



Republic of the Philippines  
Department of Environment and Natural Resources  
**ENVIRONMENTAL MANAGEMENT BUREAU**  
Region VIII  
DENR Compound, Jones Street, Barangay 2, Tacloban City  
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Permit No: PTO-OL-R08-2022-02014-R  
Application Type: Renewal

Date Issued: 11 Mar 2022  
Date Expiration: 11 Mar 2023

**PERMIT TO OPERATE**  
**Air Pollution Source and Control Installations**

Pursuant to Part IV, Rule XIX of the Rules and Regulations of R.A. 8749, authority is hereby granted to:

**Philippine Associated Smelting and Refining Corporation (Smelting Plant)**

**Lide, Libertad, Isabel, Leyte**

subject to the following terms and conditions:

**TERMS AND CONDITIONS**

1. This Permit is issued for the permittee to operate the **Air Pollution Source Installations (APSI)** and **Air Pollution Control Devices (APCD)** in the **SMELTING PLANT** at the permittee's establishment identified on this Permit. *(Refer to attached Annex at page 3 to 5)*
2. Any application for renewal of this Permit shall be filed **not less than thirty (30) days** before the expiry date indicated on the previous page of the Permit.
3. This Permit shall be posted in a conspicuous location of the premises, and shall be adequately framed or otherwise protected against damage.
4. Without limiting the generality of the previous condition, the permittee shall ensure that the emissions from the permitted installations or processes comply with:
  - the National Emission Standards for Source Specific Air Pollutants as specified in Rule XXV of the IRRs of RA 8749;
  - the National Ambient Air Quality Standards for Source Specific Air Pollutants from Industrial Sources/Operations as specified in Rule XXVI of the IRRs of 8749; and
  - the emission limits specified in Permit condition No.9.
5. The permittee shall submit Self-Monitoring Reports to the Bureau in accordance with DENR Administrative Order No. 27 (Series of 2003) and any written instructions by the Bureau at three-monthly intervals, commencing with submission of the **first Report** on or before **April 15, 2022**. *(Online submission at <https://client.emb.gov.ph/smr>)*
6. The permittee shall at all times have an appointed or designated Pollution Control Officer (PCO) pursuant to DAO 2014-02.
7. The permittee shall at all times allow authorized or accredited officers of the Department or the Bureau entry to the establishment and access to any part of the establishment to conduct inspections, gather information, test emissions or take samples.
8. The permittee shall not make or allow any alterations or modifications to operations, activities, installations, processes, plant or equipment at the establishment that might substantially change the nature or quantity of the associated emissions without obtaining the approval of the Bureau, including the obtaining of any necessary Permit to Operate.
9. The permittee shall ensure that the concentrations of the emissions from the **Acid Plant Stack and Desulfurization Plant Stack** serving the **Smelting Plant** shall not exceed the following limits:
  - **Particulate Matter (PM): 150 milligrams per normal cubic meter;**
  - **Sulfur Dioxide (SO2): 700 milligrams per normal cubic meter;**
  - **Sulfur Trioxide (SO3): 1500 milligrams per normal cubic meter;**
  - **Nitrogen Oxide (NOx): 500 milligrams per normal cubic meter;**
  - **Carbon Monoxide (CO): 500 milligrams per normal cubic meter;**
  - **Total Mercury (Hg): 5 milligrams per normal cubic meter;**
  - **Total Antimony (Sb): 10 milligrams per normal cubic meter;**

