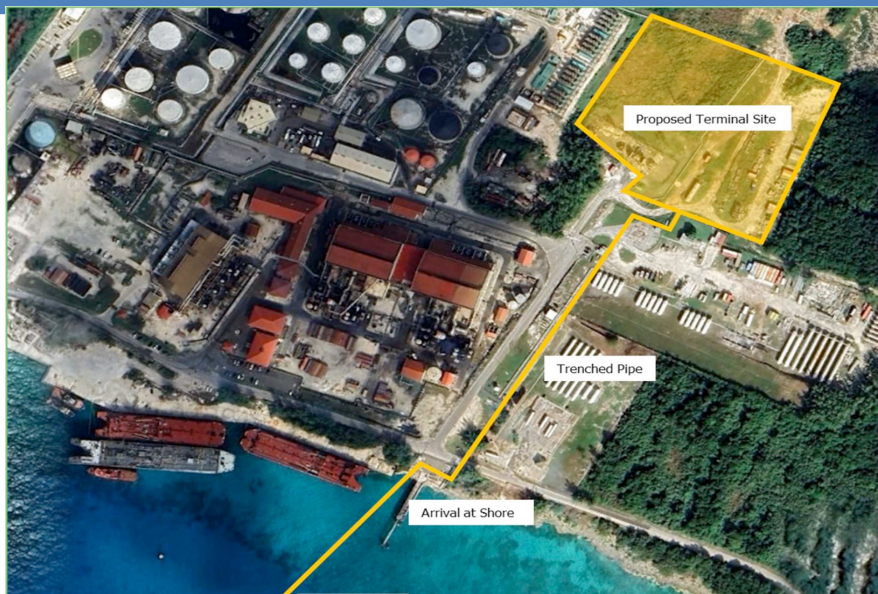




Environmental Management Plan for FOCOL-Shell LNG-to-Power Project, New Providence



Environmental Management Plan – FOCOL-Shell Phase 1 LNG-to-Power Project
September 2024

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ENVIRONMENTAL MANAGEMENT PLAN FOR THE FOCOL-SHELL PHASE 1 LNG-TO-POWER PROJECT, NEW PROVIDENCE, THE BAHAMAS

Executive Summary

The Environmental Management Plan (EMP) for the FOCOL-Shell Phase 1 LNG-to-Power Project should be used in tandem with the Environmental Baseline Assessment (EBA) for the project (July 2024). The EMP is to be utilized by the project team and contractors responsible for the project's implementation.

The LNG-to-Power Project, Phase 1 project involves the following components:

- The commissioning of two (2) TM 2500 GE gas turbines;
- A jetty platform offshore at Clifton Pier with a pipeline to the shoreline;
- A Floating Storage Unit (FSU) which will be stationed at the jetty platform. The FSU will receive LNG from other fuel transport vessels and store the product;
- Fuel transport vessels, ranging in size from 3,000 to 20,000 m³ tank capacity, which will bring LNG to the FSU;
- The iQuay system La Santa Marina from EConnect which will act as the interface platform between the FSU and the land-based terminal until a permanent jetty is built; and
- Cylindrical land-based LNG storage tanks which will be 1,350 m³ in volume, single-walled, and made of stainless steel (ASME II A240-304 grade).

Phase 1 of the project is being executed by FOCOL Holdings Limited and Shell and will be built at Clifton Pier.

As per guidance of the Department of Environmental Planning and Protection (DEPP), the EMP is focused on the LNG component of the project and not the GE gas turbines.

Employment of appropriate construction methodologies can result in execution of the project in a sustainable manner. Utilizing the mitigation measures detailed in the EMP will eliminate or minimize any negative environmental impacts resulting from project activities.

1.0 Introduction

The LNG-to-Power Project, Phase 1 project involves the following components:

- The commissioning of two (2) TM 2500 GE gas turbines;
- A jetty platform offshore at Clifton Pier with a pipeline to the shoreline;
- A Floating Storage Unit (FSU) which will be stationed at the jetty platform. The FSU will receive LNG from other fuel transport vessels and store the product;
- Fuel transport vessels, ranging in size from 3,000 to 20,000 m³ tank capacity, which will bring LNG to the FSU;
- The iQuay system La Santa Marina from EConnect which will act as the interface platform between the FSU and the land-based terminal until a permanent jetty is built; and
- Cylindrical land-based LNG storage tanks which will be 1,350 m³ in volume, single-walled, and made of stainless steel (ASME II A240-304 grade).

Phase 1 of the project is being executed by FOCOL Holdings Limited and Shell and will be built at Clifton Pier.

1.1 Objective of the EMP

The objective of the Environmental Management Plan (EMP) is two-fold:

1. To detail the mitigation measures identified through the EBA process to minimize/eliminate those potential negative environmental and social impacts of the proposed project; and
2. To ensure the project utilizes best environmental practices and proceeds in an environmentally sustainable manner.

1.2 Scope of the EMP

The EMP involves description of environmental and social mitigation measures inclusive of a Hazardous Materials Management Plan and Hurricane Preparedness Plan.

1.3 Implementation of the EMP

Specific roles and responsibilities related to implementation of the EMP are outlined in Table 1-1.

Table 1-1: EMP Roles and Responsibilities

Name	Duties
Position: Project Manager – Robert Hall 477-1122	• Coordinates EMP implementation • Consults with outside advisers (e.g. Government, legal or medical) • Investigates incidents, injuries, accidents and spills • Completes incident, injury, accident and spill records (using appropriate forms) • Ensures injured employees are given planned rehabilitation • Maintains all reports and registries (including incident, injury, accident and spill records) • Chairs weekly staff meetings • Ensures all new employees are inducted and managed

	• Selects contractors • Ensures contractors are inducted and managed
Position: Health, Safety, and Environmental Manager – Andre Moss 357-4788	• Provides or sources specialist advice in EMP matters • Trains supervisors/line managers on EMP matters • Trains employees in induction on EMP matters and safe work procedures • Reports serious injuries to relevant Government agency • Reports serious environmental incidences to relevant Government agency • Ensures that weekly inspections are carried out • Reviews incident, injury, accident and spill records (using appropriate forms)
Position: Site Superintendent – Michael McIntosh 424-3779	• Supervises employees to ensure all EMP requirements are met and HSE hazards are managed • Supervises contractors • Ensures contractors are issued with information about on-site safety and environmental management objectives and procedures • Ensures visitors have read information about visitor safety • Supervises visitors

2.0 Project Description

The LNG-to-Power Project, Phase 1 proposed site plan is shown in Figure 2-1. The LNG-to-Power Project, Phase 1 project involves the initial commissioning of two (2) TM 2500 GE gas turbines, with diesel to be piped from existing fuel storage tanks on BPL's property at Clifton Pier to the turbines. The output of the two new TM2500 turbines will be connected to BPL's 33kV substation via underground high-voltage cables and two 13.8/33kV generator step-up transformers. These works were completed prior to completion of the Environmental Baseline Assessment (EBA).

FOCOL and Shell will then build a jetty platform offshore at Clifton Pier with a pipeline to the shoreline (see Figures 2-2 through 2-4). In the initial phase, a floating jetty-less platform may be used while the permanent jetty is being built. A Floating Storage Unit (FSU) will be stationed at the jetty platform. The FSU will receive LNG from other fuel transport vessels and store the product. Fuel transport vessels bringing LNG to the FSU will range in size from 3,000 to 20,000 m³ tank capacity.

The LNG is discharged to the shore terminal and fed through a vaporizer, converting the LNG into gas vapors. The gas vapors are piped through a regulator and then consumed in the two (2) TM 2500 GE gas turbines located on FOCOL's property on Clifton Pier. Figures 2-5 and 2.6 are process diagrams showing the components of the system. Use of diesel will cease, and the turbines will run on natural gas. The gas turbines convert the gas vapors to electricity, and the electricity is transmitted to the BPL Power substation at Clifton Pier, where the electricity is added to the island's electricity grid. The commissioning of the 2 TM 2500 gas turbines will add 56MW of power to the grid of New Providence.

The Floating Storage Unit (FSU) option enables an LNG terminal that is delivered quickly and for less costs by using a chartered vessel that is permanently moored at Clifton Pier; the FSU will leave prior to severe storms and return quickly to restore gas supply; engines are dual fuel and will run on diesel if an interruption due to adverse weather. The iQuay system La Santa Marina from EConnect will act as the interface platform between the FSU and the land-based terminal until the permanent jetty is built.

Eight (8) to sixteen (16) LNG storage tanks will also be installed on land as a part of Phase 1 of the project. Specifications on the cylindrical tanks include 1,350 m³ volume and single-walled, stainless steel (ASME II A240-304 grade). Examples of tank installation are shown in Figure 2-7.

Clifton Pier will be the temporary location for the gas turbines as Phase 1 of the LNG-to-Power project. In Phase 2, the turbines will be moved to their permanent location at the BPL Blue Hills Power Plant.

Figure 2-1: LNG-to-Power Project, Phase 1 Proposed Site Plan

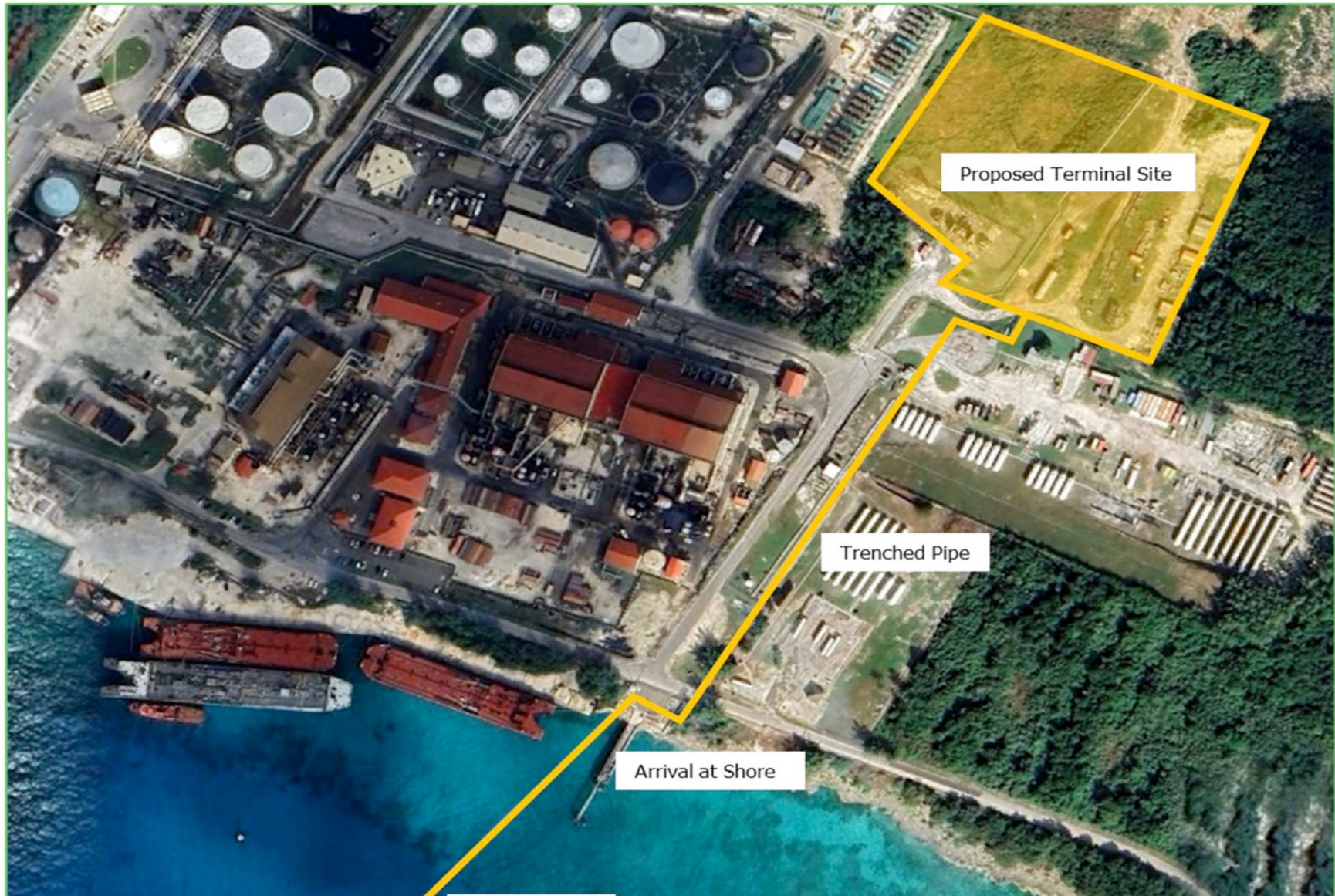


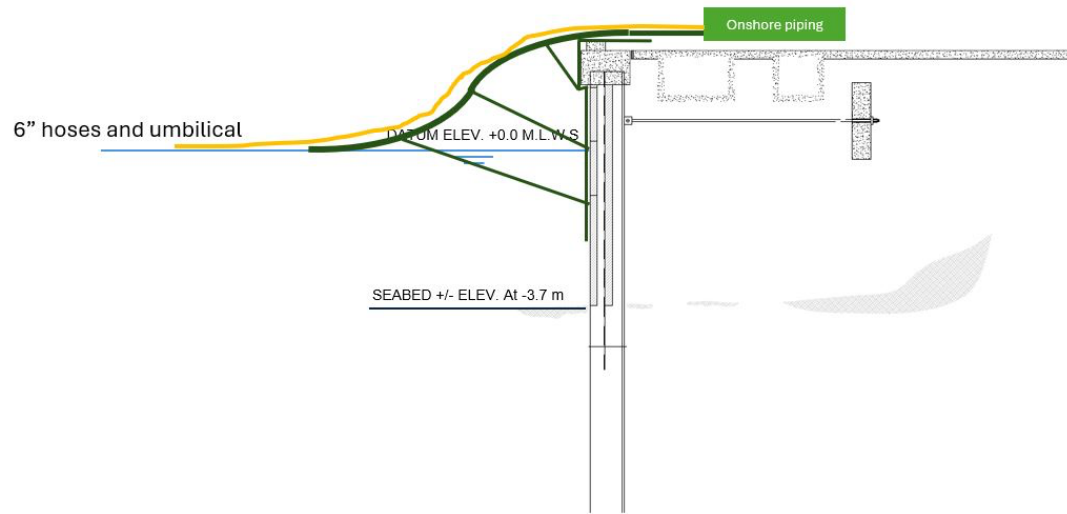
Figure 2-2: Floating econnect system



Figure 2-3: Shore-based connection (coastline view)



Figure 2-4: Floating hose



Example of landfall structure for floating hose

Figure 2-5: LNG process diagram

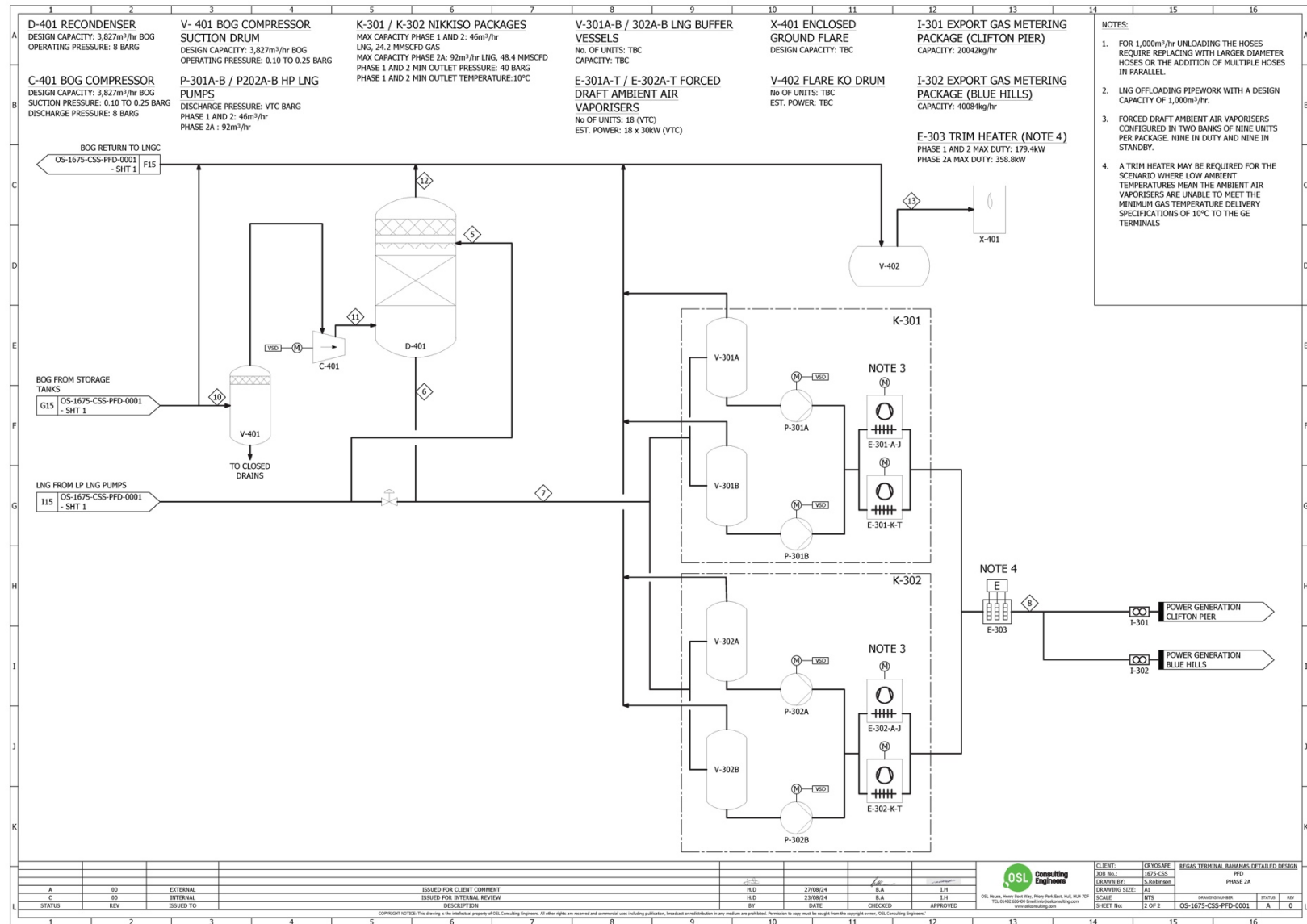
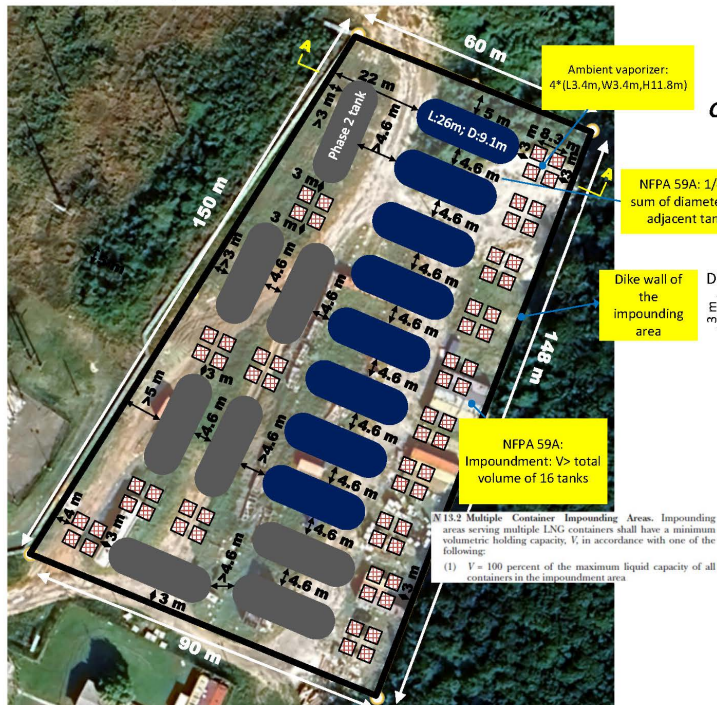


Figure 2-6: LNG storage facility with forced draft vaporization

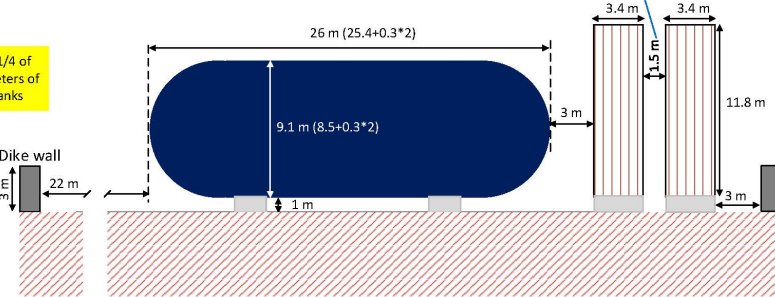


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General layout of 8+8 1350 cubic meter bullet LNG tanks



Cross-section (A-A) of the impounding area



NFPA 59A:

13.11 Impounding Area Wall Height and Distance to Containers. The dike or impounding wall height and the distance from containers designed for less than 15 psi (103 kPa) shall be determined in accordance with Figure 13.11.

The design pressure of the tanks exceeds 103 kPa, so there's no need to comply with this requirement.

NFPA 59A:

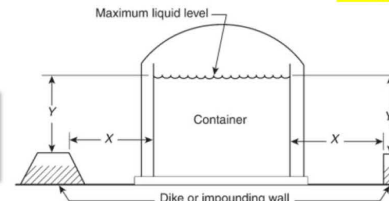
Table 6.3.1 Distances from Containers and Exposures

Container Water Capacity		Minimum Distance from Edge of Impoundment or Container Drainage System to Property Lines That Can Be Built Upon			Minimum Distance Between Storage Containers		
		gal	m ³	ft	m	ft	m
<125*	<0.5	0	0	0	0	0	0
125-500	20.3-1.9	10	3	3	3	1	1
501-2,000	21.9-7.6	15	4.6	5	5	1.5	1.5
2,001-18,000	27.4-43	25	7.6	5	5	1.5	1.5
18,001-30,000	265-114	50	15	5	5	1.5	1.5
30,001-70,000	2114-205	75	23	5	5	1.5	1.5
>70,000	>205	0.7 times the container diameter but not less than 100 ft (30 m)					

*If the aggregate water capacity of a multiple container installation is 501 gal (1.9 m³) or greater, the minimum distance must comply with the appropriate portion of this table, applying the aggregate capacity rather than the capacity per container. If more than one installation is made, each installation must be separated from any other installation by at least 25 ft (7.6 m). Do not apply minimum distances between adjacent containers to such installation.

N 5.3.2.9* Flammable Gas or Vapor Dispersion. The siting of the plant shall be such that, in the event of an LNG or other flammable or combustible fluid release as specified in 5.3.2.3, a predicted concentration to the lower flammability limit (LFL) does not extend beyond the property line that can be built upon.

Note: This requirement must be met during the engineering design phase.



