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January 15, 2024

ENGR. BUENAFE RIOFLORIDO
Chief, Clearance and Permitting Division
Environmental Management Bureau - MIMAROPA
15F, Unit 1518, Trium Square,
2183 Sen. Gil J. Puyat Ave, Pasay City,
Metro Manila

Attention: EnP. Nicole Yuri V. Dorado
Chief, EIA Section

Dear Ma'am Buena:

Greetings!

We are sending herewith the response to the EMB IVB EIARC comments, on the review and evaluation of our Environmental Performance Report and Management Plan (EPRMP) for our proposed OMCPC SMRA Diesel Power Plant Expansion. We would like to submit compliance to the additional requirements and the observed inadequacies in the documents, as follows:

EIARC Comments on EPRMP

Engr. JRMMorente Comments

1. Section 1.6 – The discussion must include a paragraph whether there will be additional environmental controls e.g. OWS or whether the existing controls can cater to the needs of the expanded operations.

Response: Noted. An additional paragraph was added in Section 1.6.1.3 (Page 1-13 of Chapter 1 – Project Description) as shown below:

The existing environmental controls installed by OMCPC in its existing power facility is sufficient to cater the other additional pollution load (specifically on oily and domestic wastewater effluent) that will be generated by the operation of additional generator sets. The proposed additional gensets are modular, equipped with its own environmental safeguards specifically in air emissions. Furthermore, the additional gensets it will strictly use light fuel oil (LFO) which guarantees lower emission while the existing power plant will utilize blended fuel (80% LFO and 20% HFO).

2. Section 1.7.2 – The current and projected fuel consumption must be discussed (both existing operations and proposed expansion).

Response: Discussion in Section 1.7.2 (Page 1-18 of Chapter 1 – Project Description) was revised showing current and projected fuel consumption as shown below:

"The actual fuel consumption of the existing power plant from January to November of 2023 is 17,257,594.84 liters of diesel and 4,314,398.72 liters of bunker fuel (HFO) or an average of 1,568,872.258 liters per month of diesel and 392,218.0655 per month for HFO. Base on the monthly average consumption, the annual fuel consumption is 18,826,467.096 liters of diesel and 4,706,616.79 per month for HFO For the additional six (6) units of gensets, the estimated fuel requirement per month assuming that the units will operate at 200 hours per month is 312 liters. A fuel contractor delivers on-site the fuel requirements by using fuel tank lorry from Batangas City via Abra de Ilog Port. Fuel lorries deliver diesel and bunker fuel to the site every other day to supply 2 days of operation. Seven (7) fuel tankers are needed to suffice the diesel requirement and bunker fuel requirement. The fuel tanks have approximate capacity ranging from 20,000 liters to 40,000 liters."

3. Section 1.7.3 – The water requirements is not detailed in Table 1.2. Or is it in Table 1.3. The source(s) of water must be identified.

Response:

Discussion in Section 1.7.3 (Page 1-18 of Chapter 1 – Project Description) was revised showing water supply and demand. OMCPC has an NWRB permit for its groundwater abstraction. Shown below is the discussion in Section 1.7.3 including Table 1.3.

"The current water requirement for the operation of the existing diesel power plant is 1.87 m^3/day. Water requirement is divided into plant water for cooling system; industrial wash water and domestic water. Water is source is from the existing deepwell established by OMCPC solely for the operation of the powerplant. The aforementioned deepwell has an NWRB permit and OMCPC is allowed to extract 0.14 liters per second or approximately 6.048 m^3/day.

During the construction of the additional 8.3MW, it is estimated water requirement is 2.0 m^3/day. Water needed by the construction will be provided by the existing deepwell already established on site.

The combined operation of the existing main power plant plus the additional powerhouse will only require 2.12 m^3/day which is way below the allowed abstraction rate set by NWRB for the on-site deepwell. The estimated domestic water supply is 0.5 m^3/day for the estimated 43 employees of the plant working in two (2) shifts. The summary of daily water requirements and the water balance matrix is presented in Table 1.3."

