

Department of Environment and Natural Resources

Department of Energy

Joint DENR-DOE Administrative Order No. JA0 2013 - 09 - 0001

SUBJECT:

Lighting Industry Waste Management Guidelines

Pursuant to Republic Act (RA) 6969, otherwise known as "The Toxic Chemicals and Hazardous and Nuclear Wastes Control Act of 1990"; RA 9003, also known as "The Ecological Solid Waste Management Act of 2000"; Executive Order (EO) No. 192 (1987), or "The Reorganization Act of the Department of Environment and Natural Resources (DENR)", and RA 7638, otherwise known as the "Department of Energy Act of 1992", and in line with the Memorandum of Agreement between Department of Energy (DOE) and DENR on lamp waste management, the following guidelines on development, implementation, and monitoring of the Lighting Industry Wastes Management Guidelines are hereby issued.

Basic Policy and Rationale Section 1.0

In consonance with the avowed policy under RA 6969, the State shall regulate the importation, manufacture, processing, handling, storage, transportation, sale, distribution, use and disposal of chemical substances and mixtures that present unreasonable risk or injury to health or to the environment in accordance with national policies and international commitments.

Lighting products contain mercury, arsenic, and other compounds that are toxic to human and aquatic life even at low concentrations.

This Order shall regulate the end-of-life disposal of lighting products to control the dispersion of these toxic substances into the environment to avoid these adverse consequences for the protection of the environment and public health.

Additionally, pursuant to RA 9003, it is the policy of the State to adopt a systematic, comprehensive and ecological solid waste management program, which shall:

- Ensure the proper segregation, collection, transport, storage, treatment and 1) disposal of solid waste through the formulation and adoption of the best environmental practices in ecological waste management excluding incineration;
- 2) Encourage greater private sector participation in solid waste management;
- Encourage cooperation and self-regulation among waste generators through the 3) application of market-based instruments, and;
- Institutionalize public participation in the development and implementation of 4) national and local integrated, comprehensive and ecological waste management programs.

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Moreover, pursuant to RA 7638, it is the policy the State to rationalize, integrate, and coordinate the various programs of the Government towards self-sufficiency and enhanced productivity in power and energy without sacrificing ecological concerns and that DOE shall formulate policies for the planning and implementation of a comprehensive program for the efficient supply and economical use of energy consistent with the approved national economic plan and with the policies on environmental protection and conservation and maintenance of ecological balance. Thereby, while DOE promotes lighting energy efficiency, it shall work with DENR and other relevant agencies to ensure that the negative impacts of mercury and other toxic materials contained in lighting products are mitigated through the effective implementation of this Order.

Section 2.0 Purpose and Scope

Cognizant of the DOE's thrust to promote the use of energy efficient lighting, this Order creates the framework within which the DENR, through the Environmental Management Bureau (EMB), shall require a person, category of persons or industry that generates lamp wastes to prepare, submit, execute, and comply with an industry waste management plan in accordance with the RA 6969 and RA 9003.

This Order shall set forth the procedures to be followed in the preparation, approval, review, implementation, and monitoring of a Lamp Waste Management Plan to regulate the management of lamp wastes; and to help protect the environment as well as our people's health and well-being.

Moreover, this Order shall define the roles and responsibilities of the Steering Committee that shall be created for the purpose of ensuring the effective implementation of this guideline.

Section 3.0 Definition of Terms

For the purposes of this Order, the following terms shall have the following meanings:

- 1) "Collection" refers to all activities related to the gathering of lamp waste at Collection Points.
- "Collection Point" refers to an entity with which the Lamp Waste Management System Operator has an agreement to accept and temporarily store lamp wastes from end-users until its removal by the transporter for transport to a consolidation center or a lamp waste management facility.
- 3) "Consolidation Center" refers to a site for the temporary storage and consolidation for onward delivery of lamp waste from the collection points to a lamp waste management facility.
- 4) "DENR" refers to the Department of Environment and Natural Resources of the Republic of the Philippines.
- 5) "Distributor" refers to any person, natural or juridical, to whom a lighting product is delivered or sold for purposes of distribution in commerce, except that such term does not include a manufacturer or retailer of such product.
- 6) "DOE" refers to the Department of Energy of the Republic of the Philippines.



