

**FOR PETROLEUM PROJECTS**  
**ENVIRONMENTAL MANAGEMENT PLAN**

POTENTIAL IMPACT PER PROJECT ACTIVITY PER PROJECT PHASE	MITIGATING MEASURES	RATING/ PERFORMANCE OF MITIGATING MEASURES
<b>A. Construction Phase</b>		
A.1 Site Development including minor excavation		
Generation of dust from site preparation	<ul style="list-style-type: none"> <li>Maintain a wet access road surface/project site by sprinkling of water at least twice (2x) a day during dry season</li> <li>Maintain sprinkling of water to access road at least twice (2x) a day during dry season</li> </ul>	100% no dust generation
Generation of spoils (including excavated soils)	<ul style="list-style-type: none"> <li>Re-use of spoils in the project site for covering of underground storage tanks</li> <li>Excess spoil materials will be hauled by third party hauler with approved permit/clearance from LGU</li> <li>Trucks shall be thoroughly washed before leaving from the project site to avoid the transfer of mud/dirt on the road</li> </ul>	100% no spoil materials will be left unattended and no mud/dirt will be transferred in the road
Potential siltation of nearby bodies of water due to soil erosion	<ul style="list-style-type: none"> <li>Provision of sediment control measures such as sediment traps, slope stabilization, etc.</li> <li>Provision of an easement from water bodies at least three (3) meters in urban areas, twenty (20) meters in agricultural areas, and forty (40) meters in forest areas in compliance to the Water Code of the Philippines</li> </ul>	100% no siltation of nearby bodies of water
Degradation of surface water quality due to contamination from domestic wastewater	<ul style="list-style-type: none"> <li>Provision of (<u>indicate number</u>) portalets for construction workers (if necessary)   <i>Note: at least one (1) portalet for 60 workers where the number of male workers exceeds 500 (as per IRR-Industrial Hygiene, PD 856 Amending Administrative Order 111 Series of 1991)</i>   <i>Note: at least one (1) portalet for 25 workers where the number of male workers exceeds 100 (as per IRR-Industrial Hygiene, PD 856 Amending Administrative Order 111 Series of 1991)</i> </li> <li>Provision of septic tank or wastewater collection system for workers</li> <li>Hauling of wastewater from portalets/ septic tank by third party contractor with licensed/permit</li> </ul>	100% no discharge of domestic wastewater to nearby bodies of water

	from LGU and with valid Discharge Permit for wastewater treatment facility	
<b>A.3 Construction of fuel storage facility</b>		
Generation of noise from heavy equipment	<ul style="list-style-type: none"> <li>• Use of mufflers and exhaust silencers for construction equipment</li> <li>• Provision of appropriate noise mitigating measures (such as construction of fences, enclosure of stationary work areas and equipment, maintenance of equipment, etc.) whenever applicable</li> </ul>	100% Noise within standards
Generation of construction debris	<ul style="list-style-type: none"> <li>• Segregation and collection of construction debris in compliance to RA 9003</li> <li>• Hauling of construction debris by 3<sup>rd</sup> party hauler</li> </ul>	100% collected/hailed construction debris
<b>B. Operational Phase</b>		
<b>B.1 Operation and maintenance of facilities</b>		
Contamination of surface water from domestic wastewater	<p>Provision of adequate Wastewater Treatment Facility (Sewage Treatment Plant) to treat the collected wastewater, whichever is applicable:</p> <p><input type="checkbox"/> Hygienic septic tank (for 212 occupants or less – DILG MC 2019-62) with regular desludging by third party contractor (the contractor must have a valid discharge permit of its treatment facility)</p> <p><input type="checkbox"/> Wastewater treatment facility (for more than 212 occupants – DILG MC 2019-62)</p> <p>Note: For 98L per person per day water consumption; 80% will become wastewater – hence for 300 persons; at least 23.52 cubic meter per day WTF capacity shall be installed and operated</p>	100% conformance to effluent standards
Contamination of soil / groundwater due to accidental tank leak	<ul style="list-style-type: none"> <li>• Provision of secondary tank containment</li> <li>• Provision of spill protection, overfill protection, and corrosion protection</li> <li>• Provision of sandbags</li> </ul>	100% no contamination of soil and groundwater
Generation of fumes (VOCs)	<ul style="list-style-type: none"> <li>• Underground storage Tanks will be equipped with VOCs trap</li> </ul>	
Generation of used oil (from motorpool/service bay) and other hazardous waste materials (busted lamps, used batteries, etc)	<ul style="list-style-type: none"> <li>• Provision of centralized storage facility/area and collected by hazardous wastes DENR accredited 3<sup>rd</sup> party haulers/treaters.</li> <li>• Hazardous waste generation ID shall be secured from EMB.</li> <li>• Provision of Oil and water separator / trap</li> </ul>	100% compliant to RA 6969

Generation of Solid Wastes	<ul style="list-style-type: none"><li>• Segregation of wastes and provision of waste storage facility</li><li>• Provision of a Materials Recovery Facility (MRF)</li><li>• Hauling of solid wastes by third party hauler with permit/clearance from LGU</li></ul>	100% conformance to RA 9003
Degradation of air quality due to use of generator set and Underground Tank (UGT) <i>(if any)</i>	<ul style="list-style-type: none"><li>• Regular maintenance of the generator set</li><li>• Regular maintenance of the UGT Vent</li></ul>	100% compliance to RA 8749
Generation of obnoxious or unpleasant odor	<ul style="list-style-type: none"><li>• Provision of air-tight tank seal/cover</li></ul>	100% no tanks left uncovered
Generation of effluents due to wastewater generation	<ul style="list-style-type: none"><li>• Monitoring of the following significant effluent quality parameters (based on PSIC Code 47300, 4661):<ul style="list-style-type: none"><li>☑ Total Suspended Solids</li><li>☑ Oil and Grease</li><li>☑ Benzene</li><li>☑ Toluene</li><li>☑ Ethylbenzene</li><li>☑ Xylenes</li><li>☑ Benzo(a)pyrene</li></ul></li></ul>	100% compliance with DENR effluent standards (RA 9275); (i.e.DAO 2016-08 and DAO 2021-19)