Table 1.1. Water requirement for the existing power plant operations and proposed additional powerhouse including water supply (m^3/day)

Water Usage	Details	Volume
Water Requirement		
Existing Power Plant Operation		
Domestic (Office, accommodation, canteen and shop)		0.42
Industrial (Process and Wash water)		
Equipment washing		1.10
Floor washing		0.05
Process and cooling water		0.30
Sub-total		**1.87**
Proposed Power Plant Operations		
Domestic (Additional Manpower)		0.05
Industrial (Radiator Cleaning)		0.20
Sub-total		**0.25**
TOTAL		**2.12**

Water Usage	Details	Volume
Water Supply		
Groundwater Well (with NWRB Permit)	*Allowed abstraction rate of 0.14 liters per second*	6.048

4. Please clarify. The fuel consumption must be expressed in liters per year. The. Submission of Emission Inventory on Fuel Usage for existing and post expansion.

Response:

Please see response in Item # 2 for the fuel consumption expressed in liters per year.

5. Figure 2.19 – the sampling stations can't be identified. Please provide larger and more legible maps.

Response:

Figure 2.19 in Page 2-31 was revised to show the sampling station actual location and is depicted in landscape lay-out as shown below (print screen).

Figure 2.19. OMCPC ambient surface water and effluent quality monitoring stations

6. Table 2.11 – Please indicate date and time of sample collection.

Response:

Table 2.11 in page 2.-34 to 2-35 of Chapter 2 was revised to show the date of sampling. Baseline result was also added as well as the 2022 sampling event. Time of sampling was only indicated for the 2021 sampling event. Print screen of Table 2.11 is shown in the proceeding page:

Table 2.11. Result of the OMCPC ambient water quality baseline and monitoring, January 2021 and October 2022

Parameter	Analysis Method/Instrument	DENR Standard (Class C)	OMCPC FWQ1			OMCPC FWQ2			OMCPC FWQ3		
Date of Sampling			March 2015	Jan 08, 2021	Oct 20, 2022	March 2015	Jan 08, 2021	Oct 20, 2022	March 2015	Jan 08, 2021	Oct 20, 2022
Temperature, °C	*In-situ Sampling*	25-31	23.7	28.7	29	24.6	28.7	28	27.3	28.6	27
pH	Electrometric Method	6.5 – 9.0	7.6	7.8	7.08	7.7	7.7	6.96	7.3	7.8	7.45
BOD, mg/L	5 day BOD Test	7	16	<1	-	24	1	-	<1	1	-
COD, mg/L	Open Reflux Method	--	48	54	30	81	25	71	<5	46	36
DOa, mg/L	*In-situ Sampling*	5 (Minimum)	8.1	8.6	-	7.9	8.2	-	7.3	8.5	-
TSS, mg/L	Gravimetric	80	25	61	6	17	61	8	<1	67	170
Oil & Grease, mg/L	Liquid-liquid, Partition - Gravimetric	2	<1.0	<1.0	2.9	<1.0	<1.0	2.1	<1.0	<1.0	<1.4
Surfactants (MBAS)	Anionic Surfactants as MBAS	1.5	-	<0.10	-	-	<0.10	-	-	<0.10	-
Cr_{+6}, mg/L	Colorimetric	0.01	<0.01	<0.01	<0.004	<0.01	<0.002	<0.004	<0.01	<0.002	<0.004
Phosphate	Stannous Chloride Method	0.5	0.46	0.02	0.23	0.03	0.01	0.12	0.02	0.01	0.13
Ammonia	Ammonia – Selective Electrode	0.5	-	0.11	-	-	0.09	-	-	0.06	-
Nitrate – NO3-N	Colorimetry – Brucine	7	-	0.16	-	-	0.17	-	-	0.21	-
Chloride	Argentometric	350	-	3.0	0	-	4.5	0	-	3.4	0
As, mg/L	Manual Hydride Generation - AAS	0.02	<0.001	<0.0007	<0.0015	<0.001	<0.0007	<0.0015	<0.001	<0.0007	<0.0015
Cd, mg/L	Direct Acetylene Flame	0.005	<0.002	<0.003	<0.0005	<0.002	<0.003	<0.0005	<0.002	<0.003	<0.0005
Cu, mg/L	Direct Acetylene Flame	0.02	-	<0.005	-	-	<0.005	-	-	<0.005	-
Pb, mg/L	Direct Acetylene Flame	0.05	<0.005	<0.01	<0.001	<0.005	<0.01	<0.001	<0.005	<0.01	<0.001
Zn, mg/L	Direct Acetylene Flame	-	-	28.7	-	-	28.7	-	-	28.6	-
Thermotolerant Fecal Coliform	Multiple Tube Fermentation	-	24000	7.8	-	3500	7.7	-	33	7.8	-
Time of Sampling					0952H		1014H			1035H	

Notes:
1. March 2015 is the baseline sampling
2. January 2021 is the water monitoring conducted in 2021 (only 1 sampling event was conducted)
3. October 2022 is the water monitoring conducted in 2022 (only 1 sampling event was conducted)
4. – means no standard or no sample for the particular parameter was done during the monitoring event

7. Effluent monitoring (page 2-33) – Please show the prior (at least 2 or 3 years data) monitoring data (as reflected and reported in the SMR).

