



SECURITIES AND EXCHANGE COMMISSION

SEC FORM 17-C  
CURRENT REPORT UNDER SECTION 17  
OF THE SECURITIES REGULATION CODE  
AND SRC RULE 17.2(c) THEREUNDER

1. September 19, 2016  
Date of Report
2. SEC Identification No.: 91447
3. BIR Tax Identification No.: 000-190-324-000
4. **SEMIRARA MINING AND POWER CORPORATION**  
Exact name of issuer as specified in its charter
5. Philippines  
Province, country or other jurisdiction of incorporation
6.  (SEC Use Only)  
Industry Classification Code:
7. 2/F, DMCI Plaza, 2281 Chino Roces Avenue, Makati City  
Address of principal office
- Postal Code: 1231
8. (2) 888-3000/3055 Fax No. (2) 888-3955  
Issuer's telephone number, including area code
9. Semirara Mining Corporation  
Former name or former address, if changed since last report
10. Securities registered pursuant to Sections 8 and 12 of the SRC or Sections 4 and 8 of the RSA  

<u>Title of Each Class</u>	<u>Number of Shares of Common Stock</u> <u>(Outstanding)</u>
<b>Common Shares</b>	<b>1,068,750,000</b>
11. Indicate the item numbers reported herein: Item 9.

Please be advised that Semirara Mining and Power Corporation (SMPC) on September 14, 2016 has requested the Department of Environment and Natural Resources, Environmental Management Bureau, Region IV copies of the reports on the results of its audit on SMPC's Molave expansion project. Said reports were received today, which we summarized as follows:

1. The Investigation/validation/audit Report (page 20), the DENR summarizes its findings to wit: “[i]n summary, the project is found to be technically sound considering that all aspects have been considered such as slope stability analysis, analyses of pumping tests of dewatering wells, GHG emission reduction project, etc.”
2. The Mining Audit Report<sup>1</sup>, on the other hand, shows full compliance to environmental laws based on the matrix presented therein.

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<sup>1</sup> We have sought clarification from the Regional Office to clarify and/or correct the terminology to “Environmental Audit instead of “Mining Audit”.

Copies of the above reports are hereto integrally attached **Annexes “A”** and **“B”**, respectively.

Kindly note that the environmental audit was conducted on August 30-31, 2016 by the DENR Audit Team composed of representatives from the EMB Central Office, EMB Region 6, MGB Region 6, PENRO-Antique, Provincial Health Office of Antique and Civil Society Organizations. Tri-Media Personnel were also present to observe during the conduct of the said audit.

**SIGNATURES**

Pursuant to the requirements of the Securities Regulation Code, the issuer has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Issuer : Semirara Mining and Power Corporation

Signature and Title :   
**JOHN R. SADULLO**  
VP-Legal & Corporate Secretary

Date : September 19, 2016



Republic of the Philippines  
**DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES**  
**ENVIRONMENTAL MANAGEMENT BUREAU**  
Office of the Regional Director  
Region VI, Western Visayas  
2<sup>nd</sup> Floor, Pacita Salazar Bldg., El 98. Street, Jaro Iloilo City  
Tel No. (033) 300-1135 \* Fax No. (033) 509-9133 \* email: embro@yahoo.com

September 16, 2016

**MR. VICTOR A. CONSUNJI**  
President and Chief Operating Officer  
Semirara Mining and Power Corporation (SMPC)  
2<sup>nd</sup> Floor DMCI Plaza, 2281 Chino Roces Ave., Makati City

SEMIRARA MINING AND POWER CORPORATION  
**RECEIVED**  
SEP 19 2016

Dear Mr. Consunji:

LEGAL DEPARTMENT  
TIME 4:15pm SIGN Cham

Environmental Greetings!

This is in reference to your letter dated September 14, 2016 received by this Office on September 16, 2016 requesting for the copy of the Final Report on the results of the DENR Audit.

Please be informed that the environmental audit was conducted on August 30 to 31, 2016 by the DENR Audit Team composed of representatives from the EMB Central Office, EMB Region 6, MGB Region 6, PENRO-Antique, Provincial Health Office of Antique and Civil Society Organizations. Tri-Media Personnel were also present to observe during the conduct of the said audit.

In this regard, we are providing you the copy of the Investigation/validation/audit Report and the Mining Audit Report of the said Audit Team.

Thank you for your support to the environment.

Sincerely yours,

  
**ATTY. JONATHAN P. BULOS**  
Regional Director



Republic of the Philippines  
**DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES**  
**ENVIRONMENTAL MANAGEMENT BUREAU**

Region VI, 2<sup>nd</sup> Floor, EL 98 St., Jaro Iloilo City  
 Tel. No.: (033)3001135 \* Telefax: (033)5099133 \* Email: [embr6@yahoo.com](mailto:embr6@yahoo.com)

**INVESTIGATION/VALIDATION/AUDIT REPORT FOR SEMIRARA MOLAVE  
 EXPANSION PROJECT OF SEMIRARA MINING AND POWER CORPORATION  
 (SMPC) LOCATED AT SEMIRARA ISLAND, CALUYA, ANTIQUE**

This is in compliance with the Memorandum dated August 25, 2016 and Regional Special Order No. 176A, Series of 2016 dated August 29, 2016 re: Creation of Audit Team for Semirara Mining and Power Corporation and Authorizing the Conduct of the Audit on August 29 to September 2, 2016.

The Committee proceeded to Barangay Semirara, Caluya, Antique via Kalayaan in the mini port of Libertad, Antique. Upon arrival, team had courtesy meeting with some SMPC representatives in the Multipartite Monitoring Team Office in Brgy. Semirara, Caluya, Antique. Briefing of each member work assignments and schedule of series of activities presented by Ms. Josephine Maguad, Senior EMS representing Environmental Management Bureau DENR-6 were concurred by all team members.

**1. Compliance with Water Quality Standards (RA 9275)**

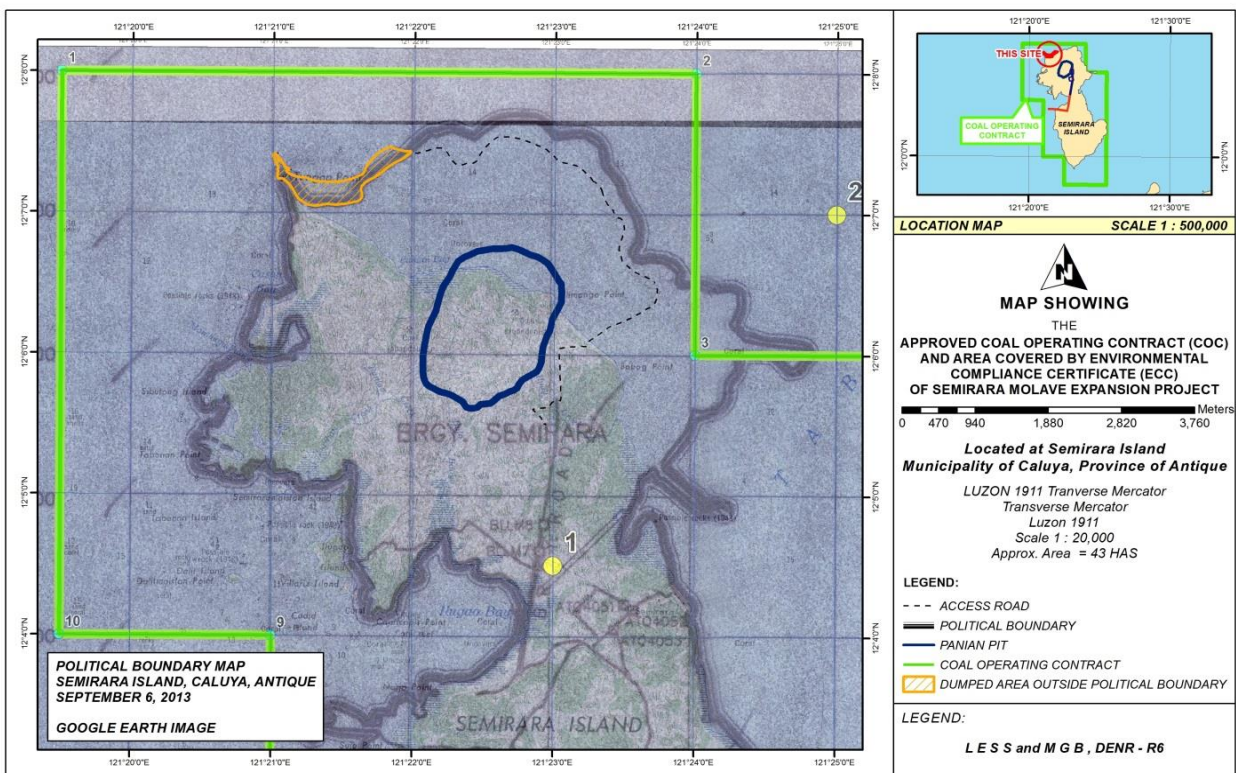
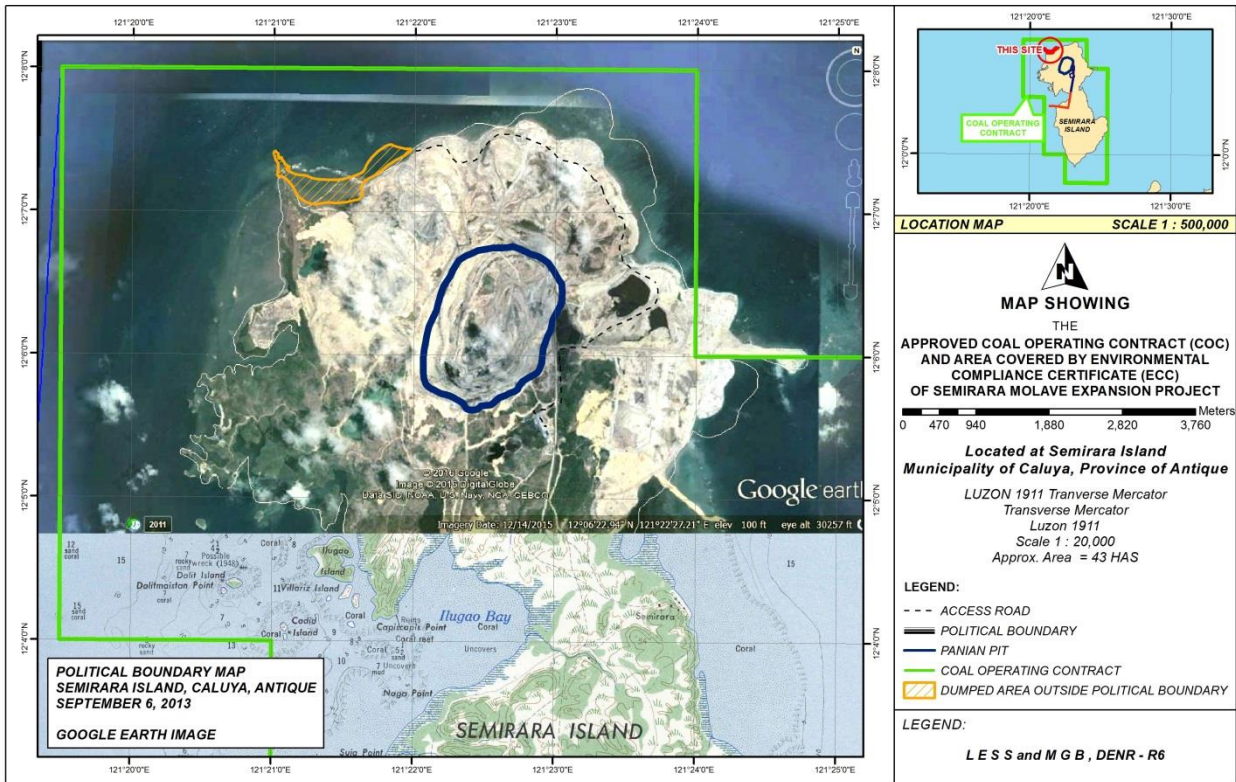
Name of Waterbody: **Cuyo East Pass and Suha Creek**

