Section 2.2.4 - Comments on BAT Conclusions:

Annex I: Comparison of the processes at the Installation with the BREF for Large Combustion Plants (published July 2006).

Aspect of BAT	MEPA comment
1. Part 1	
Combustion techniques for coal and lignite	
	Noted
2. Part 2	
Combustion techniques for Biomass and Peat	
	Noted
3. Part 3	
Combustion techniques for Liquid Fuels	
	Noted
1. Part 4	
Combustion techniques for gaseous Fuels	
Supply and Handling of gaseous Fuels and additives	Regarding the use of expansion turbines, kindly expand reply to inclyde reasons for lack of suitability to the project Regarding Ammonia, kindly confirm whether you are referring to the HRSG blow down system or other uses. Kindly also clarify whether Ammonia will be procured as a 25% solution or whether dilution will be carried out on site. If the latter is the case, kindly expand on this section and include details in main application document.
Thermal Efficiency of gas fired combustion	Kindly provide additional information by utilising the list of measures to increase efficiency listed in this section and explaining how each item is or is not applied to the facility. Regarding the DLN burners kindly explain the technology and how this is applied. Kindly provide scenarios applicable when the plant operates on open cycle mode.
Dust and SO_2 emissions from gas fired combustion plants	Noted. Further comments may ensue following updates to the Air dispersion model forming part of the EIA in relation to SO_x.
NO_x and CO emissions from gas fired combustion plants	information as to how the start-up and shutdown periods shall be maintained in accordance with *"COMMISSION IMPLEMENTING DECISION concerning the determination of start-up and shut-down periods for the purposes of Directive 2010/75/EU of the European Parliament and of the Council on industrial emissions"* shall also be provided. Kindly amend document to state that CEMS shall also be included on the bypass stacks. Kindly explain the term "DRS" Kindly provide scenarios applicable when the plant operates on open cycle mode.
Water Pollution	Kindly explain why the applied methods have been chosen and details on techniques applied utilising table 7.32 in section 7.4.4 of the BREF. Kindly also include additional information on mitigation and monitoring procedures to be applied
Combustion residues	Kindly expand on this section explaining your statement.
BAT for combustion	Noted

installations operated on offshore platforms	

Annex I: Comparison of the processes at the Installation with the BREF for Emissions from storage (published July 2006).

1. Although the comparison with the BAT conclusions has been limited to the storage of the LNG, the operator is to ensure that all service tanks containing liquid fuels shall be in line with the BAT requirements applicable in this BREF. Conditions in this regard shall be included as part of the permit.
2. Kindly also note that MEPA`s feedback provided in April 2014 has not yet been addressed and such queries are reiterated in this review.

Part 1: Storage of liquids and liquefied gases

1.1 Tanks **General principles to prevent and reduce emissions**	
Aspect of BAT	**MEPA comment**
Tank design	1. Kindly note that the name of the vessel is to be amended once reclassification of the vessel is carried out. 2. Further information regarding the following items is to be included: - how many operators are required, and what their workload will be - how the operators are informed of deviations from normal process conditions (alarms) 3. Operator is to submit Annex 8.19 4. Kindly provide the full name of the EN 14620, API 620 and NFPA 59A standards referred to in the document. 5. The use of the flexible arms for the BOG is subject to the feedback of the COMAH on the risk studies currently under review.
Inspection and maintenance	Maintenance plans and procedures are to be submitted prior to operation.
Location and layout	Noted
Tank Colour	Kindly specify the name of the standards being referred to in this section i.e. BS 381C and RAL.
Emissions minimization principle in tank storage	Noted
Monitoring of VOC	Noted
Dedicated systems	Noted
Tank Specific Considerations	
Open top tanks	Noted
External floating roof tank	Noted
Fixed roof tanks	Noted
Atmospheric horizontal tanks	1. Further details on the vapour balancing tanks to be incorporated in the atmospheric horizontal tanks are to be provided inclu ding system design. 2. Kindly clarify whether the use of the pressure relief valves shall reverse the need to make use of the following techniques: • apply pressure vacuum relief valves; • up rate to 56 mbar; • apply vapour balancing; • apply a vapour holding tank, or