- 7) **"EMB"** refers to the Environmental Management Bureau of the Department of Environment and Natural Resources.
- 8) "Importer" refers to any person, natural or juridical, that undertakes the importation of lighting products into the country that are intended for direct consumption, sale or distribution.
- 9) "Lamp Wastes" refers to busted or spent gas discharge and O(LED) lamps, or any other electrical light source except incandescent lamps
- 10) "Lamp Waste Management Facility" refers to a facility where lamp wastes are processed to make them suitable for beneficial use.
- 11) "Lamp Waste Management Fee" refers to the financial contribution from the participants to the Lamp Waste Management Plan for the collection and recycling of lamp waste.
- "Lamp Waste Management System Operator" refers to a non-profit organization created by producers for the purpose of implementing the Lamp Waste Management Plan: Provided that, producers representing at least 51 percent of the Philippine market for gas discharge lamps based upon the aggregated sales of all contracted participants in the previous year shall be entitled to create a system operator.
- 13) "LED module" refers to an assembly having no cap and incorporating one or more LED packages on a printed circuit board, which may have electrical, optical, mechanical and thermal components, and control gear;
- 14) "Lighting" refers to the following:
 - a. Gas discharge lamps such as;
 - Low pressure discharge lamps: fluorescent (compact, linear and non-linear) and non-fluorescent (low pressure sodium, low pressure mercury vapour);
 - High intensity discharge lamps: high pressure sodium, metal halide, high pressure mercury vapour, xenon;
 - > Lamps for special purposes;
 - b. Retrofit¹ (O)LED lamps (with standardized sockets suitable to replace lamps);
 - c. Lighting fixtures and luminaries embedded with gas discharge lamps or (O)LED lamps, including LED modules
 - d. Other light emitting devices except for incandescent;

There is no distinction made between household and professional lighting.

15) "Local Government Unit" means a body politic and corporate endowed with powers to be exercised by it in conformity with law. As such, it shall exercise powers as a political subdivision of the national government and as a corporate entity representing the inhabitants of its territory.

¹ Retrofit LEDs: LED Lamps fitting into existing and newly developed standardised sockets such as E 40, 27, 14 – B 22, 9, 6 – GU5,3,10 etc.



- "Manufacturer" means any person who manufactures, assembles or processes lighting products, except that if the products are manufactured, assembled or processed for another person who attaches his own brand name to the lighting products, the latter shall be deemed the manufacturer. In case of imported products, the manufacturer's representatives or, in his absence, the importer, shall be deemed the manufacturer.
- 17) "Producer" refers to any person, whether natural or juridical, a category of persons, industry or, as the case may be, the third party representing them, that is performing Waste Generating Activities as described in this Regulation.
- 18) "Recovery" shall refer to the collection, extraction or recovery of recyclable materials from lamp wastes for the purpose of recycling, or producing a product suitable for beneficial use.
- "Recycling" shall refer to the treating of lamp wastes through a process of making them suitable for beneficial use and for other purposes, and includes any process by which lamp wastes are transformed into new products in such a manner that the original products may lose their identity, and which may be used as raw materials for the production of other goods or services.
- 20) "Seller" means a person engaged in the business of selling lighting products either in wholesale or retail or directly to consumers.
- 21) "Transporter" refers to any person, group of persons, or entity that is licensed to transport hazardous wastes

22) "Waste Generating Activity" shall mean:

- a. Selling lighting products or offering lighting products for sale or for free for the first time in Philippines, except in the case of a manufacturer selling lighting products to a private label owner;
- Selling lighting products or offering lighting products for free in Philippines under his own brand, supplied by other manufacturers (a reseller not being regarded as the Distributor);
- c. Reselling lighting products in Philippines (where it has an establishment), upon acquisition from a Producer which has not fulfilled its legal obligations in Philippines as provided herein
- d. Buying lighting products in the Philippines for own use as a professional end user from a Producer which has not fulfilled its legal obligations in the Philippines, as provided herein
- e. Importing lighting products into the Philippines for own use as a professional end user from a supplier outside of the Philippines;
- f. Importing lighting products into the Philippines for commercial purposes, without selling or reselling any lighting products within the Philippines.

Section 4.0 General Requirements for Producers

4.1 Producers

All producers shall jointly work together in coming up with a Lamp Waste Management Plan and in setting-up a Lamp Wastes Management System Operator as defined in this Order. The producers and Lamp Waste Management System Operator are responsible for the

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preparation, implementation, and review and monitoring of the Lamp Waste Management Plan.

The following are the responsibilities of the producers:

- 1) Register with the Lamp Waste Management System Operator and form part of the contracted participant of the EMB-approved Lamp Waste Management Plan;
- 2) Contribute a Lamp Waste Management Fee in an amount to be determined by the Lamp Waste Management System Operator, which shall be used for the collection and recycling of lamp wastes as described in Section 8.0 of this Order;
- 3) Ensure that the Lamp Waste Management Fee for the collection and recycling of lamp wastes is visibly shown as a separate line on the invoice, order or comparable document;
- 4) Mark their lighting products in accordance with the markings as indicated in the approved Lamp Waste Management Plan; and,
- 5) Allow auditing by the Lamp Waste Management System Operator of all data e.g. sales volume and imported volume relevant to validate whether the registered sales and import data is correctly reported. The data shall be confidentially treated and used for the purpose of ensuring compliance to this Order.

No producer shall engage in any waste generating activity without registering with the Lamp Waste Management System Operator in accordance with Section 5.0 of this Order.

4.2 Importers

All importers are automatically producers and must comply with the requirements of Section 4.1 of this Order as well as with other pertinent laws and regulations.

4.3 Distributors

The following are the responsibilities of distributors:

- 1) Purchase only from registered producers, and distribute or sell lighting products in accordance with this Order;
- 2) Ensure that when buying from a producer, the registration number is correctly displayed on the invoice or other commercial documentation received, and verify that the producer is registered; and,
- 3) Ensure that the lamp waste management fee for the collection and recycling of lamp wastes is visibly shown as a separate line on the invoice, order, or comparable document.

4.4 Sellers

Sellers of lighting products, whether in wholesale or retail shall have the following responsibilities under this Order:

1) Purchase lighting products only from registered producers in accordance with this Order;

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- 2) Ensure that when buying from a registered producer, the registration number is correctly displayed on the invoice or other commercial documentation received;
- 3) Provide the relevant data in case of consignment sales to the producer allowing the producer to comply with the requirements of the Lamp Waste Management System Operator; and,
- 4) Provide space for a collection point to the Lamp Waste Management System Operator, free of charge.

Section 5.0 Local Government Units (LGUs)

In coordination with the Department of Interior and Local Government (DILG), the DENR and the DOE shall enjoin all LGUs to:

- 1) Establish collection point or consolidation center for lamp wastes by integrating lamp wastes collection in their existing Material Recovery Facility (MRF) or creating a new facility as lamp wastes collection point or consolidation center and;
- 2) Formulate and implement local ordinances on lamp waste management such as an ordinance requiring sellers of lighting products within their jurisdiction to comply with the requirements for sellers as presented in Section 4.4 of this Order and providing for sanctions for non-compliance therewith, such as, but not limited to, the non-issuance or revocation of business permit.