Date Collected: **August 31, 2016**

Date Analyzed: **September 1, 2016**

<b>Station Number</b>	<b>No. 1</b>	<b>No. 2</b>	<b>No. 3</b>	<b>No. 4</b>
<b>Location</b>	Influent in Cuyo East Pass	Tungao 2 in Cuyo East Pass	Tungao 3 in Cuyo East Pass	Effluent in Suha Creek
<b>Lab Code No.</b>	R-16-1533	R-16-1534	R-16-1535	R-16-1536
<b>Time of Collection</b>	2:02 PM	3:30 PM	3:22 PM	2:30 PM
<b>Weather Condition</b>	S	S	S	S
<b>Apparent Color, PCU</b>	5	5	5	5
<b>BOD, mg/L</b>	1	1	<1	<1
<b>Total Suspended Solids, mg/L</b>	41	67	45	70
<b>Oil and Grease, mg/L</b>	1	1	1	--

**2. Operations within the Department of Energy approved area and operations within the area covered by ECCs issued to the proponent.**



The team conducted survey on the area dumped with excavated materials from open-pit-coal mine to the shore of the Molave Expansion Project and it was found out that the extent of dumped materials in the shore has an area of 43.505 hectares more or less as of August 31, 2016. Please see attached maps for ready reference

### 3. Letter of Tumandok ng Semirara dated August 05, 2016



#### Pulong-Pulong and inspection in Sitio Sabang and Pooacan Semirara, Caluya, Antique

August 31, 2016 the composite audit team conducted a pulong-pulong with the communities in Sitios Sabang and Pooacan, in Tinogboc, Caluya, Antique. During the dialogue in Sabang, the tumandoks including complainant Jimmy Balestramon, who is also present with Punong Barangay Malixi and his Kagawads. Mr.

Benjamin E. Magan, et. al, persistently refused acceptance of the relocation project, a joint offered by the company and the Municipality of Caluya, Antique for reasons that they have been occupying their respective areas since early 1980s yet within established livelihood within the locality.



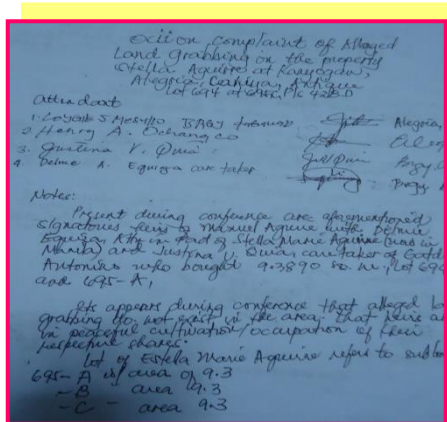
The team empathized with the peoples' concern but they were made to understand that the issued Presidential Proclamation 649 (Proclamation of Semirara Island as a Coal Reservation Area) is law which deters disposition of the land to occupants because of a Coal Operating Contract (CoC) was issued by the Department of Energy to Semirara Mining and Power Corporation. Further they were advised to produce their issues/concerns in writing and present it to MMT meeting thru Punong Barangay Malixi, copy furnish concerned Office of the national/local government.

Thereafter, team proceeded to Sitio Pooacan, Tinogboc, Caluya Antique. There was a short meeting with the occupants-residents of the relocation site identified as portion of Lot 912, Pls 428-D. This lot with an area of 42.7498 hectares was verified on record surveyed in the name of Liwayway Monzon



Janairo. Allegedly bought by the municipal Mayor of Caluya, Antique for that purpose. Attendant occupants attested that they are happy in their new houses constructed by the Semirara Mining and Power Corporation.

Another investigation/inspection was conducted on the alleged land grabbing problem in Barangay Alegria, Caluya.



Verification of records filed with CENRO, DENR, Culasi, Antique showed that lot is unapplied which refers to Lot 695 located at Alegria, Caluya with an area of 24.3622 hectares surveyed in the name of Felimon Aguirre. It was revealed during the conference that Manuel Aguirre sold a portion of this lot “695-C” with an area of 9.3889 hectares to Felix Gregorio as per Deed of Absolute Sale of the Western Portion of Lot 695 having an area of 9.3851 hectares

notarized under Document No. 187, Page 49. Book Five Series of 1976. In an Extrajudicial Settlement of the Estate with Sale notarized by Atty. Ruben T. M. Ramirez under Doc. No. 25, Page 5, Book No. 22, Series of 2011 it appears that the latter’s heirs sold the said lot to Junifer A. Baroquillo with an area of 9.3889 hectares. Tax Declaration No. 06-0002-0040 was issued to the buyer as owner. The undersigned with Barangay Tinogboc Kagawad Jerry Balestamon coordinated with Punong Barangay, Modesta E. Pionela of Alegria, Caluya to validate the veracity of the allegations. The conference was attended by Henry A. Ochangco, Justina Quia, Kagawad



Loygie Mesullo of Alegria and Delme A. Equiza, Attorney-in-Fact of Stella Marie C. Aguirre per Special Power of Atty dated April 15, 2016 notarized by Atty. Ruben T. M. Ramirez under Doc. No. 21, Page 5, Book V, Series of 2016. They were informed of the purpose of my visit by Barangay Captain Pionela. It was disclosed by Henry A. Ochangco, Justina V. Quia and Delme A. Equiza that there is no land grabbing problem involving

Lot No. 695, Pls 428.

Considering the complainant Stella Marie Aguirre was not around that day and that problem is focus more on legal issue affecting the conveyance executed and heirs’ legitimate share on this lot, the Team members did not push through the ocular inspection. Instead, Delme A. Equiza was advised to inform Stella Marie Aguirre to visit CENRO, DENR Culasi, Antique to set said date if still interested to clarify matters.

The company should adopt a complaint mechanism system to get feedbacks of the residents as to the impact of mine site operation so that corrective measures be taken immediately if there be any.

#### 4. Letter of Save Antique Province Movement dated 27 July 2016

The concerned of Save Antique Province Movement with regard to the wanton destruction of mountains, mangrove areas and seas caused by SMPC can be answered below.

