

## EXECUTIVE SUMMARY for PUBLIC INFORMATION

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### A. PROJECT DESCRIPTION

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Name of Proponent	:	SM PRIME HOLDINGS INC.
Name of Project	:	SM CITY LAOAG PROJECT
Location	:	Laoag – Paoay Road, Formerly Airport Road Laoag City, Ilocos Norte
Type of Project	:	New Mall Project
Total Lot Area	:	107,734.03 sqm.
Total Floor Area	:	194,068.00 sqm.
Estimated Project Cost	:	Php 2,389,016,973
Proponent Contact Persons	:	MARC JANSSEN T. PE
Business Address	:	10th Floor, Mall of Asia Arena Annex Building Coral Way cor. J.W. Diokno Boulevard, Mall of Asia Complex, Pasay City
E-mail	:	<a href="mailto:marcjanssen.pe@smsupermall.com">marcjanssen.pe@smsupermall.com</a>
Telephone	:	+639178630069

#### A.1. Brief Description of the Co-located Projects vis-à-vis the proposed expansion changes

**SM City Laoag** is a shopping mall owned by SM Prime Holdings. It is located Laoag – Paoay Road, Formerly Airport Road, Laoag City, Ilocos Norte, Region 1

. The proposed mall has a total floor area of 139,559.80 square meters and 42,723.23 square meters future development within a lot area of 107,734.03 square meters. This Environmental Impact Statement (EIS) was prepared to apply for an Environmental Compliance Certificate. Presented in the next page is the area tabulation of the project.

### Summary of the Area Tabulation

<b>Proposed Project</b>		
5 level (3 storey mall, Basement & Roof Deck Parking) & 1 level Transport Terminal		
<b>LOT AREA</b>	<b>107,734.03</b>	
<b>Particulars</b>	<b>Facility</b>	<b>Size</b>
<b>Components</b>	Main Mall	107,850.35
	Transport Terminal	4,660.00
	MRF	718.30
	Road Access & Pavements	24,163.70
	Landscape	7,378.18
	Barangay Road	1,008.30
	Dike Road	5,566.60
Open Area	Future Development	42,723.23
<b>TOTAL</b>	<b>194,068.00</b>	

The table above shows the proposed project coverage. The project are consist of three storey shopping mall with basement and roof deck parking, future development and related facilities; composed of main mall building with total floor area of 107,734.03 sq.m and future development of 42,723.237 sq.m, for continuing effort to offer its customers to an accessible service. The proposed project is envisioned to provide great shopping experience.

### **RESOURCE & UTILITY REQUIRMENTS, MANPOWER, COST**

#### **Water Supply**

Laoag City Water District is the service provider for domestic water of the project. The estimated water consumption of the proposed project is more or less about 560 cubic meters per day.

During the mall operation, the proponent will regularly conduct effluent sampling to determine the quality of waste before it discharges to the public drain.

The water requirement for the project is 560 cubic meters. The computation of the projected water demand is based on the established demand factors which uses commercial, parking area such as retail/ function room = 0.0052 m<sup>3</sup>/sqm; administration office= 0.0040 m<sup>3</sup>/sqm; common area/utility= 0.0020 m<sup>3</sup>/sqm; and parking/ driveway = 0.0010 m<sup>3</sup>/sqm. The following table presents the summary of the existing and projected water demand.

## Summary of Water Demand Computation and Projected Water Demand

Project Type	Water Demand
Proposed Project	560 cubic meter/day

### Power Supply

Power supply of the project will be sourced from Ilocos Norte Electric Cooperative. Based on the information from the Electrical Design Engineer of SM EDD. The proposed project is expected to have a power demand of 3.25 MVA. Power Demand was computed by the designers based on the demand factors/ values found in the 2009 Philippine Electrical Code.

However, in the event of normal power failure, the project is provided with three units of Standby Generator Sets (4-2,500 kVA and 1-750 kVA) to service the mall.

### Manpower Requirements

The existing project operation has a total number of 300 employees both direct and indirect hired.

During the pre & construction phase, the proposed project will require the services of field engineers to supervise the construction of the project. A project manager will be hired to supervise and check on quality control. The manpower requirement during each phase of the project shall be determined as the project implementation progresses. On the average, the project will hire 500 skilled and semi-skilled workers.

Security personnel will also be required to ensure safety and security of the project area. A first aid station shall likewise be provided to hand emergency medical needs and shall form part of the safety measure at the site.