LGUs establishing a lamp wastes collection point and/or consolidation center shall enter into an agreement with the Lamp Waste Management System Operator for inclusion in the Lamp Waste Management Plan and comply with the applicable requirements of RA 6969 and its relevant implementing rules and regulations (IRRs) and this Order.

Section 6.0 Registration of Producers

All existing producers shall register within thirty (30) calendar days after effectivity of this Order with the Lamp Waste Management System Operator, established pursuant to Section 6.0 of this Order. Any new producer shall register with Lamp Waste Management System Operator prior to engaging in any waste generating activity.

The producer shall provide the following information upon registration and pay the corresponding fee to the Lamp Waste Management System Operator:

- 1) Name and documents of incorporation or registration;
- 2) Registered address of the producer within the Philippines;
- 3) Physical address where the waste generating activities of the producer are conducted within the Philippines;
- 4) Contact details: name, address and contact numbers of the legal representative of the producer, if any, in respect of the Lamp Waste Management Plan.

As proof of registration, the Lamp Waste Management System Operator shall issue a registration number to the producer. The producer shall display this registration number on all



trading documentation and in the premises where the waste generating activities are conducted.

The Lamp Waste Management System Operator shall prepare a database of registered producers of the Lighting Industry and shall submit the same to the EMB Central Office as part of the Lamp Waste Management Plan per Section 7.0 hereof.

Section 7.0 Establishment and General Requirements of a Lamp Waste Management System Operator

Producers comprising of at least fifty-one (51) percent of the lamp gas-discharge market (based upon the aggregated sales of the participants in the previous year) shall establish a non-profit, non-stock organization for the purpose of implementing a Lamp Waste Management Plan subject to the requirements of this Order.

The establishment and operations of the Lamp Waste Management System Operator shall be supervised and monitored by a Steering Committee, for the purpose of effectively enforcing the EMB-approved Lamp Waste Management Plan in accordance with this Order.

7.1 Juridical Characteristics of the Lamp Waste Management System Operator

The Lamp Waste Management System Operator established by the producers for the purpose of complying with this Order shall:

- 1) Be a duly registered non-stock and non-profit organization with the Securities and Exchange Commission (SEC);
- 2) Governed by a Board of Trustees composed of producers' representatives; and,
- 3) Be operationally independent but subject to the supervision and oversight functions of the Steering Committee.

7.2 Responsibilities of the Lamp Waste Management System Operator

The Lamp Waste Management System Operator must perform the following functions and responsibilities:

- Prepare or cause the preparation of the Lamp Waste Management Plan and seek approval of the EMB Central Office (CO);
- Provide evidence that the Lamp Waste Management Plan is participated in by a minimum of 51 percent of the Philippine market for gas discharge lamps based upon the aggregate sales of all contracted participants during the previous year;
- 3) Together with the producers, implement the EMB-approved Lamp Waste Management Plan, review and amend as necessary, subject to the approval of the EMB:
- 4) Prescribe a lamp waste management fee subject to the approval of the Steering Committee;
- 5) Collect the lamp waste management fee from the producers either based on Volume of Import or Volume of Sales, whichever is agreed upon by the Lamp Waste Management System Operator and the producers concerned, subject to the



approval of the Board of Trustees; Provided that details on the collection process is described in the Lamp Waste Management Plan;

- 6) Comply with the permitting and reporting requirements of DENR AO 2004-036: Implementing Rules and Regulations of RA 6969 on Hazardous Waste Management on the Transport, Manifest, Storage, Treatment, and/or Disposal of Lamp Wastes;
- 7) Provide the EMB CO and the Steering Committee with an annual audit report from an independent auditor regarding the activities performed in relation to the Lamp Waste Management Plan and the producer's financial reports. The independent auditor shall be commissioned by the Lamp Waste Management System Operator at its own expense, and the audit shall be performed in accordance with the technical standard that is approved by the Philippines Institute of Chartered Accountants;
- 8) Hire a third-party accountant that is responsible for the invoicing and preparing the required financial statements of the Lamp Waste Management System Operator; and,
- 9) Provide an IT-system that will be developed in order to guarantee that competitive market data remains confidential.