On the alleged large-scale limestone quarrying in Semirara Island, the MGB personnel as member of the audit team proceeded to the area to verify the veracity of the complaint and it was noted that:



- 1) There is no activity/operation of limestone quarry conducted in So. Himalian, Brgy. Tinogboc, Semirara Island during the investigation.
- 2) It was found out that there is an operation of crushing plant of limestone materials of SMPC to come up the desired size of 0.5 to 2 millimeter. The crushed limestone will be used as environmental mitigating measures in the Coal-Fired Power Plant of the company as limestone desulphurization to reduce particulates and gaseous emissions as stated in the Environmental Performance Report and Management Plan (EPRMP) of SMPC. The source of the limestone materials that were feed in the said crushing plant are waste from the Panian Pit of the coal permit area.
- 3) Based on the record of Mines and Geosciences Bureau-Region 6 (MGB-6), the Exploration Permit for limestone and silica of Semirara Mining and Power Corporation denominated as EP-99-001-VI (Second Renewal) was expired last March 22, 2012.
- 4) Based on the record of the Province of Antique, there are two (2) limestone quarry projects in Barangay Semirara, Caluya, Antique, however, the said limestone projects were both expired last March 30, 2016. The details of the following limestone quarry projects are as follows:

Name of Permit Holder	Commodity/ Type of Project	Location of the Project	Permit No.	Date Issued	Expiry Date	ECC No.	Date Issued (ECC)
1. Semirara Mining Corporation/ Mr. George G. San Pedro	Limestone Quarry with Lime Processing Plant	Brgy. Semirara, Caluya, Antique	MGS 2011-006	March 31, 2011	March 30, 2016	R6-1103-048-2231	March 10, 2011
2. Integrated Workers Multi-Purpose Cooperative/ Mr. Raymund P. Kigod	Limestone Quarry	Brgy. Semirara, Caluya, Antique	MGS 2011-007	March 31, 2011	March 30, 2016	R6-1103-047-2231	March 10, 2011

- 5) According to Engr. Diaz, the company is now on the process of renewing their Limestone Quarry permit at the Provincial Government of Antique.

The crushing plant is one of the components of the lime processing plant. The overburden from Panian Pit was brought to crushing plant located at So. Himalian, Brgy. Tinogboc, Semirara Island. The limestone/overburden from panian pit has no quarry permit from the LGU Province of Antique considering that the overburden materials is part of the mining activity and will not use for commercial purposes.



**a. How dangerous are the substances/organisms that risk being released into the environment?**

Only one priority chemical, **Poly Chlorinated Biphenyl (PCB)** is found in the area, an organic chlorine compound with the formula  $C_{12}H_{10-x}Cl_x$ , were once widely deployed as dielectric and coolant fluids in electrical apparatus, carbonless copy paper and in heat transfer fluids. Because of PCBs' environmental toxicity and classification as a persistent organic pollutant, PCB was phased out in the industry. However, the audit team identified some PCB's in the area wherein results of laboratory analyses showed that three (3) units of transformers contain PCB oil, but was properly contained and secured in a secluded and well-guarded area. These transformers are stored separately and disposal is scheduled in December 2016.



for efficient oil-water separation

Used mechanical filters were also present in the area lying on a plastic-covered pond which is very much dangerous to contaminate the soil when heavy rains present itself which causes the pond to overflow but the company have already built a new containment area made of concrete that will served as a draining area prior to compacting and proper disposal. Suggested to have a proper oil-water separation process and proper disposal of oil and contaminated water. 15ppm oil-water separator is recommended

Other hazardous chemicals used in the laboratories of the coal fired power plant and the hospital are stored separately. Engaged a DENR accredited third party for the transport, treatment and of hospital wastes and chemicals from used in the laboratories.

**b. Are there any hazardous substances that, in contact with air, land, water or fire, will react by forming toxic pollutants (e.g. dioxins) or releasing harmful metals?**

Mining operation in the Island of Semirara before is divided into three major operations, namely coal excavation, coal hauling and coal washing. The time when washable coal was accepted by the market, coal washing and its plant was decommissioned by the company. At the present there are two major operations remain in the island, the excavation and hauling of coal.

With these processes of operations, no hazardous substances were noted that, in contact with air, land, water or fire, will react by forming toxic pollutants (e.g. dioxins) or releasing harmful metals.

Coal excavation and hauling process may create pollution if handled improperly. As we have observed during the audit, the process of excavation and hauling was handled properly by

making the excavated coal and the coal being hauled through a six (6) kilometres conveyor belt was sprayed by recycled water making the product wet which prevents dusting of coal. The pictures below will show you how it was done.



Figure 2. Coal Extraction



Figure 1. Coal Hauling to stockpile



Figure 4. Water sprinkle in the coal blending stockpile



Figure 3. Water sprinkle along conveyor belt

**c. What quantities of hazardous substances might be released in case of an incident?**

No quantities of hazardous substances that might release due to no hazardous substances were noted with regards to coal mine project.

**d. How are where might they spread (air, land, water)?**

Even though no hazardous substances releases in the environment, the SMPC as far as we've observed during the audit is responsible for its action. Although they extracted the coal reserve of the island, they have an intensive care not only of the abandoned mine pits but their perseverance and hardwork to the marine environment shows their serious payback for what they took in the island's natural resources.

The abandoned Unong Pit was rehabilitated by planting napier and star grass and reforestation of the surrounding areas. Wastes from the coal fired power plant is turned into humic acid and used as soil conditioner in the reforestation project. Continuous mangrove tree planting is undertaken. A marine hatchery laboratory for giant clams was constructed and induced spawning was done since 2011



Figure 6. Mangrove Plantation and Nursery Operation



Figure 5. Napier Grass



Figure 7. Waste for coal plant turned into Humic acid used as soil conditioner



Unong Mine rehabilitation

**e. What might be damaged and how serious is this (in terms of length of time for natural remediation or cost in terms of manmade remediation measures necessary?)**

Mining in the island is considered to be a short term of land use. After all coal reserve in the area were already mined out, the Island of Semirara will become inhabitable since that the area have no freshwater rivers and enough freshwater reserve to cater the needs of the community in their industrial, commercial and agricultural use.



Land clearing during the site preparation and pit excavation will result to the physical loss of vegetation and SMPC admitted that there was loss of vegetation in the areas cleared for mining and related operations. The company, however, maintains there will be no change in the overall vegetation profile as it planting of trees outside the mining site is one of its mitigating measures.

The company had opted to do progressive mine rehabilitation in Panian that reached peak activities four to five years prior to the depletion of the coal reserves in the area. As of May 2016 the company has already planted a total of 2,201,751 seedlings in different open areas starting as far back as 2000 to 2002.

The picture shows how SMPC is committed for its concern on environment. From an ugly mine pit, the abandoned Unong Pit was transformed into a man-made lake, fully vegetated with different species of endemic trees (most of them were hardwoods and endangered species) and due to its water properties where salt water and fresh water mixed up together (brackish

water), some species of marine wildlife not limited to sea turtles and some kinds of fish species were propagated in the man-made that serve as their spawning area before they were put back into their natural habitat.

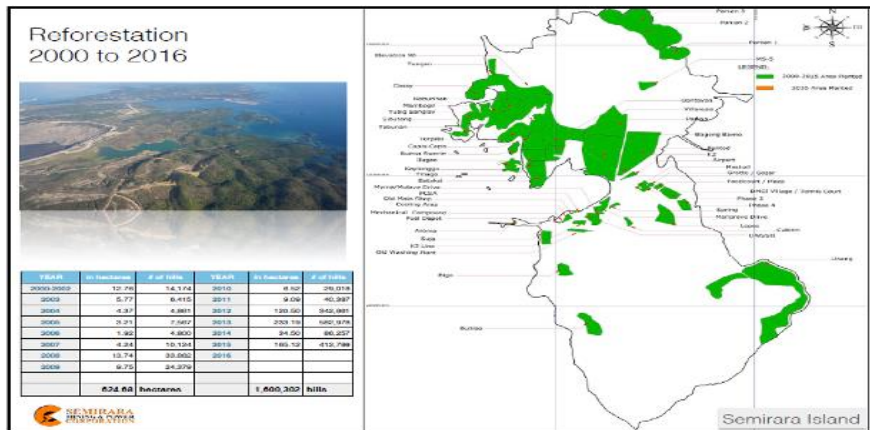


Figure 8. Graphical Model of Reforestation Project of SMPC, LGU, CSO's & Po's



Figure 9. Overburden Dumpsite

Coastal Reclamation on the shore areas near the Molave Extension Coal Mine which causes coral reef destruction and disturbances to the marine ecosystem was identified. The issue concerned will be addressed by the technical group from the SMPC and mitigating measures are suggested to be strictly followed as agreed in the company's Environmental Management Plan (EMP) and Environmental Performance Report and Management Plant (EPRMP) submitted to EMB Central Office prior to the issuance of the ECC.

Coal washing was an intensive water use in a process that Semirara Coal Corporation employed and it was being used by current DMCI management until October 2015 to remove the impurities from the coal it was taking from the mine. Washwater or used water from the coal washing plant was then collected into a containment pond to make the silt settle down. At the siltation pond, water is recycled and reused in the washing process.

When the Coal Washing Plant was decommissioned in November 2015, the siltation area was made part of the coal stocking area. The remaining water from coal washing was still contained and was being utilized for the watering



of the road networks of the mine to control pollution of air. The sediments from from the Coal Washing Plant is then utilized for generating electricity by feeding it into the power plant's boiler in steam production process.