During the completion of the proposed project, manpower requirements of the project is approximately 450 consisting of administrative officers and staff, janitorial staff, security personnel, messenger and building staff. It is about 67% employment increase from existing project operation up to the operationalization of the proposed project.

### Project Cost

The construction of the proposed expansion, redevelopment and renovation project will entail an estimated cost of Php. 2,389,016,973 including taxes and duties, engineering design and construction supervision and contingencies.

## B. Project Location

The City of Laoag, is a 3rd class component city and capital of the province of Ilocos Norte, Philippines, lying in the grid squares of 18.1960° N, 120.5927° E. Laoag City is bounded by five municipalities; Sarrat in the east; San Nicolas in the southeast; Paoay in the southwest; Vintar in the northeast; Bacarra in the northwest and finally the China Sea in the west. Laoag City can be reached by both land and air transportation from any origin.

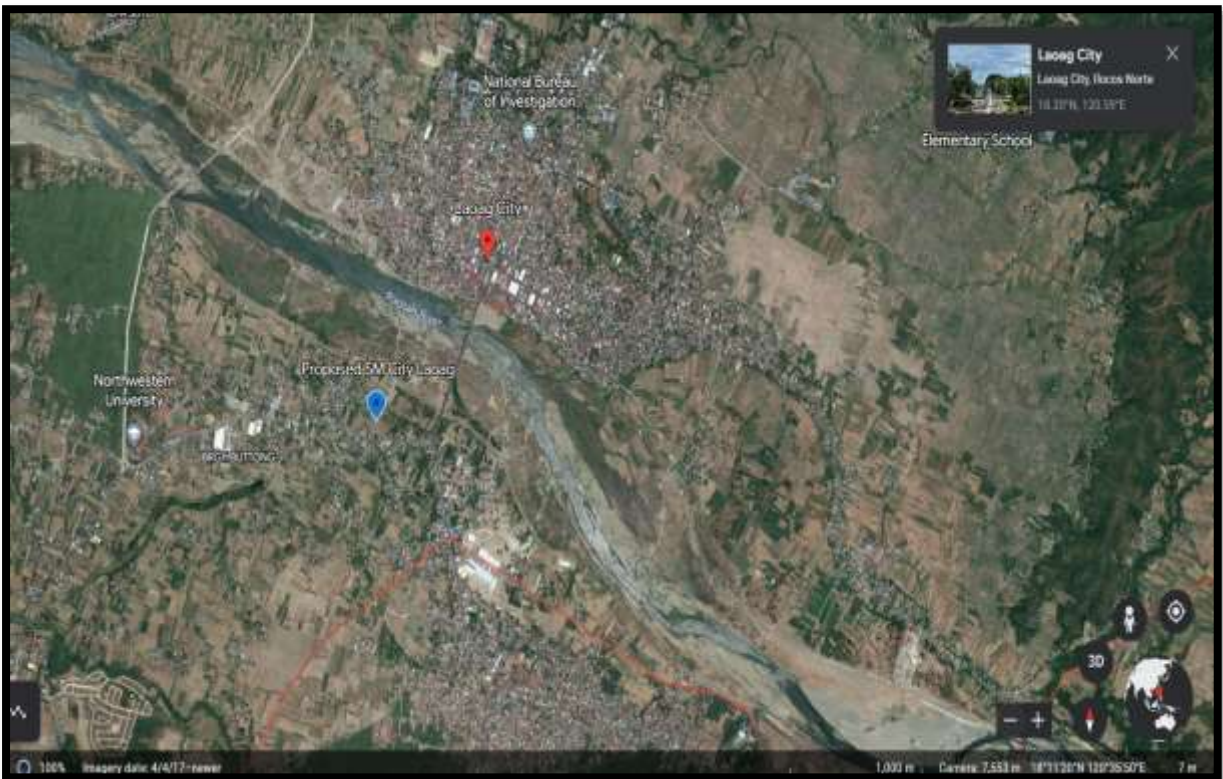
Laoag City Proper is approximately 403.67 km. This distance is equal to 250.83 miles and 217.82 nautical miles to Manila the Capital of the Philippines. *Figure 4*

The SM City Laoag project, owned and operated by SM Prime Holdings is located in a total land area of **107,734.03** square meters at Laoag – Paoay Road, Laoag City, Ilocos Norte. *Location Map is presented in Figure 5.*

The project site is approximately centered at geographic coordinates 18°11'09.54"N Latitude and 120°35'17.05" E Longitude. It accessible through Laoag – Paoay Road (Formerly Airport Road). The project site lies on the following geo-coordinates in WGS84 Coordinate System. *Vicinity Map is presented in Figure.*