Section 8.0 Preparation, Review, and Approval of the Lamp Waste Management Plan

The Lamp Waste Management System Operator shall prepare and/ or cause the preparation of a Lamp Waste Management Plan and submit to EMB CO for approval.

8.1 Contents of the Lamp Waste Management Plan

The Lamp Waste Management Plan shall provide the following minimum information:

- Identification of the producer(s) or, as the case may be, the organization on behalf of the producer(s) that develops the Lamp Waste Management Plan and the producer(s) that register as a contracted participant to the Lamp Waste Management Plan;
- 2) Annual projections of the quantities of lamp wastes for which the Lamp Waste Management Plan is developed;
- 3) A 5-year Operational Plan including a detailed forecast of the collection, transport, and recycling capabilities and activities, and identification of collection network;
- 4) A 5-year Business Plan detailing the following:
 - a. Budget estimation covering the 5-year Operational Plan
 - Lamp waste management fee development that include incentive scheme to encourage domestic lamp wastes generators to bring the lamp wastes to the designated collection points or consolidation centers
 - c. Financial planning for the implementation of the Lamp Waste Management Plan
 - d. Financing coverage for historical
 - e. Development and management of reserve funds

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- 5) Detailed procedure on the collection of Lamp Waste Management Fee including the documentary requirements as basis for payment of the Lamp Waste Management Fee
- 6) Enforcement strategy and monitoring and reporting procedures to ensure that all producers participate and finance the operation of the recycling of waste lamps; including but not limited to working with relevant government agencies in identifying non-registered producers and/or sellers that are selling lighting products purchased from non-registered producers;
- 7) Strategy for marking lighting products to signify compliance with this Order;
- 8) Terms of references that will govern lamp waste collection, transport and recycling;
- 9) Monitoring and reporting procedures to be applied in the collection, transport and recycling of lamp wastes;
- 10) An Information, Education, and Communication (IEC) plan to raise awareness of end-users regarding Lamp Waste Management;
- 11) Measures that address issues of social responsibility in the waste management industry;
- 12) A description of job creation potential in the framework of the implementation of the Plan;
- 13) Environmental, Health and Safety Standards compliance plan;
- 14) Emergency and contingency plan detailing the procedures and protocols in cases where lamp wastes are broken to ensure that worker, populace, and the environment are protected from mercury released during the incident.

8.2 Review and Approval Process of the Lamp Waste Management Plan

The Lamp Waste Management System Operator shall apply for the approval of the Lamp Waste Management Plan by the EMB CO within sixty (60) calendar days from the effectivity of this Order. The preparation shall be based on the requirements set forth in 6.1 of this Order and shall observe the following procedures:

- 1) The Lamp Waste Management System Operator shall submit to EMB CO the following requirements for the approval of the Lamp Waste Management Plan and pay the processing fee as per DENR MC 2000-12: Schedule of Fees for RA 6969.
 - a. Notarized Lamp Waste Management Plan;
 - b. Board Resolution endorsing the Lamp Waste Management Plan; and,
 - c. Notarized Affidavit of Undertaking of Each Producer that they will fulfill the derived obligations under the Lamp Waste Management Plan.
- Upon receipt of the Lamp Waste Management Plan, the EMB CO shall:
 - a. Approve the Lamp Waste Management Plan in writing; or
 - b. Require additional information to be furnished within 15 calendar days; or



- c. Require amendments to be made to the Lamp Waste Management Plan within 15 calendar days.
- 3) In case the EMB CO requires additional information or amendments, EMB CO shall act upon the submitted additional information or the amended Lamp Waste Management Plan within 30 calendar days.
- 4) The approved Lamp Waste Management Plan shall be valid for a period of 5 years, or for a period specified by the EMB CO, starting on the date of the approval thereof by the EMB CO.
- 5) Upon approval, the producer shall comply with its Lamp Waste Management Plan immediately.
- 6) The approved Waste Management Plan may be revised by the Lamp Waste Management System Operator subject to the approval of the Steering Committee and the EMB CO.