Response:

An additional table was added to show the result of the 2021 and 2022 monitoring event as reported in the SMR and presented as tabulation shown in page 2-35 and 2-36 of Chapter 2.

Table 2.12. Result of the OMCPC effluent monitoring 2021 and 2022

Parameter	Analysis Method/Instrument	DENR Standard (Class C)	OMCPC EWQ1	
Date of Sampling				
Temperature, °C	*In-situ Sampling*	3deg change	No Discharge	31
pH	Electrometric Method	6.0 – 9.5		7.45
BOD, mg/L	5 day BOD Test	50		-
COD, mg/L	Open Reflux Method	100		19
DOa, mg/L	*In-situ Sampling*	-		-
TSS, mg/L	Gravimetric	100		7
Oil & Grease, mg/L	Liquid-liquid, Partition - Gravimetric	5		1.4
Surfactants (MBAS)	Anionic Surfactants as MBAS	15		-
Cr_{+6}, mg/L	Colorimetric	0.02		<0.004

Parameter	Analysis Method/Instrument	DENR Standard (Class C)	OMCPC EWQ1	
Phosphate	Stannous Chloride Method	1	No Discharge	0.13
Ammonia	Ammonia – Selective Electrode	0.5		-
Nitrate – NO3-N	Colorimetry – Brucine	14		-
Chloride	Argentometric	450		0
As, mg/L	Manual Hydride Generation - AAS	0.04		<0.0015
Cd, mg/L	Direct Acetylene Flame	0.01		<0.0005
Cu, mg/L	Direct Acetylene Flame	0.04		-
Pb, mg/L	Direct Acetylene Flame	0.02		<0.001
Zn, mg/L	Direct Acetylene Flame	4		-
Total Coliform	Multiple Tube Fermentation	10,000		-
Time of Sampling				

8. Section 2.3.1.3 – Please delete some acronyms that are not associated with the project.

Response:

Noted and revised accordingly.

Ma'am MLQMoreno Comment

9. Please revise the EPRMP to include the performance of the project in terms of implemented mitigation to lessen the impact of the project to the flora and fauna affected during the baseline assessment. Are these mitigating measures effective? Discuss the rehabilitation done, nursery establishment, offsetting etc including monitoring conducted on these. Also discuss what will be the additional predicted impacts that will be brought about by this amendment of the project. How much area is needed, what are the vegetation that will be affected in those areas, etc... and what will be the additional mitigating measures that will be implemented. What is expected is an EPRMP, not an EIS.

Response:

The environmental performance was presented in Table 2.7 in Page 2-23 including discussion on the performance of OMCPC. The proposed additional powerhouse is only small with an area of 418 sq.m thus impact is minimal. Furthermore, the proposed area where the new powerhouse will be constructed is a grassland area which has been devoid of vegetation even before the existing powerplant was constructed in 2017. Please see below discussion on impact assessment and environmental performance. Tree planting activity as part of the OMCPC's CSR is also depicted in Chapter 5, Page 5-8 to 5-10.

Table 2.7. Predicted impacts of/on the terrestrial flora to/by the proposed amendment of OMCPC SMRA Diesel Power Plant Expansion

