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Works Method Statement WMS-05

Pipelines

Delimara Power Station Delimara - Marsaxlokk

Rev.	Date	Details	Prepared by	Reviewed by	Approved by
03	31.05.2017	Review	Roberto Brustia	Mario Sabolo	Mario Sabolo
02	03.04.2017	Review	Roberto Brustia	Mario Sabolo	Mario Sabolo
01	27.03.2017	Review	Roberto Brustia	Mario Sabolo	Mario Sabolo
00	20.03.2017	Draft WMS 05	Roberto Brustia	Mario Sabolo	Mario Sabolo

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00. Site description

Delimara Power Station (DPS) is located on the Delimara Peninsula in Marsaxlokk Bay, on the south east coast of Malta. The site is located at an elevation of between 1.8m and approximately 6.0m metres above local sea level (ALSL).

The site comprises operational plant in the centre and south of site, and a workshop, administration buildings and a First Aid Room in the north of site.


Below some pictures of the pipelines path involved in the decommissioning.



Delimara Power Station – Global view



Pipelines – Global view

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01. Description of area - structure

Three HFO lines and one ex chlorine line (which has been used as a sea water line for more than a decade) pipelines are included in the decommissioning of the Delimara Power Station.

The pipelines rack run in the west side and in the north side of the global area and pass through the facility internal roads.



Typical pipeline rack (not the one at DPS)


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02. Safety precautions prior to works

- Isolate the pipes at plant borders. These isolating valves shall be padlocked and safety signs indicating permit to work number put in place.
- Part of the internal streets closer to the pipelines to be dismantled may be cordoned off during the dismantling to allow only access from workers will remain accessible at all times.
- Where pipework is on racks in the vicinity of the other operators' pipework, or Enemalta's pipework to remain intact, all cutting works will be cold cutting and done manually. Risk assessments will be prepared and submitted to the other operators for their feedback and any necessary update.
- Area just around the pipelines will be cleaned following the dismantling of the pipe work and will be disposed of as non-hazardous waste.
- Safety tests and certification of all material and equipment to be used.
- Where necessary, ground operators shall not pass, stand or work in the operating area of the mechanical means;
- When necessary, the area immediately below the works shall be properly delimited with suitable barriers.
- Before carrying out any demolition operations, the site Supervisor of Works shall carefully assess the possibility that the demolition might cause the immediate or successive collapse of other parts.
- Spill kit on site.

03. Environmental Issue

- A precautionary approach is being taken, to segregate any hazardous components that might be detected during the course of works. Hazardous components will be sampled and tested. The results of the hazardous waste testing will also be presented in a separate HAZMAT report.
- Pipelines may contain relatively small amounts of hazardous liquids such as residues of process can be considered to be non-hazardous once the hazardous liquids have been drained and adequately cleaned.
- The ex chlorine line has not been used for antifouling since the nineties, and it has been as a sea water recirculation thus it contains seawater only while the other line contains HFO.

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- The contractor needs to empty the HFO pipes from any remaining HFO and bottom sludge before dismantling. However, there is no need for such viscosity test, as only minimal residues of oil will remain against the pipes, which would then be cleaned manually in the banded area once cut so that the metal pipes can then be visually tested by the monitor, with photographic evidence to show that they have been adequately cleaned and can thus be classified as non-hazardous.
- Details of expected waste to be generated is provided in the Waste Management Plan.

04. Works methodology

The technique to be used will be apply step by step until full removal of the pipelines.

Each step consists in the washing (if necessary) and subsequent demolition of piping portions bounded by consecutive flanges.

No organic solvents will be used. The method which has been identified is to use rags to manually clean the pipes. Using steam may be considered, in such case, an updated method statement will be submitted to ERA.

The dismantling will be applied step by step with manual equipment operated by personnel standing on a platform.

05. Works description


The phases related to each operational step will be the following:

1. Identify a pipe segment on the rack;
2. Aspiration of the line section to be dismantled and disposed with specific equipment;
3. Washing the aspirated line section with water and collection of the same in appropriate bulk with the pipe still on the rack. Oily water to be disposed of adequately;
4. Mechanical demolition of the hardened line segment
5. All pipelines shall be physically blanked with a flange downstream of the isolation valves

During the disassembly, particular attention will be paid to issues related to operators' safety and the choice of the portion to be removed.

Before disassembly, cutting or mechanical lines and gripping points will be marked out.

Cutting and mechanical disassembling include the following operations, to be cyclically repeated until full removal of the pipelines.

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06. Timeframes

Steps	Time	
Identification field of the line section physically delimited	3	Days
Aspiration of the lines section	10	Days
Washing	10	Days
Dismantling	10	Days
Waste disposal	5	Days

07. Personnel and machinery earmark for use

Description	Number	
Excavators	01	Unit
Reclaimer Equipment	01	Unit
Machine operator	02	-
Helpers	04	-
Reclaimers	03	-