Section 9.0 Obligations of Collection Points or Consolidation Center

The following are the obligations of any designated Collection Point or Consolidation Center:

- 1) Accept and allow the temporary storage of containers and lamp wastes, and provide appropriate storage area(s) in accordance with the requirements of DENR AO 2004:36.
- 2) Comply with applicable Environmental, Health and Safety regulations;
- 3) Provide all requirements to the Lamp Waste Management System Operator for the application of applicable licenses and permits as may be needed to set up and operate the collection point or the consolidation center;
- 4) Ensure security of all lamp wastes and containers at the storage area.
- 5) Ensure proper handling of lamp wastes;
- 6) Ensure secured and safe access to the storage area for the transport contractor(s);
- 7) Inform the public on the purpose and use of the collection point(s) or consolidation center;
- 8) Submit report to the Lamp Waste Management System Operator the information required under the Lamp Waste Management Plan and such other information as may be required from time to time; and,
- 9) Provide appropriate protection and training for staff to prevent health and safety risks.

Section 10.0 Enforcement Requirements

No producer shall import lighting products into the Philippines without securing a preimportation clearance for every importation from EMB CO upon the effectivity of this Order.

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A producer shall apply for the required pre-importation clearance from EMB CO and shall submit the following requirements:

- 1) Copy of the certification of registration as producers from the Lamp Waste Management System Operator;
- 2) Certificate of compliance with the Lamp Waste Management Plan issued by the Lamp Waste Management System Operator; and,
- 3) Liquidation report of the previously issued pre-importation clearances.

The Lamp Waste Management System Operator shall ensure that all registered producers comply with the approved Lamp Waste Management Plan. Moreover, the Lamp Waste Management System Operator shall, in accordance with the EMB-approved Lamp Waste Management Plan, endeavor to identify non-registered producers and/or sellers procuring from non-registered producers; and report to EMB CO and other relevant agencies for investigation of non-compliance under this Order.

This Section is without prejudice to the authority of the Bureau of Customs (BOC) under the Tariff and Customs Code and/or the Department of Trade and Industry (DTI) under the Consumer Act of the Philippines and related laws.

Section 11.0 Steering Committee

A joint DENR-DOE steering committee is hereby established for the performance of the following functions:

- 1) Ensure the establishment of a Lamp Waste Management System Operator;
- Pursuant to RA 6969 and other relevant laws, recommend policies on lamp waste management, including the operation of the Lamp Waste Management System Operator and the participation of producers in the implementation of the lamp waste management plan;
- 3) Review and endorse the lamp waste management fee;
- 4) Review and endorse the amount to be allocated as reserve funds from the lamp waste management financial plan;
- 5) Provide oversight on the implementation of the lamp waste management plan and report the same to the Steering Committee;
- 6) Perform such other functions necessary for the effective implementation of this Order.

The DENR and/or DOE, through the Steering Committee, may establish memorandum of agreement or any other instruments with relevant agencies for the purpose of strengthening enforcement of this Order, such as but not limited to product markings, confiscation of products from non-registered producers or from sellers that purchased products from non-registered producers.



Section 12.0 Penal Provision

Lighting products covered by this Order that are being sold, stored, used, manufactured, or transported in violation of this Order shall be impounded or confiscated upon order issued by the Secretary of DENR.

Storage fees of confiscated lighting products, and other expenses attendant to the confiscation thereof, shall be charged solidarily or proportionately to the importers and/or distributors, sellers, and/or end-users found violating this Order. In case of auction of confiscated lighting products, the same shall be sold only to registered producers, who shall be deemed the importer thereof within the context of this Order:

Provided, That such lighting products passed the required product quality standards by DTI:

Provided further, That all expenses attendant to the required product quality testing shall be charged to importers and/or distributors, sellers, and/or end-users found violating this Order.