List of Key Impacts	Phase Occurrence				Discussion
	Pre-Construction	Construction	Operation	Abandonment	
Vegetation removal and loss of habitat		☑	☑	☑	The proposed additional powerhouse will only occupy 420 sq m of the existing property within the OMCPC complex. The proposed project area for the powerhouse is already devoid of vegetation as the development area is already grassland even before the existing power plant of OMCPC was constructed. The existing trees will not be cut down as it is far from the proposed construction site of the new powerhouse.
Threat to existence and/ or loss of important local species		☑	☑	☑	Most of the wildlife species observed were generalists, capable of adapting to disturbance or relocating to adjacent habitats. The existing vegetation is of a typical grassland with intermittent trees in the perimeter. OMCPC also planted Indian Lanutan trees in their perimeter fence to serve as buffer and greenbelt. It is also suggested that OMCPC shall actively pursue enrichment planting along its adopted areas to improve diversity while at the same time establishing a carbon sink to compensate a portion of its emission and accommodate more wildlife. OMCPC is encouraged to also adopt a mangrove habitat and conduct mangrove planting along the coastal.
Threat to abundance, frequency and distribution of important species					Since the project area is already existing there are no longer important species found in the area. All the species of flora and fauna observed in the project area have a conservation status of least concern thus there is no threat to abundance, frequency and distribution of important species in the area. Furthermore, the adjoining area is vast and can provide ideal habitat to the existing wildlife.
Hindrance to wildlife access					The proposed additional powerhouse is only small and is only one floor thus it will not have significant impact in terms of hindrance to wildlife access. OMCPC planted trees within the vicinity and along the perimeter fence thus wildlife specifically the avian fauna can use the greenbelt as perching or roosting area. Furthermore, OMCPC did not fell all the big trees when construction for the existing power plant was started in 2015 thus the area is not devoid of vegetation and this provides habitat for birds typically occurring in the area.

Engr. DGSBorja Comments

10. bunker-type or blended fuel-type?

Response:

The existing power plant is blended fuel-type. All the sentence with bunker-type in Chapter 1 was rectified as per comment. Shown below are some of the portions in Chapter 1 was rectified.

Powerhouse

Diesel Engine and Generator

Three (3) units of 8 MW CATERPILLAR 16CM32 C Engines is already installed which is a blended-fuel genset (80% Diesel and 20% HFO). Each unit has technical specification of 4 stroke, Vee cylinder configuration, direct injection, modular design, turbocharged and after-cooled aspiration. Each engine has 16-cylinders that will drive the generator to deliver a 7,556 kW continuous rated output, 13.8 kV, 60 Hz at 720 rpm rated speed.

Table 1.4 was also revised as shown in the proceeding page:

Plant components	Current Operation	Proposed Plant
Fuel Type	Blended Fuel Type	Diesel
Fuel consumption:		
HFO (Li/hr)	0.26	N/A
Pure Diesel (Li/hr)	0.26	0.26
Water requirement (m^3/day)	1.87	0.25
Manpower requirement (during operation)	38	45

11. It seems the coordinates are interchanged as latitude and longitude in Table 1.1

Response:

Table 1.1 in Page 1-2 in Chapter 1 was revised. Indeed, the latitude and longitude interchanged and was rectified accordingly. Please see below revised Table 1.1:

Table 1.1. Geographic coordinates of boundaries of OMCPC's project area

Corner	Latitude	Longitude
1	N12°26'22.01"	E121° 2'48.48"
2	N12°26'21.91"	E121° 2'47.87"
3	N12°26'22.32"	E121° 2'47.37"
4	N12°26'22.99"	E121° 2'46.55"
5	N12°26'27.20"	E121° 2'45.33"
6	N12°26'27.91"	E121° 2'45.50"
7	N12°26'28.26"	E121° 2'45.80"
8	N12°26'29.17"	E121° 2'46.60"
9	N12°26'30.27"	E121° 2'47.55"
10	N12°26'26.01"	E121° 2'51.94"

12. Section 10 of DAO 2017-15 cited that delineation of Direct Impact Area (DIA) shall be based on the project's impacts on air, water, land and people. Please expound the procedure of the relevant parameters used for the identification of the DIA.

Response:

Section 1.3.3 (Pages 1-5, 1-7 and 1-8) was revised as per comment to depict extent of impact area based on air dispersion modelling. The discussion on the impact delineation is shown in Page 1-8 in Chapter 1. Please see below screen shot of the revised Impact Area Map and the discussion as shown in Page 1-8:

The primary impact area of the proposed project is confined only to the project area of OMCPC within the 30,000.00 m^2 (approximately 3 has) aggregate lot area within the OMECO compound in Sitio Pulang Lupa, under the political jurisdiction of Brgy. Central, San Jose, Occidental Mindoro.

The projected direct impact area from the gaseous emission of the combined operation of the existing powerplant and the additional powerhouse extends 260-meters northeast towards Sitio Kasuy, Brgy. Central and 360-meter southwest towards Sitio Pulang Lupa. The detailed extent of emission was determined upon the conduct of an air dispersion modelling for both the existing and the proposed expansion on the assumption that the stack heights of the gensets in the proposed additional powerhouse is 8 meters. For the existing and proposed emission sources (or a total of 9 gensets), the predicted dispersed concentrations of SO_2, TSP, and CO were within the ambient guideline values set for these air pollutants while the predicted dispersed NO_2 was 1,832.6 µg/m^3, which exceeded the ambient guideline value set for NO_2 at 150 µg/Nm^3. At a stack height of 15 m, the highest predicted 24-hour average concentration of NO_2 (at the 98th percentile) of 151.3 µg/m^3 was slightly higher than the corresponding ambient guideline value. However, the dispersed ambient air concentrations outside the project boundaries were within ambient guideline value. OMCPC will increase the stack height to ensure that it will meet the ambient guideline value for NO_2.