Notes:

- X is the distance from the inner wall of the container to the closest face of the dike or impounding wall.
- Y is the distance from the maximum liquid level in the container to the top of the dike or impounding wall.
- X equals or exceeds the sum of Y plus the equivalent head in LNG of the pressure in the vapor space above the liquid.

Exception: When the height of the dike or impounding wall is equal to or greater than the maximum liquid level, X has any value.

Figure 2-7: Examples of LNG storage tank installation



3.0 Proposed mitigation measures

Table 3-1 below summarizes the mitigation measures that will be implemented by the FOCOL-Shell project team to minimize or eliminate any negative environmental and socio-economic impacts from the project. The FOCOL-Shell project team will provide oversight of any subcontractors engaged to ensure mitigation measures are implemented.

Table 3-1: Summary of Environmental Mitigation Measures

Categories of Potential Environmental Impacts	Mitigation Measures for Construction	Mitigation Measures for Operations
Erosion and sedimentation	1. Development of a detailed erosion and sediment control plan will occur prior to the start of construction. 2. All construction activities will be implemented in accordance with best construction practices at that time. 3. Installation of straw bales, erosion mating, erosion control rolls or similar materials will occur where needed to control sediment transport. This may be most applicable along the pipeline corridor. 4. Activities will not be undertaken during adverse weather conditions in order to avoid the potential for soil erosion associated with stormwater runoff.	• None should be required.
Hydrology	1. No independent cooling water supply wells will be constructed for the proposed project. The LNG vaporizer unit will use an air heating medium. 2. No liquid discharges will be directed to disposal or drainage wells and FOCOL-Shell will ensure that fuel contaminants are contained and are not discharged to the groundwater during the construction phase.	1. Gravity drainage shall be used for all the collection systems. Lift pumps shall be provided where required. 2. Bunded areas, drip trays or spill trays with connection and access for vacuum trucks shall be applied for catching accidental drips and leaks of hydraulic oil, diesel or other hydrocarbons other than LNG. 3. Contaminated water from these collection areas will be removed by vacuum truck and sent to slops oil tank / facility for further off-site processing the contaminated water. The final

Categories of Potential Environmental Impacts	Mitigation Measures for Construction	Mitigation Measures for Operations
		proposed design shall be aligned with any regulatory expectations. 4. Sanitary and chemical waste will be collected, using lift stations as necessary and transferred to a sewage treatment package (HOLD [22.]) or other appropriate facility where it will be treated. 5. Local containment such as bunds and drip trays will be used for oil containing equipment (any hydraulics, transformers, lubricants, diesel tank). Local containment will be designed and located to avoid rainwater/spray ingress. 6. An impounding basin and accompanying LNG drainage system will be provided in line with the US-based NFPA 59A (Standard for the Production, Storage, and Handling of LNG).
Soil and groundwater quality	1. All well installations will be properly grouted and sealed, as well as provided with a robust protective casing to minimize potential for groundwater contamination. 2. The installation of any new surface drainage or disposal wells will be avoided. 3. The design of the remote surface water and spillage impounding basin will ensure that is constructed to remain watertight over the long term. This may necessitate the installation of a high-density polyethylene (HDPE) liner, or a similar material, beneath concrete surfacing so that water loss does not occur through the eventual development of cracks in the concrete.	1. A system of catch basins, drains, and sumps will be established during operation to collect wastewater for treatment, rather than disposing of untreated water at ground surface. 2. All surface water and spill collection basins will be properly designed so as to have low permeability base and walls constructed of a long-lasting material, such as high-density polyethylene, and a program of regular inspection and maintenance will be carried out to ensure that untreated water is not discharged to the subsurface. 3. A properly engineered and constructed vehicle and equipment refueling facility will be

Categories of Potential Environmental Impacts	Mitigation Measures for Construction	Mitigation Measures for Operations
	4. All water supply wells will be professionally installed and have all required cement grout/bentonite seals and protective casings. This could require the installation of low permeability backfill or clay cut-offs at regular interval along the pipeline route. 5. The project team will ensure that the new pipeline installation backfill does not become a conduit for the migration of contaminated surface water throughout the proposed project site. This will require the use of low permeability backfill or the installation of clay cut-offs, keyed into the trench base and sidewalls at regular intervals along the length of the pipeline. 6. A plan will be established to properly collect, treat as necessary and dispose of construction wash-water. 7. Review construction excavation requirements will be reviewed and construction methods utilized which minimize bedrock fracturing and the potential development of bedrock infiltration pathways. 8. A minimum number of heavy equipment refueling areas will be established within the proposed project site. The construction contractor will establish and follow best refueling practices which will include monitoring the environmental condition of refueling areas and immediately reporting and cleaning up any spills which occur. 9. Best practices will be followed for use of paints, solvents and other potentially contaminating	established to minimize the potential for fuel losses to the environment. 4. FOCOL-Shell will ensure that new chemical products are properly handled to minimize potential for spills and losses. FOCOL-Shell will utilize best practices for the collection, disposal and/or treatment of waste oils, chemicals, coolant, heat exchanger fluids etc., including proper training of personnel handling these materials, utilization of secondary containment where appropriate volumes are present, and frequent collection of surplus chemicals. 5. Proper sanitary waste treatment and/or disposal systems will be installed and maintained. 6. FOCOL-Shell will monitor and maintain all wastewater treatment systems including associated piping so losses to the environment are minimized. 7. The use of drainage and disposal wells will be eliminated or minimized to the greatest extent possible.

Categories of Potential Environmental Impacts	Mitigation Measures for Construction	Mitigation Measures for Operations
	products and handling their associated waste including frequent collection of surplus or waste liquids for offsite disposal, use of purpose specific storage containers, appropriate use of secondary containment and proper training of personnel using these materials. 10. The construction contractor will collect and manage construction debris, waste, and cuttings to minimize impact on site soils. 11. The environmental quality of imported fill soils will be thoroughly tested, as required, and only soils which are compliant with applicable standards will be accepted. 12. FOCOL-Shell will ensure that proper health and safety measures are in place to protect construction workers and other persons in contact with potentially impacted soils or rock excavated along pipeline routes or at other locations. 13. All potentially impacted excavated soil will be chemically tested and properly disposed either on site or at an approved offsite location.	
Air quality	1. On-site vehicle and equipment idling will be discouraged and where practical, limited to no more than three minutes to reduce emissions such as NO₂. 2. Daily inspections of heavy equipment will be completed by the operators to ensure all equipment operated is in good working order and following the approved maintenance program to reduce emissions such as NO₂.	1. A leak detection and repair program will be established to ensure the equipment are operating and maintained in a safe manner. 2. Best operational management practices will also be strictly adhered to during the offshore unloading activities at the jetty. The marine vessels, including the LNGC and bunker vessels, will minimize engine and generator use and only use essential equipment while hotelling during unloading operations.

Categories of Potential Environmental Impacts	Mitigation Measures for Construction	Mitigation Measures for Operations
	3. Construction crews will monitor visible emissions. When excessive emissions from equipment are observed, the operators will conduct one of the following: a. schedule the vehicle to undergo repair, or b. provide records showing the vehicle has been tuned and maintained in accordance with preventative maintenance programs following manufacturers requirements. 4. Dust generation from construction and demolition activities such as drilling, use of breakers, jack hammers, storage stockpiles of exposed soils/surfaces will be controlled using water sprays or will be covered with tarpaulins, soil binders or similar preventative techniques. However, chemical dust suppressants will not be used in areas where plants, wetlands, or other aquatic organisms could potentially be harmed. 5. Unpaved travel routes and parking areas will be watered as needed during dry weather periods to minimize dust. 6. Tracking of earth or soil from the construction site by trucks to adjacent roadways will be minimized by using mechanical means such as mud mats (e.g., granular pads located at site entrance), and/or street sweeping on paved areas and the physical removal of earth from vehicles (e.g., wheel washing), as needed; 7. Vehicles hauling soil, aggregates or fine or dusty material will be covered to minimize the generation of dust.	

Categories of Potential Environmental Impacts	Mitigation Measures for Construction	Mitigation Measures for Operations
	8. Soil handling activities will be limited during periods in which high winds are predicted or occurring to reduce offsite transport. 9. Scheduling and planning of construction activities will be done in such a way as to minimize the areas of soil exposed at any given time.	
Climate change	1. GHG reduction strategies for onshore activities will include, among other measures, lowering the consumption of fuel, using newer more fuel efficient and/or well-tuned heavy equipment, and developing construction operating policies. 2. For the offshore construction activities, GHG reduction strategies will include, among other measures: usage of newer cleaner burning marine construction vessels (i.e., jack-up barge, lift boat/crane barge, supply barges, etc.) and equipment; and maximizing the usage of vessels from a location in The Bahamas region to minimize transit emissions coming to and from the proposed project site.	GHG reduction strategies for operation of the LNG terminal will be developed and incorporated in facility operating procedures. Strategies to reduce potential climate change impacts will include, but not be limited to: • planning and usage of energy-efficient systems for operation, • increase fuel efficiency in transportation and logistics including supply chain; and • a well-managed leak detection and repair program to limit any potential fugitive emissions.
Noise – Onshore	1. All construction activities will be limited to daytime hours (7:00 AM to 5:00 PM) during which the ambient sound is already elevated from existing adjacent industrial activities and other human activities, thus resulting in less potential for disturbance and annoyance at the NSRs. 2. Construction will be staged such that only a portion of the construction equipment would operate concurrently at any given time. 3. All construction related equipment will be maintained and operated in accordance with	1. To mitigate the potential night-time noise exceedance, the project design will ensure that the boil-off gas engine exhaust stacks are equipped with silencers. 2. The emergency diesel power generator and other emergency sources (e.g., fire water pump and ignited vent system) will only run for brief periods and will be designed with acoustic controls such as enclosure and silencing for the emergency diesel power generator, and silencers on the ignited vent. Testing of such

Categories of Potential Environmental Impacts	Mitigation Measures for Construction	Mitigation Measures for Operations
	manufacturers specifications and will be equipped with appropriate noise mufflers, as required. 4. Internal haul route will be properly maintained to avoid potholes and ruts that could result in noise generated by heavy equipment and vehicles travelling along uneven road surfaces.	emergency equipment will also be limited to daytime hours to avoid the potential night-time noise disturbance.
Noise – Offshore	Marine animals are at greatest risk to noise exposure from offshore construction. To mitigate the potential offshore construction noise impact to marine animals that may be present in the vicinity of impact pile driving, the following will occur: • Implementation of a “soft start” procedure for pile driving, which involves ramping up the intensity of the hammer strikes prior to operating at full capacity. The gradual increase in intensity of pile driving allows free-swimming marine life to leave the area; and • Utilization of Protected Species Observers (PSOs) to observe (and record sightings of) the presence of marine mammals and sea turtles within proximity of the impact pile drivers prior to starting; and • Ceasing of work until any observed marine animal moves away from the work area.	1. Noise level reduction is expected during operations. LNG import is on average once every 8 to 11 days and oil tanker import is expected once every three months. This frequency of LNG and diesel (or HFO) supply is low to medium, which further reduces marine animal’s long-term exposure to noise produced by the vessels during transit and berthing. 2. Offshore noise will be further reduced by: • limiting night-time operational activities to the greatest extent possible; and • strict enforcement of vessel speed and idling in accordance with safety requirements which in turns can reduce noise levels by reducing engine noise.
Solid, liquid and hazardous waste	1. Preparation of a Waste Management Plan will occur detailing the collection, classification, segregation, characterization, handling, storage, transportation, and disposal of various waste streams to comply with The Bahamas Environmental Health Services Act 1987, Part IV. The Waste Management Plan will provide for	1. The project team will utilize the same mitigation measures as during construction phase. 2. Additionally, during operational phase: • consideration will be given to the use of corrosion resistance glass-reinforced plastic (GRP) piping, as appropriate, to

Categories of Potential Environmental Impacts	Mitigation Measures for Construction	Mitigation Measures for Operations
	monitoring and testing the waste streams, if required, to identify if any hazardous waste is present. The Waste Management Plan will also outline the requirement for collection, handling, transportation, storage, and disposal of various waste types. 2. Project's emergency response plan will ensure the safe and legal removal and disposal of any waste generated during and following an emergency response, and where environmental measures have failed or spills occurred, provide for the restoration and clean-up of the environment following a major accident. 3. There will be provision of personal protection equipment (PPE) to construction staff as per HSSE requirements and as described in the health and safety plans developed to reduce the exposure of employees to waste materials. The PPE will be suitable for use related to the type of hazardous waste and its characteristics as identified by the waste survey. 4. There will be provision of a required area for storage and classification of solid waste as well as hazardous waste during construction activities. The area will be suitably equipped for any anticipated material to be sorted and stored in a secure, segregated manner prior to recycling / disposal by a local licensed waste contractor in the most appropriate locally available method, in compliance with local regulation and site permit requirements.	prevent usage of certain chemicals such as corrosion inhibitor; and • environmentally friendly foam will be used for firefighting.

Categories of Potential Environmental Impacts	Mitigation Measures for Construction	Mitigation Measures for Operations
	5. The project team will confirm the capacity and operating standards of available authorized landfills for acceptance of solid or hazardous waste from construction and decommissioning activities. 6. Preparation of an environmental contingency plan for generated hazardous wastes will occur. 7. There will be monitoring and testing of hazardous liquid waste to meet the standards for wastewater discharge. Monitoring reports and test results will be shared with DEPP and Water & Sewerage Corporation (WSC). 8. Development of a Water Management Plan will occur and there will be provision of retention volume with adequate capacity for liquid water for the purpose of monitoring and treatment, if required. 9. Sanitary waste will be collected, using lift stations as necessary and transferred to a sewage treatment plant or other appropriate authorized facility where it will be treated before discharge into the clean water outfall.	
Fire and explosion	1. Diesel fuel and gasoline will be stored in double-walled storage tanks to provide secondary containment. 2. Housekeeping will comply with the safe storage of chemicals requirements stipulated in the HSSE manual. 3. Safety training will be provided to all on-site personnel responsible for refueling activities at the proposed project site.	1. There will be installation of infra-red cameras to detect a fire at the LPG facilities. 2. There will be installation of flame detectors and gas detectors to detect the presence of an explosive atmosphere. 3. Manholes will be vented to prevent build-up of flammable gases. 4. Southwest Road will be included in emergency response planning as it may need to be closed

Categories of Potential Environmental Impacts	Mitigation Measures for Construction	Mitigation Measures for Operations
	4. All construction personnel will be trained in emergency response procedures and relevant documentation on these procedures will be maintained at all times at the construction site. 5. Portable fire extinguishers will be placed throughout the construction site to allow for easy access in the unlikely event of a construction-related fire.	in the unlikely event of a major incident occurring at the facility. 5. There will be implementation of an Emergency Response Plan 6. Safe distances will be established between the proposed multifuel jetty and the existing LPG jetty currently used by Carib Gas and Sun Oil. LPG transfer operations could potentially impact safe operation of the multifuel jetty (e.g., ships maneuvering towards the LPG jetty losing control and causing collision or a malfunction during LPG transfer leading to release of flammables). A QRA has established the MEZ for the jetty. Safety distances between the multifuel jetty and LPG jetty will minimize the risk of the operation of both jetties. 7. An earth mound wall (i.e., berm) will be constructed along northern and western fence line perimeter to mitigate impacts to personnel / LNG Storage Tank/ process facility from an incident at either Sun Oil or CaribOil LPG storage facilities. An additional blast wall will be constructed between Shell's LNG facility and the LPG bullet tanks at sun Oil facility as further protection for the LNG Tank. 8. A full containment LNG tank will be utilized. A full containment tank is a double containment tank in which the annular gap between the outer and inner tanks is sealed. 9. There will be employment of an active firefighting system (and training employees in

Categories of Potential Environmental Impacts	Mitigation Measures for Construction	Mitigation Measures for Operations
		its use) such as fire extinguishers, fire water system, CO₂, powder, foam, blanketing, and halon system. Flame detectors and gas detectors will be placed at appropriate locations to detect leaks and prevent the creation of an explosive atmosphere. 10. Safety distances will be set as per International standards such as NFPA 59A. Separation between the tank and other LNG facilities is significant and exceeds NFPA 59A requirements. Shell DEP will be incorporated (e.g., apply MEZ around the jetty when offloading LNG or fuel). ALARP Assessment will be undertaken for risk of escalation from/to the LPG tank farm.
Hurricanes	1. The project's infrastructure will be designed to withstand extreme metocean conditions. For example, requiring a minimum air gap between the water's surface and the underside of the jetty topside will be followed to protect the jetty from maximum wave height during storms. 2. Weather monitoring will be conducted and weather forecasts used to plan activities. 3. Adverse Weather Guidelines for operations will be developed, including a Transfer Operations Checklist which will outline weather requirements. 4. Stop Work Policy will be applied which allows employees to stop work under circumstances which may threaten their health and safety.	The project team will utilize the same mitigation measures as during construction phase.

Categories of Potential Environmental Impacts	Mitigation Measures for Construction	Mitigation Measures for Operations
	5. The Manual of Permitted Operations (MOPO) will be utilized to control working in a dangerous environment (e.g., during high wind or storm). This manual provides guidance on the activities that are permitted and prohibited under different conditions. 6. HFO and diesel fuel spill containment strategies and clean-up will be applied using the potential spill trajectories predicted by the Cummins Cederberg and Integrated Building Services, 2021 report. 7. Emergency shutdown systems will be designed to stop operations rapidly during emergencies. This will reduce the likelihood for release of materials of concern such as liquid wastes. 8. The current operational practices within the industrial area will be assessed, including procedures for response to severe weather conditions. 9. FOCOL-Shell will ensure that infrastructure provided for the selected design concept allows timely implementation of severe weather response procedures. 10. A storm drain system will be established as per design premise. 11. The flooding considerations will be implemented in the civil design basis. 12. Options to protect the proposed project site from flooding will be investigated with potential for outflow of contaminated water from adjacent sites (e.g., the earthen boundary wall).	

Categories of Potential Environmental Impacts	Mitigation Measures for Construction	Mitigation Measures for Operations
	13. A shelter on the jetty will be provided for personnel in case of poor weather, including lightning.	
Terrestrial habitats	1. To limit the potential adverse impacts of vegetation clearing, some of the coppice on the proposed project site will be retained to serve as a vegetated wildlife corridor for use by birds and other small animals to traverse the site to get to other coppice forests in the Clifton area. 2. All invasive trees and plants will be removed from the proposed project site as these are detrimental to biodiversity.	No negative impacts expected during operational phase, so no mitigation measures should be required.
Marine habitats	Operators of vessels involved in the construction and operational activities will also receive training in sighting and avoiding collisions with marine animals.	1. All offshore facilities will be designed to withstand Category 5 hurricanes. 2. Vendor standard equipment/package design will be used. Vendor guarantees will be used to ensure critical requirements are met by equipment. 3. The jetty will be designed to ensure safe navigation. 4. The jetty will be designed with ESDVs designed to stop the flow of LNG in the event of an emergency such as an LNG leak at any point on or offshore. 5. The three liquid fuel MLAs will be designed and constructed according to OCIMF specifications with ERS and ESDVs to accommodate liquid fuel offloading. 6. An oil drain drum will be put in place to address drainage requirements and oily water drum for contaminated jetty water drainage.

Categories of Potential Environmental Impacts	Mitigation Measures for Construction	Mitigation Measures for Operations
		7. LNG drain system including connecting piping lines and valving will be used following a loading or unloading operation to safely drain LNG from the loading arms when they are not in use. 8. There will be a firefighting system which is integrated with the onshore firefighting/firewater system, including hydrants, monitors, and foam generation package for LNG pool fire. 9. SSL – the link will carry Emergency Shutdown signals to and from the jetty and carry voice and data communications between the vessel and the LNG terminal. 10. Spill clean-up equipment will be available on site to enable immediate clean-up of small spills. 11. For larger spills, the procedures detailed in The Bahamas’ National Oil Spill Contingency Plan will be followed. 12. All pipelines carrying fuel will have secondary containment. If the event, that secondary containment fails, the pipeline must have automatic shut-off valves to prevent more fuel entering the pipeline.
Biodiversity (protected species of plants, birds and animals)	1. Protected trees on the proposed project site will be preserved. Care will be taken to not damage them during use of heavy equipment as damage to their bark could result in them contracting diseases and eventual death.	Mitigation measured implemented during construction will be maintained.

Categories of Potential Environmental Impacts	Mitigation Measures for Construction	Mitigation Measures for Operations
	2. A buffer zone will be established around protected trees during construction. The size of buffer zones will be determined based on the extent of the root system for each tree. 3. Avifaunal surveys will be conducted before and after clearing of vegetation on site to confirm any impacts on bird populations. Survey results will be shared in monthly reporting to DEPP. 4. Vegetated corridors will remain on the proposed project site for use by birds and small animals to traverse the proposed project site to the extent possible. The location, extent, configuration, etc. of the corridor will be determined as part of the Construction Plan. 5. Construction staff will receive advance instructions on behaviour during encounters with wildlife and there will be a strict prohibition on interference with birds and other wildlife. Interference includes killing, harming or feeding them. Staff will be trained in appropriate actions to be taken when interacting with wildlife. These actions will be detailed in the EMP for the project.	
Socio-economic aspects	1. The amount of land cleared and vegetation removed will be minimized to reduce potential erosion, impacts on wildlife and on the aesthetic value of the areas still vegetated and undeveloped. 2. Traffic control measures will be established to control traffic onsite, as well as traffic leaving and entering the proposed project site, and to mitigate impacts to traffic along Southwest Road.	1. To minimize impacts to residents and tourists with respect to accessing the area when tankers are in port, Shell will post the schedule for LNGCs on the company's website and/or share them with tourism providers and neighbourhood associations. This will ensure these stakeholders are aware of times when access may be restricted and avoid user conflicts.

Categories of Potential Environmental Impacts	Mitigation Measures for Construction	Mitigation Measures for Operations
	3. The transport of heavy equipment and large-size facility components will be limited to late night, or other off-peak traffic volume hours, to the greatest extent possible in order to avoid conflict with other users of Southwest Road. 4. The potential for off-site dust and noise issues will be limited by employing preassembled, prefabricated and modularized construction components. For example, many of the components of the LNG storage tank would only require placement and connections at Clifton Pier. 5. Potential adverse impacts to stakeholders, including businesses, communities, and other industrial operations at Clifton Pier will be addressed through direct consultation prior to construction through establishment of open lines of communication, providing advance notice of future construction activities, and sharing information on what mitigation measures have been established. 6. FOCOL-Shell will also seek opportunities to mitigate in areas outside of the proposed project site, that would have positive impacts on the local economy and community on New Providence. Such mitigation opportunities may include corporate sponsorship of local or national events, including national parks, mangrove planting or coral restoration initiatives. 7. The general public will also be consulted to ensure transparency and that all impacts are considered. FOCOL-Shell will disseminate relevant	2. FOCOL-Shell will continue to engage with stakeholders in the Clifton area as well as the general public.