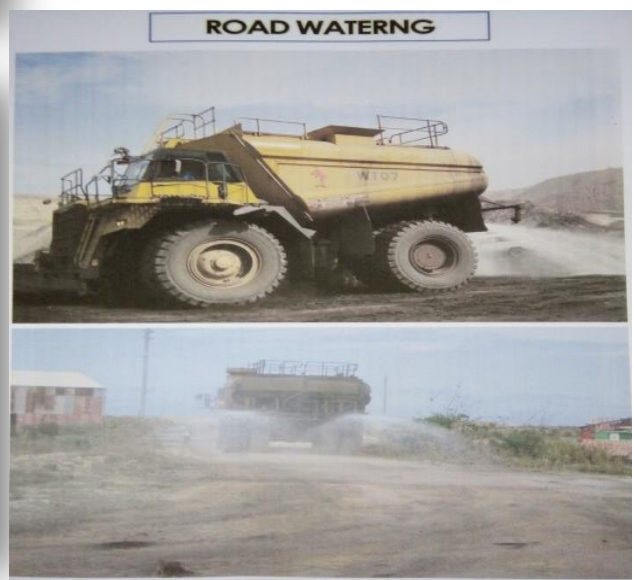


Figure 10. Previous photo of decommissioned coal washing plant

Wastewater Treatment Facility for the decommissioned coal washing plant operation



Figure 11. Wet road system that prevents air pollution in the roadways



SMPC as far as we've observed during the audit is responsible for its actions. Although they extracted the coal reserve of the island, they have an intensive care not only of the abandoned mine pit but their perseverance and hardwork to the marine environment shows their serious payback for what they took in the island's natural resources.

It developed and maintains its Sanglay water catchment and groundwater wells to provide stable freshwater supply for Bgy. Semirara. It set up a filtration plant and refilling station that also employs reverse osmosis and chlorination to ensure stable supply of potable water. There is also a plan to operate a desalination plant by 2017 for the long-term requirements and use of the communities.

Beyond the above-mentioned activities, SMPC set up Semirara Marine Hatchery Laboratory in Bgy. Semirara's marine protected area. The facility spawns – not just reseeded and grows -- giant clams, which are endangered species but are good indicators of seawater pollution.

Through the giant clams, SMPC proves that the seawater around Semirara Island is clean because the giant clams cannot survive in a polluted environment. And because the giant clams have a symbiotic relationship with other marine animals, these marine species play a role in marine biodiversity enhancement.

Because of the success of the giant clams facility on Semirara Island, the island community is now playing a special role in the global conservation of the giant clams. It is also important to note that the hatchery laboratory is developing technology that may give locals future livelihood on abalone, South Sea pearl oysters, sea cucumber and other resources of the sea.

**f. What short and long term impact might this have on the health?**

There are many health risks that can be linked to coal mining operations. Simple mining can cause a variety of health concerns in both types (deep & surface mining), and these are the following:

1. Coal dust and particles that are stirred up during the mining process as the soot released during a coal transport can cause severe and potential respiratory problems.
2. Drastic alternation of the landscape, particularly within mountain tops removed can cause an area to be unfit for other usage even after total land reclamation. The clearing of trees, plant life and significant portion of the s top soil from mining activities destroys the capacity of expansion of the abundant plant life and animal inhabitants to migration. It also promotes soil erosion & flooding. Near human settlements and communities are the worse affected as mining brings all sorts of respiratory problems.
3. Water pollution from acid mine run off to nearby communities and destroys its water supply. Coal sludge or powdered coal is toxic to the human body that can cause neurological damages when ingested.

Mining has short term effects, depending on their severity, such as destruction of the surrounding topography or removal of vegetation in many recorded cases. This effect could be minimized by means of a comprehensive mining plan that includes reclamation and remediation stage as what Semirara Mining Power Corp is practicing. One of the techniques employed by the mine is concurrent reclamation practice. Since the initial exploration period, the disturbed areas are continuously relegated to facilitate erosion control & provide improved esthetical volume.

The company strictly implements the use of PPEs to their employees. Hazardous waste were properly treated, stored, transported, disposed or otherwise managed. Quality of service waters in the project area still remains adequate to support the needs of the employees and people in the community and even to the native aquatic life and terrestrial wildlife.

The island has not lost access to safe drinking water. Regular water quality surveillance is being conducted regularly as stipulated in the Philippine National Standards for Drinking Water. Water supply systems were provided to affected mining areas. In addition one mitigating measure to control dust spores is the regular watering of the



Figure 12. Water Filtration Plant

coal transfer chute and roads.



Figure 13. Tubig Sanlay Water Catchment

An incident of Malaria in Semirara was identified to be zero case for almost five years which is the most common disease in the community, based on the ten causes of mortality and morbidity on CY 2015 data. It shows that most of life style diseases are present in the island and not related to mining processes.

**g. Do the risks cover a large area and how much of the population is at risk and what are their vulnerability levels?**

There were 28 families living in So. Tungao prior to the opening of Panian mine (Panian, East Panian now Narra and Molave Coal Mining Projects) that are affected by coal mining activity. As such they had moved from So. Tungao to Pulang Lupa which is now called as Pinagpala.

The primary source of income for these families had been fishing. They accepted the offer of the company to help them repair and re-equip a big boat for fishing so that they can fish farther out to sea because they couldn't catch much fish anymore around Semirara Island due to the damage to fishing grounds by bad fishing practices like dynamite and cyanide fishing. These fishermen formed the pioneer group of the Semirara Fishermen Association (SEMFA) that registered with the Securities and Exchange Commission (SEC) in 2000.

As more families were moved from Panian, Villaresis was also developed as resettlement site, with the company and Bgy. Semirara contributing to ensure the villages would have water, power, all-weather roads, and drainage systems.

Due to the successes of SEMFA, with the group acquiring more pangulong boats and other assets over the years, another deep sea-fishing project was established by the company and awarded to the group COMREL a total of nine (9) units until 2010.

To further support their operations, the company built an ice plant in 2007 that then saved the fishermen operating money and that then allowed their catch to reach Batangas and even Manila.



Tungao – Panian Area





Since most of them are fishing families, they formed a group through the assistance of the company, LGU-Semirara and DENR, they called their group Semirara Fishermen Association or SEMFA



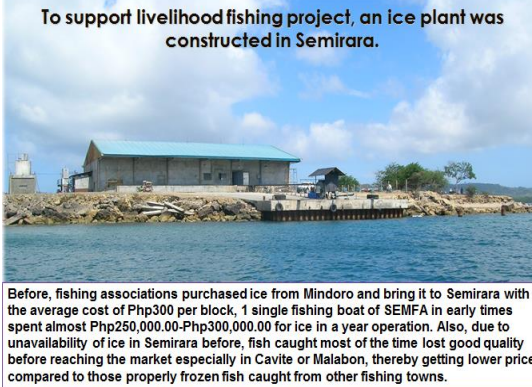
**SEMFA in its first year of operation in 2001**



Morning view of deep-sea fishing boats docked in front of ice plant, to buy ice needed for storing newly catch fish.



To support livelihood fishing project, an ice plant was constructed in Semirara.



Before, fishing associations purchased ice from Mindoro and bring it to Semirara with the average cost of Php300 per block, 1 single fishing boat of SEMFA in early times spent almost Php250,000.00-Php300,000.00 for ice in a year operation. Also, due to unavailability of ice in Semirara before, fish caught most of the time lost good quality before reaching the market especially in Cavite or Malabon, thereby getting lower price compared to those properly frozen fish caught from other fishing towns.

**COMREL DEEP-SEA FISHING PROJECTS**

A TOTAL OF 9 UNITS CONSTRUCTED UNTIL 2010

Particulars	Amount
Material & Supplies	17,094,506.40
Fuel & Lubricants	25,275.18
Labor Cost	3,164,148.00
<b>TOTAL EXPENSES</b>	<b>20,283,929.58</b>



**h. What is the capacity of local response mechanisms in the case of such incidents?**

Aside from the safety rules and regulations employed by the company in its areas of operation, SMPC has started working with the communities on Semirara Island on emergency and disaster preparedness.

The Philippine National Red Cross was tapped in 2012 to provide training on first aid and risk assessment to the three barangays of the island. Then in 2013 up to the present, Antique Province’s Disaster and Risk Reduction and Management Office has been tapped to provide training to more than a hundred people yearly. The training group from the three barangays were divided into two: first group is generally comprised by the local government officials



Figure 14. Earthquake drill at Semirara National High school


to form the management team, and the second by community leaders and members to form the First Responders Team.

November 2015, the Municipality of Caluya, the local government units of Barangays Semirara, Tinogboc and Alegria, and SMPC signed a Memorandum of Agreement on boosting Semirara Island’s emergency preparedness. Barangay Semirara was nominated in the Gawad Kalasag Awards in 2016.

**i. Will the project help alleviate poverty or help bring about social justice?**


Considering that the company have put the livelihood of some of the community at risk, their mitigating measures provides more than enough in order for them to sustain and alleviate the status of living. Through the convergence of the LGU, the company and the community, purposeful programs and activities was created to make sure that the people in the island is benefited and considered to have a sustainable livelihood.