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- **Total Arsenic (As): 10 milligrams per normal cubic meter;**
  - **Total Cadmium (Cd): 10 milligrams per normal cubic meter;**
  - **Total Copper (Cu): 100 milligrams per normal cubic meter;**
  - **Total Nickel (Ni): 20 milligrams per normal cubic meter;**
  - **Total Zinc (Zn): 100 milligrams per normal cubic meter; and**
  - **Total Lead (Pb): 10 milligrams per normal cubic meter.**
10. The permittee shall burn only **Diesel Fuel Oil** in the **CONVERTER FURNACE** for the whole duration of the permit validity.
11. The permittee shall burn only **Bunker Fuel Oil** in the **CONCENTRATE BURNER, HEAVY FUEL OIL BURNER, FSF SETTLER BURNER, and FLASH SMELTING FURNACE** for the whole duration of the permit validity.
12. The permittee shall burn only **LPG and HFO** in the **ANODE FURNACE** for the whole duration of the permit validity.
13. The permittee shall burn only **LFO** in the **ANODE CASTING MACHINE** for the whole duration of the permit validity.
14. The permittee shall operate the **Smelting Plant** at a capacity of **not more than 90%** only (based on the operating load capacity during the previous emission test).
15. The permittee shall provide emission sampling ports, sampling platforms and safe access to those sampling ports and platforms for the **Acid Plant Stack** and **Desulfurization Plant Stack** serving the **Smelting Plant**, in accordance with the Bureau requirements.
16. Emissions from the **Smelting Plant** shall be discharged at the **Acid Plant Stack** and **Desulfurization Plant Stack** at a height of not less than **100 meters** above ground level with an inside diameter of **125.98 inches**.
17. The testing required by the previous condition shall be repeated and Emission Test Reports shall be submitted to the Bureau at **twice per year intervals**. The results of this testing shall be reported in the Self-Monitoring Reports submitted in accordance with Permit Condition No.5.
18. The permittee shall sample and analyze emissions of **PM, SO3, NOx, CO, Hg, Sb, As, Cd, Cu, Ni, Zn, and Pb** from the **Acid Plant Stack** and **Desulfurization Plant Stack** in accordance with the methods specified in the IRR of RA 8749 and including the submission of the **proposed test plan** to the Bureau at least **two (2) weeks** prior to the date of conduct of the emission test and shall submit an Emission Test Report on the results of this emission testing to the Bureau after **thirty (30) days** after the conduct of emission test. During the sampling of the emissions, the air pollution source shall be operated at an output of **90% or greater than the permitted capacity**. The following data on operating conditions shall be collected during the sampling period, and included in the Emission Test Report; (a) **the actual output of the Smelting Plant**; (b) **stack or exhaust dimensions (height and inside diameter)**; (c) **average annual operating hours**; and (d) **the rate of fuel consumption**.
19. The permittee shall report in writing to the Bureau any malfunction, accident, breakdown, leak, spill or other abnormal or unexpected event which results in emissions to atmosphere that do not comply with relevant Permit Conditions, emissions standards or ambient air quality standards, or in any abnormal or unexpected releases of air pollutants. The report shall indicate the nature of the incident or event, its impact on emissions or releases, remedy any air pollution problems that may have occurred, and minimize the probability of a reoccurrence of the event or the release.

Recommended by:

Approved by:

  
**ENGR. HENNY G. HAYAG**  
OIC-Chief, Clearance and Permitting Division

  
**ENGR. REYNALDO B. BARRA**  
OIC-Regional Director

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Annex

Fuel Burning					
ID	APSI	Capacity	Brand name	Type of Fuel	APCD
102515	Concentrate Burner	240.0 MT	OUTOTEC	Bunker	---
102520	Heavy Fuel Oil Burner	250.0 L/H	PASAR (IN-HOUSE)	Bunker Oil	---
102521	FSF Settler Burner 1	250.0 MT	PASAR (IN-HOUSE)	Bunker	---
102523	Flash Smelting Furnace	240.0 MT/hr/equipment	OUTOTEC	Bunker	---
102524	Converter Furnaces (CF 1)	240.0 MT	Nerin	Bunker	---
102527	Anode Furnace (AF 1)	450.0 tonnes	NERIN	Bunker	---
102540	FSF Settler Burner 2	250.0 tonnes	PASAR (IN-HOUSE)	Bunker	---
102541	FSF Settler Burner 3	250.0 tonnes	PASAR (IN-HOUSE)	Bunker	---
102542	FSF Settler Burner 4	250.0 tonnes	PASAR (IN-HOUSE)	Bunker	---
102543	FSF Settler Burner 5	250.0 tonnes	PASAR (IN-HOUSE)	Bunker	---
102544	FSF Settler Burner 6	250.0 tonnes	PASAR (IN-HOUSE)	Bunker	---
102545	FSF Settler Burner 7	250.0 Tonnes	PASAR (IN-HOUSE)	Bunker	---
102546	FSF Settler Burner 8	250.0 L/H	PASAR (IN-HOUSE)	Bunker	---
102547	FSF Settler Burner 9	250.0 L/H	PASAR (IN-HOUSE)	Bunker	---
102548	FSF Settler Burner 10	250.0 L/H	PASAR (IN-HOUSE)	Bunker	---
102549	FSF Settler Burner 11	250.0 L/H	PASAR (IN-HOUSE)	Bunker	---
102551	Converter Furnaces (CF 2)	240.0 MT	Nerin	Bunker	---
102552	Converter Furnaces (CF 3)	240.0 MT	Nerin	Bunker	---
102553	Converter Furnaces (CF 4)	240.0 MT	Nerin	Bunker	---
102556	Anode Furnace (AF 2)	450.0 Tonnes	NERIN	Bunker	---