Categories of Potential Environmental Impacts	Mitigation Measures for Construction	Mitigation Measures for Operations
	construction information by way of the company's website, appropriate notices and signage at and adjacent to the proposed project site, public service announcements, and information sharing on any other public platforms. Information sharing on social media platforms will also be leveraged to reach the Bahamian public.	

In addition to the mitigation measures, the plan also details other aspects of the project, such as handling of hazardous materials, fuel management, transport management, hurricane preparedness plan, and emergency response plan.

3.1 Water resources

In an effort to minimize the risk to the water quality, best environmental practices (BEPs) will be taken on land and in the marine environment.

On land, an annual survey of the groundwater wells will occur to confirm there are no liquid discharges to disposal or drainage wells during construction or operation. The annual well analysis can also be utilized to monitor the groundwater levels relative to possible sea level rise predictions, as a result of climatic change. A groundwater and marine sampling and long-term monitoring program will be implemented for the project.

No seawater will be utilized for the LNG vaporizer unit and there will be no discharge from the vaporizer into the marine environment. LNG accidentally released to the marine environment rapidly evaporates so no impacts from LNG release to the marine environment are expected.

For erosion control to prevent sediment runoff into the marine environment, erosion control materials (e.g. straw bales, erosion matting) will be utilized, particularly along the pipeline corridor. Activities will also not be undertaken during adverse weather conditions to avoid soil erosion associated with stormwater runoff.

In the marine environment, specific sediment control measures will be taken by FOCOL-Shell to control suspended solids or turbidity during construction. These will include silt curtains or turbidity booms. Important points to note regarding selection, design and deployment of silt curtains or turbidity booms are:

1. The device will be used in slow to moderate currents, stable water levels and relatively shallow water depths.
2. The device will be designed to pass water either under or through it.
3. In applications where the device will be extended to the bottom of the water body, in tidal or moving water conditions, a heavy woven pervious filter fabric or tide flaps will be designed into the device to create a permeable design and to relieve pressure on the device wall.
4. Silt curtains will not be used in current velocities higher than 3 – 5 knots unless special designs are developed to adapt to higher velocities.
5. Extra length (up to 10 – 20%) and depth (slack) of curtains will be included in designs to allow for tidal fluctuations and exchanges of water within the device.
6. Special designs may be required for applications of curtains at depths greater than 10- 15 feet and/or currents exceeding 1.5 knots.
7. A minimum continuous span of 50 feet between joints is a good ‘rule of thumb’. An excessive amount of joints can prove problematic.
8. The curtain will be a bright color (e.g. yellow or bright orange) to attract attention of nearby boaters so they do not run into the curtain.
9. In tidal situations, where currents move in both directions, it is important to attach anchors to both sides of the device to hold the curtain in place and to not allow it to overrun the anchors and pull them out when the tide reverses.

10. Anchor lines will be attached to the flotation device, not to the bottom of the device.
11. Removal of curtains and screens will be in a manner to avoid or minimize resuspension of settled solids.

Turbidity monitoring points will be established during construction. Baseline turbidity levels will be established before construction commences. During construction, if turbidity levels exceed baseline by 29 NTU, works will stop until turbidity levels return to baseline levels.

3.2 Air quality

One source of air pollution will be airborne dust that will likely get generated during construction. Dust will be kept down as needed, including during non-working hours. The Contractor will utilize a water truck to water the site during construction, thereby reducing airborne dust particles. To minimize the run-off of water, the water supply will be used only when necessary.

Soils at the site, haul roads and other areas disturbed by construction and materials stockpiled for the project will be treated by water spraying to control dust.

The watering schedule will be determined by an evaluation of the air monitoring and meteorological data, site and soil conditions, and site activities. The following measures will be taken to mitigate for any potential air pollution from airborne dust during construction:

1. Watering - Water all active construction areas at least once daily and more often during dry and/or windy periods. Active construction areas in close proximity to residences will be kept damp, as necessary.
2. Wind screen – A wind screen will be applied to the perimeter fencing around to project site to aid in the overall dust control.
3. Trucks - Cover all hauling trucks or maintain at least 2 feet of freeboard.
4. Pavement - Apply water at least twice daily to all unpaved access roads, parking areas, and staging areas.
5. Sweeping - Wet mopping or wet sweeping will be used instead of dry sweeping. All paved access roads, parking areas, and staging areas will be swept daily. Adjacent streets will be swept daily if visible soil material is deposited onto the road surfaces.
6. Stockpile of dusty materials – Stockpiles of sand, rock and excavated material shall be sprayed with water once daily to keep the surface wet.
7. Loading, unloading or transfer of dusty material – All dusty materials will be sprayed with water as necessary prior to loading, unloading and transfer operation to prevent dust from becoming airborne. The exception is cases where the moisture content of dusty materials is a matter of concern. Traffic speeds will be limited on any unpaved roads to 15 mph.
8. Excavation or earthmoving – The working areas of any excavation or earthmoving operation shall be sprayed with water as necessary such as before, during and immediately after the operation to mitigate the generation of airborne dust.
9. Emissions from construction equipment – All construction equipment shall undergo regular maintenance as per manufacturer's recommendations so that any emissions due to malfunctioning or operational inefficiencies are minimized.

10. Suspension of work - Excavation and grading activity will be suspended when winds (instantaneous gusts) exceed 25 mph.
11. General site tidiness – The site shall be cleaned and moistened frequently to minimize fugitive dust emissions.

Dust is not expected to be generated during operation as site construction will be complete and any open areas will either be vegetated through landscaping or paved.

Other mitigation measures that will be taken for ensuring good air quality include:

- Vapour collection system and/or vapour barrier for new and existing buildings.
- Remediation of any groundwater and soil impacts to reduce odours and vapour intrusion.
- Compliance air quality monitoring at established regular intervals throughout the year throughout all project stages. Should monitoring results exceed an established target level, conduct additional air monitoring, and implement control measures.
- Use of energy efficient construction vehicles and equipment throughout the lifecycle of the project.
- Integrate green building technologies into the proposed project where possible.
- Ensure routine maintenance of construction equipment and vehicles as per manufacturer's recommendations.
- Ensure routine maintenance of operation equipment and vehicles as per manufacturer's recommendations.

3.3 Noise pollution

Noise pollution sources at the site during construction will include heavy equipment being used during construction as well as increased traffic to and from the site. Any noise generated is expected to be intermittent and temporary. Noise generation is expected to be limited to daytime hours (i.e. 7 am to 5 pm) to minimize disturbance to neighbouring businesses and residents.

The following measures will be taken to mitigate for any potential noise pollution during construction and operation:

1. Limiting the amount of noise-generating equipment to be used.
2. Limiting the amount of noise-generating equipment to be used simultaneously.
3. Using silenced or relative Quality Powered Mechanical Equipment (PME).
4. Enclosing noise-generating equipment with acoustic enclosures, if necessary.
5. Erecting temporary and movable noise barriers next to noise sources to shield down the noise emission, if necessary.
6. Positioning noise-generating equipment or activities away from sensitive receivers and at locations where existing structures on site can act as noise shields.
7. Switching off noise-generating equipment when not in use.
8. Ensuring the proper maintenance of noise-generating equipment.
9. Strict enforcement of vessel speed and idling in accordance with safety requirements.
10. Limiting night-time operational activities.

Marine animals, particularly marine mammals, can be negatively impacted by construction and operation activities in the marine environment. To mitigate any potential noise impacts on these animals, the following measures will be implemented for the project:

- **Soft start procedure for pile driving.** This involves increasing the intensity of hammer strikes gradually before reaching full capacity. This gives marine animals the opportunity to swim away from the area.
- **Marine animal observers.** These observers will be tasked to look out for marine mammals and sea turtles in the area and to notify equipment or vessel operators to stop noise-generating activities until these animals leave the area. These observers are also helpful in avoiding vessel strikes on these animals and will be utilized aboard LNG vessels and other vessels operating in marine area of the project's activities.

3.4 Landscaping

No protected trees will be removed from the site without a permit from the Forestry Department.

Construction staff education will include identification of protected trees that must not be touched as well as invasive plants and trees that will be removed. Any invasive plants and trees on the site will be removed. Invasive species found on the site include:

- Australian Pine [also known as Casuarina] (*Casuarina equisetifolia*)
- Brazilian Pepper (*Schinus terebinthifolius*)
- Hawaiian Scaevola (*Scaevola taccada*)

Equipment and vehicles being moved from one site to another have the potential to transport invasive plant species. All equipment and vehicles will be inspected and any plant material (e.g. seeds, leaves, flowers) removed before they arrive at the project site.

Planting native species on the property is a measure to increase food resource availability for wildlife and support local habitat conservation initiatives and organizations, on the Island of New Providence and nationwide, to plant native trees in permanent locations and to restore other habitats. Wherever landscaping is planned, native species will be utilized. If no landscaping has been planned, native species can be planted along the perimeter of the property with the goal to create a vegetated corridor between green areas outside the project site that smaller animals (e.g. lizards) can traverse.

Landscaping of the developed property with native species will partially mitigate biodiversity loss by replacing key species of trees that support wildlife use, but it is unlikely to completely compensate for the loss of bird, arthropod and reptile diversity. Most species will have to find other nesting and roosting sites and may use landscaping trees for daily forage only.

In addition to supporting native biodiversity, planting native trees can mitigate effects on the visible appearance of the landscape, noise pollution and carbon sequestration or GHG production. Landscaping on the property during development will include native tree species with high quality food value, such as Gum Elemi (*Bursera simarouba*), which has value for a variety of bird and animal species. Birds will utilize these

trees for resting, feeding and possibly nesting. Landscaping would likely occur towards the end of the construction phase once the LNG components of the project are complete.

3.5 Avifauna

Every effort will be made to maintain native and protected trees on the project site as well as to plant native species to be utilized by birds. Protected trees will be marked prior to construction so they can be avoided. Providing habitat and food tree species for native wildlife will support endangered and rare birds.

Bird species documented on the project site or known to frequent are provided in Table 3-2.

Table 3-2: Bird species observed on the project site

Common Name	Scientific Name	Range	Status	Observations
American Kestrel	<i>Falco sparverius</i>	PRB	LC	S
American Redstart	<i>Setophaga ruticilla</i>	WR	LC	S
Antillean Nighthawk	<i>Chordeiles gundlachii</i>	SRB	LC	S
Bananaquit	<i>Coereba flaveola</i>	PRB	LC	S
Black Whiskered Vireo	<i>Vireo altiloquus</i>	SRB	LC	F
Cape May Warbler	<i>Setophaga tigrina</i>	WR	LC	S
Caribbean Dove	<i>Leptotila jamaicensis</i>	PRB	LC	S
Cattle Egret	<i>Bubulcus ibis</i>	PRB	LC	S
Common Ground-dove	<i>Columbina passerine</i>	PRB	LC	M
Common Yellowthroat	<i>Geothlypis trichas</i>	WR	LC	F
Glossy Ibis	<i>Plegadis falcinellus</i>	RNB	LC D	F
Gray Kingbird	<i>Tyrannus dominicensis</i>	SRB	LC	F
Greater Antillean Bullfinch	<i>Melopyrrha violacea</i>	PRB	LC	M
Green Heron	<i>Butorides virescens</i>	PRB	UA	F
Hairy Woodpecker	<i>Dryobates villosus</i>	PRB	LC	S
House Sparrow	<i>Passer domesticus</i>	PRB	LC	M
Indian Peafowl	<i>Pavo cristatus</i>	PRB	LC	F
Killdeer	<i>Charadrius vociferous</i>	PRB	LC	F
La Sagra's Flycatcher	<i>Myiarchus sagrae</i>	PRB	LC	S
Laughing Gull	<i>Leucophaeus atricilla</i>	PRB	LC	F
Mourning Dove	<i>Zenaida macroura</i>	PRB	LC MA	F
Northern Mockingbird	<i>Mimus polyglottos</i>	PRB	LC	M
Osprey	<i>Pandion haliaetus</i>	PRB	LC	S
Palm Warbler	<i>Setophaga palmarum</i>	WR	LC	S
Prairie Warbler	<i>Setophaga discolor</i>	WR	LC	S
Red-legged Thrush	<i>Turdus plumbeus</i>	PRB	LC	F
Rock Pigeon	<i>Columba livia</i>	PRB	LC	F

Common Name	Scientific Name	Range	Status	Observations
Smooth-billed Ani	<i>Crotophaga ani</i>	PRB	LC	F
Thick-billed Vireo	<i>Vireo crassirostris</i>	PRB-E	LC	F
Western Spindalis	<i>Spindalis zena</i>	PRB-E	LC	F
White-crowned Pigeon	<i>Patagioenas leucocephala</i>	PRB	NT MA	M
Yellow-rumped Warbler	<i>Setophaga coronate</i>	WR	LC	S
Table Key:				
Range	Status		Observations	
PRB = Permanent Resident Breeding	LC = Least Concern (IUCN)		S = Single (1)	
RNB = Resident Non-Breeding	NT = Near Threatened (IUCN)		F = Few (2-10)	
SRB = Summer Resident Breeding	VU = Vulnerable (IUCN)		M = Many (>10)	
WR = Winter Resident	MA = Managed (Regulated – Bahamas)			
E = Endemic (Distribution)	D = Declining			
	UA = Unassessed			

All endemic and native bird species are protected under the Wild Birds Act of The Bahamas. No staff will harm or interfere with bird species observed on the site.

If nests, bird eggs or injured birds are found on the site, staff must not remove them. They will contact the Bahamas National Trust at **393-1317** or **601-7432** whose wildlife officers are trained in handling and transfer of birds, their eggs and nests, if necessary. Ardastra Gardens, Zoo and Conservation Centre can also be contacted at **323-5806**. Both organizations can also assist with removal of snakes, which must also not be harmed or interfered with by staff on site.

3.6 Fuel management

Soil analysis will be done to characterize the existing petroleum hydrocarbons (PHCs) in the soil so that any appropriate remediation can take place for the site.

Fueling on site during construction and operation can result in spills of gasoline, diesel and oil, which are common sources of groundwater pollution and are costly to clean up. Mitigation measures for fueling include:

1. Establishment of a designated fuel dispensation area on the site away from any known groundwater resources.
2. Topping off practices when fueling will be discouraged. Tanks will not be filled beyond 95%. Impervious fireproof containment trays will be used when filling small cans to contain any possible spills. Easy to read signs will be posted at the fueling area to explain proper fueling procedures.
3. To prevent overflow spills, automatic back pressure shut-off nozzles will be installed on the fuel pump discharge hoses. Fuel nozzle triggers that are used to hold the nozzle open without being held will be removed if automatic shut-offs are not available.

4. Drain pans will always be used during fueling in the event of a fuel spill or leak.
5. The fueling system will be briefly inspected daily and thoroughly inspected once a week by fuel attendant(s) for leaks and overall soundness.
6. All spent fluids will be collected for either storage or recycling.
7. A petroleum spill response plan for the project site is provided at Appendix 2. The plan provides guidance in the event of a spill to ensure proper petroleum containment. Components of the spill response plan include who to notify when a spill occurs, immediate spill response actions, a contact list for response communications, and a response chain-of-command on the site.
8. Easy-to-read signs will be posted at the fueling station informing users what to do to contain fuel and oil in the event of a spill. Signs will also include a “No Smoking” sign to avoid risk of explosion.
9. There will be a clearly identified spill response container with spill response equipment near the fuel delivery area. This container will house appropriate containment and control materials, such as absorbent pads, a fire extinguisher, a copy of the Spill Response Plan, and the emergency contact list. This container will be clearly marked and easily accessible in order to quickly react to any potential spills. An inventory of equipment will be taken monthly or after use and a list of items needing replacement will be submitted for purchasing immediately. Used absorbent materials will be disposed of offsite by a licensed company.
10. All appropriate staff will be trained in proper fueling, proper maintenance techniques, and the implementation of the spill response plan at least bi-annually.

Any waste oil will be collected in a dedicated oil container and delivered offsite by a local waste management company for disposal and recycling.

3.7 Sewage and wastewater management

Sewage generated by any portable toilets utilized during construction will be pumped away and disposed of at a DEHS-approved facility by a specialist subcontractor. The ratio of toilets to workers will be 1:5, i.e. one portable toilet for every 5 workers on site. The toilets will be changed out twice weekly on Wednesday and Friday/Saturday to maintain sanitary conditions on site. At least, two (2) water-dispensing stations with soap for handwashing will be provided for workers.

The Water and Sewerage Corporation (WSC) may outline methodologies for disposal of wastewater generated during construction. There will be no drainage of sewage or wastewater on land comprising or near the project site at any time. All activities related to sewage and wastewater management during construction and operation will be subject to approval of respective Government agencies, including the WSC and the Department of Environmental Services (DEHS).

3.8 Solid waste management

Covered dumpsters will be used for construction waste. Covered waste receptacles will be strategically placed around the construction site to be utilized by construction staff to dispose of litter (e.g. food containers). Prohibited waste that will not be placed in the waste receptacles or the construction waste dumpsters include waste oil and used absorbent materials; these will be disposed of separately as this type of waste cannot go into the landfill. In order to maintain a clean site, there will be morning and afternoon “walk-throughs” of the project area by designated workers to pick up any stray litter.

A licensed local waste management company will dispose of solid waste from the site during construction and operation in accordance with DEHS standards and only with their approval. Disposal of solid waste from construction and operation will be done at a licensed facility (the New Providence Ecology Park) in compliance with DEHS requirements.

A registry of all waste streams which are removed from the site will be kept on site and made available to Government officers when requested during inspections. Weekly monitoring reports submitted to DEPP will also contain a copy of waste registry for that week.

3.9 Hazardous materials handling

All hazardous materials brought on site will be accompanied by material safety data sheets (MSDS). These sheets detail proper handling, storage and disposal techniques for use of hazardous materials as well as proper treatment if persons are exposed to the materials. All MSDS will be accessible to staff who will be in contact with or using the hazardous materials, so they understand how to safely use them.

A small storage area will be designated at the site in the event that any waste oil or used spill clean-up materials need to be stored before being properly disposed of. This storage area will have a disposal container that is covered, made of inflammable material, sealed to prevent leaking, and positioned on an impervious surface as far from any water as possible. Appropriate spill containment and clean-up equipment will be easily accessible near waste oil storage area.

Construction staff will be trained regarding proper handling, storage, transfer, and disposal procedures for hazardous waste materials, inclusive of waste oil and used spill clean-up materials.

Disposal of all hazardous waste generated by the project will occur offsite by a licensed contractor at a licensed facility as per DEHS requirements. A Hazardous Material Management Plan is provided at Appendix 3.

3.10 Traffic management

Development of a traffic management plan to be implemented for the duration of construction will reduce impact to traffic. The plan will contain direction for the use of proper speed in and around residential areas, near the schools, and in locations with known pedestrian traffic (e.g. near Clifton Heritage Park).

Appropriate signage will be put in place at the project site and along Southwest Road alerting motorists of construction and the potential for delays. Advertisements and notifications will be sent out in advance to surrounding communities and businesses if significant delays are planned.

Public transportation is not currently available in the area of Clifton Pier and as such, bus transportation for workers who live in surrounding communities will be considered as a means to reduce the impact of increased vehicular use in communities. It would also reduce the need for employee parking on site and lower non-construction vehicular traffic in the immediate area.

Periodic vehicle servicing and inspections to ensure proper functioning may reduce exhaust emissions.

Traffic management on the site will include:

1. Designated haul routes for commercial vehicles.
2. Limiting construction traffic times (especially of heavy equipment) to low-traffic periods of the day to minimize delays and accidents.
3. Maintenance of low speeds for driving on site.
4. Traffic control on site and on the road directly in front of the project site during times of heavy commercial vehicle and/or heavy equipment traffic to prevent accidents with private vehicles.
5. Wheel wash or vehicle wash down area near/at site exit.
6. Regular cleaning of roads.
7. Securing the site (e.g. fencing) to prevent pedestrians, particularly children, from traversing the site.
8. Ensuring all workers wear high visibility vests so that drivers of commercial vehicles and heavy equipment can see them.
9. Training all workers in traffic hazards on site in an effort to avoid injury and loss of life.

3.11 Hurricane preparedness plan

The purpose of the Hurricane Preparedness and Response Plan is to identify the actions that will be taken to reduce or eliminate long-term risk to people and property, and to respond to natural disasters in the form of tropical storms, hurricanes, and coastal flooding. Project management will ensure that all staff are knowledgeable and equipped to execute the Hurricane Preparedness and Response Plan when necessary. Preparation for hurricanes and tropical storms must be an ongoing activity at the site, and staff will be informed well in advance of their responsibility during a storm.

Key preparation activities are outlined below.

1. **GENERATORS:** Check all generators for proper operation (change oil, test batteries, start and run, run under load, ensure plug-in receptacles in good working order).
2. **EMPLOYEE CONTACT:** Update Employee Contact List. Ensure all staff members have a copy and understand the procedures for calling in or reporting to work post-hurricane.
3. **FACILITY INSPECTION:** The designated Manager conducts complete site and building/facilities inspection no less than weekly to ensure site is free from clutter. The designated Manager will initiate and direct the removal of all excess supplies and equipment from the site.
4. **HURRICANE PLAN:** The plan will be printed and/or emailed to all staff. The designated Manager will ensure that all staff are familiar with the plan and its preparation and response procedures as well as the location of equipment and supplies necessary for preparation and response.
5. **SUPPLIES:** The designated Manager will ensure adequate supplies of tools and any equipment needed to deal with preparation and recovery are on-hand at the site (batteries/radios, gas/diesel, rain gear, bottled water).

6. **VEHICLES:** All vehicles (including trucks and cars) will be in good working order and have fuel topped off and/or batteries charged. Staff will understand the procedures for relocating/securing any portable equipment to designated safe areas.

GENERAL

A. Objective:

To provide clear and concise procedures for staff to follow in the event of a hurricane or tropical storm. To manage, maintain security, and control the operation of site, building and/or facilities during an announced emergency situation.

B. Background:

The project site may not be a safe location during a hurricane or tropical storm, depending on the direction and strength of the storm. Vehicles, portable equipment and supplies will be relocated well in advance to safer locations in order to protect them and neighbouring businesses and residents from damage of flying debris from construction and operation activities at the project site. The following procedures will enhance the project's ability to protect the lives and property of staff and neighbouring businesses and homes, and safeguard facilities.

C. Preparation:

Every designated manager will have an individual Hurricane Plan, designed specifically for their area of responsibility. This Plan will include the location of alternate storage for their vehicles and equipment; a checklist of key procedures to be followed to prepare for a storm; and necessary gear and supplies to help secure their area of responsibility on short notice.

The management team will designate an Operating Post for the coordination of operations, communication, and emergency response. All staff shall be familiar with the emergency procedures.

HURRICANE ACTION PLAN

D. Hurricane Watch

- 1) All staff are required to know by definition the status of a weather emergency as differentiated between a Hurricane Advisory, Watch, Warning, etc.
- 2) All staff will be prepared to respond when called upon to report to work. Proper planning will ensure that personnel needs are met, while still meeting the need to respond to an emergency situation at the project site.
- 3) At designated staging areas, all emergency equipment and supplies (i.e. pumps, generators, vehicles, etc.) are to be at full operational capacity and ready to move. Batteries are fully charged; rain gear and other safety equipment stocked and in full working order.