**PhP542 million**  
2008 to 1H2016




construction and maintenance of buildings, roads, housing units, sports and recreation facilities; landscaping, steelwork, fabrication and repair of equipment...

**Local contractor services**




**Food services**

PhP33.7 million, 2008 to 1H2016



**Semirara Training Center, Inc.**

TESDA- accredited in 2006



**Semirara Training Center, Inc.**

TESDA- accredited in 2006

Being the primary income source in the island, the company operated not only for profit generation and to cater to the needs of its personnel/workers, but the company likewise gave serious effort to address the needs of the locals of the island.

There have been numerous people in the community, particularly in Bgy. Tinogboc, expressing grievance against the company and the municipal LGU but this may be due to lack of educational empowerment and information dissemination, as well as basic knowledge on laws that govern the island.

As this audit team members observed, most of the inhabitants are cooperative and living harmoniously with the company and the LGUs which meet the requirement for institutionalizing

the three-fold aspect of community development guided by the Sustainable Integrated Area Development.

The LGUs and the company have developed well-enough working relationship to provide basic services to the residents of Semirara Island. Their commitment to provide benefits and development to the people of the island has become visible, with community services and outreach program are not limited to free housing, free electricity, low cost water, fully furnished and state-of-the-art sports and recreational facilities, competitive and fully equipped school buildings and educational facilities, A TESDA-accredited training center with state-of-the-art equipment also operates in Bgy. Semirara. Commercial and industrial facilities as well as transport systems are also well in place.

As proof of support to their constituents, Semirara Island has four high schools and eight elementary schools in the island's three barangays. The high schools managed to become K-12 ready by SY 2016-2017. The public high schools, Semirara National High School and Tinogboc National High School, have working computer units to hold hands-on IT training. Both schools have covered multipurpose gyms for sports and cultural activities.

And for basic infrastructure for education alone, please refer to the table below on how Semirara Island is better supported than most schools in the country, with the company building / refurbishing structures to ensure that the students have the facilities for learning.

To help you envision the above mention developments in the island, refer to the below photographs documented during the August 2016 audit.



**All-weather access road to/from Villaresis**

Connected the community to the rest of Semirara Island



**Basic services for Villaresis**

Power, water, drainage system, classroom buildings



evacuation center      disaster operation center      cemented barangay road

**Barangay-funded infrastructure**

Barangay Semirara, 2010 to 2015



Alfredo Gabinete Sr.



**Sangbahayan housing for 12 families**

Before and after photos



**Poocon resettlement village**

Donated materials for houses, and drainage, water & power



**Divine Word School of Semirara Island**

Company-provided education for workers' dependents





Tinogboc Elementary School

Nine (9) classrooms, 2011 & 2014

Access to progress through the 5E's



EDUCATION & SKILLS TRAINING

Alfredo Gabinete Sr.



Sangbahayan housing for 12 families

Danny Vicente



Sangbahayan housing for 12 families

Bgy. Semirara mobilization, 2012 to 2013



Piers for safe movement of people & goods

Values formation aside from capital and materials support



Tinogboc National High School

16 classrooms, 2007 & 2014



Science laboratories



Child Development Center



Library



New K-12 building for senior HS students!



Bunlao Elementary School

Six (6) classrooms, 2008

Divine Word School of Semirara Island

Company-provided education for workers' dependents



Semirara National High School

24 classrooms, 2005 & 2011



Tinogboc National High School

Computers donated on 12 January 2015

Semirara Island					
TOTAL SPENDING ON EDUCATION					
2003 to present					
	Bgy. Semirara	Caluya	Company		TOTAL
Scholarships *missing 2007-2009	73,421,169.55	4,897,774.00	230,643,667	PhP	308,962,610.55
Infrastructure	29,494,586	1,564,690	93,790,031.14		124,849,307.14
Equipment & supplies	1,500,000		5,853,776		7,353,776
Training & support to teachers	10,086,100	312,000.00	4,461,551.00		14,859,651.00
Culture & Sports Training	57,000.00	269,510.00	7,561,189.34		7,887,699.34
<b>Sub-total</b>	<b>114,558,855.55</b>	<b>7,043,974</b>	<b>342,310,214.48</b>	<b>PhP</b>	<b>463,913,044.03</b>
Culture & Sports Facilities			329,864,000		
<b>TOTAL</b>			<b>672,174,214.48</b>	<b>PhP</b>	<b>793,777,044.03</b>



Day Care Center

Sitio Villaresis, Bgy. Semirara 2013

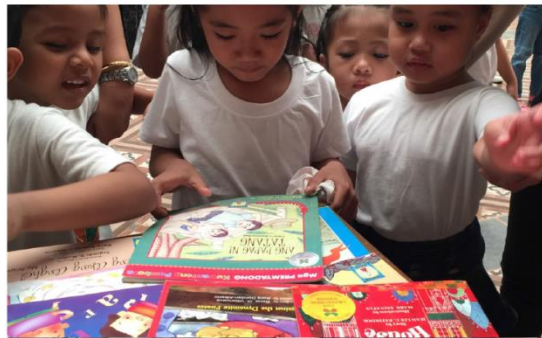
## Spending on Education

PhP794 million, 2003 to 2015



Olympic-size swimming pool

under construction



A Bookworm's Camp (ABC) 2016

Multimedia reading summer camp for 03-07 year-old kids

Outdoor and covered tennis courts



Volleyball and badminton covered courts



Sports facilities



Semirara Training Center, Inc.

TESDA accredited in 2006



Semirara National High School

Computers donated on 12 January 2015



Villaresis Elementary School

Nine (9) classrooms, 2010 & 2013



Semirara Training Center, Inc.

TESDA-accredited in 2006



Grandstand and oval rubber track



Pooacan Elementary School

Six (6) classrooms, 2015



Speech laboratory



Audio-visual room



Gymnasium



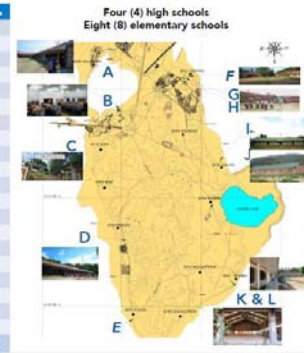
Computer room

Divine Word School of Semirara Island

SEMIRARA

Company-provided education for workers' dependents

Site	School	Year	Rooms
A	Villava Elementary School	2010	4
B	Semirara Training Center	2000	9
C	Divine Word School of Semirara Island	2003	18
D	Burias Elementary School	2008	6
E	Alegria Elementary School	2014	12
F	Semirara Adventist Academy	2014	2
G	Semirara Elementary School	2007	4
		2009	4
		2013	10
H	Semirara National High School	2006	12
		2011	12
I	Sabang Elementary School	2010	4
J	Pooacan Elementary School	2015	4
K	Tongkol Elementary School	2011	4
		2014	5
L	Tongkol National High School	2007	12
		2014	4
Total			129

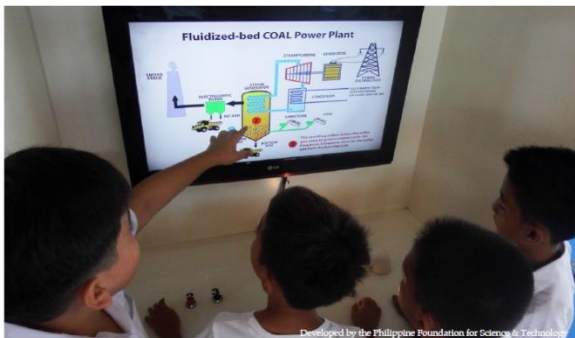


Classrooms for students



Symbolic turn over of classrooms

Visit of DepEd Sec. Armin Luistro  
Semirara Island, 17 February 2015



Traveling museum on ENERGY

07-18 January 2013, and 01-09 March 2016

SEMIRARA  
PHILIPPINE STEEL

- Learning management program with DepEd, 2004
- Interactive strategies in teaching science and technology, 2007
- Test Construction & Communication Workshop with DepEd, 2008
- Applied Academics for Excellence (APEX) with SEAMEO INNOTECH, 2008-2009
- Professional Development for Science & Math Teachers with UP NISMED, 2009
- Worked with Synergela on Math & English, 2011-2012



Enhancing teachers' skills

**j. If the project is found to be technically sound but socially unacceptable, the social concerns shall be noted in order to ensure that there is a proper match between the Social Development Plan requirements and the real needs of the community.**

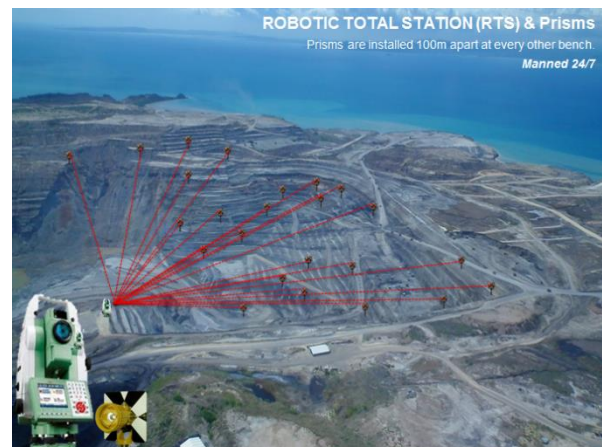
As presented by the CSR, SMPC has provided electricity for the whole island of Semirara. 52% of the present workforce of 3,304 is from Semirara and Caluya islands. It provides free housing, potable water and 300 kwh electricity per month to its employees. Medical and health services are available at the hospital not only for its employees but also for local residents. Livelihood and skills trainings are provided through the local community organizations. Relocations sites are provided for the local residents who are affected by the operation of the company. Classrooms were constructed for the elementary and high school. Free elementary and high school education is provided to workers' dependents. Trainings and support to teachers were provided, together with equipment and supplies and culture and sports trainings for the students.