Confiscated lighting products that fail to pass the DTI product quality standards shall be considered wastes and shall be collected and recycled through the Lamp Waste Management System Operator, and that collection and recycling expenses shall be charged solidarily to the importers and/or distributors, sellers, and/or end-users found violating this Order.

The System Operator shall likewise be held liable together with the collection point or consolidation center in case of injury or damage to public health and the environment and shall properly compensate the affected parties and restore the damaged area or areas resulting from any incident or accident involving the storage, transport, treatment, and disposal of lamp wastes.

An application for the pre-importation clearance may be denied by the EMB for non-compliance with the Lamp Waste Management Plan.

The sanctions imposed pursuant to this Order are without prejudice to the administrative and criminal penalties and liabilities as specified under Title V, Chapter XI, Sections 43 and 44 of DAO 29, series of 1992, pursuant to Section 13, 14, and 15 of RA 6969 or to the administrative and criminal penalties and liabilities imposed by the BOC under the Tariff and Customs Code and/or the DTI under the Consumer Act of the Philippines.

Section 13.0 Other Sanctions

The Lamp Waste Management System Operator may prescribe sanctions against erring producers for violation of the Lamp Waste Management Plan. These may include but not limited to the following:

- 1) A producer may be de-listed from the registry of producers for non-compliance with the Lamp Waste Management Plan and this Order.
- 2) A producer may be blacklisted from the registry of producers for repeated non-compliance with the Lamp Waste Management Plan and this Order.



Section 14.0 Review and Revision

This Order shall be subject to review and revision every five years, or as the need arises. Review may be initiated by any of the concerned agencies through public consultations with the concerned sectors and approval of the DENR and DOE Secretaries.

Section 15.0 Separability

If any provision of this Order is declared unconstitutional or invalid, the same shall not affect the validity and effectivity of the other provisions hereof.

Section 16.0 Repealing Clause

All orders and circulars inconsistent with this Order are hereby repealed or modified accordingly.

Section 17.0 Effectivity

This Order shall take effect fifteen days after its complete publication in a newspaper of general circulation and upon filing with the National Administrative Register.

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

DEPARTMENT OF ENERGY

Secretary

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CARLOS JERICHO L. PETILLA

Secretary

Republic of the Philippines
DEPARTMENT OF ENERGY
IN REPLYING PLS CITE:
SOE-JLP-13004643

Witnessess:

ATTY. JUAN MIGUEL T. CUNA

Girector-EMB

LORETA G AYSON, CESO I Undersecretary

ACKNOWLEDGEMENT

(REPUBLIC OF THE PHILIPPINES **MANILA** S. S)

BEFORE ME, a Notary Public for in the City of SEP 2 1 2013 personally appeared the following:

NAME	IDENTIFICATION NO.	PLACE/DATE OF ISSUE/EXPIRY
1. SEC. CARLOS JERICHO L. PETILLA	Passport No. EB 4810205	Tacloban City 27 February 2012 26 February 2017
2. SEC. RAMON J. P. PAJE	Passport No. DP 00076544	DFA, MANILA 20 January 2011 19 January 2016

Known to me and to me known to be the same persons who executed the foregoing instrument and they acknowledged to me that the same is their free and voluntary act and deed and that of the entities they respectively represent.

WITNESS MY HAND AND SEAL on the date and place first above written.

Book No.: (

Series of 2013

ATTY. ISIDRO V.

Notary Public Until December 31, 2014 IBP No. 97686 ML NOct. 19, 2012 (Covers Celender Years 2013 and 2014) PTR (2012)No. 1413061/MLA/12-28-2012 MCLE Compliance No. III-0016394

Attorney's Roll No. 34272