- 4) At the Operating Post, the information cycle is started – the designated Manager shall contact the relevant local hurricane preparedness agencies (e.g. NEMA) and verify contact information. The Operating Post will communicate with staff – directly, by voice announcement, by posted notice, by phone, and/or by passing the word, the proposed order of an evacuation plan will be announced.
- 5) All trash and debris will be removed from containers to prepare those containers for receiving additional trash. Parking and common areas will be checked for removal of unnecessary equipment and materials.
- 6) Notification is made to other personnel/contractors if there is need to relocate any vehicles, equipment, or property. Employees are designated at the facility to handle the safeguarding, evacuation, or relocation of the above.
- 7) Commence securing buildings, vehicles and other property. Only basic facility accesses are left open.
- 8) Staff will report essential information to the designated Manager and receive instruction as to communications, controls, phone numbers, etc.
- 9) The designated Manager will rotate staff home to address personal needs. Some staff members will be required to report back to work, scheduled in selected groups at selected locations, for continuing emergency operations. It is imperative that staff report to work as instructed.

E. Hurricane Warning

- 1) All off-duty staff must respond immediately and report to work if requested to do so. Personal needs will now have been met and all available personnel will be meeting the need for necessary emergency work at the site.
- 2) Emergency equipment and supplies are positioned to be mobilized for fast use. Access roads are cleared of movable objects, garbage, and debris. Loose items that cannot be removed are secured, tied down, etc.
- 3) Keep vehicle traffic flowing in a smooth and orderly fashion.
- 4) Complete securing building and facilities; finish safeguarding property from flood areas; secure areas once completed.

F. Facility Evacuation

- 1) Upon local directive, building and facilities are secured and evacuated. Off-duty staff are dismissed, with instruction to establish contact with the designated Manager as soon as possible after the storm

for instruction. The building and facilities will be shut down for the duration of the emergency. Begin planning for “after the storm” action.

3.12 Emergency response plan

This Plan is designed to address the most likely emergencies which will occur on site due to activities and material utilization and is detailed in Appendix 4.

3.13 Human health and safety

A summary of mitigation measures will be employed for human health and safety are outlined in Table 3-3.

Table 3-3: Summary of human health and safety mitigation measures

Health Determinant	Mitigation Measures
Air Quality	• Vapour collection system and/or vapour barrier for new and existing buildings. • Remediation of groundwater and soil impacts to reduce odours and vapour intrusion. • Long-term indoor air monitoring program. • Complete required compliance air quality monitoring at established regular intervals throughout the year throughout all project stages. • Use LNG as the main fuel source once infrastructure is in place and phase out reliance on HFO and ADO. • Maintain a record of any complaints related to odour or emissions, and respond to complaints by taking mitigative action, if warranted. • Should monitoring results exceed an established target level, conduct additional air monitoring, and implement control measures. • Notify local community when emission levels could impact health. • Use energy efficient construction vehicles and equipment. • Integrate green building technologies into the proposed project where possible. • Implement dust control measures, such as using canvas to cover loads of construction materials, and applying water spray to tires, dirt roads, and other areas. • Ensure routine maintenance of construction equipment/vehicles. • Ensure routine maintenance of operation equipment. • Prepare an emergency response and preparedness plan and public awareness program for workers and the local community in the event of a spill, fire, and/or explosion.
Noise	• Construction and operation workers will be provided a health and safety plan and applicable PPE including hearing protection.

Health Determinant	Mitigation Measures
	• The dates and times of increased noise levels will be communicated with the public during the construction phase. • Model noise associated with construction traffic in advance of construction activities. • Ensure routine maintenance of equipment and vehicles. • Implement noise management plan that includes noise abatement and control measures as necessary during construction and operation phases.
Water Quality	• Site construction and operation workers will follow a health and safety plan and wear appropriate PPE. • Routine monitoring and maintenance of site infrastructure and immediate clean-up of any spills or leaks as per the emergency response plan. • Complete groundwater and surface water sampling and long-term monitoring programs. • Prepare an emergency response plan and preparedness awareness program for workers and the local community in the event of a spill, fire, and/or explosion.
Soil Quality	• Construction and operation workers would be required to wear appropriate PPE and follow a health and safety plan. • Routine monitoring and maintenance of site infrastructure and immediate clean-up of any spills or leaks as per the emergency response plan. • Prepare an emergency response plan and preparedness awareness program for workers and the local community in the event of a spill, fire, and/or explosion.
Communicable Diseases and Biological Injury	• Develop a maintenance plan to avoid the presence of standing water. • Use of screens on new infrastructure. • Develop a waste management plan to avoid improper waste storage. • Education of workers on-site with respect to breeding sites, use of spray repellants, properly maintained screens on doorways and windows, and the overall mitigation plan.
Aesthetics	• Aesthetic mitigation measures such as reducing glare and excessive lighting, use of paints that are dull or non-reflective, and wrapping stacks. • Integrate green building technologies. • Communication plan to bring public awareness of new development infrastructure and overall visibility.
Traffic	• Traffic flow study to ensure that road network can accommodate increased construction traffic. • Limit designated construction routes to major roadways avoiding residential areas. • Limit construction traffic times to low traffic periods of the day to minimize accidents and truck idling.

Health Determinant	Mitigation Measures
	• Post construction related traffic signs including speed limits, and heavy-equipment crossings on-site. • Educate employees regarding pedestrian safety during commuting times and encourage carpooling and use of public transportation. • Provide public notification of possible traffic delays at certain hours in advance of construction activities.
Economics	• Hire local talent to complete construction and operation work where possible. • Retain goods and services from local companies where possible. • Where foreign workers are required due to experience requirements, communicate this requirement to the public in advance of arrivals as part of community engagement plan. • Plans to hire local workers will be shared across various media (newspapers, radio, television etc.) to ensure that local individuals have ample opportunity to apply for available positions. • Provide international workers with list of local amenities (e.g. restaurants, lodgings, parks etc.). • Inform public on potential impacts to household electricity bills. • Form a community advisory group as part of a community engagement plan to make community specific and informed recommendations on how to spend revenue within the community (e.g. parks, community centres).
Social	• Share air monitoring, soil, surface water and groundwater results with the local community in a timely and user-friendly manner to show progress and work being completed. • Maintain communication with stakeholders including the local community (e.g. newsletters, meetings) to promote social cohesion and education. • Plans to hire local workers will be shared across various media (newspapers, radio, television etc.). • Conduct community livability and quality of life indicator studies on an annual basis that include family-level surveys, focus group discussions and key informant interviews.
Cultural heritage	• Should historical artefacts or cultural resources be uncovered, the area will be cordoned off to prevent any damage to the discovered items. The Antiquities, Monuments and Museums Corporation (AMMC) will be immediately contacted at 604-6800 to provide guidance on safely removing the artefacts or resources from the site.

3.14 Worker health and safety

As a part of the site-specific induction training, all staff and subcontractors will undergo safety training to ensure their safety on site. Safety training will include best practices for working:

- With hazardous materials
- At heights
- In confined spaces
- In the marine environment
- With heavy equipment

During staff orientation and regular training sessions, slideshows and PowerPoint presentations can be used to educate staff about health, safety, environmental and social issues. All new staff will participate in site-specific induction training delivered by the designated manager. The training will cover issues inclusive of legislation, regulations, environmental management, staff duties and responsibilities, mitigation measures and the EMP. Training will culminate in testing of staff's knowledge on health, safety, environmental and social management issues.

There will also be weekly staff talks (also referred to as Toolbox talks) regarding mitigation measures for any negative environmental and social impacts. All staff will be required to attend. Topics will include, but not be limited to:

- Air pollution control
- Waste reduction and management
- Noise control
- Good housekeeping practices
- Handling of hazardous materials
- Emergency preparedness

The monthly monitoring report to DEPP needs to include:

- A record of staff who have undergone orientation training.
- A copy of weekly staff (Toolbox) talks with signatures of staff that participated.

Forms to be completed for each training are provided at Appendix 5.

Workers will be required to wear appropriate personal protective equipment (PPE) and be trained in how to properly wear and/or use this equipment.

Workers will also be trained in incident or accident response, including first aid.

The presence of fuel can place the site at high risk for potential fire-related accidents. Such situations may require an immediate response, whereby waiting for emergency personnel can lead to dire circumstances. There will be adequate and visible signage posted about first aid and fire-fighting equipment at the site. Safety precautions and information must also be posted. The following first aid and fire safety guidelines will be followed:

- a) The fire-fighting equipment during construction and operation must at least include the presence of fire extinguishers, but could also include water hoses and fire carpets.
- b) The fire-fighting equipment must be easily identified and accessible 24 hours a day throughout both phases and indicated on site maps.

- c) Fire extinguishers must be present at the fueling station, near hazardous waste storage facilities and at locations where high temperature work is going on.
- d) First aid equipment must be present at the construction site at locations known to all staff. During operation, designated locations for first aid equipment will be known to all staff.
- e) Public or emergency telephones at or very near the site must also be available 24 hours a day, and clearly indicated on the site maps.

3.15 Neighbouring businesses and communities

Periodic monitoring of the project site will ensure that storage, staging, and parking areas are maintained, and other construction activities do not encroach on nearby properties.

Physical barriers such as fencing, netting, and temporary storage and staging areas can be used to ensure that visually unappealing aspects of the construction site are not visible outside of the site.

Traffic management will control aspects of transportation that may impact infrastructure and public services, specifically the use of the public road. Engaging service providers in advance of construction will allow for proper planning and ramping up of services prior to the increase in demand.

The only tourist and recreational activities that may be impacted by the project would include birdwatching due to noise disturbances, and walking and jogging due to any traffic diversions. These impacts are expected to be short-term and temporary. Mitigation during construction would include public notifications of any planned traffic diversions or impacts. No mitigation should be necessary once the plant is in operation.

3.16 Public awareness and communication

Engaging stakeholders prior to the start of construction will allow for communication channels to be established and tested. Communication channels will remain open during construction and operation phases. Stakeholders will be given the opportunity to voice concerns and provide input periodically, so as to ensure that all concerns can be addressed in a timely fashion. This would also reduce the risk of any major conflicts with stakeholders arising unexpectedly and potentially derailing or slowing down the project. Stakeholders will include, but not be limited to, public and private sector entities at Clifton Pier and in the neighboring communities, i.e. South Ocean Estates, Blue Shark Golf Club and South Ocean Condos (all within one mile of Clifton Pier).

Consultations will also take place with agencies that provide services in the area or have interests and assets in the adjacent area. This is critical as it will allow for better coordination of activities. This would also potentially reduce costs and impacts to the entities and communities they provide services to.

Once construction commences, the public will be advised of instances of inconvenience or disturbance, such as changes to traffic routes and times of excessive noise. Signage will also be utilized on and near the site to advise of things, such as traffic diversions and active construction areas. At least one sign needs to include information about the onsite contractor inclusive of a telephone number and email address for contacting them. Contact information will also be provided for DEHS, DEPP and Ministry of Public Works. Examples of other signage on site are provided below in Figure 3-1.

Figure 3-1: Signage for Construction Site



The public, especially neighbouring residents, must be informed of the mechanism for reporting concerns or problems. This is an email address queries@sunoilbahamas.com. This mechanism be shared with residents and must be easily accessible and responsive. When concerns are communicated, they will be acknowledged within 24 hours and resolved within 48 hours, when feasible. If it is not feasible to resolve a matter within 48 hours, persons will be advised of this and regularly updated on progress in addressing their concerns.

The complaints form in Appendix 6 or a similar version will be used to record any complaints received about the project. All complaints will be recorded, including:

- Date of complaint;
- Complainant (name and contact information);
- Nature of problem including location;
- Time;

- Number, gender and age of people impacted;
- Action taken in response to the complaint; and
- Costs associated with the problem or incident, if possible (e.g. cost of doctor's visit and medication; cost of repair to vehicle or third-party property, etc.)

Documentation of complaints received will be included in monthly reporting to DEPP.

3.17 Environmental and social monitoring

The monitoring and reporting regime for the project during construction will include daily site inspections which will be conducted by a designated staff member or subcontractor. These inspections will provide a means to enforce specific environmental and social management measures. Site inspection observations and results will be documented using site inspection forms, which will be submitted to the Project Manager and HSE Manager. These forms will also be submitted to the DEPP on a monthly basis. A possible template for the inspection form is provided in Appendix 7.

If non-compliance is found during an inspection, appropriate action as per the EMP will be implemented. The inspection will not be limited to the project site, but also observations of environmental and social management issues in areas adjacent to the project site, which are likely to be impacted, directly or indirectly, by site activities during construction and operation.

It should be noted that the DEPP may also conduct unannounced site inspections to ensure compliance with the EMP. The 2019 Environmental Planning and Protection Act gives DEPP the power to issue a cease and desist order for non-compliance with conditions of the Certificate of Environmental Clearance.

4.0 Conclusions

Employment of appropriate design and planning methodologies can result in construction and operation in a sustainable manner. Utilizing the detailed mitigation measures will eliminate or minimize any negative environmental impacts that may occur during construction and operation.

The EMP will be utilized to guide construction and operation activities on the project site.

FOCOL and Shell have expressed their commitment to implementing the mitigation measures detailed in the EMP and executing the project in a manner that is environmentally sustainable.

References

U.S. Environmental Protection Agency. (1996). *Presumptive Response Strategy and Ex-Situ Treatment Technologies for Contaminated Groundwater at CERCLA Sites – Final Guidance*. Washington, D.C.: Office of Solid Waste and Emergency Response.

Government of The Bahamas. (2019). *Environmental Planning and Protection Act*. Nassau: Bahamas Government Publications.

SEV Consulting Group. (2024). *Environmental Baseline Assessment (EBA) for FOCOL-Shell LNG-to-Power Project, New Providence*. Nassau: SEV Consulting Group.

Appendix 1: Construction Schedule



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Activity ID	Activity Name	Original Duration	Start	Finish	August 2024				September 2024				October 2024				November 2024				December 2024				January 2025				February 2025				March 2025				April 2025			
					05	12	19	26	02	09	16	23	30	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	03	10	17	24	03	10	17	24	31	07
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CT1 CTR1																																								
02 Multi Discipline																																								
00 General/Coordination/Meetings/Admin																																								
OSL Deliverable: MTG 005 - Meetings																																								
1675-CSS-MD-1000 Site visit(s)																																								
1675-CSS-MD-1010 Client Kick-Off Meeting																																								
1675-CSS-MD-1020 Weekly Progress Meetings (PM with All Engineering Disciplines - Assumed 1 hr/week for 12 wee																																								
01 Specification																																								
OSL Deliverable: GSS 017 - General Specifications / Standards																																								
1675-CSS-MD-1300 IDC (Specifications)																																								
02 Data Sheet																																								
OSL Deliverable: IND 029 - Instrumentation Datasheets																																								
1675-CSS-MD-1180 Input and IDC to Instrument Datasheets																																								
OSL Deliverable: VLD 028 - Valve Datasheets																																								
1675-CSS-MD-1140 Input and IDC to Manual Valve Datasheets																																								
1675-CSS-MD-1150 Input and IDC to Relief Valve Datasheets (Process Owned)																																								
1675-CSS-MD-1160 Input and IDC to Control Valve Datasheets																																								
1675-CSS-MD-1170 Input and IDC to Actuated Valve Datasheets																																								
04 Drawings																																								
OSL Deliverable: PID 044 - Piping & Instrumentation Diagrams (P&ID)																																								
1675-CSS-MD-1290 IDC (P&IDs)																																								
05 Safety Studies / Design Reviews																																								
OSL Deliverable: CCP 085 - Construction & Commissioning Philosophies / Procedures																																								
1675-CSS-MD-1220 Attending Constructability Review																																								
OSL Deliverable: GEN 000 - General																																								
1675-CSS-MD-1200 Attending Design Reviews																																								
OSL Deliverable: LAY 047 - Layout / Plot Plans / Routing Diagrams																																								
1675-CSS-MD-1590 Plot Plan Review																																								
OSL Deliverable: PID 044 - Piping & Instrumentation Diagrams (P&ID)																																								
1675-CSS-MD-1190 Attending P&ID Reviews																																								
06 Modelling																																								
OSL Deliverable: MOD 064 - 3D Modelling																																								
1675-CSS-MD-1210 Attending 3D model Reviews (Edit Navisworks) - Including Constructability																																								
07 Schedules / Lists / Registers / SDRL																																								
OSL Deliverable: ALR 059 - Alarm Rationalisation																																								
1675-CSS-MD-1090 Input and IDC to Alarm and Trip Review																																								
OSL Deliverable: CES 072 - Cause & Effect Schedules																																								
1675-CSS-MD-1080 Input and IDC to Process C&E																																								
1675-CSS-MD-1370 Input and IDC to F&G C&E																																								
1675-CSS-MD-1380 Input and IDC to SIS C&E																																								
OSL Deliverable: ISS 077 - Isometrics Schedule																																								
1675-CSS-MD-1120 Input and IDC to Tie-in Schedule																																								
OSL Deliverable: LNL 071 - Line List / Cable Schedule																																								



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Activity ID	Activity Name	Original Duration	Start	Finish	August 2024				September 2024				October 2024				November 2024				December 2024				January 2025				February 2025				March 2025				April 2025					
					05	12	19	26	02	09	16	23	30	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	03	10	17	24	03	10	17	24	31	07	14	1
1675-CSS-MD-1100	Input and IDC to Line List	2	04-Oct-24	07-Oct-24																																						
OSL Deliverable: VSC 070 - Valve Schedule		2	08-Oct-24	09-Oct-24																																						
1675-CSS-MD-1110	Input and IDC to Valve List	2	08-Oct-24	09-Oct-24																																						
08 Reports / Philosophies / Plan / Procedures		112	23-Aug-24	31-Jan-25																																						
OSL Deliverable: BOD 081 - Basis of Design		5	23-Aug-24	30-Aug-24																																						
1675-CSS-MD-1050	Input and IDC to Basis of Design	5	23-Aug-24	30-Aug-24																																						
OSL Deliverable: CCP 085 - Construction & Commissioning Philosophies / Procedures		51	19-Nov-24	31-Jan-25																																						
1675-CSS-MD-1070	Input and IDC to Installation/ Construction Philosophy	8	19-Nov-24	28-Nov-24																																						
1675-CSS-MD-1240	Installation Scope of Work - IFR	15	29-Nov-24	19-Dec-24																																						
1675-CSS-MD-1250	Installation Scope of Work - IDC Ready	0	13-Dec-24																																							
1675-CSS-MD-1260	Installation Scope of Work - IFD	6	20-Dec-24	31-Dec-24																																						
1675-CSS-MD-1270	Installation Scope of Work - IFC	4	02-Jan-25	07-Jan-25																																						
1675-CSS-MD-1390	Operating and Maintenance Procedure - IFR	5	06-Jan-25	10-Jan-25																																						
1675-CSS-MD-1400	Operating and Maintenance Procedure - IDC Ready	0	09-Jan-25																																							
1675-CSS-MD-1410	Operating and Maintenance Procedure - IFD	5	13-Jan-25	17-Jan-25																																						
1675-CSS-MD-1420	Operating and Maintenance Procedure - IFC	5	20-Jan-25	24-Jan-25																																						
1675-CSS-MD-1430	Commissioning Procedure - IFR	5	13-Jan-25	17-Jan-25																																						
1675-CSS-MD-1440	Commissioning Procedure - IDC Ready	0	16-Jan-25																																							
1675-CSS-MD-1450	Commissioning Procedure - IFD	5	20-Jan-25	24-Jan-25																																						
1675-CSS-MD-1460	Commissioning Procedure - IFC	5	27-Jan-25	31-Jan-25																																						
1675-CSS-MD-1510	Inspection and Testing Plan - IFR	5	20-Dec-24	30-Dec-24																																						
1675-CSS-MD-1520	Inspection and Testing Plan - IDC Ready	0	27-Dec-24																																							
1675-CSS-MD-1530	Inspection and Testing Plan - IFD	5	31-Dec-24	07-Jan-25																																						
1675-CSS-MD-1540	Inspection and Testing Plan - IFC	5	08-Jan-25	14-Jan-25																																						
1675-CSS-MD-1280	Workpacks - IFR	15	20-Dec-24	14-Jan-25																																						
1675-CSS-MD-1340	Workpacks - IDC Ready	0	08-Jan-25																																							
1675-CSS-MD-1350	Workpacks - IFD	6	15-Jan-25	22-Jan-25																																						
1675-CSS-MD-1360	Workpacks - IFC	4	23-Jan-25	28-Jan-25																																						
1675-CSS-MD-1550	Safety Dossier - IFR	5	20-Dec-24	30-Dec-24																																						
1675-CSS-MD-1560	Safety Dossier - IDC Ready	0	27-Dec-24																																							
1675-CSS-MD-1570	Safety Dossier - IFD	5	31-Dec-24	07-Jan-25																																						
1675-CSS-MD-1580	Safety Dossier - IFC	5	08-Jan-25	14-Jan-25																																						
OSL Deliverable: CSS 021 - Control and Safety Systems Specification / Standards		15	13-Sep-24	03-Oct-24																																						
1675-CSS-MD-1060	Input and IDC to Control and Operating Philosophy	15	13-Sep-24	03-Oct-24																																						
OSL Deliverable: PLN 002 - Plan / Planning		15	06-Jan-25	24-Jan-25																																						
1675-CSS-MD-1470	Commissioning Sequence - IFR	5	06-Jan-25	10-Jan-25																																						
1675-CSS-MD-1480	Commissioning Sequence - IDC Ready	0	09-Jan-25																																							
1675-CSS-MD-1490	Commissioning Sequence - IFD	5	13-Jan-25	17-Jan-25																																						
1675-CSS-MD-1500	Commissioning Sequence - IFC	5	20-Jan-25	24-Jan-25																																						
10 Purchasing / TBE / Vendor Activities		153	10-Sep-24	15-Apr-25																																						
OSL Deliverable: VDR 090 - Vendor Document Reviews		153	10-Sep-24	15-Apr-25																																						
1675-CSS-MD-1600	EConnect IQay - Document Review and Interface	10	10-Sep-24	24-Sep-24																																						
1675-CSS-CL-1120	Receive EConnect IQay Docs	0	10-Sep-24*																																							
1675-CSS-MD-1610	Permit Process - Provide Support	74	02-Jan-25*	15-Apr-25																																						
1675-CSS-CL-1170	Receive CLNG Documentation	0	10-Sep-24*																																							
01 Project Management		166	12-Aug-24	04-Apr-25																																						
00 General/Coordination/Meetings/Admin		166	12-Aug-24	04-Apr-25																																						
OSL Deliverable: COC 012 - Cost Control		150	28-Aug-24	28-Mar-25																																						