Noise is not foreseen to have significant impact since the maximum decibel that will be generated by the additional generator sets is at 35dB only. With the genset units housed in a powerhouse, the maximum noise level will be attenuated further.

Direct impact area of OMCPC SMRA for traffic impact is expected to occur along the 125-meter stretch connecting OMCPC power complex from the national road. Residents of Sitio Kasuy are the ones that will be affected but this impact is minimal and occurs only during the fuel delivery which is usually scheduled every other day. Delivery from Batangas via Abra de Ilog is scheduled and timed to arrive in the evening so as not to interfere with the daily activities of the residents. In the event that it arrives during daytime, the seven (7) fuel lorries which make up the fuel delivery is immediately allowed inside the complex to avoid traffic interference in the access road.

In terms of wastewater impact, the 200-meter stretch of the irrigation canal was identified as secondary impact area since storm run-off from the complex drains through this irrigation canal including the domestic wastewater.

In terms of socio-economic impact, the host barangay - Central will receive most of the benefits because of employment and development opportunities once the power generation expansion commences operation. The host municipality – San Jose as well as the Province of Occidental Mindoro will also enjoy the financial benefits coming from the project such as taxes and social development projects as well as Corporate Social Responsibility (CSR) projects. In fact, OMCPC is the highest taxpayer for two (2) consecutive years in the Municipality of San Jose.

The MIMAROPA Region is the Regional Impact Zone (RIZ) considering the financial and economic benefits that may be brought by OMCPC once it increased its power generation capacity.

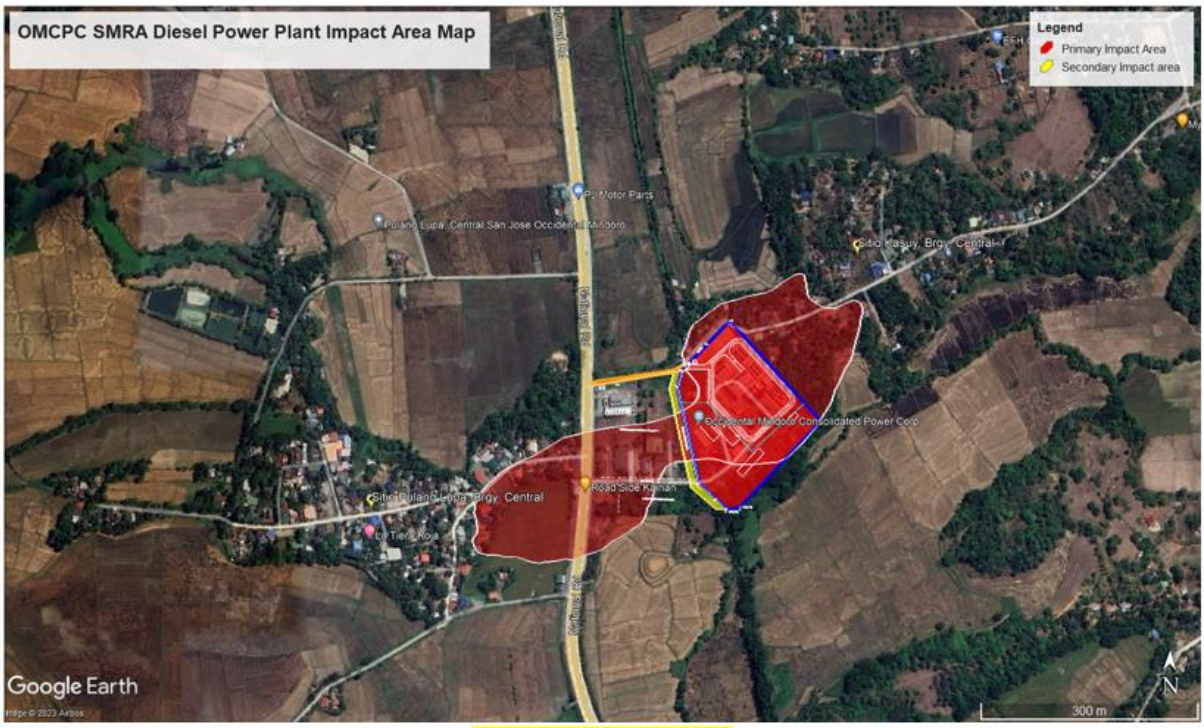

Figure 1.4. OMCPC SMRA Impact Area

13. Results of the air dispersion modelling should be incorporated in this chapter for the identification of impact area

Response:

Duly noted and incorporated as shown in the Impact Map in the preceding page.