	• apply vapour treatment;
Pressurised storage	Kindly provide further details of the vapour treatment technology referred to in this section.
Lifter roof tanks	Noted
Refrigerated tanks	Kindly update the statement referred to in this section so as to specify the circumstances under which flaring of the boil off gas will be carried out.
Underground and mounded tanks	Noted
Preventing incidents and (major) accidents	
Safety and risk management	Noted
Operational procedures and training	Noted. A list of identified training schedule is to be submitted prior to operation.
Leakages due to corrosion and/or erosion	Kindly provide more details on how the specific corrosion prevention techniques mentioned in the BAT review with regards to each point below: 1. Please provide specific tank details in relation to the appropriate materials for the different applications; 2. Please define what is meant by corrosion allowance; 3. Please provide details of the cathodic protection for the FSU and the Jetty cathodic protection; 4. Please provide details of the corrosion inhibitors which will be dosed to the water glycol loop; In addition to the above, kindly include measures to prevent rainwater ingress into the tanks. With regards to BAT in the prevention of stress corrosion cracking kindly provide details as to how BAT will be applied to this project.
Operational procedures and instrumentation to prevent overfill	1. Kindly explain the location as to where the overflow will be directed. 2. Kindly clarify whether the overflow system will be equipped with audible alarms. 3. Kindly provide more details on the overflow system which is mentioned in this section. 4. Kindly provide more details on how each of the following BAT procedures are to be implemented: • high level or high pressure instrumentation with alarm settings and/or auto closing of valves is installed • proper operating instructions are applied to prevent overfill during a tank filling operation, and • sufficient ullage is available to receive a batch filling
Instrumentation and automation to detect leakage	1. Kindly provide details as to the following sentence: “A voting arrangement for the detectors will be used”. 2. Kindly include the full name of the standard and details on how this is also applicable to offshore storage installations.
Risk-based approach to emissions to soil below tanks	Kindly clarify whether this mitigation measure applies to all the tank which will be operated by Electrogas Malta Ltd.
Soil protection around tanks - containment	Kindly provide the required calculations to show that the containment around all tanks shall be in line with the BAT requirement i.e. 110% of the total tank volume within the area. If this information is not available at this stage, kindly provide a timeframe for submission of this information. Such information is to be provided prior to commencement of consultation.
Flammable areas and ignition sources	Kindly note that all issues related to ATEX rating are to be forwarded to the OHSA.
Fire Protection	Kindly submit details as to how the flame arrestors and the flame walls for the small diesel tanks shall be installed.

Fire-fighting equipment	Noted.
Containment of contaminated extinguishant	Kindly note that this section refers to contaminated water and chemicals used in fire fighting. Details of containment of the above are to be provided.
1.2 Storage of packaged dangerous substances 1. Kindly clarify whether this applies to other stored materials on site (land based)? 2. Kindly provide information is such materials are stored by other operators.	
1.3 Basins and Lagoons Noted.	
1.4 Atmospheric mined cavern It is noted that this section is not applicable to this project.	
1.5 Pressurised mined caverns It is noted that this section is not applicable to this project	
1.6 Salt leached caverns It is noted that this section is not applicable to this project	
1.7 Floating Storage 1.8	
Floating storage	When referring to Section 4.3 of the EIS kindly include the relevant EIA extracts as an addendum to the BAT comparison. In view that in accordance with the BAT conclusions, floating storage is not considered BAT, the operator (in line with Regulation 4 of L.N. 10 of 2013) shall provide an assessment which shows that achievement of BAT would lead to disproportionally higher costs compared to the environmental benefits due to : (a) The geographical location or the local environmental condition of the installation concerned; or (b) The technical characteristics of the installation concerned. The above shall be substantiated by the submission of a complete assessment of all option considered for the storage of LNG including relevant maps and plans.