### SM City Laoag Geo – Coordinates

Point	Latitude	Longitude
1	18°11'11.29"N	120°35'08.90"E
2	18°11'12.03"N	120°35'01.68"E
3	18°11'16.69"N	120°35'01.45"E
4	18°11'18.47"N	120°35'01.17"E
5	18°11'24.618"N	120°35'06.92"E
6	18°11'22.20"N	120°35'12.53"E
7	18°11'19.37"N	120°35'16.16"E
8	18°11'11.19"N	120°35'08.90"E
9 (Center)	18°11'18.46"N	120°35'06.06"E





## **E. Brief Summary of Project**

This document, Environmental Impact Statement for the SM CITY LAOAG is a consolidated report on the environmental impact assessment of the project to ensure the overall project benefits will be optimized by including the environmental considerations in project implementation.

This EIS evaluated the environmental compatibility of the project located at Laoag – Paoay Road, Formerly Airport Road, Laoag City, Ilocos Norte. Specific tasks were performed to achieve the stated objectives of the environmental impact assessment, such as:

- Description and analysis of the present level of environmental conditions at the project impact areas;
- Identification and assessment of potential environmental impacts of proposed modification project; and
- Formulation of mitigation and monitoring measures which would be adopted to avoid or minimize adverse impacts or their undesirable effects on man and environment.

This study used both primary and secondary information in the preparation of the report. Different government agencies and some private groups and individuals have widely thoroughly studied the area. The area is already well-defined; the environment study for the project relied on the existing secondary information. Some of the data sources considered in the report preparation are the City Planning and Development Office of Laoag City, PAGASA, MGB, National Statistics Office and Department of Environment and Natural Resources (DENR).

These data would form the discussion for the baseline environmental conditions of land, water, air and people that exist in the City. The discussions focused on the description of the project, its location and assessment/ evaluation of the project's expected impacts on the environment. The EPRMP attempts to provide corresponding mitigating measures to abate any adverse environmental impact arising from the project operation.

**SM Prime Holdings, Inc.** (SMPH) is one of the largest integrated property developers in Southeast Asia that offers innovative and sustainable lifestyle cities with the development of malls, residences, offices, hotels and convention centers. It is also the largest, in terms of asset, in the Philippines.

SM Prime Holdings, Inc. was incorporated in the Philippines in 1994. They started as a mall developer and operator and grew to be the biggest retail shopping center developer and operator in the Philippines. Currently, it has 76 malls in and outside Metro Manila and 7 shopping malls in China, totaling 9.8 million square meters of Gross Floor Area (GFA). In the Philippines, they have a total of 19,153 tenants and 2,001 tenants in China.

SM Prime goes beyond mall development and management through its units and subsidiaries. SM Development Corporation (SMDC) is the residential business component that sells affordable condominium units. SM Prime's commercial business units, the Commercial Property Group (CPG) is engaged in the development and leasing of office buildings in Metro



Manila. Its Hotels and Convention Centers business unit develops and manages various hotel and convention centers across the country.

**SM City Laoag** is a shopping mall owned by SM Prime Holdings. It is located at Laoag – Paoay Road, Formerly Airport Road, Laoag City, Ilocos Norte. The proposed mall has a total floor area of 139,559.80 square meters and 42,723.23 square meters future development within a lot area of 107,734.03 square meters. Breakdown as follows:

**Summary of the Area Tabulation**

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The Company's vision and mission:

**Vision**

- SM Prime aspires to be the premier Filipino integrated property developer by building innovative and sustainable lifestyle cities through the synergy of our mall, residential, commercial, hotel, and resorts businesses



## **Mission**

- To serve the ever-changing needs of our customers
- To inspire our employees to be the best they can be
- To enhance the lives of families in the different regions through employment and business opportunities
- To increase shareholder value and deliver sustainable growth
- To act as a catalyst for economic growth
- To embrace the principles of social responsibility and environmental sustainability in the communities we serve.

With the vision of the company, the commitment to serving people's need with standards is the key to developing and improving the project towards a better service.

In view of its continuing effort to offer its customers to an accessible service, SM Prime Holdings, Inc. is planning to construction of 5-storey building (Mall with Basement and roof deck Parking), Transport Terminal and Open Spaces.

The proposed project is envisioned to provide more parking and leasable spaces for customers of SM City Laoag as well as provide more employment opportunities through the operation of the Mall and Public Terminal.