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Activity ID	Activity Name	Original Duration	Start	Finish	August 2024				September 2024				October 2024				November 2024				December 2024				January 2025				February 2025				March 2025				April 2025					
					05	12	19	26	02	09	16	23	30	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	03	10	17	24	03	10	17	24	31	07	14	1
1675-CSS-PR-3920	Relief Valve Datasheet - IFD	2	10-Oct-24	11-Oct-24																																						
1675-CSS-PR-3930	Relief Valve Datasheet - IFC	1	14-Oct-24	14-Oct-24																																						
03 Calculations		58	09-Sep-24	27-Nov-24																																						
OSL Deliverable: EQC 033 - Equipment Sizing Calculations		18	20-Sep-24	15-Oct-24																																						
1675-CSS-PR-1000	Utility consumption calculations & report - IFR	4	20-Sep-24	25-Sep-24																																						
1675-CSS-PR-1010	Utility consumption calculations & report - IDC Ready	0	25-Sep-24																																							
1675-CSS-PR-1020	Utility consumption calculations & report - IFD	2	27-Sep-24	30-Sep-24																																						
1675-CSS-PR-1030	Utility consumption calculations & report - IFC	1	01-Oct-24	01-Oct-24																																						
1675-CSS-PR-2700	Filter Sizing Calculation - IFR	4	08-Oct-24	11-Oct-24																																						
1675-CSS-PR-2710	Filter Sizing Calculation - IDC Ready	0	11-Oct-24																																							
1675-CSS-PR-2720	Filter Sizing Calculation - IFD	1	14-Oct-24	14-Oct-24																																						
1675-CSS-PR-2730	Filter Sizing Calculation - IFC	1	15-Oct-24	15-Oct-24																																						
OSL Deliverable: ESP 018 - Equipment Specifications / Standards		22	20-Sep-24	21-Oct-24																																						
1675-CSS-PR-3780	Pump Sizing (vendor) Review	5	24-Sep-24	30-Sep-24																																						
1675-CSS-PR-4070	Vessel Sizing (vendor) Review	5	11-Oct-24	17-Oct-24																																						
1675-CSS-PR-2500	Vessel Sizing - IFR	4	08-Oct-24	11-Oct-24																																						
1675-CSS-PR-2510	Vessel Sizing - IDC Ready	0	11-Oct-24																																							
1675-CSS-PR-2520	Vessel Sizing - IFD	1	18-Oct-24	18-Oct-24																																						
1675-CSS-PR-2530	Vessel Sizing - IFC	1	21-Oct-24	21-Oct-24																																						
1675-CSS-PR-2540	Vaporiser Sizing - IFR	3	09-Oct-24	11-Oct-24																																						
1675-CSS-PR-2550	Vaporiser Sizing - IDC Ready	0	11-Oct-24																																							
1675-CSS-PR-2560	Vaporiser Sizing - IFD	1	14-Oct-24	14-Oct-24																																						
1675-CSS-PR-2570	Vaporiser Sizing - IFC	1	15-Oct-24	15-Oct-24																																						
1675-CSS-PR-2460	Pump sizing - IFR	3	14-Oct-24	16-Oct-24																																						
1675-CSS-PR-2470	Pump sizing - IDC Ready	0	16-Oct-24																																							
1675-CSS-PR-2480	Pump sizing - IFD	1	17-Oct-24	17-Oct-24																																						
1675-CSS-PR-2490	Pump sizing - IFC	1	18-Oct-24	18-Oct-24																																						
1675-CSS-PR-3820	Compressor Sizing - IFR	3	20-Sep-24	24-Sep-24																																						
1675-CSS-PR-3830	Compressor Sizing - IDC Ready	0	24-Sep-24																																							
1675-CSS-PR-3840	Compressor Sizing - IFD	1	01-Oct-24	01-Oct-24																																						
1675-CSS-PR-3850	Compressor Sizing - IFC	1	02-Oct-24	02-Oct-24																																						
1675-CSS-PR-3860	Compressor Settle-out calculation - IFR	3	25-Sep-24	27-Sep-24																																						
1675-CSS-PR-3870	Compressor Settle-out calculation - IDC Ready	0	27-Sep-24																																							
1675-CSS-PR-3880	Compressor Settle-out calculation - IFD	1	30-Sep-24	30-Sep-24																																						
1675-CSS-PR-3890	Compressor Settle-out calculation - IFC	1	01-Oct-24	01-Oct-24																																						
OSL Deliverable: LNC 035 - Line Sizing Calculations		41	02-Oct-24	27-Nov-24																																						
1675-CSS-PR-2580	Restriction Orifice (RO) sizing - IFR	8	12-Nov-24	21-Nov-24																																						
1675-CSS-PR-2590	Restriction Orifice (RO) sizing - IDC Ready	0	20-Nov-24																																							
1675-CSS-PR-2600	Restriction Orifice (RO) sizing - IFD	3	22-Nov-24	26-Nov-24																																						
1675-CSS-PR-2610	Restriction Orifice (RO) sizing - IFC	1	27-Nov-24	27-Nov-24																																						
1675-CSS-PR-2620	Line sizing (per 40 lines) - IFR	4	02-Oct-24	07-Oct-24																																						
1675-CSS-PR-2630	Line sizing (per 40 lines) - IDC Ready	0	07-Oct-24																																							
1675-CSS-PR-2640	Line sizing (per 40 lines) - IFD	1	07-Oct-24	07-Oct-24																																						
1675-CSS-PR-2650	Line sizing (per 40 lines) - IFC	1	08-Oct-24	08-Oct-24																																						
OSL Deliverable: MCV 037 - Manual / Control Valve Sizing Calculations		7	08-Oct-24	16-Oct-24																																						
1675-CSS-PR-3700	Control valve sizing (vendor) Review	3	10-Oct-24	14-Oct-24																																						
1675-CSS-PR-2380	Control valve sizing - IFR	3	08-Oct-24	10-Oct-24																																						
1675-CSS-PR-2390	Control valve sizing - IDC Ready	0	10-Oct-24																																							
1675-CSS-PR-2400	Control valve sizing - IFD	1	15-Oct-24	15-Oct-24																																						



■ Remaining Level of Effort ■ Remaining Work ■ Actual Level of Effort ■ Critical Remaining Work ■ Actual Work ◆◆ Current Plan Milestone	Page 5 of 25	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Date</th> <th>Revision</th> <th>Checked</th> <th>Approved</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	Date	Revision	Checked	Approved													Run Date 30-Aug-2414:38 TASK filter: All Activities Layout: OSL code for booking Plan ID: 1675-CSS-BID-00
Date	Revision	Checked	Approved																



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Activity ID		Activity Name	Original Duration	Start	Finish	August 2024				September 2024				October 2024				November 2024				December 2024				January 2025				February 2025				March 2025				April 2025																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
						05	12	19	26	02	09	16	23	30	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	03	10	17	24	03	10	17	24	31	07	14	1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
05 Safety Studies / Design Reviews	1675-CSS-PR-1820	P&ID - LNG Feed - IDC Ready	0	04-Oct-24																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	</



■ Remaining Level of Effort ■ Remaining Work ■ Actual Level of Effort ■ Critical Remaining Work ■ Actual Work ◆ ◆ Current Plan Milestone	Page 8 of 25	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Date</th> <th style="text-align: left;">Revision</th> <th style="text-align: left;">Checked</th> <th style="text-align: left;">Approved</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	Date	Revision	Checked	Approved													Run Date 30-Aug-2414:38 TASK filter: All Activities Layout: OSL code for booking Plan ID: 1675-CSS-BID-00
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Remaining Level of Effort Remaining Work Actual Level of Effort Critical Remaining Work Actual Work Current Plan Milestone	Page 9 of 25	Date	Revision	Checked	Approved	Run Date 30-Aug-2414:38 TASK filter: All Activities Layout: OSL code for booking Plan ID: 1675-CSS-BID-00



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Activity ID	Activity Name	Original Duration	Start	Finish	August 2024				September 2024				October 2024				November 2024				December 2024				January 2025				February 2025				March 2025				April 2025					
					05	12	19	26	02	09	16	23	30	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	03	10	17	24	03	10	17	24	31	07	14	1
1675-CSS-PS-1580	Explosion protection document - IFC	1	10-Jan-25	10-Jan-25																																						
OSL Deliverable: HPH 083 - HSE Philosophies		4	30-Sep-24	03-Oct-24																																						
1675-CSS-PS-1240	HSE Philosophy and Safety Considerations (per main plant item per chemical)	4	30-Sep-24	03-Oct-24																																						
06 Mechanical		152	12-Aug-24	17-Mar-25																																						
00 General/Coordination/Meetings/Admin		152	12-Aug-24	17-Mar-25																																						
OSL Deliverable: MAN 010 - Management		152	12-Aug-24	17-Mar-25																																						
1675-CSS-ME-1000	Discipline management	152	12-Aug-24	17-Mar-25																																						
01 Specification		58	04-Sep-24	22-Nov-24																																						
OSL Deliverable: ESP 018 - Equipment Specifications / Standards		58	04-Sep-24	22-Nov-24																																						
1675-CSS-ME-1340	Centrifugal Pump Specification - IFR	3	13-Nov-24	15-Nov-24																																						
1675-CSS-ME-1350	Centrifugal Pump Specification - IDC Ready	0	15-Nov-24																																							
1675-CSS-ME-1360	Centrifugal Pump Specification - IFD	1	18-Nov-24	18-Nov-24																																						
1675-CSS-ME-1370	Centrifugal Pump Specification - IFC	1	19-Nov-24	19-Nov-24																																						
1675-CSS-ME-1380	***** Submersible Pump Specification - IFR	2	13-Nov-24	14-Nov-24																																						
1675-CSS-ME-1390	Submersible Pump Specification - IDC Ready	0	14-Nov-24																																							
1675-CSS-ME-1400	Submersible Pump Specification - IFD	1	15-Nov-24	15-Nov-24																																						
1675-CSS-ME-1410	Submersible Pump Specification - IFC	1	18-Nov-24	18-Nov-24																																						
1675-CSS-ME-1420	Pressure Vessel Specification - IFR	2	13-Nov-24	14-Nov-24																																						
1675-CSS-ME-1430	Pressure Vessel Specification - IDC Ready	0	14-Nov-24																																							
1675-CSS-ME-1440	Pressure Vessel Specification - IFD	1	15-Nov-24	15-Nov-24																																						
1675-CSS-ME-1450	Pressure Vessel Specification - IFC	1	18-Nov-24	18-Nov-24																																						
1675-CSS-ME-1460	Atmospheric Storage Tank Specification (Fire Water) - IFR	2	13-Nov-24	14-Nov-24																																						
1675-CSS-ME-1470	Atmospheric Storage Tank Specification (Fire Water) - IDC Ready	0	14-Nov-24																																							
1675-CSS-ME-1480	Atmospheric Storage Tank Specification (Fire Water) - IFD	1	15-Nov-24	15-Nov-24																																						
1675-CSS-ME-1490	Atmospheric Storage Tank Specification (Fire Water) - IFC	1	18-Nov-24	18-Nov-24																																						
1675-CSS-ME-1500	Instrument Air Compressor Package Specification - IFR	5	13-Nov-24	19-Nov-24																																						
1675-CSS-ME-1510	Instrument Air Compressor Package Specification - IDC Ready	0	19-Nov-24																																							
1675-CSS-ME-1520	Instrument Air Compressor Package Specification - IFD	1	20-Nov-24	20-Nov-24																																						
1675-CSS-ME-1530	Instrument Air Compressor Package Specification - IFC	1	21-Nov-24	21-Nov-24																																						
1675-CSS-ME-1580	Air Cooled Vapouriser Unit Specification - IFR	5	04-Sep-24	10-Sep-24																																						
1675-CSS-ME-1590	Air Cooled Vapouriser Unit Specification - IDC Ready	0	10-Sep-24																																							
1675-CSS-ME-1600	Air Cooled Vapouriser Unit Specification - IFD	1	11-Sep-24	11-Sep-24																																						
1675-CSS-ME-1610	Air Cooled Vapouriser Unit Specification - IFC	1	12-Sep-24	12-Sep-24																																						
1675-CSS-ME-1220	BOG Compressor Specification(s) - IFR	5	13-Nov-24	19-Nov-24																																						
1675-CSS-ME-1230	BOG Compressor Specification(s) - IDC Ready	0	19-Nov-24																																							
1675-CSS-ME-1240	BOG Compressor Specification(s) - IFD	2	20-Nov-24	21-Nov-24																																						
1675-CSS-ME-1250	BOG Compressor Specification(s) - IFC	1	22-Nov-24	22-Nov-24																																						
02 Data Sheet		87	04-Sep-24	07-Jan-25																																						
OSL Deliverable: EQD 027 - Equipment Datasheets		87	04-Sep-24	07-Jan-25																																						
1675-CSS-ME-1620	Compressor Datasheet(s) - IFR	4	04-Nov-24	07-Nov-24																																						
1675-CSS-ME-1630	Compressor Datasheet(s) - IDC Ready	0	06-Nov-24																																							
1675-CSS-ME-1640	Compressor Datasheet(s) - IFD	2	08-Nov-24	11-Nov-24																																						
1675-CSS-ME-1650	Compressor Datasheet(s) - IFC	1	12-Nov-24	12-Nov-24																																						
1675-CSS-ME-1740	Centrifugal Pump Datasheet(s) - IFR	2	18-Nov-24	19-Nov-24																																						
1675-CSS-ME-1750	Centrifugal Pump Datasheet(s) - IDC Ready	0	19-Nov-24																																							
1675-CSS-ME-1760	Centrifugal Pump Datasheet(s) - IFD	1	20-Nov-24	20-Nov-24																																						
1675-CSS-ME-1770	Centrifugal Pump Datasheet(s) - IFC	1	21-Nov-24	21-Nov-24																																						
1675-CSS-ME-1780	Pressure Vessel Datasheet(s) - IFR	2	24-Sep-24	25-Sep-24																																						
1675-CSS-ME-1790	Pressure Vessel Datasheet(s) - IDC Ready	0	25-Sep-24																																							



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Activity ID	Activity Name	Original Duration	Start	Finish	August 2024				September 2024				October 2024				November 2024				December 2024				January 2025				February 2025				March 2025				April 2025					
					05	12	19	26	02	09	16	23	30	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	03	10	17	24	03	10	17	24	31	07	14	1
1675-CSS-ME-1800	Pressure Vessel Datasheet(s) - IFD	1	26-Sep-24	26-Sep-24								I																														
1675-CSS-ME-1810	Pressure Vessel Datasheet(s) - IFC	1	27-Sep-24	27-Sep-24								I																														
1675-CSS-ME-1820	Atmospheric Storage Tank Datasheet(s) - IFR	2	04-Sep-24	05-Sep-24							I																															
1675-CSS-ME-1830	Atmospheric Storage Tank Datasheet(s) - IDC Ready	0	05-Sep-24								I																															
1675-CSS-ME-1840	Atmospheric Storage Tank Datasheet(s) - IFD	1	06-Sep-24	06-Sep-24							I																															
1675-CSS-ME-1850	Atmospheric Storage Tank Datasheet(s) - IFC	1	09-Sep-24	09-Sep-24							I																															
1675-CSS-ME-1860	Restriction Orifice Datasheet(s) - IFR	2	04-Nov-24	05-Nov-24																																						
1675-CSS-ME-1870	Restriction Orifice Datasheet(s) - IDC Ready	0	05-Nov-24																																							
1675-CSS-ME-1880	Restriction Orifice Datasheet(s) - IFD	1	06-Nov-24	06-Nov-24																																						
1675-CSS-ME-1890	Restriction Orifice Datasheet(s) - IFC	1	07-Jan-25	07-Jan-25																																						
1675-CSS-ME-1940	Pressure Safety Valve Datasheet(s) - IFR	2	08-Oct-24	09-Oct-24																																						
1675-CSS-ME-1950	Pressure Safety Valve Datasheet(s) - IDC Ready	0	09-Oct-24																																							
1675-CSS-ME-1960	Pressure Safety Valve Datasheet(s) - IFD	1	10-Oct-24	10-Oct-24																																						
1675-CSS-ME-1970	Pressure Safety Valve Datasheet(s) - IFC	1	11-Oct-24	11-Oct-24																																						
1675-CSS-ME-1980	Instrument Air Compressor Package Datasheet(s) - IFR	3	20-Nov-24	22-Nov-24																																						
1675-CSS-ME-1990	Instrument Air Compressor Package Datasheet(s) - IDC Ready	0	22-Nov-24																																							
1675-CSS-ME-2000	Instrument Air Compressor Package Datasheet(s) - IFD	1	25-Nov-24	25-Nov-24																																						
1675-CSS-ME-2010	Instrument Air Compressor Package Datasheet(s) - IFC	1	26-Nov-24	26-Nov-24																																						
1675-CSS-ME-2100	Filter/Strainer Datasheet(s) - IFR	3	04-Nov-24	06-Nov-24																																						
1675-CSS-ME-2110	Filter/Strainer Datasheet(s) - IDC Ready	0	05-Nov-24																																							
1675-CSS-ME-2120	Filter/Strainer Datasheet(s) - IFD	1	07-Nov-24	07-Nov-24																																						
1675-CSS-ME-2130	Filter/Strainer Datasheet(s) - IFC	1	08-Nov-24	08-Nov-24																																						
1675-CSS-ME-2330	Air Cooled Vapouriser Unit Datasheet review	2	11-Sep-24	12-Sep-24																																						
OSL Deliverable: VLD 028 - Valve Datasheets		33	20-Sep-24	05-Nov-24																																						
1675-CSS-ME-2060	Manual Valve Datasheet(s) - IFR	10	15-Oct-24	28-Oct-24																																						
1675-CSS-ME-2070	Manual Valve Datasheet(s) - IDC Ready	0	17-Oct-24																																							
1675-CSS-ME-2080	Manual Valve Datasheet(s) - IFD	4	29-Oct-24	01-Nov-24																																						
1675-CSS-ME-2090	Manual Valve Datasheet(s) - IFC	2	04-Nov-24	05-Nov-24																																						
1675-CSS-ME-2820	Actuated Valve Datasheet(s) - IFR	3	20-Sep-24	24-Sep-24																																						
1675-CSS-ME-2830	Actuated Valve Datasheet(s) - IDC Ready	0	24-Sep-24																																							
1675-CSS-ME-2840	Actuated Valve Datasheet(s) - IFD	1	27-Sep-24	27-Sep-24																																						
1675-CSS-ME-2850	Actuated Valve Datasheet(s) - IFC	1	30-Sep-24	30-Sep-24																																						
03 Calculations		5	24-Sep-24	30-Sep-24																																						
OSL Deliverable: EQC 033 - Equipment Sizing Calculations		5	24-Sep-24	30-Sep-24																																						
1675-CSS-ME-1160	Pressure Vessel Thickness Review Calculation (vendor check) - IFR	3	24-Sep-24	26-Sep-24																																						
1675-CSS-ME-1170	Pressure Vessel Thickness Review Calculation (vendor check) - IDC Ready	0	26-Sep-24																																							
1675-CSS-ME-1180	Pressure Vessel Thickness Review Calculation (vendor check) - IFD	1	27-Sep-24	27-Sep-24																																						
1675-CSS-ME-1190	Pressure Vessel Thickness Review Calculation (vendor check) - IFC	1	30-Sep-24	30-Sep-24																																						
05 Safety Studies / Design Reviews		22	09-Sep-24	08-Oct-24																																						
OSL Deliverable: GSS 017 - General Specifications / Standards		6	09-Sep-24	16-Sep-24																																						
1675-CSS-ME-2320	Material Selection	3	09-Sep-24	11-Sep-24																																						
1675-CSS-ME-2860	Corrosion / Erosion assessment	3	12-Sep-24	16-Sep-24																																						
OSL Deliverable: PPS 019 - Piping Specifications / Standards		5	02-Oct-24	08-Oct-24																																						
1675-CSS-ME-1070	Review of Pipe Specs (7 Off: 2 x Complex, 2 x Moderate, 3 x Simple)	5	02-Oct-24	08-Oct-24																																						
08 Reports / Philosophies / Plan / Procedures		45	12-Aug-24	14-Oct-24																																						
OSL Deliverable: GRP 080 - General Reports/ Philosophies/ Plan/ Procedures		10	12-Aug-24	23-Aug-24																																						
1675-CSS-ME-1140	Review Technical File	10	12-Aug-24	23-Aug-24																																						
OSL Deliverable: PSD 050 - Piping Support Drawings		3	10-Oct-24	14-Oct-24																																						



