 23 - Chemical Procurement Storage and Handling_r1_2015-06-19	
	Environmental Management System	Page 43 of 46

Annex 8

Template 23.5 – DM Plant Area - Chemical Handling – Weekly Monitoring



Template 23.5 – DM Plant Area - Chemical Handling – Weekly Monitoring


Week: _____

DM Lines Regeneration Chemicals		Conc. Sulphuric Acid Storage		Conc. Caustic Soda Mixing tank	
		Yes	No	Yes	No
1.	Is storage tank properly labelled?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	Are the appropriate warning and instruction signs in place?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	Is there evidence of spill in tank bounds?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	Are bunds and sump drain to neutralising pit clear?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	Are there any crystalline formations on tank's piping and mountings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	Are tank lids and/or air breathers properly in place?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	Is there any evidence of leaks on metering tanks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	Are there any spills in bunds around metering tanks and dilution skid?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	Are there any crystalline formations on plant dosing pipes and mountings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	Are latest versions of SDS's accessible?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	Is the area emergency shower fully functional?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.	Are the handling personnel making proper use of PPE?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.	Are neutralising chemicals readily accessible for spill control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Evaporator Anti-Scale Dosing		Sodium Chlorite	
		Yes	No
1.	Is container properly labelled?	<input type="checkbox"/>	<input type="checkbox"/>
2.	Are the appropriate warning and instruction signs in place?	<input type="checkbox"/>	<input type="checkbox"/>
3.	Are IBC's placed above secondary containment?	<input type="checkbox"/>	<input type="checkbox"/>
4.	Is the container healthy?	<input type="checkbox"/>	<input type="checkbox"/>
5.	Are all covers in place?	<input type="checkbox"/>	<input type="checkbox"/>
6.	Is the "in use" IBC supply tap leaky?	<input type="checkbox"/>	<input type="checkbox"/>
7.	Is the drip tray properly placed beneath tap?	<input type="checkbox"/>	<input type="checkbox"/>
8.	Is the bund empty and clean?	<input type="checkbox"/>	<input type="checkbox"/>
9.	Is there any evidence of leak from bunds or drains?	<input type="checkbox"/>	<input type="checkbox"/>
10.	Is the latest version of SDS accessible?	<input type="checkbox"/>	<input type="checkbox"/>
11.	Is the chemical transferring container healthy and safe?	<input type="checkbox"/>	<input type="checkbox"/>
12.	Are there any leaks on dosing pumps and piping?	<input type="checkbox"/>	<input type="checkbox"/>
13.	Is spill clean-up material and equipment available?	<input type="checkbox"/>	<input type="checkbox"/>


Engineer's Signature: _____

Date: _____

	File: SOP DPS 23 - Chemical Procurement Storage and Handling_r1_2015-06-19	
	Environmental Management System	Page 45 of 46

Annex 9

Template 23.6 – SDS Checklist

	File: SOP DPS 23 - Chemical Procurement Storage and Handling_r1_2015-06-19	
	Environmental Management System	Page 46 of 46

Template 23.6 – SDS Checklist

Point (according to drawing DPS/XZ/0143, DPS/XZ/0145 and DPS/XZ/92)	Location	SDS sheets in place	
		Yes	No
1	Security Guard Room	<input type="checkbox"/>	<input type="checkbox"/>
2	H,S & E Section	<input type="checkbox"/>	<input type="checkbox"/>
3	Main Stores	<input type="checkbox"/>	<input type="checkbox"/>
4	Maintenance Workshop	<input type="checkbox"/>	<input type="checkbox"/>
5	Chemical Store	<input type="checkbox"/>	<input type="checkbox"/>
6	Chemical Store	<input type="checkbox"/>	<input type="checkbox"/>
7	Oil Store	<input type="checkbox"/>	<input type="checkbox"/>
8	Oil Store	<input type="checkbox"/>	<input type="checkbox"/>
9	Demineralisation Plant	<input type="checkbox"/>	<input type="checkbox"/>
10	Phase 2B	<input type="checkbox"/>	<input type="checkbox"/>
11	Phase 1	<input type="checkbox"/>	<input type="checkbox"/>
12	Former Chlorination Plant	<input type="checkbox"/>	<input type="checkbox"/>
13	Fuel Oil pump house	<input type="checkbox"/>	<input type="checkbox"/>
14	Phase 3 Boilers / Turbine	<input type="checkbox"/>	<input type="checkbox"/>
15	Diesel Engine Cooling Water	<input type="checkbox"/>	<input type="checkbox"/>
16	Fresh Water Generator	<input type="checkbox"/>	<input type="checkbox"/>
17	SBC / Residual	<input type="checkbox"/>	<input type="checkbox"/>
18	FOT Area	<input type="checkbox"/>	<input type="checkbox"/>
19	Anti Fouling Area	<input type="checkbox"/>	<input type="checkbox"/>

Other Comments:

Health and Safety Officers

Date