Specifically, the proposed project has the following objectives:

- Provide more commercial spaces.
- Provide spacious mall area
- Provide accessible institutional building university.
- Maximize the utilization of the portion of the property
- Provide employment opportunities during the construction and operation of the project.

Hence, this Environmental Impact Statement (EIS) is being prepared for the purpose of securing of an Environmental Compliance Certificate (ECC) amendment. As one of the requirements under DENR Administrative Order 2003-30, before the implementation of this proposed project.

## F. ENVIRONMENTAL MANAGEMENT PLAN

Project Phase/ Environmental Aspect	Environmental Component Likely to be Affected	Potential Impact	Options for Prevention or Mitigation or Environment	Responsible Entity	Cost	Guarantee/ Financial Arrangements
<b>1.Pre-Construction Phase</b>						
Zoning	Land	Ensure compatibility of design with land use plan for the area	The project will be constructed within the property which has been zoned as appropriate for commercial use.	SMPH	Part of pre-planning cost	Location Clearance
Site clearing	Land	Removal of existing trees	Conduct inventory of affected trees Secure Tree Earth balling/Cutting permit Identification of area for the tree planting, in coordination with DENR-CENRO	SMPH	Part of pre-planning cost	Tree Earth balling/Cutting Permit
Geologic Hazard	Land	Geological hazards resulting from earthquakes, ground rupture, and slope failure	The structural design of the building considered the seismic engineering design and analysis and findings/recommendations of geotechnical assessment.	SMPH	Part of structural design	Building permit
Site Preparation and evacuation	Land	Scope failure resulting to damage to adjacent structure	Design an anchoring system to underpin the foundation elements of existing SM City Laoag.  Construct excavation protection system as per recommendations of the geotechnical assessment  Monitoring by an engineering geologist during evacuation to delineate presence of unstable jointed zones.	SMPH-Designers	Part of structural design	Geotechnical Evaluation report

Site preparation and excavation/ Disposal of excavated earth material	Land	Generator/ excavated earth materials	Prior to start of building construction, dumping sites will be identified	Project contractor	Part of construction cost	Letter of Undertaking by contractor
<b>II. CONSTRUCTION STAGE</b>						
Erosion and surface soil runoff	Water	Clogging of canals and flooding	Construction of temporary works such as deviation channels mounting, barriers and trenches around the stock piles.	Contractor	Php50,000	TOR with contractor
Water from worker's cramps	Water	Water pollution of receiving waterbody	Temporary toilet facilities will be utilized to avoid contamination of surface and groundwater by sewage	Contractor	Php20,000/m onth	TOR with contractor
Mud tracking of vehicles coming in and out of the construction site	Land	Aesthetics	Regular cleaning of construction area and steel gutter by designated sweepers and cleaners of the contractor.  Provision of high-pressure water spray system	Contractor	Part of mgt cost	TOR with contractor
Dust emission form civil works and movement of vehicles	Air	Air pollution	Dust control at the stock pile of aggregates through regular water sprinkling	Contractor	Php5,000/mo nth	TOR with contractor
Noise and vibration due to construction activities	Noise	Noise and vibration	Proper scheduling of construction works	Contractor	Part of mgt cost	TOR with contractor
Traffic congestion due to frequent movement of construction vehicles	People	Traffic	Side street parking at the adjacent roads will not be allowed	Contractor	Part of mgt cost	TOR with contractor
Accidental spill of materials during hauling	People	Traffic accidents	Require haulers to cover materials with canvass	Contractor	Part of mgt cost	TOR with contractor
Impact of construction activities on welfare and safety of workers and passerby	People	Health and Safety of Workers and Passerby and Damage to Adjacent Properties	Implement of Construction Safety and Management Plan by General Contractor  Designation of onsite Safety Officer duly accredited by DOLE	Contractor	Php2.5M	TOR with contractor