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Activity ID	Activity Name	Original Duration	Start	Finish	August 2024				September 2024				October 2024				November 2024				December 2024				January 2025				February 2025				March 2025				April 2025					
					05	12	19	26	02	09	16	23	30	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	03	10	17	24	03	10	17	24	31	07	14	1
1675-CSS-ME-1080	Method of support for LNG Pipe to site	3	10-Oct-24	14-Oct-24																																						
10 Purchasing / TBE / Vendor Activities		138	02-Sep-24	17-Mar-25																																						
OSL Deliverable: TBD 097 - Technical Bid		138	02-Sep-24	17-Mar-25																																						
1675-CSS-ME-2780	TBE - Centrifugal Pump - IFR	4	05-Sep-24	11-Sep-24																																						
1675-CSS-ME-2775	Bid received - Centrifugal Pump - TBC	0	05-Sep-24*																																							
1675-CSS-ME-2790	TBE - Centrifugal Pump - IDC Ready	0	06-Sep-24																																							
1675-CSS-ME-2800	TBE - Centrifugal Pump - IFD	2	11-Sep-24	13-Sep-24																																						
1675-CSS-ME-2810	TBE - Centrifugal Pump - IFC	1	13-Sep-24	16-Sep-24																																						
1675-CSS-ME-2870	Centrifugal Pump - Procurement Engagement and supply Period - TBC	40	16-Sep-24	11-Nov-24																																						
1675-CSS-ME-2380	TBE - Submersible Pump (CLNG) - IFR	2	04-Nov-24	05-Nov-24																																						
1675-CSS-ME-2375	Bid Received - Submersible Pump - TBC	0	04-Nov-24*																																							
1675-CSS-ME-2390	TBE - Submersible Pump - IDC Ready	0	05-Nov-24																																							
1675-CSS-ME-2400	TBE - Submersible Pump - IFD	1	06-Nov-24	06-Nov-24																																						
1675-CSS-ME-2410	TBE - Submersible Pump - IFC	1	07-Nov-24	07-Nov-24																																						
1675-CSS-ME-2590	Submersible Pump - Procurement Engagement and supply Period - TBC	40	08-Nov-24	07-Jan-25																																						
1675-CSS-ME-2420	TBE - Pressure Vessel - IFR	2	03-Sep-24	04-Sep-24																																						
1675-CSS-ME-2415	Bid Received - Pressure Vessel - TBC	0	03-Sep-24*																																							
1675-CSS-ME-2430	TBE - Pressure Vessel - IDC Ready	0	04-Sep-24																																							
1675-CSS-ME-2440	TBE - Pressure Vessel - IFD	1	05-Sep-24	05-Sep-24																																						
1675-CSS-ME-2450	TBE - Pressure Vessel - IFC	1	06-Sep-24	06-Sep-24																																						
1675-CSS-ME-2600	Pressure Vessel - Procurement Engagement and supply Period - TBC	80	09-Sep-24	31-Dec-24																																						
1675-CSS-ME-2460	TBE - Atmospheric Storage Tank (Fire Water) - IFR	2	01-Nov-24	05-Nov-24																																						
1675-CSS-ME-2455	Bid Received - Atmospheric Storage Tank (Fire Water) - TBC	0	01-Nov-24*																																							
1675-CSS-ME-2470	TBE - Atmospheric Storage Tank (Fire Water) - IDC Ready	0	04-Nov-24																																							
1675-CSS-ME-2480	TBE - Atmospheric Storage Tank (Fire Water) - IFD	1	05-Nov-24	06-Nov-24																																						
1675-CSS-ME-2490	TBE - Atmospheric Storage Tank (Fire Water) - IFC	1	06-Nov-24	07-Nov-24																																						
1675-CSS-ME-2610	Atmospheric Storage Tank (Fire Water) - Procurement Engagement and supply Period - TBC	60	07-Nov-24	04-Feb-25																																						
1675-CSS-ME-2500	TBE - Instrument Air Compressor Package - IFR	2	04-Nov-24	05-Nov-24																																						
1675-CSS-ME-2495	Bid Received - Instrument Air Compressor Package - IDC Ready - TBC	0	04-Nov-24*																																							
1675-CSS-ME-2510	TBE - Instrument Air Compressor Package - IDC Ready	0	05-Nov-24																																							
1675-CSS-ME-2520	TBE - Instrument Air Compressor Package - IFD	1	06-Nov-24	06-Nov-24																																						
1675-CSS-ME-2530	TBE - Instrument Air Compressor Package - IFC	1	07-Nov-24	07-Nov-24																																						
1675-CSS-ME-2630	Instrument Air Compressor Package - Procurement Engagement and supply Period - TBC	70	08-Nov-24	18-Feb-25																																						
1675-CSS-ME-2580	Review Vendor Quotations for Manual Valves	2	04-Nov-24	05-Nov-24																																						
1675-CSS-ME-2620	Review Vendor Quotations Pressure Safety Valve	2	10-Oct-24	11-Oct-24																																						
1675-CSS-ME-2700	Review Restriction Orifice Datasheet(s)	2	05-Nov-24	06-Nov-24																																						
1675-CSS-ME-2660	TBE - Strainer - IFR	2	04-Nov-24	05-Nov-24																																						
1675-CSS-ME-2655	Bid Received - Strainer - TBC	0	04-Nov-24*																																							
1675-CSS-ME-2670	TBE - Strainer - IDC Ready	0	05-Nov-24																																							
1675-CSS-ME-2680	TBE - Strainer - IFD	1	06-Nov-24	06-Nov-24																																						
1675-CSS-ME-2690	TBE - Strainer - IFC	1	07-Nov-24	07-Nov-24																																						
1675-CSS-ME-2740	Strainer - Procurement Engagement and supply Period - TBC	5	08-Nov-24	14-Nov-24																																						
1675-CSS-ME-2535	Bid Received - FDAAV Vapouriser Unit & Ancillaries (NIKISSO) - TBC	0	02-Sep-24*																																							
1675-CSS-ME-2540	TBE - FDAAV Vapouriser Unit & Ancillaries(NIKISSO) - IFR	3	11-Sep-24	13-Sep-24																																						
1675-CSS-ME-2550	TBE - FDAAV Vapouriser Unit & Ancillaries(NIKISSO) - IDC Ready	0	12-Sep-24																																							
1675-CSS-ME-2560	TBE - FDAAV Vapouriser Unit & Ancillaries(NIKISSO) - IFD	2	16-Sep-24	17-Sep-24																																						
1675-CSS-ME-2570	TBE - FDAAV Vapouriser Unit & Ancillaries(NIKISSO) - IFC	1	18-Sep-24	18-Sep-24																																						
1675-CSS-ME-2640	Air Cooled Vapouriser Unit - Procurement Engagement and supply Period - TBC	66	19-Sep-24	19-Dec-24																																						
1675-CSS-ME-2340	TBE - BOG Compressor - IFR	8	04-Nov-24	13-Nov-24																																						
1675-CSS-ME-2335	Bid Received - BOG Compressor - TBC	0	04-Nov-24*																																							



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Activity ID	Activity Name	Original Duration	Start	Finish	August 2024				September 2024				October 2024				November 2024				December 2024				January 2025				February 2025				March 2025				April 2025				
					05	12	19	26	02	09	16	23	30	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	03	10	17	24	03	10	17	24	31	07	14
1675-CSS-ME-2350	TBE - BOG Compressor - IDC Ready	0	05-Nov-24																																						
1675-CSS-ME-2360	TBE - BOG Compressor - IFD	3	14-Nov-24	18-Nov-24																																					
1675-CSS-ME-2370	TBE - BOG Compressor - IFC	2	19-Nov-24	20-Nov-24																																					
1675-CSS-ME-2650	BOG Compressor - Procurement Engagement and supply Period - TBC	80	21-Nov-24	17-Mar-25																																					
OSL Deliverable: VDR 090 - Vendor Document Reviews		90	14-Oct-24	19-Feb-25																																					
1675-CSS-ME-2300	Vapouriser - Vendor Liaison and document review	20	14-Oct-24	08-Nov-24																																					
1675-CSS-ME-2710	LNG Tanks - Vendor Liaison and document review	20	14-Oct-24	08-Nov-24																																					
1675-CSS-ME-2720	Pipeline - Vendor Liaison and document review	35	04-Nov-24	20-Dec-24																																					
1675-CSS-ME-2730	Skid / Fabricator - Vendor Liaison and document review	20	23-Jan-25	19-Feb-25																																					
07 Piping		142	09-Sep-24	28-Mar-25																																					
00 General/Coordination/Meetings/Admin		142	09-Sep-24	28-Mar-25																																					
OSL Deliverable: MAN 010 - Management		142	09-Sep-24	28-Mar-25																																					
1675-CSS-PP-1000	Discipline Management	142	09-Sep-24	28-Mar-25																																					
01 Specification		34	09-Sep-24	24-Oct-24																																					
OSL Deliverable: PPS 019 - Piping Specifications / Standards		34	09-Sep-24	24-Oct-24																																					
1675-CSS-PP-1030	Piping Fabrication Specification - IFR	6	14-Oct-24	21-Oct-24																																					
1675-CSS-PP-1830	Piping Fabrication Specification - IDC Ready	0	18-Oct-24																																						
1675-CSS-PP-1840	Piping Fabrication Specification - IFD	2	22-Oct-24	23-Oct-24																																					
1675-CSS-PP-1850	Piping Fabrication Specification - IFC	1	24-Oct-24	24-Oct-24																																					
1675-CSS-PP-1070	Create Pipe Specs (7 Off: 2 x Complex, 2 x Moderate, 3 x Simple) - IFR	20	09-Sep-24	04-Oct-24																																					
1675-CSS-PP-1080	Create Pipe Specs (7 Off: 2 x Complex, 2 x Moderate, 3 x Simple) - IDC Ready	0	02-Oct-24																																						
1675-CSS-PP-1090	Create Pipe Specs (7 Off: 2 x Complex, 2 x Moderate, 3 x Simple) - IFD	5	07-Oct-24	11-Oct-24																																					
1675-CSS-PP-1100	Create Pipe Specs (7 Off: 2 x Complex, 2 x Moderate, 3 x Simple) - IFC	3	14-Oct-24	16-Oct-24																																					
03 Calculations		122	07-Oct-24	28-Mar-25																																					
OSL Deliverable: LNC 035 - Line Sizing Calculations		5	07-Oct-24	11-Oct-24																																					
1675-CSS-ME-2140	Pipe wall Thickness Calculation per spec - IFR	3	07-Oct-24	09-Oct-24																																					
1675-CSS-ME-2150	Pipe wall Thickness Calculation per spec - IDC Ready	0	09-Oct-24																																						
1675-CSS-ME-2160	Pipe wall Thickness Calculation per spec - IFD	1	10-Oct-24	10-Oct-24																																					
1675-CSS-ME-2170	Pipe wall Thickness Calculation per spec - IFC	1	11-Oct-24	11-Oct-24																																					
OSL Deliverable: STR 039 - Stress Analysis Calcs		80	04-Dec-24	28-Mar-25																																					
1675-CSS-ME-1150	Review Stress Reports (Stephen Ford) (5 lines for analysis)	6	03-Feb-25	10-Feb-25																																					
1675-CSS-PP-1480	Stress Reports (Stephen Ford) (5 lines for analysis) - IFR	50	04-Dec-24	14-Feb-25																																					
1675-CSS-PP-1490	Stress Reports (Stephen Ford) (5 lines for analysis) - IDC Ready	0	03-Feb-25																																						
1675-CSS-PP-1500	Stress Reports (Stephen Ford) (5 lines for analysis) - IFD	20	17-Feb-25	14-Mar-25																																					
1675-CSS-PP-1510	Stress Reports (Stephen Ford) (5 lines for analysis) - IFC	10	17-Mar-25	28-Mar-25																																					
1675-CSS-PP-1560	Fire Water System Stress Report - IFR	10	27-Jan-25	07-Feb-25																																					
1675-CSS-PP-1570	Fire Water System Stress Report - IDC Ready	0	06-Feb-25																																						
1675-CSS-PP-1580	Fire Water System Stress Report - IFD	3	10-Feb-25	12-Feb-25																																					
1675-CSS-PP-1590	Fire Water System Stress Report - IFC	2	17-Feb-25	18-Feb-25																																					
04 Drawings		112	23-Sep-24	28-Feb-25																																					
OSL Deliverable: GSS 017 - General Specifications / Standards		5	23-Sep-24	27-Sep-24																																					
1675-CSS-PP-1130	Set up 2D CAD Drawing Templates	5	23-Sep-24	27-Sep-24																																					
OSL Deliverable: ISO 046 - Isometrics		45	18-Dec-24	21-Feb-25																																					
1675-CSS-PP-1200	Isometrics (20 Drawings) (Utility Pipework excluded) - IFR	35	18-Dec-24	07-Feb-25																																					
1675-CSS-PP-1210	Isometrics (20 Drawings) (Utility Pipework excluded) - IDC Ready	0	27-Jan-25																																						
1675-CSS-PP-1220	Isometrics (20 Drawings) (Utility Pipework excluded) - IFD	15	27-Jan-25	14-Feb-25																																					
1675-CSS-PP-1230	Isometrics (20 Drawings) (Utility Pipework excluded) - IFC	5	17-Feb-25	21-Feb-25																																					
1675-CSS-PP-1520	Fire Water System Pipework - IFR	25	18-Dec-24	24-Jan-25																																					

Remaining Level of Effort Remaining Work
Actual Level of Effort Critical Remaining Work
Actual Work Current Plan Milestone

Date	Revision	Checked	Approved

Run Date 30-Aug-2414:38
TASK filter: All Activities
Layout: OSL code for booking
Plan ID: 1675-CSS-BID-00



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Activity ID	Activity Name	Original Duration	Start	Finish	August 2024				September 2024				October 2024				November 2024				December 2024				January 2025				February 2025				March 2025				April 2025					
					05	12	19	26	02	09	16	23	30	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	03	10	17	24	03	10	17	24	31	07	14	1
1675-CSS-PP-1790	ESR checklist - IFR	4	30-Sep-24	03-Oct-24																																						
1675-CSS-PP-1800	ESR checklist - IDC Ready	0	03-Oct-24																																							
1675-CSS-PP-1810	ESR checklist - IFD	2	04-Oct-24	07-Oct-24																																						
1675-CSS-PP-1820	ESR checklist - IFC	1	08-Oct-24	08-Oct-24																																						
1675-CSS-PP-1750	Pigging system model and drawing - IFR	4	02-Dec-24	05-Dec-24																																						
1675-CSS-PP-1760	Pigging system model and drawing - IDC Ready	0	05-Dec-24																																							
1675-CSS-PP-1770	Pigging system model and drawing - IFD	2	06-Dec-24	09-Dec-24																																						
1675-CSS-PP-1780	Pigging system model and drawing - IFC	1	10-Dec-24	10-Dec-24																																						
1675-CSS-PP-1710	Process Pipework MTO - IFR	4	02-Dec-24	05-Dec-24																																						
1675-CSS-PP-1720	Process Pipework MTO - IDC Ready	0	05-Dec-24																																							
1675-CSS-PP-1730	Process Pipework MTO - IFD	2	06-Jan-25	07-Jan-25																																						
1675-CSS-PP-1740	Process Pipework MTO - IFC	1	08-Jan-25	08-Jan-25																																						
1675-CSS-PP-1400	Utility Pipework MTO - IFR	4	02-Dec-24	05-Dec-24																																						
1675-CSS-PP-1410	Utility Pipework MTO - IDC Ready	0	05-Dec-24																																							
1675-CSS-PP-1420	Utility Pipework MTO - IFD	2	06-Jan-25	07-Jan-25																																						
1675-CSS-PP-1430	Utility Pipework MTO - IFC	1	08-Jan-25	08-Jan-25																																						
08 Reports / Philosophies / Plan / Procedures		9	06-Jan-25	16-Jan-25																																						
OSL Deliverable: GEN 000 - General		9	06-Jan-25	16-Jan-25																																						
1675-CSS-PP-1440	PED Technical File - IFR	6	06-Jan-25	13-Jan-25																																						
1675-CSS-PP-1450	PED Technical File - IDC Ready	0	10-Jan-25																																							
1675-CSS-PP-1460	PED Technical File - IFD	2	14-Jan-25	15-Jan-25																																						
1675-CSS-PP-1470	PED Technical File - IFC	1	16-Jan-25	16-Jan-25																																						
08 Control & Instrumentation		129	05-Sep-24	07-Mar-25																																						
00 General/Coordination/Meetings/Admin		129	05-Sep-24	07-Mar-25																																						
OSL Deliverable: MAN 010 - Management		129	05-Sep-24	07-Mar-25																																						
1675-CSS-CI-1000	Discipline management	129	05-Sep-24	07-Mar-25																																						
01 Specification		62	24-Sep-24	18-Dec-24																																						
OSL Deliverable: CSS 021 - Control and Safety Systems Specification / Standards		62	24-Sep-24	18-Dec-24																																						
1675-CSS-CI-2550	Safety Requirements Specification (per SIF) - IFR	4	11-Dec-24	16-Dec-24																																						
1675-CSS-CI-2560	Safety Requirements Specification (per SIF) - IDC Ready	0	16-Dec-24																																							
1675-CSS-CI-2570	Safety Requirements Specification (per SIF) - IFD	1	17-Dec-24	17-Dec-24																																						
1675-CSS-CI-2580	Safety Requirements Specification (per SIF) - IFC	1	18-Dec-24	18-Dec-24																																						
1675-CSS-CI-2590	provide Telecommunications specification - IFR	4	30-Oct-24	04-Nov-24																																						
1675-CSS-CI-2600	provide Telecommunications specification - IDC Ready	0	04-Nov-24																																							
1675-CSS-CI-2610	provide Telecommunications specification - IFD	1	05-Nov-24	05-Nov-24																																						
1675-CSS-CI-2620	provide Telecommunications specification - IFC	1	06-Nov-24	06-Nov-24																																						
1675-CSS-CI-2670	Provide cable transit specification - IFR	4	24-Sep-24	30-Sep-24																																						
1675-CSS-CI-2680	Provide cable transit specification - IDC Ready	0	27-Sep-24																																							
1675-CSS-CI-2690	Provide cable transit specification - IFD	1	30-Sep-24	01-Oct-24																																						
1675-CSS-CI-2700	Provide cable transit specification - IFC	1	01-Oct-24	02-Oct-24																																						
1675-CSS-CI-2270	Cybersecurity Requirements Specification - IFR	4	24-Oct-24	29-Oct-24																																						
1675-CSS-CI-2280	Cybersecurity Requirements Specification - IDC Ready	0	29-Oct-24																																							
1675-CSS-CI-2290	Cybersecurity Requirements Specification - IFD	1	30-Oct-24	30-Oct-24																																						
1675-CSS-CI-2300	Cybersecurity Requirements Specification - IFC	1	31-Oct-24	31-Oct-24																																						
OSL Deliverable: ESP 018 - Equipment Specifications / Standards		16	11-Nov-24	02-Dec-24																																						
1675-CSS-CI-2630	Metering Package specification - IFR	10	11-Nov-24	22-Nov-24																																						
1675-CSS-CI-2640	Metering Package specification - IDC Ready	0	14-Nov-24																																							
1675-CSS-CI-2650	Metering Package specification - IFD	4	25-Nov-24	28-Nov-24																																						



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Activity ID	Activity Name	Original Duration	Start	Finish	August 2024				September 2024				October 2024				November 2024				December 2024				January 2025				February 2025				March 2025				April 2025					
					05	12	19	26	02	09	16	23	30	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	03	10	17	24	03	10	17	24	31	07	14	1
1675-CSS-CI-2660	Metering Package specification - IFC	2	29-Nov-24	02-Dec-24																																						
OSL Deliverable: INS 022 - Instrumentation Specifications / Standards		21	24-Sep-24	22-Oct-24																																						
1675-CSS-CI-2430	Provide Field Instrument Standards - IFR	4	24-Sep-24	30-Sep-24																																						
1675-CSS-CI-2440	Provide Field Instrument Standards - IDC Ready	0	27-Sep-24																																							
1675-CSS-CI-2450	Provide Field Instrument Standards - IFD	1	30-Sep-24	01-Oct-24																																						
1675-CSS-CI-2460	Provide Field Instrument Standards - IFC	1	01-Oct-24	02-Oct-24																																						
1675-CSS-CI-1940	LV & HV Specification Review	1	22-Oct-24	22-Oct-24																																						
02 Data Sheet		40	25-Sep-24	19-Nov-24																																						
OSL Deliverable: EQD 027 - Equipment Datasheets		22	25-Sep-24	24-Oct-24																																						
1675-CSS-CI-1990	Input into Control Valve Datasheets	4	21-Oct-24	24-Oct-24																																						
1675-CSS-CI-2000	Input into Actuated Valve datasheets	4	25-Sep-24	30-Sep-24																																						
OSL Deliverable: GDT 026 - General Datasheets		6	11-Oct-24	18-Oct-24																																						
1675-CSS-CI-1310	Provide F&G datasheets (1 of x 4 types) - IFR	4	11-Oct-24	16-Oct-24																																						
1675-CSS-CI-1320	Provide F&G datasheets (1 of x 4 types) - IDC Ready	0	16-Oct-24																																							
1675-CSS-CI-1330	Provide F&G datasheets (1 of x 4 types) - IFD	1	17-Oct-24	17-Oct-24																																						
1675-CSS-CI-1340	Provide F&G datasheets (1 of x 4 types) - IFC	1	18-Oct-24	18-Oct-24																																						
OSL Deliverable: IND 029 - Instrumentation Datasheets		38	27-Sep-24	19-Nov-24																																						
1675-CSS-CI-1710	Provide Local JB Stand drawing 1 type - IFR	4	25-Oct-24	30-Oct-24																																						
1675-CSS-CI-1720	Provide Local JB Stand drawing 1 type - IDC Ready	0	30-Oct-24																																							
1675-CSS-CI-1730	Provide Local JB Stand drawing 1 type - IFD	1	31-Oct-24	31-Oct-24																																						
1675-CSS-CI-1740	Provide Local JB Stand drawing 1 type - IFC	1	01-Nov-24	01-Nov-24																																						
1675-CSS-CI-1750	Provide Local Instrument Stand 1 Type - IFR	10	25-Oct-24	07-Nov-24																																						
1675-CSS-CI-1760	Provide Local Instrument Stand 1 Type - IDC Ready	0	06-Nov-24																																							
1675-CSS-CI-1770	Provide Local Instrument Stand 1 Type - IFD	3	08-Nov-24	12-Nov-24																																						
1675-CSS-CI-1780	Provide Local Instrument Stand 1 Type - IFC	2	13-Nov-24	14-Nov-24																																						
1675-CSS-CI-1870	Provide Flow Instrument datasheets (non skid) - IFR	5	18-Oct-24	24-Oct-24																																						
1675-CSS-CI-1880	Provide Flow Instrument datasheets (non skid) - IDC Ready	0	24-Oct-24																																							
1675-CSS-CI-1890	Provide Flow Instrument datasheets (non skid) - IFD	1	25-Oct-24	25-Oct-24																																						
1675-CSS-CI-1900	Provide Flow Instrument datasheets (non skid) - IFC	1	28-Oct-24	28-Oct-24																																						
1675-CSS-CI-1790	Provide Temperature Instrument datasheets - IFR	10	25-Oct-24	07-Nov-24																																						
1675-CSS-CI-1800	Provide Temperature Instrument datasheets - IDC Ready	0	06-Nov-24																																							
1675-CSS-CI-1810	Provide Temperature Instrument datasheets - IFD	3	06-Nov-24	08-Nov-24																																						
1675-CSS-CI-1820	Provide Temperature Instrument datasheets - IFC	2	11-Nov-24	12-Nov-24																																						
1675-CSS-CI-2860	Provide Pressure Instrument datasheets - IFR	10	01-Nov-24	14-Nov-24																																						
1675-CSS-CI-2870	Provide Pressure Instrument datasheets - IDC Ready	0	13-Nov-24																																							
1675-CSS-CI-2880	Provide Pressure Instrument datasheets - IFD	3	13-Nov-24	15-Nov-24																																						
1675-CSS-CI-2890	Provide Pressure Instrument datasheets - IFC	2	18-Nov-24	19-Nov-24																																						
1675-CSS-CI-1830	Provide Level Instrument datasheets - IFR	10	25-Oct-24	07-Nov-24																																						
1675-CSS-CI-1840	Provide Level Instrument datasheets - IDC Ready	0	06-Nov-24																																							
1675-CSS-CI-1850	Provide Level Instrument datasheets - IFD	3	08-Nov-24	12-Nov-24																																						
1675-CSS-CI-1860	Provide Level Instrument datasheets - IFC	2	13-Nov-24	14-Nov-24																																						
1675-CSS-CI-2050	Fire protection and firefighting system design - IFR	10	15-Oct-24	28-Oct-24																																						
1675-CSS-CI-2060	Fire protection and firefighting system design - IDC Ready	0	25-Oct-24																																							
1675-CSS-CI-2070	Fire protection and firefighting system design - IFD	3	29-Oct-24	31-Oct-24																																						
1675-CSS-CI-2080	Fire protection and firefighting system design - IFC	2	01-Nov-24	04-Nov-24																																						
1675-CSS-CI-2010	Fire and Gas Philosophy - IFR	10	27-Sep-24	10-Oct-24																																						
1675-CSS-CI-2020	Fire and Gas Philosophy - IDC Ready	0	09-Oct-24																																							
1675-CSS-CI-2030	Fire and Gas Philosophy - IFD	3	11-Oct-24	15-Oct-24																																						
1675-CSS-CI-2040	Fire and Gas Philosophy - IFC	2	16-Oct-24	17-Oct-24																																						