Non Fuel Burning					
ID	APSI	Capacity	Brand name	Material	APCD
102511	Steam dryer	332.0 MT	Kumera		---
102512	Feed bin	150.0 MT	Nerin		---
102513	Positive pressure dense phase pneumatic conveying system and Concentrate Target Bin	130.0 MT/hr/equipment	Nerin		---
102514	Concentrate Loss-In-Weight weighing and charging device	135.0 MT/hr/equipment	OUTOTEC		---

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102516	Dust Loss-In-Weight weighing and charging device including 1 unit Charge Bin	60.0 MT/hr/equipment	OUTOTEC		---
102517	Dry Charge Bin	450.0 MT/hr/equipment	Nerin		---
102518	Matte Launder 1	45.0 MT/hr/equipment	ESART		---
102519	Slag Launder1	55.0 MT/hr/equipment	ESART		---
102522	FSF Shaft Burner 1	250.0 MT/hr/equipment	PASAR (IN-HOUSE)		---
102525	Pneumatic conveying system	15.0 MT/hr/equipment	NERIN		---
102526	Negative-pressure pneumatic conveying system	12.0 MT/hr/equipment	NERIN		---
102528	Copper tapping launder with L=~12 m	110.0 MT/hr/equipment	NERIN		---
102529	Twin unit Anode Casting Machine	110.0 MT/hr/equipment	NERIN		---
102530	Crusher	10.0 MT/hr/equipment	Nerin		---
102531	Blending Bins	35.0 MT/hr/equipment	NERIN		---
102532	First tapping launder 1	110.0 MT/hr/equipment	NERIN		---
102533	Positive pressure dense phase pneumatic conveying system and Concentrate Target Bin	130.0 MT/hr/equipment	Nerin		---
102534	Concentrate Loss-In-Weight weighing and charging device	135.0 MT/hr/equipment	OUTOTEC		---
102535	Matte Launder 2	45.0 MT/hr/equipment	ESART		---
102536	Matte Launder 3	45.0 MT/hr/equipment	ESART		---
102537	Matte Launder 4	45.0 MT/hr/equipment	ESART		---
102538	Matte Launder 5	45.0 MT/hr/equipment	ESART		---
102539	Matte Launder 6	45.0 MT/hr/equipment	ESART		---
102550	FSF Shaft Burner 2	250.0 MT/hr/equipment	PASAR (IN-HOUSE)		---
102554	Slag Launder 2	55.0 MT/hr/equipment	ESART		---
102555	Slag Launder 3	55.0 MT/hr/equipment	ESART		---
102557	First tapping launder 2	110.0 MT/hr/equipment	NERIN		---

APCD-APSI Mapping			
ID	APCD	Connected APSIs (<name> (id))	Connected APCDs (<name> (id))
15459	One (1) unit Bag Filter with a filter area of 3000m2 (1)	---	---


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15460	Bag filter with a filter area of 300 m2 (1) (2)	---	---
15461	Bag filter with a filter area of 200m2 (1) (3)	---	---
15462	One (1) set fugitive gas collecting system (4)	---	---
15463	One (1) unit FSF Waste Heat Boiler (5)	---	---
15464	one (1) unit Silencer for discharging vapor (6)	---	---
15465	Nerin Electrostatic Precipitator 1 (7)	---	---
15466	Fugitive Gas Hood 1 (8)	---	---
15467	Electrostatic Precipitator 1 (9)	---	---
15468	One (1) unit bag filter with a filter area of 20m2 (10)	---	---
15469	One (1) unit dust bin with a capacity of 20m3 (11)	---	---
15470	Bag filter with filter area of 200m2 (2) (12)	---	---
15471	One (1) unit dust target bin with a capacity of 8m3 (13)	---	---
15472	One (1) unit dust bin with a capacity of 45m3 (14)	---	---
15473	Bag filter with a filter area of 300m2 (1) (15)	---	---
15474	One (1) unit Primary Cyclone (16)	---	---
15475	Two (2) units Secondary Cyclone (17)	---	---
15476	One (1) unit Evaporative gas cooler (19)	---	---
15477	Dust Tank 1 (20)	---	---
15478	One (1) Fugitive Gas Desulfurization Tower to treat fugitive gases, connected to a new 100 m high smoke stack (21)	---	---
15479	Nerin Electrostatic Precipitator 2 (22)	---	---
15480	Fugitive Gas Hood 2 (23)	---	---
15481	Fugitive Gas Hood 3 (24)	---	---
15482	Fugitive Gas Hood 4 (25)	---	---
15483	1 unit CF Electrostatic Precipitator (26)	---	---
15484	Electrostatic Precipitator 2 (27)	---	---
15485	Bag filter with a filter area of 300m2 (2) (28)	---	---
15486	Dust Tank 2 (29)	---	---
15487	Dust Tank 3 (30)	---	---
15488	Concentrate Target Bin (31)	---	---

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