Part 2: Transfer and handling of liquids and liquefied gases

2.1 General principles to prevent and reduce emissions. **2.2**	
Aspect of BAT	**MEPA comment**
Inspection and maintenance	Noted.
Leak detection and repair programme	Kindly provide details of the detection equipment referred to in this section.
Emissions minimisation principle in tank storage	Kindly provide further details on how adherence to this BAT requirement will be adhered to.
Safety and risk	Noted.

management	
Operational procedures and training	Noted.
2.2 Considerations on transfer and handling techniques.	
Aspect of BAT	**MEPA comment**
Piping	1. Kindly provide the full name of the following standard: ASME B31.3 2. Kindly confirm whether the following shall be utilised: • fitting blind flanges to infrequently used fittings to prevent accidental opening • using end caps or plugs on open-ended lines and not Valves • where toxic, carcinogenic or other hazardous substances are transferred, fitting high integrity gaskets, such as spiral wound, kammprofile or ring joints.
Vapour treatment	Noted
Valves	Kindly include the required details if these are available. If not, kindly provide timeframe for submission.
Pumps and compressors ***Installation and maintenance of pumps and compressors.***	Kindly provide further details as to how the design will be compatible with the BAT requirements.
Pumps and compressors ***Sealing system in pumps.***	Noted.
Pumps and compressors ***Sealing systems in compressors.***	Kindly provide details as to how the design will be compatible with the BAT requirements.
Sampling connections	Kindly provide details as to how the design will be compatible with the BAT requirements.

Part 3: Storage of solids

Kindly confirm where this section may be applicable to storage of other substances and or materials which are stored on land.

Part 4: Transfer and handling of solids
Kindly confirm where this section may be applicable to storage of other substances and or materials which are stored on land.

Annex I: Comparison of the processes at the Installation with the BREF for Industrial cooling systems (published December 2001).

Aspect of BAT	MEPA comment
1. A horizontal approach to defining BAT for cooling systems	
Integrated heat management	
Industrial cooling heat management	Noted
Reduction of level of heat discharge by optimisation of internal/external reuse	Kindly explain scenarios which make heat recovery unjustifiable.
Cooling system and process requirements	Kindly provide a full reply in this section even if it is explained in other sections
Cooling system and site requirements	Kindly include site specific considerations as required in this section
Application of BAT in industrial cooling systems	Noted. Kindly cross reference with table 4.1 and 4.2 stating which form of BAT applies to the facility and defining site specific requirements.
2. Reduction of Energy consumption	
General	Kindly confirm whether cooling water treatment alone is applied to optimise efficiency or whether there are additional considerations
Identified reduction techniques within the BAT	
approach	Noted
3. Reduction of water requirements	
General	Noted. Kindly cross reference with table 4.4 describing BAT applied for water reduction
Identified reduction techniques within the BAT	
approach	Noted.
4. Reduction of entrainment organisms	
General	Noted
Identified reduction techniques within the BAT	
Approach	Kindly provide a reply to this section referencing table 4.5
5. **Reduction of water requirements**	

General approach to BAT to reduce heat emissions	Noted
General approach to BAT to reduce chemical emissions to water	kindly include description of processes related to boiler blow down and those which happen in the neutralisation pits prior to discharge. Details on management of oily waters prior to discharge shall also be included. Chemicals to be used in the rest of the plant for treatment of discharge water shall be provided and abatement prior to discharge explained.
6. Identified reduction techniques within BAT- approach	
prevention by design and maintenance	Noted
Control by optimised cooling water treatment	Kindly expand to explain the use of other chemicals ant the approach taken to reduce their use 9 you may wish to explain the choice of certain chemicals over others.
7. **Reduction of emissions to air**	
General approach	Noted. Kindly confirm whether there could bee additional discharges to air from any other cooling systems applied.
Identified reduction techniques within BAT- approach	Noted.
8. **Reduction of noise emissions**	
General approach	Noted. Kindly explain what technology or maintenance regime has been applied to abate noise emissions from the pump.
Identified reduction techniques within BAT- approach	Noted
9. **Reduction of risk of leakage**	
General approach	Kindly describe which immediate measures are to be taken in case of overpressure in the condensers
Identified reduction techniques within BAT- approach	Kindly provide a reply by referring to the applicable scenario from table 4.10
10. **Reduction of biological risk**	
General approach	Kindly also explain the regular monitoring to take place so as to address this section
Identified reduction techniques within BAT- approach	Kindly provide a reply by referring to the applicable scenario from table 4.11