For environmental protection, the abandoned Unong Pit was rehabilitated by planting napier and star grass and reforestation of the surrounding areas. Wastes from the coal fired power plant is turned into humic acid and used as soil conditioner in the reforestation project. Continuous

mangrove tree planting is undertaken. A marine hatchery laboratory for giants clams was constructed and induced spawning was done since 2011.

Emergency preparedness drills and emergency management trainings were conducted together with local residents, students and company employees.

In summary, the project is found to be technically sound considering that all aspects have been considered such as slope stability analysis, analyses of pumping tests of dewatering wells, GHG emission reduction program, etc. Although there were complaints received regarding the operation of the mining project, it is recommended that a dialogue with the complainants be undertaken especially those who are not residents of the island to discuss the subject of the complaints and possible solutions.



Rumors of mine closedown have spread Semirara Island, and many people have started to express their reactions and fears during this team’s visit and also in the social media.

Some members of the community gathered near the commercial area and in front of the MMT Office building where the audit team stayed for the briefing before proceeded to the field/on-site inspection on August 30, 2016.



Some media people from Antique were present to cover the proceedings of the audit. The local community cable channel in Bgy. Semirara was also airing statements of members of the communities from Bgys. Semirara, Alegria and Tinogboc. These statements where the interviewees appeal to the President and the Secretary of DENR.



Inspected/Validated/Audited by:



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**Mining Audit for Semirara Molave Expansion Project  
 of Semirara Mining and Power Corporation**

**I. INTRODUCTION**

Semirara Island is a part of the Caluya group of islands in Caluya, Antique. It is located in Region VI - Western Visayas - under the province of Antique. Below is a map showing the location of Semirara Island.

Total land area is 55 square kilometers or 5,500 hectares. With a rolling topography, elevation is between 0 to 130 meters. Forty percent of the land is grassland, while industrial area and forest lands take up 23% and 16%, respectively. The rest of the lands are cultivated areas, wetlands, and residential areas.

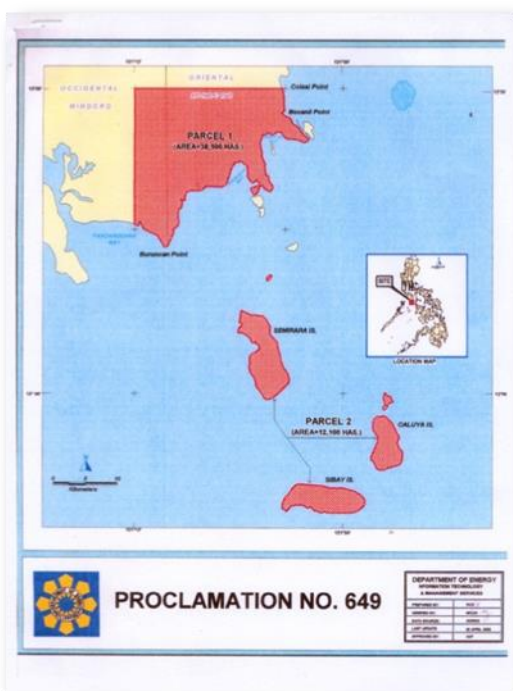
Semirara Island is composed of three barangays, namely Semirara, Tinogboc, and Alegria. Population is approximately 12,000. Main livelihood apart from mining is fishing and farming

**Semirara Island Profile**

Land area  
 55 sq.km. or 5,500 hectares

Barangay	Population	Households
Alegria	3,500	610
Semirara	12,431	2,839
Tinogboc	2,870	633
<b>TOTAL</b>	<b>18,801</b>	<b>4,082</b>

From barangay offices, April 2016  
 \*Bgy. Semirara population at 8,313 in 2007 per NSCB



In 20 November 1940, President Manuel L. Quezon proclaimed the island of Semirara, Sibay and Caluya of the province of Antique along with the southern portion of the Province of the Island of Mindoro were proclaimed as a *Coal Mining Reserved Area* under *Presidential Proclamation 649 Series of 1940*.

## II. PROJECT BACKGROUND AND DESCRIPTION OF OPERATION:

Energy Development Board entered into a 35 years of coal operating contract with Vulcan industrial and Mineral Exploration Corporation and Sulu Oils Development Corporation and Seafrent Petroleum from 11 July 1977 to 11 July 2012.

The Bureau of Energy Development approved the *Deed of Assignment* dated 07 April 1980 of the entire rights and obligations to Vulcan Industrial and Mineral Exploration Corporation and Sulu oil Development Corporation and Seafrent Petroleum Corporation in COC No. 5 was transferred to Semirara Coal Corporation.

In February 1997, DMCI Holdings, Inc. (DMCI-HI), a PSE-listed holding company for construction and other businesses in the Philippines, purchased Voest Alpine's Shares, together with outstanding loans.

A new management team consisting of local and expatriate staff was installed by DMCI-HI in August 1999 and operated at the Unong mine until it became uneconomical to continue mining the remaining coal reserves. In January 2000, as the Unong mine approached the end of its economic life, the Company closed the operation after 17 years of extraction, and proceeded with the development of the new Panian mine. Mining operations commenced at Panian when the Environmental Compliance Certificate (ECC) # 9805-009-302 issued August 12, 1999 was obtained.

The Company had employed a continuous mining system at Unong that relied on bucket wheel excavators supported by smaller equipment. However, a conventional mining system using trucks and shovels was employed at Panian. Given the suitability of this mining technique to the Panian mining conditions, the mining operations have proved to be more flexible and cost efficient for the Company. The bucket wheel excavators used at Unong are now used only in reclamation operations in the Panian stockyard. In 1999, the new management also installed a coal washing plant, which improved the coal quality through a lower ash content and consequently demand for the Company's coal increased.

On 13 May 2008, The Department of Energy awarded Coal Operating Contract (COC No. 5 Amended) to Semirara Mining and Power Corporation from 13 July 2012 to 14 July 2027.

The Second Amendment of the Coal Operating Contract dated November 12, 2009 between the Department of Energy and Semirara Mining Corporation to include all coal bearing areas in Caluya and Sibay Islands in Semirara which is situated under the Declared Coal Reserved Area.

The Environmental Compliance Certificate (ECC) for the Panian Mine (ECC Ref. Code 9805-009-302) issued on August 12, 1999 stipulated an annual production capacity of 1.7 million metric tons (MT). An amendment for an increase in annual production capacity to 2.7 million MT was applied for by SMPC and was duly approved on May 31, 2002. A subsequent application for an increase to 4 million MT annual production capacity is applied for and approved on May 26, 2005. An amended ECC No. 9805- 009-302A dated November 27, 2009 was issued to Semirara Mining Corporation (SMC) for the 1, 000 hectares ( 400 hectares of mining pit) to East Panian (now Narra) Expansion Mining Project with an annual production rate of 8 million MT.

### *2014 SMC changes name to Semirara Mining & Power Corporation (SMPC)*

On February 12, 2016 another amended ECC-CO-1601-0005 was issued to Semirara Mining and Power Corporation (SMPC) to Molave Project (West Panian) with a total annual production rate of 12 MT covering the area of 3, 825.25 hectares to mine coal ( mining pit area of 300 hectares).

Amended ECC (ECC-CO-1601-0005A) dated April 29, 2016 issued again to Semirara Molave Expansion Project to amend the following:

- ✓ Increase the annual production rate from 12.00 to 16.00 million metric tons of coal produce;
- ✓ Increase the coverage of Molave Pit from 300 hectares to 400 hectares;
- ✓ Increase of housing units from 700 to 1, 000 houses; and
- ✓ Increase the total reservoir capacity from 8, 976, 863.61 to 10 million cubic meters.

Semirara Mining Corporation is the only large-scale coal producer in the Philippines and is engaged in surface open cut mining of thermal coal from its Panian mine on Semirara Island, in the Antique Province.

The DMCI shared electricity with whole island of Semirara, powering homes, powering schools, and powering local businesses.