14. Table 1.2 should be captioned and to reflect only the existing components and facilities

Response:

Additional rows were added in Table 1.2 in Pages 1-10 and 1-11 to denote components of the existing powerplant and the proposed additional powerhouse as shown below:

Table 1.2. OMCPC San Jose DPP project component tabulation (existing and proposed additional powerhouse

Facilities	No. of Units	Total Capacity	Area (sq.m)	Specification/ Description/ Remarks
Existing Powerplant				
1. Power House			977.04	
• Caterpillar 16CM32CEngines	3 x 8MW	24 MW		16CM32 C 16 Cylinders, Vee 320 mm Cylinder Bore 460 mm Stroke 7556 kW
• Switchgear Room	1		55.0	
• Control Room	1		55.0	The operator's main interface shall be through an operating station consisting of LCD's mouse and keyboard with color monitor
• Battery Room	1		12.00	
• Toilet	1		16.00	
2. Ancillary Facilities			661.80	
• Cooling System (Radiator)	4		194.00	
• Air Intake System	4		160.00	
• Exhaust (Smokestack)	1		80.00	
• Power Transformer	2	25MVA	22.00	
• Auxiliary System	1		25.00	
• Switchyard System	1		44.80	
• Noise Reducers	4		136.00	
3. Tank Farm Area			204.00	
• HFO Storage Tank			113.00	
• Diesel Storage Tank			91.00	
4. Admin Building			243.30	
• Admin Office			48.00	
• Lobby			48.30	
• Waiting Area			14.00	
5. Accommodation Area				
• Quarter Room			22.00	
• Canteen			12.50	
• Dining Area			11.00	
• DRESS KIT Room			4.50	
• Comfort Room			17.00	
• Ramp			40.00	
6. Warehouse			26.00	
7. Ramp			40.00	

Facilities	No. of Units	Total Capacity	Area (sq.m)	Specification/ Description/ Remarks
8. Water Tank			92.00	
9. Wastewater Mgmt.Facility			432.00	
10. Solid Waste Mgmt.Facility			664.00	
11. Guard House			12.00	
12. Parking Area			173.00	
13. Access Road			1,836.00	
14. Drainage System			396.00	
15. Perimeter Fence			45.00	
16. Open Space (within plant lay-out)			983.20	
Proposed Additional Powerhouse				
17. Additional powerhouse for gensets with a total power generation capacity of 8.3MW	6 units	8.3MW	418.80	3 x 1.6 MW; 2 x 1.2 MW and 1 x 1.1 MW

15. Please provide a table of the existing vis-à-vis proposed components and facilities of the expansion

Response:

Kindly see response in Item # 15 wherein Table 1.2 was presented showing components of the existing and proposed expansion.

16. Please provide detailed water demand of the existing vis-à-vis proposed expansion during operation phase (cooling, industrial and domestic).

Response:

Kindly see response in Item # 3 where detailed water demand and supply was presented including tabulation of water requirements as well as supply capacity of OMCPC's existing groundwater well with appropriate permit from NWRB.

17. Please expound on the air emission control measure on the use of low-sulphur content fuel.

Response:

The statement in Section 1.7.4 Page 1-19 was revised as shown below:

The power plant is designed to meet the emission standards in accordance with RA 8749 – Philippine Clean Air Act by adopting the most stringent standard established and by installation of technological advancement to minimize emissions among power plants. The air emissions control measure is primarily based on the use of cleaner technology and low-sulphur content fuel with advance emission control, resulting in significantly improved emission. The predicted SO_2 concentration (24 hour averaging period of 16CM32 diesel engines (3 existing + 6 additonal units) based on the air dispersion modelling is only 88.8 µg/m^3 which is within the DENR guideline value of 180 µg/m^3.Will the existing wastewater treatment facility enough to cover the expansion's additional wastewater generated?

18. Will the existing storage facility enough to cover the expansion's additional hazardous wastes (e.g. oily wastes) generated.