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Activity ID	Activity Name	Original Duration	Start	Finish	August 2024				September 2024				October 2024				November 2024				December 2024				January 2025				February 2025				March 2025				April 2025					
					05	12	19	26	02	09	16	23	30	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	03	10	17	24	03	10	17	24	31	07	14	1
1675-CSS-CI-2140	Input into VSD Datasheets	3	22-Oct-24	24-Oct-24																																						
04 Drawings		91	29-Oct-24	07-Mar-25																																						
OSL Deliverable: GDW 043 - General Drawings / Diagrams / Design		91	29-Oct-24	07-Mar-25																																						
1675-CSS-CI-1430	Provide Local JB design x 1 generic - IFR	3	29-Oct-24	31-Oct-24																																						
1675-CSS-CI-1440	Provide Local JB design x 1 generic - IDC Ready	0	31-Oct-24																																							
1675-CSS-CI-1450	Provide Local JB design x 1 generic - IFD	1	01-Nov-24	01-Nov-24																																						
1675-CSS-CI-1460	Provide Local JB design x 1 generic - IFC	1	04-Nov-24	04-Nov-24																																						
1675-CSS-CI-1470	Provide Local JB termination diagram x4 - IFR	3	30-Oct-24	01-Nov-24																																						
1675-CSS-CI-1480	Provide Local JB termination diagram x4 - IDC Ready	0	01-Nov-24																																							
1675-CSS-CI-1490	Provide Local JB termination diagram x4 - IFD	1	04-Nov-24	04-Nov-24																																						
1675-CSS-CI-1500	Provide Local JB termination diagram x4 - IFC	1	05-Nov-24	05-Nov-24																																						
1675-CSS-CI-1510	Provide Network architecture Drawing - IFR	3	06-Nov-24	08-Nov-24																																						
1675-CSS-CI-1520	Provide Network architecture Drawing - IDC Ready	0	08-Nov-24																																							
1675-CSS-CI-1530	Provide Network architecture Drawing - IFD	1	08-Nov-24	08-Nov-24																																						
1675-CSS-CI-1540	Provide Network architecture Drawing - IFC	1	11-Nov-24	11-Nov-24																																						
1675-CSS-CI-1670	Provide general hookup x2 (CV and actuated) - IFR	3	21-Feb-25	25-Feb-25																																						
1675-CSS-CI-1680	Provide general hookup x2 (CV and actuated) - IDC Ready	0	25-Feb-25																																							
1675-CSS-CI-1690	Provide general hookup x2 (CV and actuated) - IFD	1	04-Mar-25	04-Mar-25																																						
1675-CSS-CI-1700	Provide general hookup x2 (CV and actuated) - IFC	1	07-Mar-25	07-Mar-25																																						
1675-CSS-CI-2770	Provide Instrument Hookup x2e - IFR	3	30-Oct-24	01-Nov-24																																						
1675-CSS-CI-2780	Provide Instrument Hookup x2 - IDC Ready	0	01-Nov-24																																							
1675-CSS-CI-2790	Provide Instrument Hookup x2 - IFD	1	04-Nov-24	04-Nov-24																																						
1675-CSS-CI-2800	Provide Instrument Hookup x2 - IFC	1	05-Nov-24	05-Nov-24																																						
1675-CSS-CI-2350	Complete Cybersecurity Architecture drawing (Zone & Conduits, SL, Segmentation) - IFR	10	30-Oct-24	12-Nov-24																																						
1675-CSS-CI-2360	Complete Cybersecurity Architecture drawing (Zone & Conduits, SL, Segmentation) - IDC Ready	0	11-Nov-24																																							
1675-CSS-CI-2370	Complete Cybersecurity Architecture drawing (Zone & Conduits, SL, Segmentation) - IFD	3	13-Nov-24	15-Nov-24																																						
1675-CSS-CI-2380	Complete Cybersecurity Architecture drawing (Zone & Conduits, SL, Segmentation) - IFC	2	18-Nov-24	19-Nov-24																																						
OSL Deliverable: LAY 047 - Layout / Plot Plans / Routing Diagrams		8	29-Oct-24	07-Nov-24																																						
1675-CSS-CI-1550	Provide Instrument Location drawing - IFR	5	30-Oct-24	05-Nov-24																																						
1675-CSS-CI-1560	Provide Instrument Location drawing - IDC Ready	0	05-Nov-24																																							
1675-CSS-CI-1570	Provide Instrument Location drawing - IFD	1	06-Nov-24	06-Nov-24																																						
1675-CSS-CI-1580	Provide Instrument Location drawing - IFC	1	07-Nov-24	07-Nov-24																																						
1675-CSS-CI-1590	Provide Cable routing drawing - IFR	3	29-Oct-24	31-Oct-24																																						
1675-CSS-CI-1600	Provide Cable routing drawing - IDC Ready	0	31-Oct-24																																							
1675-CSS-CI-1610	Provide Cable routing drawing - IFD	1	01-Nov-24	01-Nov-24																																						
1675-CSS-CI-1620	Provide Cable routing drawing - IFC	1	04-Nov-24	04-Nov-24																																						
OSL Deliverable: LID 042 - Line Diagrams		6	01-Nov-24	08-Nov-24																																						
1675-CSS-CI-1390	Provide interconnection diagram (CBD) - IFR	4	01-Nov-24	06-Nov-24																																						
1675-CSS-CI-1400	Provide interconnection diagram (CBD) - IDC Ready	0	06-Nov-24																																							
1675-CSS-CI-1410	Provide interconnection diagram (CBD) - IFD	1	07-Nov-24	07-Nov-24																																						
1675-CSS-CI-1420	Provide interconnection diagram (CBD) - IFC	1	08-Nov-24	08-Nov-24																																						
OSL Deliverable: LOP 049 - Loop Diagrams		28	29-Jan-25	07-Mar-25																																						
1675-CSS-CI-1630	Provide Loop diagrams (x50 @3hrs/loop) - IFR	20	29-Jan-25	25-Feb-25																																						
1675-CSS-CI-1640	Provide Loop diagrams (x50 @3hrs/loop) - IDC Ready	0	21-Feb-25																																							
1675-CSS-CI-1650	Provide Loop diagrams (x50 @3hrs/loop) - IFD	5	26-Feb-25	04-Mar-25																																						
1675-CSS-CI-1660	Provide Loop diagrams (x50 @3hrs/loop) - IFC	3	05-Mar-25	07-Mar-25																																						
05 Safety Studies / Design Reviews		38	10-Sep-24	31-Oct-24																																						
OSL Deliverable: CLD 008 - Client Deliverable		10	10-Sep-24	24-Sep-24																																						
1675-CSS-CI-1040	Review and understand CSA Standards/integration between packages and instruments	10	10-Sep-24	24-Sep-24																																						



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Activity ID	Activity Name	Original Duration	Start	Finish	August 2024				September 2024				October 2024				November 2024				December 2024				January 2025				February 2025				March 2025				April 2025						
					05	12	19	26	02	09	16	23	30	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	03	10	17	24	03	10	17	24	31	07	14	1	
1675-CSS-CL-1000	Receive Shell DEP's	0	10-Sep-24*																																								
1675-CSS-CL-1110	Receive Standards	0	10-Sep-24*																																								
OSL Deliverable: GDR 053 - General Safety Studies/ Design Reviews		6	18-Oct-24	25-Oct-24																																							
1675-CSS-CI-2310	Cybersecurity Assessment Overall - IFR	4	18-Oct-24	23-Oct-24																																							
1675-CSS-CI-2320	Cybersecurity Assessment Overall - IDC Ready	0	23-Oct-24																																								
1675-CSS-CI-2330	Cybersecurity Assessment Overall - IFD	1	24-Oct-24	24-Oct-24																																							
1675-CSS-CI-2340	Cybersecurity Assessment Overall - IFC	1	25-Oct-24	25-Oct-24																																							
OSL Deliverable: GDW 043 - General Drawings / Diagrams / Design		13	15-Oct-24	31-Oct-24																																							
1675-CSS-CI-2470	Provide control/safety system design - IFR	8	15-Oct-24	24-Oct-24																																							
1675-CSS-CI-2480	Provide control/safety system design - IDC Ready	0	18-Oct-24																																								
1675-CSS-CI-2490	Provide control/safety system design - IFD	3	25-Oct-24	29-Oct-24																																							
1675-CSS-CI-2500	Provide control/safety system design - IFC	2	30-Oct-24	31-Oct-24																																							
07 Schedules / Lists / Registers / SDRL		68	25-Oct-24	31-Jan-25																																							
OSL Deliverable: ISC 078 - Instruments Schedule		18	07-Jan-25	30-Jan-25																																							
1675-CSS-CI-1150	Provide Instrument Index - IFR	10	07-Jan-25	20-Jan-25																																							
1675-CSS-CI-1160	Provide Instrument Index - IDC Ready	0	16-Jan-25																																								
1675-CSS-CI-1170	Provide Instrument Index - IFD	1	21-Jan-25	21-Jan-25																																							
1675-CSS-CI-1180	Provide Instrument Index - IFC	1	22-Jan-25	22-Jan-25																																							
1675-CSS-CI-1230	Provide I/O schedule - IFR	6	21-Jan-25	28-Jan-25																																							
1675-CSS-CI-1240	Provide I/O schedule - IDC Ready	0	27-Jan-25																																								
1675-CSS-CI-1250	Provide I/O schedule - IFD	1	29-Jan-25	29-Jan-25																																							
1675-CSS-CI-1260	Provide I/O schedule - IFC	1	30-Jan-25	30-Jan-25																																							
OSL Deliverable: LNL 071 - Line List / Cable Schedule		68	25-Oct-24	31-Jan-25																																							
1675-CSS-CI-1270	Provide Cable schedule - IFR	6	22-Jan-25	29-Jan-25																																							
1675-CSS-CI-1280	Provide Cable schedule - IDC Ready	0	28-Jan-25																																								
1675-CSS-CI-1290	Provide Cable schedule - IFD	1	30-Jan-25	30-Jan-25																																							
1675-CSS-CI-1300	Provide Cable schedule - IFC	1	31-Jan-25	31-Jan-25																																							
1675-CSS-CI-1950	Input into Power & Utilities Schedule	2	25-Oct-24	28-Oct-24																																							
08 Reports / Philosophies / Plan / Procedures		82	10-Sep-24	06-Jan-25																																							
OSL Deliverable: GDR 053 - General Safety Studies/ Design Reviews		8	10-Sep-24	20-Sep-24																																							
1675-CSS-CI-2710	Review Procedures	8	10-Sep-24	20-Sep-24																																							
OSL Deliverable: GRP 080 - General Reports/ Philosophies/ Plan/ Procedures		63	07-Oct-24	06-Jan-25																																							
1675-CSS-CI-2510	Functional Safety Management Plan - IFR	7	17-Dec-24	27-Dec-24																																							
1675-CSS-CI-2520	Functional Safety Management Plan - IDC Ready	0	20-Dec-24																																								
1675-CSS-CI-2530	Functional Safety Management Plan - IFD	3	30-Dec-24	02-Jan-25																																							
1675-CSS-CI-2540	Functional Safety Management Plan - IFC	2	03-Jan-25	06-Jan-25																																							
1675-CSS-CI-2230	Cybersecurity Management Plan - IFR	10	24-Oct-24	06-Nov-24																																							
1675-CSS-CI-2240	Cybersecurity Management Plan - IDC Ready	0	12-Nov-24																																								
1675-CSS-CI-2250	Cybersecurity Management Plan - IFD	4	12-Nov-24	15-Nov-24																																							
1675-CSS-CI-2260	Cybersecurity Management Plan - IFC	2	18-Nov-24	19-Nov-24																																							
1675-CSS-CI-2420	Integration with Ancillary systems	15	07-Oct-24*	28-Oct-24																																							
10 Purchasing / TBE / Vendor Activities		76	05-Sep-24	19-Dec-24																																							
OSL Deliverable: GVD 089 - General Vendor Activities		33	05-Sep-24	21-Oct-24																																							
1675-CSS-CI-1030	Liaise with NIKKISO	33	05-Sep-24	21-Oct-24																																							
OSL Deliverable: VDR 090 - Vendor Document Reviews		76	05-Sep-24	19-Dec-24																																							
1675-CSS-CL-1010	Receive NIKKISO Analytical Instrumentation devices - TBC	0	05-Sep-24*																																								
1675-CSS-CL-1020	Receive NIKKISO basis of design - TBC	0	05-Sep-24*																																								
1675-CSS-CL-1030	Receive NIKKISO cable specification - TBC	0	05-Sep-24*																																								

Remaining Level of Effort Remaining Work
Actual Level of Effort Critical Remaining Work
Actual Work Current Plan Milestone

Date	Revision	Checked	Approved

Run Date 30-Aug-2414:38
TASK filter: All Activities
Layout: OSL code for booking
Plan ID: 1675-CSS-BID-00



Remaining Level of Effort

Actual Level of Effort

Actual Work

Remaining Work

Critical Remaining Work

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Current Plan Milestone

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Date	Revision	Checked	Approved

Run Date 30-Aug-2414:38

TASK filter: All Activities

Layout: OSL code for booking

Plan ID: 1675-CSS-BID-00



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Activity ID		Activity Name	Original Duration	Start	Finish	August 2024				September 2024				October 2024					November 2024					December 2024				January 2025				February 2025				March 2025				April 2025																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
						05	12	19	26	02	09	16	23	30	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	03	10	17	24	03	10	17	24	31	07	14	1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
02 Equipment Specifications / Standards	1675-CSS-EL-2600	Motors Specification - IFD	2	07-Nov-24	08-Nov-24																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																</



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Activity ID		Activity Name	Original Duration	Start	Finish	August 2024				September 2024				October 2024				November 2024				December 2024				January 2025				February 2025				March 2025				April 2025			
						05	12	19	26	02	09	16	23	30	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	03	10	17	24	03	10	17	24	31	07
03	1675-CSS-EL-2350	Network Cable Calculations - Trimble - IFD	4	18-Feb-25	21-Feb-25																																				
	1675-CSS-EL-2340	Network Cable Calculations - Trimble - IDC Ready	0	18-Feb-25																																					
	1675-CSS-EL-2360	Network Cable Calculations - Trimble - IFC	2	24-Feb-25	25-Feb-25																																				
	OSL Deliverable: EQC 033 - Equipment Sizing Calculations		46	22-Oct-24	24-Dec-24																																				
	1675-CSS-EL-1130	Transformer sizing - IFR	4	22-Oct-24	25-Oct-24																																				
	1675-CSS-EL-1140	Transformer sizing - IDC Ready	0	25-Oct-24																																					
	1675-CSS-EL-1150	Transformer sizing - IFD	1	28-Oct-24	28-Oct-24																																				
	1675-CSS-EL-1160	Transformer sizing - IFC	1	29-Oct-24	29-Oct-24																																				
	1675-CSS-EL-1470	Temp distribution sizing - IFR	5	16-Dec-24	20-Dec-24																																				
	1675-CSS-EL-1480	Temp distribution sizing - IDC Ready	0	20-Dec-24																																					
	1675-CSS-EL-1490	Temp distribution sizing - IFD	1	23-Dec-24	23-Dec-24																																				
	1675-CSS-EL-1500	Temp distribution sizing - IFC	1	24-Dec-24	24-Dec-24																																				
	04 Drawings		40	22-Oct-24	16-Dec-24																																				
	OSL Deliverable: BLK 079 - Block Cable Diagrams		15	12-Nov-24	02-Dec-24																																				
	1675-CSS-EL-1590	Cable Block Diagrams - IFR	10	12-Nov-24	25-Nov-24																																				
	1675-CSS-EL-1600	Cable Block Diagrams - IDC Ready	0	22-Nov-24																																					
	1675-CSS-EL-1610	Cable Block Diagrams - IFD	3	26-Nov-24	28-Nov-24																																				
	1675-CSS-EL-1620	Cable Block Diagrams - IFC	2	29-Nov-24	02-Dec-24																																				
	OSL Deliverable: GDW 043 - General Drawings / Diagrams / Design		40	22-Oct-24	16-Dec-24																																				
	1675-CSS-EL-2170	Termination Diagrams - IFR	7	20-Nov-24	28-Nov-24																																				
	1675-CSS-EL-2180	Termination Diagrams - IDC Ready	0	27-Nov-24																																					
	1675-CSS-EL-2190	Termination Diagrams - IFD	2	29-Nov-24	02-Dec-24																																				
	1675-CSS-EL-2200	Termination Diagrams - IFC	1	03-Dec-24	03-Dec-24																																				
	1675-CSS-EL-2210	Field Electrical Layout Drawings - IFR	7	22-Oct-24	30-Oct-24																																				
	1675-CSS-EL-2220	Field Electrical Layout Drawings - IDC Ready	0	29-Oct-24																																					
	1675-CSS-EL-2230	Field Electrical Layout Drawings - IFD	2	31-Oct-24	01-Nov-24																																				
	1675-CSS-EL-2240	Field Electrical Layout Drawings - IFC	1	04-Nov-24	04-Nov-24																																				
	1675-CSS-EL-2290	UPS Drawings - IFR	7	11-Nov-24	19-Nov-24																																				
	1675-CSS-EL-2300	UPS Drawings - IDC Ready	0	18-Nov-24																																					
	1675-CSS-EL-2310	UPS Drawings - IFD	2	20-Nov-24	21-Nov-24																																				
	1675-CSS-EL-2320	UPS Drawings - IFC	1	22-Nov-24	22-Nov-24																																				
	1675-CSS-EL-1810	General Arrangements - IFR	7	21-Nov-24	29-Nov-24																																				
	1675-CSS-EL-1820	General Arrangements - IDC Ready	0	28-Nov-24																																					
	1675-CSS-EL-1830	General Arrangements - IFD	2	12-Dec-24	13-Dec-24																																				
	1675-CSS-EL-1840	General Arrangements - IFC	1	16-Dec-24	16-Dec-24																																				
	OSL Deliverable: LAY 047 - Layout / Plot Plans / Routing Diagrams		37	22-Oct-24	11-Dec-24																																				
	1675-CSS-EL-1170	equipment layout - Small power and lighting - IFR	5	22-Oct-24	28-Oct-24																																				



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Activity ID	Activity Name	Original Duration	Start	Finish	August 2024				September 2024				October 2024				November 2024				December 2024				January 2025				February 2025				March 2025				April 2025					
					05	12	19	26	02	09	16	23	30	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	03	10	17	24	03	10	17	24	31	07	14	1
1675-CSS-EL-2080	Protection Standards - IFC	1	17-Sep-24	18-Sep-24																																						
1675-CSS-EL-2380	Protection Study - IFR	4	21-Nov-24	26-Nov-24																																						
1675-CSS-EL-2390	Protection Study - IDC Ready	0	26-Nov-24																																							
1675-CSS-EL-2400	Protection Study - IFD	1	27-Nov-24	27-Nov-24																																						
1675-CSS-EL-2410	Protection Study - IFC	1	28-Nov-24	28-Nov-24																																						
1675-CSS-EL-1050	site electrical supply definition - IFR	6	14-Oct-24	21-Oct-24																																						
1675-CSS-EL-1060	site electrical supply definition - IDC Ready	0	17-Oct-24																																							
1675-CSS-EL-1070	site electrical supply definition - IFD	2	22-Oct-24	23-Oct-24																																						
1675-CSS-EL-1080	site electrical supply definition - IFC	1	24-Oct-24	24-Oct-24																																						
OSL Deliverable: LNL 071 - Line List / Cable Schedule		43	29-Oct-24	30-Dec-24																																						
1675-CSS-EL-1510	Cable Schedule - IFR	10	29-Oct-24	11-Nov-24																																						
1675-CSS-EL-1520	Cable Schedule - IDC Ready	0	08-Nov-24																																							
1675-CSS-EL-1530	Cable Schedule - IFD	3	20-Dec-24	24-Dec-24																																						
1675-CSS-EL-1540	Cable Schedule - IFC	2	27-Dec-24	30-Dec-24																																						
OSL Deliverable: MTO 069 - Material Take-Offs (MTO)		10	05-Dec-24	18-Dec-24																																						
1675-CSS-EL-1770	MTOs - IFR	7	05-Dec-24	13-Dec-24																																						
1675-CSS-EL-1780	MTOs - IDC Ready	0	12-Dec-24																																							
1675-CSS-EL-1790	MTOs - IFD	2	16-Dec-24	17-Dec-24																																						
1675-CSS-EL-1800	MTOs - IFC	1	18-Dec-24	18-Dec-24																																						
10 Purchasing / TBE / Vendor Activities		87	12-Aug-24	11-Dec-24																																						
OSL Deliverable: VDR 090 - Vendor Document Reviews		87	12-Aug-24	11-Dec-24																																						
1675-CSS-EL-1450	Review and comment of Vendor docs (General)	34	12-Aug-24	27-Sep-24																																						
1675-CSS-EL-1460	Review and comment of Vendor docs (Nikkiso)	30	05-Sep-24	16-Oct-24																																						
1675-CSS-EL-2370	Review and comment of Vendor docs (Nikkiso LER / control room)	10	23-Sep-24	04-Oct-24																																						
1675-CSS-EL-1710	Vendor Liaison (General)	40	30-Sep-24	22-Nov-24																																						
1675-CSS-EL-1720	Vendor Liaison (Nikkiso)	40	17-Oct-24	11-Dec-24																																						
10 Civils		144	12-Aug-24	05-Mar-25																																						
00 General/Coordination/Meetings/Admin		141	12-Aug-24	28-Feb-25																																						
OSL Deliverable: BOD 081 - Basis of Design		10	02-Sep-24	13-Sep-24																																						
1675-CSS-CV-1050	Civils Basis of Design	10	02-Sep-24*	13-Sep-24																																						
OSL Deliverable: CLD 008 - Client Deliverable		21	12-Aug-24	10-Sep-24																																						
1675-CSS-CV-1090	Receipt of Focol and BP&L and Dock Details	0	12-Aug-24																																							
1675-CSS-CV-1060	Receipt of I, QUAY Plug in Details	0	10-Sep-24																																							
OSL Deliverable: GSS 017 - General Specifications / Standards		40	12-Aug-24	07-Oct-24																																						
1675-CSS-CV-1080	Receipt of Regas and LNG Storage Requirements	0	12-Aug-24																																							
1675-CSS-CV-1070	Receipt of Pipeline and Cable Data	0		07-Oct-24																																						
OSL Deliverable: MAN 010 - Management		140	13-Aug-24	28-Feb-25																																						
1675-CSS-CV-1000	Engineers	140	13-Aug-24	28-Feb-25																																						
1675-CSS-CV-1010	Technicians	140	13-Aug-24	28-Feb-25																																						
1675-CSS-CV-1020	Management	140	13-Aug-24	28-Feb-25																																						
1675-CSS-CV-1030	Meetings	140	13-Aug-24	28-Feb-25																																						
1675-CSS-CV-1040	Site visit	140	13-Aug-24	28-Feb-25																																						
04 Drawings		120	16-Sep-24	05-Mar-25																																						
OSL Deliverable: GDW 043 - General Drawings / Diagrams / Design		120	16-Sep-24	05-Mar-25																																						
1675-CSS-CV-1130	Service Diversions Design	20	16-Sep-24	11-Oct-24																																						
1675-CSS-CV-1140	Road Works, Box Culverts and Fencing Design	60	16-Sep-24	06-Dec-24																																						
1675-CSS-CV-1150	Basic Civils General Arrangements	20	16-Sep-24	11-Oct-24																																						
1675-CSS-CV-1160	LNG Regas and Storage Detailed Design	120	16-Sep-24	05-Mar-25																																						