Coal Fluidized Bed (CFB) Technology

Power source	Reliable load
Old power plant	2 x 7.5 MW (Back up)
New power plant	1 x 15 MW
Diesel power plant	8 MW
Available power	34 MW

### EMB AUDIT EVALUATION CHECKLIST FOR MINING PROJECTS

**DATE OF AUDIT** : **August 30-31, 2016**

**I. BASIC INFORMATION** :

ECC Control No/Reference Code : ECC-CO-1601-0005A

Date ECC Issued : April 29, 2016

Project Name : Semirara Molave Expansion Project

Project Site/Location : Brgy. Semirara, Caluya, Antique

Project Status & status during audit : Operation Stage

Proponent/Company Name : Semirara Mining and Power Corporation

Contact Person/Position : Engr. Janesto S. Diaz, Jr./PCO

Proponent 1 Mailing Address : 3/F DMCI Plaza Building, 2281 Pasong Tamo, Makati City

Telephone No./Fax No. : 9199115924

Company Email Address : \_\_\_\_\_

Other EMB Environmental Permits Issued : Permit to Operate, Discharge Permit, Hazardous Waste Generator

## **Coal Fired Power Plants**

Semirara Mining and Power Corporation has 1 unit of new 65 tons per hour circulating Fluidized Bed Boiler that generates 15 Megawatts of electricity and having one unit of Electrostatic Precipitator and Injection Feed Limestone as pollution control device.

The company also have 2 units of 36 tons per hour Coal- Fired Simmering-Graz\_Pauker Boiler as backup boiler that supplies 7.5 Megawatts of electricity for each unit having a Mechanized Dust Separator and Wet Scrubber installed in their common smoke stack.

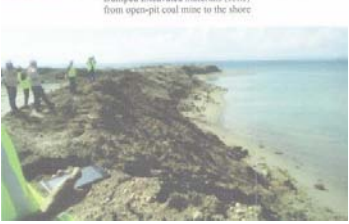



As part of the company's commitment to address pollution emission from its power plants, SMPC installed a CCTV on the smoke stack of their new Fluidized Bed Boiler to further monitor the smoke emission of the plant and also installed CEMS, a computerized system that monitor and analyses the NO<sub>x</sub>, SO<sub>x</sub> and CO emitted by its steam generating plant.


II. COMPLIANCE TO PD 1586 ( EIA SYSTEM)

Requirements	Compliant		Others/Remarks
	Yes	No	
<b>A. Does the mining company complies with the following:</b>			
Compliance to ECC coverage (e.g. production capacity, mining areas, mining components and facilities)	✓		
Presence of Environmental Management Plan (EMP) and updates, if any	✓		
Existence of a Multipartite Monitoring Team with signed MOA	✓		
Regular submission of the MMT Reports	✓		
Presence of approved MMT Manual of Operations (MOO)	✓		
Submission of Compliance Monitoring Reports (CMRs)	✓		
Presence of Abandonment Plan and/or Final Mine Rehabilitation and Decommissioning Plan	✓		
Proof of ECC transfer (if the ECC bears different proponent name)			
<b>B. Does the mining company consists of the programs:</b>			
Consists Contractors Environmental Program	✓		
Presence of detailed Social Development Management Program (SDMP)	✓		
Presence of Contingency/Emergency Response Plan	✓		
Presence of Risk Management Program	✓		
Presence of environmental performance criteria over any applicable environmental standards (e.g. presence of EQPL)	✓		
<b>C. Complaints Management:</b>			
Are there complaints management procedures	✓		
Presence of documented complaints			
Status of Complaints Resolved Unresolved Compromise Agreement	✓		
Documentation of implemented corrective measures/actions	✓		
Feedback mechanism to the complainants	✓		
<b>D. Others:</b>			
Availability of Environmental Fund (EGF/EMF or CLRF/MRF/ etc.)			
Compliance to SDP e.g. beneficiaries, hiring of local employees	✓		
Compliance to the creation of Environmental Units (qualified personnel in terms of its education, knowledge and experience on environmental management system)	✓		
Others			

**ECC CONDITIONS**


I. ENVIRONMENTAL MANAGEMENT	Compliance			Findings / Remarks (indicate proof of compliance)
	Yes	No	N/A	
<p>All commitments, mitigating measures and monitoring requirements, especially those contained in the Environmental Management and Monitoring Plans, in the Final Environmental Performance Report and Management Plan, as approved by the EMB shall be instituted to minimize any adverse impact of the project to the environment throughout its implementation, which shall include among others the following:</p> <p>1. Implementation of good vegetative practices, proper land use, and sound soil management such as:</p> <p>a. Proper stockpiling and disposal of the materials generated from the project site, silt materials</p>	✓			


<p>scooped-out from the settling ponds, and other solid waste in permanent, stabilized areas to avoid pollution of any water body and drainage systems, and maintaining them in safe and non-polluting conditions;</p> <p>b. Strict implementation of stabilization and erosion control at all affected areas including slopes of the roads and nearby gullies, creeks, and rivers within the project site, as well as those of siltation ponds;</p> <p>c. Provision of proper storm drainage canal, effective drainage system, and other flood control measures and channeling the silt-laden runoff, particularly from the coal stockyard and waste dump, to sedimentation/settling ponds prior to its discharge into the nearby water bodies; and</p> <p>d. Implementation of dust control measures along the road system of the mine site to suppress the ambient suspended particulate matters generated by the movement of heavy equipment, service vehicles and hauling trucks;</p>	<p>✓</p> <p>✓</p> <p>✓</p>		<p>The overburden materials from the mine pit was dumped in the northern portion of molave pit is within the provided for the sea barrier which covers 800 hectares based on the EPRMP submitted April 27, 2016. The sea barrier stabilized the pit and will serve as protection to hydrostatic force. This is being done as part of safety program to ensure that hydrostatic force will not cause the pit to collapse.</p>  <p>Slope stabilization and control measures are being implemented such as tree planting of beach agoho and riprapping along the affected areas.</p>  <p>The storm drainage canals, ditches as well as retaining walls were maintained regularly.</p>  <p>Regular spraying of water along the access and haul roads in the mine site as well as conveyor lines. The proponent strictly implement speed limits and traffic rules</p> 
<p>2. Implementation of an intensive and effective Information, Education and Communication (IEC) Program to inform and educate all stakeholders, particularly the direct impact barangays, about the Project's mitigating measures embodied in the EPRMP and the conditions stipulated in this Certificate for greater awareness, understanding and sustained acceptance of the project.</p>	<p>✓</p>		<p>SMPC airing on a community cable channel on Semirara Island:</p> <ol style="list-style-type: none"> <li>1. Organic C-to educate the people on the company's coal mining process</li> <li>2. Magtanim ay di biro-to show the reforestation and rehabilitation plan</li> <li>3. Go,grow, taklobo-the program</li> </ol>





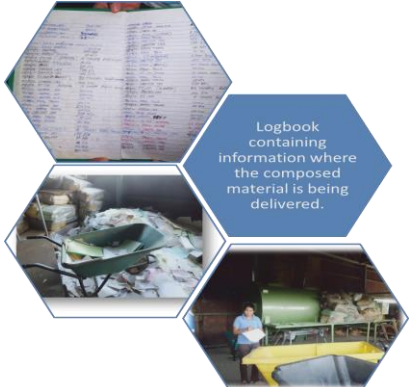
<p>The proponent shall implement an annual detailed IEC program in coordination with EMB Region VI;</p>			<p>educate the stakeholders the process of spawning and reseedling various species of the giant clamps</p> <p>4. Small Island, Big Dreams-to show the company on how to rehabilitate the reefs to prepare for a sustainable future</p> <p>5. Water conservation</p> <p>6. I love Semirara X3-the shows educate the company's for garbage segregation</p>
<p>3. Implement a comprehensive Social Development Program (SDP) and submit a report together with the Compliance Monitoring Report (CMR) on a semi-annual basis to the EMB Central Office and copy furnished EMB Region VI;</p>	✓		<p>Social Development Program is implemented through the 5Es:</p> <ul style="list-style-type: none"> <li>● Electrification</li> <li>● Economic Empowerment</li> <li>● Education and skills training</li> <li>● Environmental Protection</li> <li>● Emergency Preparedness</li> </ul>
<p>4. Implementation of climate change initiatives including reforestation to mitigate greenhouse gas (GHG) emissions of the Project in line with the DENR's thrust on GHG emissions reduction programs in coordination with EMB Region VI, the concerned PENRO and / or CENRO. The program shall be submitted to EMB Central Office for approval within six (6) months from receipt hereof;</p>	✓		<p>Total accomplishment as of 25 May 2016:</p> <p>Inland Reforestation- 2,831,984 different species planted survived as per company's inventoried</p> <p>Mangrove Reforestation 631,116 hills survived and maintained</p>
<p>5. The Proponent shall prepare a Risk Management Plan/ Program that will include contingency measures in case of accidents, equipment malfunctions, machine failures, and other emergencies to address environmental risks. The plan/ program shall be submitted to EMB Central Office within sixty (60) days upon receipt of this Certificate;</p>	✓		<p>The Risk Management Plan was received by EMB Central Office on June 26, 2016</p>
<p>6. The proponent shall provide alternative sources of potable water to the affected community.</p>	✓		<p>The company constructed water filtration plant located at Wild B to provide water to the affected community</p> 
<p>GENERAL CONDITIONS</p>			
<p>7. The project operations shall conform to the applicable provisions of the Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990 (R.A. 6969), Clean Air Act of 1999 (R.A. 8749), Ecological and Solid Waste Management Act of 2000 (R.A. 9003), Clean Water Act of 2004 (R.A. 9275) and other relevant policies, rules and regulations.</p>	✓		<p>The proponent secures the following permit to EMB Regional Office:</p> <p>1. Discharge Permit 16-DPW-H-0606-021</p> <p>2. Permit to Operate 16-POA-H-0606-021</p> <p>11 POA-J-0606-021</p>