Response:

Paragraph 3 in Section 1.7.4, Page 1-19 was revised to indicate the capacity and adequacy of the existing storage facility. Please note that additional powerhouse will supplement power if one of the three existing gensets will undergo repair or PMS.

The sludge that will be produced from the operation of the powerplant will come from the oil sump pit, the septic tank and the oily wastewater. Wastes from the settling pit will be transferred/shipped to the allocated containment area or storage facility. Sludge from the septic tank will be regularly siphoned and hauled by a septic tank contractor accredited by DENR. Separated oily wastewater will also be hauled by an accredited contractor with facilities for their disposal or reuse. The existing fuel tanks already bonded to contain oil if untoward incidents such as spillage will occur. Domestic wastewater is coursed through a compartmentalized septic tank while hazardous wastes will be stored in drums for disposal by a DENR-accredited wastewater-treatment company. The existing six (6) septic tanks - each having a volume holding capacity of 24 cu.m. is sufficient to accommodate the domestic wastewater while the existing oil water separator has a capacity of 77 cu.m. which is also sufficient for both the existing and additional powerhouse. Used oil tank's capacity is 150 kL while the average quarterly used oil generation (I101) is 2kL.

19. For clarification: In Table 1.3, the proposed additional generator sets will strictly use Light Fuel Oil (LFO) as fuel. This should also be mentioned in detail in Section 1.9.3 (Page 1-20) distinguishing the change of fuel type of the units in the existing vis-à-vis proposed expansion

Response:

Duly noted. An additional sentence in Section 1.9.3, Page 1-21 as shown below:

The existing power plant shall still use blended diesel and HFO as the primary fuel during normal operations while the additional generator sets shall strictly use Light Fuel Oil (LFO) during its operation. The HFO and diesel shall be delivered by fuel lorry either from Caminawit Port or by land from Abra de Ilog port directly to the power plant's fuel storage area. At a rated capacity and at anticipated average utilization rate, HFO and diesel requirements are estimated at 0.26 l/hour. Delivery of fuel is done every other day utilizing 7 fuel lorries enough for the power plant to continuously operate for 2 days.

20. Please make the labels of the sampling stations in Figure 2.19 more visible

Response:

Kindly see response in Item # 5 for revised Figure 2.19 (Page 2-31) in Chapter 2.

21. Please include in Table 2.11 the baseline results of the sampling stations in the previous study

Response:

Kindly see response in Item # 6 about the revised Table 2.11 in page 2.-34 to 2-35 of Chapter 2 which now includes additional columns for the baseline result.

22. Please include in the section of Effluent Quality Monitoring historical effluent water quality as part of the project's self-monitoring instead of just citing that there was no discharge during the baseline gathering activity

Response:

Kindly see response in Item # 7 for the additional table depicting effluent water quality monitoring. Discussion was also added in Page 2-37 of Chapter 2 about the Effluent Quality Monitoring. Additional photos were added to depict that no discharge was observed during the 2021 monitoring event. Please see below added discussion for the 2022 monitoring event:

Effluent Quality Monitoring

During the 2021 monitoring event, the wastewater containment facility from the oil and water separator has no discharge. Plate 2.1 and 2.2 shows the photographs of the compartments having low water level with the final discharge compartment empty of water.

Plate 2.1. Actual inspection of the oil and water separator final compartments. Also shown in the photo is the 1st and 2nd compartment.

Plate 2.2. Initial compartment which receives wastewater from the main oil and water separator. Also shown in the photo is the final discharge with no discharge at the time of sampling.

During the 2022 monitoring event, such as pH, temperature COD, TSS, oil & grease, phosphate and chloride were all way below the DENR Class C effluent standard.

Arsenic, cadmium, lead and hexavalent chromium were all less than their respective detection limits after the wastewater was tested and analyzed.

Parameters BOD, surfactant, ammonia, nitrate, copper, zinc and total coliform were no longer tested since the aforementioned parameters were no longer included as parameters to be monitored in the discharge permit.