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Activity ID		Activity Name	Original Duration	Start	Finish	August 2024				September 2024				October 2024				November 2024				December 2024				January 2025				February 2025				March 2025				April 2025			
						05	12	19	26	02	09	16	23	30	07	14	21	28	04	11	18	25	02	09	16	23	30	06	13	20	27	03	10	17	24	03	10	17	24	31	07
1675-CSS-CV-1100	1675-CSS-CV-1100	Basic Route and Civils Requirements	10	24-Sep-24	07-Oct-24																																				
	1675-CSS-CV-1110	Shore to Regas Pipeline Detail Design	60	08-Oct-24	02-Jan-25																																				
	1675-CSS-CV-1120	Earthworks Design	20	14-Oct-24	08-Nov-24																																				
	08 Reports / Philosophies / Plan / Procedures		20	16-Sep-24	11-Oct-24																																				
	OSL Deliverable: DPH 082 - Design Philosophies		20	16-Sep-24	11-Oct-24																																				
	1675-CSS-CV-1170	Drainage and Containment Philosophy	20	16-Sep-24	11-Oct-24																																				
	09 Site Surveys / Inspection / Testing		0	16-Sep-24	16-Sep-24																																				
	OSL Deliverable: CLD 008 - Client Deliverable		0	16-Sep-24	16-Sep-24																																				
	1675-CSS-CV-1180	Topographical Survey	0		16-Sep-24																																				
	1675-CSS-CV-1190	Buried Services Survey	0	16-Sep-24																																					
	1675-CSS-CV-1200	Geotechnical Survey	0	16-Sep-24																																					
	12 Procurement		172	12-Aug-24	14-Apr-25																																				
	10 Purchasing / TBE / Vendor Activities		172	12-Aug-24	14-Apr-25																																				
	OSL Deliverable: GVD 089 - General Vendor Activities		172	12-Aug-24	14-Apr-25																																				
	A1000	Procurement Coordination	129	04-Sep-24	06-Mar-25																																				
	A1010	Procurement Meetings	150	04-Sep-24	04-Apr-25																																				
	A1020	Equipment Enquiry Requisitions - Clarifications	15	12-Aug-24	02-Sep-24																																				
	A1030	Equipment Enquiry Requisitions - Recommendations for Award	20	03-Sep-24	30-Sep-24																																				
	A1040	Equipment Purchase Order Requisitions - Vendor Kick Off Meeting	5	01-Oct-24	07-Oct-24																																				
	A1050	Bulk Material Enquiry Requisitions - Clarifications	15	04-Sep-24*	25-Sep-24																																				
A1060	Bulk Material Enquiry Requisitions - Recommendations for Award	20	25-Sep-24	23-Oct-24																																					
A1070	Bulk Material Purchase Order Requisitions - Supplier Kick Off Meeting	5	23-Oct-24	30-Oct-24																																					
A1080	Vendor Surveillance	100	24-Oct-24	17-Mar-25																																					
A1090	Third Party Inspection	40	18-Feb-25	14-Apr-25																																					
A1100	Factory Acceptance Tests (FATs)	30	04-Mar-25	14-Apr-25																																					
A1110	Procurement Expedition	150	12-Sep-24	14-Apr-25																																					
13 Construction / Site Works		100	21-Nov-24	14-Apr-25																																					
00 General/Coordination/Meetings/Admin		100	21-Nov-24	14-Apr-25																																					
OSL Deliverable: ITS 200-299 - Installation (Range)		100	21-Nov-24	14-Apr-25																																					
A1120	Engineers (TQ answer)	100	21-Nov-24	14-Apr-25																																					
A1130	Management	100	21-Nov-24	14-Apr-25																																					
A1140	Meetings	100	21-Nov-24	14-Apr-25																																					
A1150	Site visit	100	21-Nov-24	14-Apr-25																																					

Appendix 2: Petroleum Spill Response Plan

Spills and leaks that occur during vehicle and equipment fueling can contribute hydrocarbons, oil and grease, as well as heavy metals to stormwater runoff. The following management practices will be implemented to help prevent fuel spills and leaks. A reduction in the potential for pollutant discharge will be done through source control pollution prevention and best management practices (BMP) implementation. Successful implementation depends on effective training of employees on applicable BMPs and general pollution prevention strategies and objectives.

The spill response plan contact information:

Emergency Agencies

Fire Department **911**

First Aid Responder **919**

Police Department **911**

Administrative Agencies

Department of Environmental Planning and Protection **322-4546**

Department of Environmental Health Services **322-8037 or 322-2295**

The spill response team is comprised of the following staff with their names and cell phone numbers provided.

- Incident Commander (IC): Project Manager – **Robert Hall, Tel: 477-1122**
- Alternate IC: Site Superintendent – **Michael McIntosh, Tel: 424-3779**

SPILL CONTROL PRACTICES

In addition to the good housekeeping and material management practices discussed in the previous sections of this EMP, the following practices will be followed for spill prevention and cleanup:

- Manufacturer's recommended methods for spill cleanup will be clearly posted and staff will be made aware of the procedures and the location of the information and clean-up supplies.
- Materials and equipment necessary for spill cleanup will be kept in the designated storage area onsite. Equipment and materials will include, but not be limited to, brooms, dustpans, mops, rags, gloves, goggles, kitty litter, sand, sawdust, and plastic and metal trash containers specifically for this purpose.
- Staff will wear appropriate protective gear to prevent injury from contact with a hazardous substance.
- Employees will be educated about spill prevention measures.
- All spills will be cleaned up immediately after discovery. Spills are not cleaned up until all materials used in the cleanup are picked up and properly disposed of.

- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with petroleum products, which can be hazardous.
- Spills of petroleum products will be reported to the Incident Commander and relevant Government agencies, regardless of the size.
- The spill prevention plan will be adjusted, as necessary, to include measures to prevent spills from reoccurring and how to clean up the spill if there is another one. A description of the spill, what caused it, and the cleanup measures will also be included. This information is usually documented in a spill incident report form. The format for the spill incident report form is provided on page 39.
- The Incident Commander is responsible for spill prevention and cleanup coordination. She will designate at least two other staff members who will receive spill prevention and cleanup training. These individuals will each become responsible for a particular phase of prevention and cleanup. The names of responsible staff members will be posted at the project site or main building's administrative offices.
- A stockpile of spill cleanup materials will be stored where it will be readily accessible.

Petroleum Spill Incident Report Form

Reporting Party's Name:			
Address/City/State:			
Phone:			
Responsible Party's Name (if known):			
Address/City/State:			
Phone:			
Date of Spill:		Time:	
Location:		Product spilled:	
Estimated quantity:		Discharge stopped or contained?	
Source or cause of spill (if known):			
Actions taken:			
Injuries/fatalities/evacuations?			
Environmental damage:			
List of equipment used:			
Disposal site/facility for used absorbents:			
Oil Spill Notifications			
Organization	Phone	Time Contacted	Case Number
Fire Department			
Spill response contractor			

Appendix 3: Hazardous Material Management Plan

This plan outlines best management practices for hazardous materials that may be found or generated on site.

Good Housekeeping

- An effort will be made to store only enough product required to do the job.
- All materials stored onsite will be stored in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure.
- Products will be kept in their original containers with the original manufacturer's label.
- Substances will not be mixed with one another unless recommended by the manufacturer.
- Whenever possible, all of a product will be used before disposing of the container.
- Manufacturers' recommendations for proper use and disposal will be followed.
- The Site Superintendent will inspect the site daily to ensure proper use and disposal of materials onsite.

Hazardous Products

If hazardous materials are required, then the guidelines below will be followed:

- Products will be kept in original containers unless they are not resealable.
- Original labels and material safety data sheets will be retained for important product information.
- If surplus product must be disposed of, the manufacturer or local recommended methods for proper disposal will be followed.

Petroleum Products

All onsite vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the chances of leakage. Petroleum products will be stored in tightly sealed containers which are clearly labeled.

PREVENTION OF POLLUTION OF GROUNDWATER

To ensure that all efforts are undertaken to ensure that the groundwater is not impacted during construction the following actions will be taken:

- All diesels, fuel and other toxic materials shall be securely bounded in welded steel trays whose capacity is at least 110% of the maximum stored volume of the fuel. Bunds shall be inspected and cleaned out at regular intervals.
- Any bulk tank with an integral delivery hose and nozzle shall have a means of securing and padlocking at the nozzle above the maximum fill level and the nozzle shall be locked in this position when not in use.
- A fueling area shall be designated adjacent to the storage tanks and this shall be comprised of a concrete apron laid to falls, draining into the steel tray or leak proof sump.
- Generator and other static plants shall be of a type supplied with integral bunds or shall be located within a welded steel tray of appropriate volume.

- All mobile plants such as vehicles, pumps and excavators used on site shall be in good condition and free from engine, lubrication and hydraulic oil leaks and shall have steel drip trays placed beneath them when not in use.
- All containers for chemicals and lubricants used on site shall be stored in trays of steel or other approved materials of appropriate volume.

If there is a major Spill, call the following agencies:

- Fire Department (should fire be possible) **911**
- Department of Environmental Health Services **322-8037 or 322-2295**
- Department of Environmental Planning and Protection **322-4546**

The project will involve disposal of building materials contaminated with mold. A record of removal and disposal of these materials must be kept on site and submitted to the DEPP with weekly monitoring reports. The hazardous material reporting form is provided on page 57.

Hazardous Material Reporting Form

Description of hazardous material:	
Weight or volume of material disposed of:	
Name of licensed contractor disposing of material:	
Signature of licensed contractor:	
Date of disposal:	

A copy of the signed receipt from the licensed facility where the hazardous material was disposed of will be attached to this form.

Appendix 4: Emergency Response Plan

1.0 Purpose and Applicability

1.1 The purpose of this Plan is to coordinate the response of the workers to a situation that may jeopardize the safety or wellbeing of the workers, the general public, the community and the environment. Types of disasters include: fires, explosions, bomb threats, chemical releases, loss of utilities, and natural disasters (floods, wind, etc.). It should be noted that where applicable any national Emergency Response Plan will supersede this plan.

2.0 Roles and Responsibilities

2.1 **Command Center** will be the general office location of the Contractor or the area identified by the Designated Manager if this is not acceptable.

2.2 **Disaster Team** will respond to all emergency, contingency and disaster situations. This will comprise the Project Manager, Designated Manager, and, where applicable due to the extent of the emergency, relevant Government agencies' representatives.

2.3 **Incident Commander** or highest-level administrator who is present at an incident will report to the Command Center as soon as possible. The Incident Commander is authorized to declare an evacuated area safe for re-occupancy. In the event of an emergency requiring the assistance of Government agencies, the Government representatives will assume the responsibility of the Incident Commander. For localized situations which do not require Government agency involvement, the Incident Commander will be the Contractor's representative for the project. The Incident Commander is also responsible for ensuring that an incident reporting form is completed for every incident on site as described by the Emergency Response Plan. Copies of completed incident reporting forms will be kept on site and made available to Government officers if requested during an inspection. Any incident reporting forms will be submitted along with weekly environmental monitoring reports submitted to the DEPP.

2.4 **Managers/ Supervisors** shall maintain a current list of workers including their home phone numbers and mobile phone numbers, if applicable. Managers are also responsible for evacuating staff of affected areas as necessary and as instructed, and to account for all staff.

2.5 **Security** will respond under the direction of the Security Supervisor. Security personnel will take immediate steps to prevent the entrance of all non-essential traffic at the incident. The Highest-Ranking Officer on duty will be responsible for traffic control. Security personnel will ask employees not authorized to be at the incident scene to leave the area.

3.0 Disaster Declaration Procedures

3.1 A **Phase A (Alert) Disaster** is the initial response to the report of a potential disaster or an actual disaster when the impact on the construction site is uncertain. For example, a Phase A disaster might involve an equipment system failure that may extend for a few hours. Limited on-site personnel can handle a Phase A disaster. Advancement to a Phase B is unnecessary unless the incident cannot be handled by those already involved or the nearby residents must be notified.

3.2 A **Phase B Disaster** will be declared in response to an actual event that stresses onsite operations, but can be managed by on-duty personnel or requires outside assistance. The purpose of Phase B is to quickly mobilize on-duty personnel and resources in support of event management. For example, a Phase B disaster might involve extended or widespread power failures due to downed lines, a significant fire, or a significant hazardous material release on site. Notification for a Phase B disaster will be accomplished by mega-phone and other available PA systems. Each supervisor with specific roles in a disaster is responsible for notifying their own staff. Upon notification of a Phase B disaster, personnel will remain on duty, report immediately to their assigned areas, and proceed as directed. In the event of upgrade or termination of Phase B, all personnel who have been contacted will be informed by supervisors.

3.3 A **Phase C Disaster** is the site response to a major disaster in which on-site personnel cannot effectively manage the event. The purpose of a Phase C is to quickly mobilize necessary Public Emergency Responders. A Phase C disaster involves the evacuation of staff from the site. Notification for a Phase C disaster will be accomplished via mega-phone and other available PA systems, and each supervisor with specific roles in a disaster is responsible for notifying their own staff. A Phase C may be terminated at the discretion of the Incident Commander. Upon notification of a Phase C disaster, personnel will remain on duty and report immediately to supervisor for direction.

4.0 Disaster Procedures

4.1 Each department shall maintain a current list of personnel including their home phone numbers and mobile phone numbers. This list will be made available to the Incident Commander upon request.

4.2 The following terms and corresponding emergency contact numbers must be used to report or declare an internal disaster.

Emergency Agencies

Fire Department **911**

Ambulance Department **919**

Police Department **911**

Administrative Agencies

Bahamas Power and Light **302-1000 or 323-5561 thru 4**

Department of Environmental Planning & Protection **322-4546**

Department of Environmental Health Services **322-8037 or 322-2295**

Department of Meteorology **356-3734 or 356-3736**

Hurricane Forecast Section **377-7178 or 377-7040**

Royal Bahamas Police Force **919 or 911**

Water and Sewerage Corporation **302-5599**

Ministry of Works, Director **322-4830/1**

Ministry of Health (COVID-19 Surveillance Unit) **502-7382**

4.3 The **Disaster Team** will be comprised of the following staff

- Incident Commander (IC): Project Manager – **Robert Hall, Tel: 477-1122**
- Alternate IC: Site Superintendent – **Michael McIntosh, Tel: 424-3779**

4.4 Contractor's Project Manager will perform the initial investigation of a potential disaster. As the investigation progresses, the Command Center will be updated. If a significant threat exists, the Command Center will notify the Incident Commander. It is the responsibility of the Incident Commander to assess the situation and issue the announcement specifying the level of the disaster and the location of the Command Center.

Hurricanes

Please follow the Hurricane Preparedness and Response Plan in section 3.11.

Fuel Spills

Please follow the Petroleum Spill Response Plan in Appendix 2.

FIRE AND EXPLOSION CONTROL MEASURES

There will be no burning on the construction site and a fire extinguisher will be kept on site at the fueling area. There will be no smoking on the construction site, particularly in or near the designated fueling area.

All employees will immediately report any fires occurring in or near the site. A phone will be available to all employees for emergencies which might occur on site. All emergency numbers will be posted on site.

If there is a fire or explosion, call the **Fire Department at 911**.

MUNICIPAL ELECTRICAL POWER LOSS OR DAMAGE

All issues relating to loss or damage to power lines, poles or junction boxes whether in the ground or overhead must be deferred to BPL. The Project Manager will ensure that all staff is removed from the area and that the area is secured.

MUNICIPAL WATER LINES DAMAGE

All issues relating to loss or damage to water lines or junction boxes will be the responsibility of the Contractor. The Project Manager will ensure that all staff is removed from the area, that the area is secured and that the Water and Sewerage Corporation is notified (Telephone **302-5599**).

ACCIDENTS INVOLVING THE PUBLIC

In the event of an accident involving members of the public, whether by vehicle or pedestrian, the Police, Fire Department and/or Ambulance will be notified as required. The Project Manager will ensure, as much as is possible, that the area is secured and that the accident site poses no additional safety risk to the public or staff. Once the Government agents have arrived on the scene, these agents will assume responsibility of the site of the accident.

Incident Reporting Form

Incident	
Reported by:	
Contact details: Company: Email: Phone:	
Date of occurrence:	
Time of occurrence:	
Type of incident:	☐ Accident ☐ Incident ☐ Near miss ☐ Violence ☐ Ill health ☐ Safety ☐ Other
Description of incident:	<i>(Include details that may have contributed to the incident (e.g. poor lighting, absence of signage))</i>
Description of the outcome:	<i>(Harm/health effects/damage)</i>
Description of the corrective measures taken to address immediate hazards related to the incident:	
The affected person:	
Description:	☐ Male ☐ Female ☐ Worker ☐ Visitor ☐ Contractor ☐ Other
Name:	
Address:	
Date of birth:	
Telephone:	
Email:	

Witness details	
Name	
Address:	
Telephone:	
Email:	
First aid	
First aid provided:	☐ Yes ☐ No ☐ Not applicable
Time of attendance:	
By whom:	Name: Address: Telephone: Email:
Details of provision:	
Post incident:	
Where did the person involved in the incident go next?	☐ Hospital ☐ Clinic ☐ Private doctor ☐ Home ☐ Returned to work ☐ Other
Was the health and safety officer notified of the incident?	☐ Yes ☐ No
Additional information:	

Appendix 5: Training Forms

Site induction form			
Employee name:		Position/job title:	
Employment start date:		Supervisor/manager:	

Health and safety

I have been shown:

- ☐ How to do my job safely, including the use of guards and other safety equipment
- ☐ The safety signs and what they mean
- ☐ How to safely use, store and maintain safety equipment
- ☐ How to safely use, store and maintain equipment, machinery, tools and hazardous substances

I know:

- ☐ My responsibilities as an employee
- ☐ Where EMP and HSE information is kept

Hazards

I know:

- ☐ The hazards in my workplace
- ☐ The controls for these hazards
- ☐ How to report hazards
- ☐ Where records of hazards are kept
- ☐ The procedures for working safely

Emergencies

I am familiar with:

- ☐ The location to assemble at in the event of an emergency
- ☐ The location of the fire extinguishers
- ☐ The evacuation procedure
- ☐ The first-aid kit and its location
- ☐ Who can provide first-aid (if applicable)

Incidents and injuries

I know:

- ☐ To report injuries, near hits and misses and early signs of discomfort and how to report them
- ☐ Where incident/injury forms are kept
- ☐ Who I report to
- ☐ Reports will be investigated and I will be informed of the results

Accidents and Spills

I know:

- ☐ To report accidents and spills and how to report them
- ☐ The petroleum spill kit and its location
- ☐ Where accident/spill forms are kept
- ☐ Who I report to
- ☐ Reports will be investigated and I will be informed of the results

Signed by employee:		Date:	
Signed by trainer:		Date:	

Weekly staff meeting:

Training record			
Employee:			
Occupation:			
Training subject (and key points covered)	Date trained	Date retrained	Signature to confirm training delivered and understood
			Employee: Supervisor:
			Employee: Supervisor:

Appendix 6: Contractor's Report of Complaints Received

Date of complaint:	
Time of complaint:	
Name of person recording complaint:	
Name of person making complaint:	
Telephone number:	
Address:	
Nature of complaint:	
Results of investigation:	
Action taken:	
Date complainant contacted with results of the investigation and action taken:	
Name and signature of person investigating the complaint:	

Appendix 7: Template for Inspection Form

Contractor: _____

Observers: _____

Tide: high/low

Weather: sunny/partly cloudy/mostly cloudy/rain

Date/Time: _____

Air Temp (°F) _____

Rain in last 24 hrs: Yes/No

Types of Construction Activities

- | | | |
|--|---|---|
| ☐ Excavation | ☐ Erosion and sediment control | ☐ Air pollution/Dust control |
| ☐ Fill import | ☐ Waste/Hazardous material | ☐ Water/Drains issues |
| ☐ Land clearing/Grading | ☐ Noise pollution | ☐ Other |
| ☐ Fueling | ☐ Building construction | |

Excavation Operations

<i>Components</i>	<i>Compliance w/ EMP</i>	<i>Maintenance required</i>	<i>Comments/Recommendations</i>
Control of dewatering discharge and runoff.	☐	☐	
Contamination/oil spills identified	☐	☐	
Hazardous/contaminated material disposal and containment.	☐	☐	
Proper disposal of spoils	☐	☐	

Erosion and Sedimentation Control

<i>Components</i>	<i>Compliance w/ EMP</i>	<i>Maintenance required</i>	<i>Comments/Recommendations</i>
Proper stabilization of slopes and exposed areas on construction site and at stockpile site	☐	☐	
Adequate installation and maintenance of perimeter controls.	☐	☐	
Use of diversion swales and basins.	☐	☐	
Proper sorting of spoils at stockpile management site	☐	☐	

Groundwater Management

<i>Components</i>	<i>Compliance w/ EMP</i>	<i>Maintenance required</i>	<i>Comments/Recommendations</i>
Measures to control oil or chemical spillage (e.g. fuel containment sump, drip trays)	☐	☐	
Accessibility of spill kits/absorbents and spill response equipment	☐	☐	
Adequate secondary containment for fuel and oil tanks.	☐	☐	

Air Quality Management

<i>Components</i>	<i>Compliance w/ EMP</i>	<i>Maintenance required</i>	<i>Comments/Recommendations</i>
Watering of construction sites to minimize dust generated.	☐	☐	
Equipment properly maintained to reduce emissions.	☐	☐	

Waste Management

<i>Components</i>	<i>Compliance w/ EMP</i>	<i>Maintenance required</i>	<i>Comments/Recommendations</i>
Good housekeeping practices on site.	☐	☐	
Adequate on-site sanitary facilities.	☐	☐	
Sewage being properly disposed of.	☐	☐	
Proper collection and disposal of construction and hazardous wastes (licensed collectors, manifests)	☐	☐	
Vehicle wash down / Contractors Yard	☐	☐	

Landscape Management

<i>Components</i>	<i>Compliance w/ EMP</i>	<i>Maintenance required</i>	<i>Comments/Recommendations</i>
Minimization of disturbance to terrestrial vegetation (e.g. plants to be preserved).	☐	☐	
Invasive plants and trees removed	☐	☐	
Vegetative corridors established using native vegetation	☐	☐	

Other

<i>Components</i>	<i>Compliance w/ EMP</i>	<i>Maintenance/Action required</i>	<i>Comments/Recommendations</i>
Proper maintenance and availability of fire extinguishers	☐	☐	
Workers wearing proper PPE	☐	☐	
Workers observing COVID-19 safety protocols including wearing masks and social distancing	☐	☐	

Other Corrective Actions Needed:**Inspector(s):** _____