			<p>Provision of scaffoldings, safety nets, and other materials for protection and safety</p> <p>Wearing of safety gadgets such as, hard hats, gloves, safety belts, rubber boots, goggles, etc. will be a mandatory requirement for workers.</p> <p>Safety signs/reminders will be posted in strategic areas within the construction area</p> <p>Sufficient lighting shall be installed in dark areas</p>			
Generalization of construction debris and other solid wastes	Land	<p>Solid and hazardous wastes generation</p> <p>Add burden to LGU on solid waste management</p>	<p>Collection and recycling of construction wastes.</p> <p>To be offered to junk shops as scrap material.</p> <p>Handling and storage of potential contaminants under strict condition</p>	Contractor	Php5,000 week	TOR with contractor
Removal of fees	Land	Removal of existing trees	<p>Replacement and planting of more trees in coordination with DENR-CENRO</p> <p>Landscaping of open areas within the property</p>	SMPH	Part of construction cost	Landscaping plan
Increased employment opportunities	People	Provide employment opportunities	Priority in hiring will be given to qualified locals from the barangay and adjacent community	SMPH/Contract or	Part of mgt cost	TOR with contractor
<b>III. OPERATIONAL STAGE</b>						
Increased pollution load into the receiving water body	Water	Water Pollution	Construction of new and upgraded STP. This shall be maintained properly.	Building Admin	Part of maintenance cost	Discharge Permit

Odor from STP	Air	Odor Pollution	Installation of odor control system Maintenance and proper operation of STD	Building Admin	Part of maintenance cost	TOR with STP maintenance contractor
Emission from the operation of the standby generator units.	Air	Air and noise quality deterioration	Regular Maintenance will be undertaken to prevent emission of pollutants.  The generator sets will be provided with mufflers and enclosure with soundproof acoustical walls and ceiling	Building Admin	Part of maintenance cost	Permit to Operated form DENR-EMB
Solid and hazardous waste generation	Land	Solid and hazardous waste disposal	Waste segregation and recycling will be implemented to reduce the volume of wastes to be disposed through the city's solid waste management system	Building Admin	Php 20,000 M/ annum	Contract with hauler
Traffic congestion due to movement of vehicles going to from building	People	Traffic	Provide adequate parking slots Designation of traffic, enforcers to direct flow of vehicles in/out of vehicles	Building Admin	Php 150,000	Compliance with parking requirements of Tarlac City
Increase in employment opportunities, government revenues and improved social services	People	Socio-economic impacts	The project will provide priority hiring for qualified people form the barangay and nearby community.  The revenues from the project will increase the funds of the barangay and the city in general for social services projects. Social development program shall be undertaken	Building Admin	Part of the training and project maintenance cost	Tax payments
<b>IV. ABANDONMENT PHASE</b>						

Solid Waste Generation	Land	Solid Waste Disposal	Implementation of waste segregation and recycling	Proponent/ Contractor	Included in the Abandonment Management Cost	Contract Agreement with Hauler
Hazardous Waste Generation	Land	Hazardous Waste Disposal	Proper storage and handling of hazardous wastes. Commission DENR accredited industrial treater for the disposal of hazardous wastes	Proponent/ Contracted treater (TSD)	Included in the Abandonment Management Cost	DENR Hazardous Waste Registration ID
Wastewater Generation	Water	Water Pollution	Proper siphoning/ hauling of remaining sewage from the STP	Proponent / Contractor	Included in the Abandonment Management Cost	Certificate of Desludging
Dust emission from Dismantling Activities	Air	Air Pollution	Proper handling of equipment.	Proponent/ Engineering & Maintenance Dept.	Included in the Abandonment Management Cost	Demolition Permit
Loss of Employment	People	Socio-Economic Impact	Payment of workers' compensation in accordance to DOLE rules and regulations	Proponent/ Administration/ Legal Office	Included in the Abandonment Management Cost	Clearance from DOLE

Table 4. Environmental Monitoring Plan

Key Env't Aspects	Potential Impacts	Parameter to be Monitored	Sampling & Measurement Plan			Lead Person	Annual Estimated Cost	EQPL Management Scheme					
			Method	Frequency	Location			EQPL Range			Management Measure		
								Alert	Action	Limit	Alert	Action	Limit
<b>CONSTRUCTION STAGE</b>													
Water	Runoff of sediments	Turbidity of stormwater runoff	Observation	Rainfall events	Construction site; drainage canal	Contractor	Part of construction cost	Cleanliness of site	Clogged gutters and canals	n/a	Observe mud accumulation on gutters	Cleaning of gutters and canals	n/a
Air	Dust Generation	TSP	Observation	Daily	Construction site	Contractor	Part of construction cost	Airborne dust at intermittent occasions within the day	Excessive airborne dust reducing visibility and affecting workers movement	n/a	Assign traffic aide inform of site	Stop work. Impose penalty on the contractor	n/a
People	Traffic	Traffic conditions	Observation	Daily	Construction Site	Contractor	Part of construction cost	Moderate vehicle congestion due to construction vehicles going to/from site	Heavy vehicle congestion	n/a	Assign traffic aide in front of site	Schedule deliveries at night	
People	Occupational hazards	Lost time accident	Recording	Daily	Construction site	Contractor	Part of construction cost	0	0	0	Implement safety guidelines		
Land	Disposal of construction wastes	Collection of construction wastes	Estimation	Weekly	Construction site	Contractor	Part of construction cost	Bi-weekly waste collection	Weekly waste collection	Monthly	Proper segregation of wastes	Cleanliness/ Orderliness of waste segregation	Require contractor to haul out wastes