23. Please provide a synthesis of the air dispersion modelling results and the project's proposed actions

Response:

The synthesis on the air dispersion modelling result was presented in Table 2.26 (Page 2-70 to 2.71) as shown below:

Table 2.26. Predicted impacts of/on ambient air quality and noise to/by the proposed amendment of OMCPC SMRA Diesel Power Plant Expansion

List of Key Impacts	Phase Occurrence				Discussion
	Pre-Construction	Construction	Operation	Abandonment	
Degradation of air quality		☑	☑		The dispersion modelling results are in two (2) categories: a) existing sources and b) existing and proposed sources. Predicted dispersed air pollutants from the existing sources (or the existing three gensets) provided the background air quality in the area, while the combined or predicted cumulative dispersed air pollutants emanating from the existing and proposed sources (or a total of 9 gensets) aimed to check compliance with the ambient guideline values. **Table 2.27** summarizes the results of the predicted air pollutant concentrations based on dispersion modelling results in **Figure 2.39** to **Figure 2.48**. Predicted concentrations of SO_2 and NO_2 emanating from the three (3) existing gensets were within the corresponding ambient guideline values (**Table 2.28**). As the emission rates for particulates (PM) are relatively lower than those of SO_2 and NO_2, then it follows that the predicted dispersed concentrations for TSP (particulates) and CO were less than those of SO_2 and NO_2, thus results for TSP and CO for the existing sources are not presented in **Table 2.28**. Furthermore, the ambient guidelines for CO are very high at 10,000 and 35,000 µg/Nm^3 at 8- and 1-hour averaging periods, respectively; thus, dispersed concentrations of CO may be acceptable in compliance with ambient guideline values. For the existing and proposed emission sources (or a total of 9 gensets) the predicted dispersed concentrations of SO_2, TSP, and CO were within the ambient guideline values set for these air pollutants, as shown in **Table 2.29**. The predicted dispersed NO_2 was 1,832.6 µg/m^3, which exceeded the ambient guideline value set for NO_2 at 150 µg/Nm^3. As discussed in the previous section (**Section 1.3.2.6 -Modelling Options and Modelling Scenarios**), the simulations included hourly emission rate files for scenarios with intermittent operations (9 days per month and 7 hours per day) and increasing the stack heights to determine the stack height that yielded dispersed pollutant concentrations to within ambient guideline values, as shown in **Table 2.28**. **Table 2.28** shows that at stack heights of 5.32 to 14 m, the dispersed concentrations of NO_2 are greater than the corresponding ambient guideline value. The highest dispersed concentration is within the

List of Key Impacts	Phase Occurrence				Discussion
	Pre-Construction	Construction	Operation	Abandonment	
					project boundary, northeast of the proposed stacks. However, the predicted dispersed concentrations outside the project boundary are greater than the ambient guideline values for NO_2. Simulated NO_2 concentrations were very high in the N-E and S-W quadrants of the project site, as shown in Figure 2.39 onwards. At a stack height of 15 m, the highest predicted 24-hour average concentration of NO_2 (at the 98th percentile) of 151.3 µg/m^3 was slightly higher than the corresponding ambient guideline value. However, the dispersed ambient air concentrations outside the project boundaries were within ambient guideline value. Note that the Department of Labor and Employment (DOLE) air quality standards apply to areas within the project boundaries; thus, assessment of compliance with the ambient guideline values of the DENR focused on areas outside the project site. Based on the results of the simulations, this study recommends a stack height of 15 m for each of the proposed genset. OMCPC will consider the suggestion in the design.

24. Installation of scrubbers for the existing power plant – should be included as a project component. Installation and maintenance of continuous emission monitoring system – Are you sure?

Response:

The proposed mitigation measures previously indicated were removed.

25. Please provide information on the status of the permits for domestic wastewater and cooling water.

Response:

The discharge permit will expire on Jan 19, 2024 and renewal is on-going.

26. Please provide discussion on the actions taken by the project in the exceedance in NESSAP for Sox in Genset 2 and Genset 3 during the December 2022 emission test.

Response:

An additional sentence was added in the first paragraph in Page 2-67 in Chapter 2 to include actions taken by OMCPC regarding exceedance in NESSAP for SOx in DG 2 and DG 3.

However, the stack sampling results for SO_X (as SO_2) from December 2017 to July 2019 were greater than the NESSAP set for SO_X (as SO_2) at 700 mg/Nm^3. This period, though, was within the grace period in which facilities using bunker fuel were allowed to operate without penalties, according to the Memorandum of the DENR Secretary dated July 30, 2007. On September 27, 2019, however, the said memorandum was revoked by then DENR Secretary Cimatu and requires submission of the results of the source emission and ambient air quality monitoring. OMCPC implemented fuel blending using 80%

LFO and 20% HFO to address the SO_2 exceedance in the existing power plant. General maintenance and cleaning of smokestack was also conducted by OMCPC.