OPERATIONAL STAGE													
Land	Generation of solid wastes	Volume of solid wastes & Collection frequency	Recording of volume of solids wastes generated & collected.	Daily	Material recovery facility area/ Segregation area	Pollution Control Officer in coordination with Maintenance Staff	Included in the management cost.	Bi-weekly collection	Weekly collection	Monthly collection	Proper collection, segregation and storage. Contract with hauler	Regular collection by hauler	Find hauler replacement to immediately haul out all wastes,
Land	Generation of hazardous wastes	Volume of hazardous wastes & collection frequency	Recording of the volume of hazardous wastes generated & collected	Quarterly	Designated area in Material recovery facility	Pollution Control Officer of Tenants	Included in the management cost of tenants	Contract with DENR recognized TSD facility	Contracted TSD facility cannot collect HW	HW segregation area is full	Segregation of HW; collection by Transporter/ TSD facility	Check HW segregation area	Contract services of other DENR recognized TSD facility
Water	Wastewater generation	BOD, Fecal Coliform, Oil & Grease, Ammonia, Nitrate, Phosphate, Surfactant	Effluent Sampling	Monthly	STP sampling port	Pollution Control Officer in coordination with third Party Laboratory	Included in the management cost	BOD: 35 mg/l  Fecal Coliform: 350 MPN/100 ml  O&G: 3 mg/l  Ammonia: 0.25 mg/L	BOD: 42 mg/l  Fecal Coliform: 370 MPN/100 ml  O&G: 4mg/l  Ammonia: 0.3 mg/L	BOD: 50 mg/l  Fecal Coliform: 400 MPN/100 ml  O&G: 5mg/l  Ammonia: 0.5 mg/L	Maintenance of STP	Investigate cause (s); Apply corrective measure & adjustments in system	Close discharge outlet until problem is rectified

								Nitrate: 8 mg/L	Nitrate 10 mg/L	Nitrate 14 mg/L			
								Phosphate: 0.7 mg/L	Phosphate 0.7 mg/L	Phosphate 1.0 mg/L			
								Surfactants: 8 mg/L	Surfactant 11 mg/L	Surfactant 15 mg/L			
Air	Emission from Generator Sets o	Smoke Opacity Carbon Monoxide (CO) & Nitrogen Oxides (NOx)	Source Emission Testing	As required in permit condition	Generator sets' stack	Pollution Control Officer in coordination with Third Party Laboratory	Cost of source emission sampling depends on frequency required in the permit condition	CO: 400 ug/NCM  NOx: 1,500 ug/NCM	CO: 450 ug/NCM  NOx: 1,700 ug/NCM	CO: 500 ug/NCM  NOx: 2,000 ug/NCM	Check-up of gen set	Put gen set under preventive maintenance	Servicing and general repair. Not to be used until problem is solved
<b>ABANDONMENT PHASE</b>													
Air	Dust Generation	Particulates	Ocular inspection	Daily	Demolition Site	Contractor	Included in the abandonment cost	Minimal Dust	Visible Dust Emission	Excessive Dust Emission	Good housekeeping	Conduct water sprinkling at the demolition site	Stop demolition activity until it resolved
Land	Generation of Construction debris & domestic waste	Volume of Solid Wastes	Recording	Daily	Demolition Site	Contractor	Included in the abandonment cost	Waste uncollected after one week	Waste uncollected after two weeks	Waste uncollected after three months	Proper collection, segregation and storage	Secure garbage storage area. Strict housekeeping	Require private hauler to immediately haul out all wastes,

												of the area to be done	otherwise replace hauler
Land	Generation of Hazardous Wastes	Volume of Hazardous Wastes	Recording	Weekly	Demolition Site	Contractor	Included in the abandonment cost	Waste uncollected after three months	Waste uncollected after six months	Waste uncollected after demolition	Secure storage area. Strict housekeeping of the area to be done	Require treater to dispose all wastes, otherwise replace treater	Contract services of other DENR recognized TSD facility

**G. Information on where to get a copy of the EIS for further information.**

- <https://r1.emb.gov.ph>