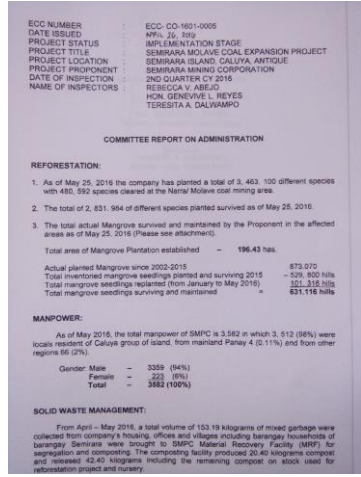


			<p>3. Hazardous Generators ID 06-06-005 (From Mining operation)</p> <p>06-06-0018 (From Hospital Waste)</p> <p>4. PCO Accreditation: COA-No. 2015-R06-0265 (Engr. Janesto S. Diaz Jr)</p>
<p>8. The existing Multipartite Monitoring Team (MMT) shall be expanded to include a representative from the Department of Energy (DOE) and other concerned agencies, as deemed necessary. The existing Memorandum of Agreement (MOA) for the creation of the MMT and establishment of the Environmental Monitoring Fund, Environmental Guarantee Fund shall be amended based on DAO 30-003. The amended MOA shall be submitted to the EMB Central Office within sixty (60) days upon receipt of this Certificate for approval.</p> <p>Further, an MMT Manual of Operations (MOO) shall be prepared by the MMT and endorsed by the RO for approval by EMB CO.</p>	✓	✓	<p>Submitted to EMB Region VI last 24 August 2016 for signature of RD Bulos. DOE representative is included in the amended MOA.</p> <p>There is an existing MOO that will be reviewed and consequently amended in line with the new conditions.</p>
<p>9. Establish an Environmental Unit (EU) to competently handle all environment related aspects of the project in addition to the monitoring requirements as specified in the Environmental Management Plan (EMP)/ Environmental Monitoring Plan (EMoP). It shall:</p> <p>a. Monitor actual project impacts vis-à-vis the predicted impacts and management measures in the EPRMP;</p> <p>b. Submit semi-annually all environmental reports to EMB Central Office and EMB Region VI;</p> <p>c. Ensure that monitoring and reporting are carried out as required; and</p>	✓	✓	<p>There is an existing EU established headed by the Pollution Control Officer (PCO), Engr. Janesto S. Diaz, Jr. to handle all environmental related aspects of the project. PCO accreditation No. COA-No. 2015-RO6-0265 dated October 15, 2015.</p> <p>Submitted the 1<sup>st</sup> semester (Jan-June 2016) CMR to EMB R6 on Aug. 18, 2016</p>
<p>10. The proponent shall ensure that its contractors and subcontractors properly comply with the relevant conditions of this Certificate</p>	✓		<p>The proponent conducted orientation/training to all contractors.</p>
<p>11. Submit an Abandonment/ Rehabilitation Plan for the three (3) coal mining pits: Panian, Narra (East Panian) and Molave (West Panian) to the EMB Central Office copy furnished EMB Region VI at least one (1) year prior to the project's abandonment. The plan shall include rehabilitation measures/ clean-up, remediation of areas affected by the project and proposed alternative projects in the area;</p>	✓		<p>The proponent submitted the abandonment plan on 09 August 2016</p>

<p>12. The proponent shall submit proof of compliance (eg. Certification from DOE) on an annual basis of the following:</p> <p>a. Formulation and implementation of comprehensive monitoring program to monitor slope movements and groundwater conditions.</p> <p>b. Compliance with coal mine safety rules and regulations as provided for under the ERDB, Circular 1, Series of 1978 of the DOE.</p>	✓		<p>Proof of compliance shall be submitted on or before January 2017</p>  <p>Slope stabilization radar to monitor ground movement</p>
<p>13. Submit a detailed assessment on the cause of slope failure, probable mechanism of slope failure, performance of monitoring instruments such as piezometer, tilt meters and ground water level in open hole monitoring wells (if there is any). The assessment shall also include climate change considerations/ projections and hydrological/ hydrogeological events on the stability as well as erodibility of the mine workings, likewise, a finite element modeling is required for the assessment. The said report shall be submitted to EMB Central Office within thirty (30) days from receipt hereof;</p>	✓		<p>EMB received the Assessment Report on Slope Failure. The study was conducted by GEOTECNICA Corp. and report submitted on July 05, 2016.</p>
<p>14. Strict compliance and adherence to the submitted Environmental Management and Monitoring Plan (EMMoP);</p>	✓		<p>EMMoP was properly complied by the proponent as per committee report and Self Monitoring Report submitted (SMR).</p>
<p>15. Install an automatic weather station compliant to the relevant PAGASA standards and requirements within six (6) months from issuance of this ECC. Proof of compliance shall be submitted to EMB Central Office at the period specified;</p>	✓		<p>The weather station was installed on 09 July 2016. Proof of which is submitted on 25 July 2016</p>
<p>16. Conduct validation of air dispersion modeling one (1) year after the start of the project commercial operation of the first 15 MW power plant and which shall be updated every two (2) years thereafter until the model and observed value difference are consistent . The validation reports shall be submitted to EMB Central Office within sixty (60) days from the conduct thereof. The same shall be undertaken based on meteorological data collected from the automatic weather situation;</p>		✓	<p>The 15 MW power plant is still in the commissioning and testing stage/period.</p> <p>To be submitted on March 2017, one year after the commercial operation of the 15 MW power plant</p>
<p>17. Conduct a hazard and operability (HAZOP) study within sixty (60) days from issuance of ECC covering all project facilities which shall be</p>	✓		<p>EMB Central Office received the conduct of Hazard and Operability (HAZOP) on May 24, 2016</p>





updated every five (5) years thereafter, to ensure that hazards and risks are kept at a minimum. The report shall be submitted to EMB Central Office copy furnished EMB Region VI within thirty (30) days from the conduct of assessment;				
18. Submit an Awareness and Preparedness for Emergency at the Local Level (APELL) - based Emergency Response Plan (ERP) (for all surrounding communities) within ninety (90) days from receipt hereof. Proof of compliance shall be submitted to EMB Central Office copy furnished EMB Region VI at the end of the period specified;	✓			Awareness and Preparedness for Emergency at the Local Level was submitted to EMB Central Office on May 24, 2016
19. Establish a 50- meter buffer zone from the shoreline inwards which shall be planted with appropriate plant species (eg. Talisay, beach agoho etc.);	✓			Buffer zones was established
20. The proponent shall conduct an assessment to determine the transmissivity, hydraulic conductivity and other parameters of the aquifer to avoid infiltration of the sea water in the aquifer that may contribute to saturation and slope failure in the event the sea level is higher than the pit level. The report shall be submitted to EMB Central Office copy furnished EMB Region VI within thirty (30) days from the conduct of assessment;	✓			The proponent submitted analyses of pumping test of dewatering wells prepared by A. Saldivar-Sali and Partners on June 27, 2016.
21. The proponent shall install an inclinometer to monitor any sub-surface movement in the mining area. Proof of which shall be submitted within three (3) months from issuance of this ECC.	✓			The inclinometer cannot be used or effective in the monitoring of sub-surface movement because the ground condition. Instead they are using piezometers, Robotic Total Stations and Slope Stability Radar  
<b>I. RESTRICTIONS</b>				
22. No. activity shall be undertaken other than what were stipulated in the EPRMP. Any expansion of the project beyond the project description or any change in the activity or transfer of location shall be subject to a new Environmental Impact Assessment; and	✓			Still within the scope of the EPRMP
23 Transfer of ownership of this project carries the same conditions and restrictions, for which, written notification shall be made by herein grantee to EMB within fifteen (15) days from such transfer.			✓	No transfer of ownership

<p>ANNEX B</p> <p>PROJECT ASSESSMENT PLANNING TOOL</p>			
<p>A. Recommendations to GA/LGUs</p> <p>1.Compliance with the following:</p> <p>a. Occupational health and safety;</p> <p>b. Sanitation Code of the Philippines;</p> <p>c. Labor Code of the Philippines</p> <p>d. Ecological Solid Waste Management Act</p>	<p>✓</p> <p>✓</p> <p>✓</p> <p>✓</p>		<p>Occupational Safety and Health Standard</p>  <p>Cert. from Mun. Health Officer compliant to Sanitary Code of the Phil.</p>  <p>Cert. Compliance on Labor Standard from DOLE</p>    <p>Logbook containing information where the composed material is being delivered.</p>
<p>2. Secure tree cutting permit (If needed)</p>		<p>✓</p>	<p>No existing trees in the mining area</p>
<p>3. Water Rights permit</p>	<p>✓</p>		<p>Please see below</p>

<p>B. Environmental Planning Recommendations for the Proponent</p> <p>4. Priority of employment shall be given to qualified local residents. Adequate public information for jobs available to local residents in the affected areas shall be provided.</p>	<p>✓</p>		 <p><b>COMMITTEE REPORT ON ADMINISTRATION</b></p> <p><b>REFORESTATION:</b></p> <ol style="list-style-type: none"> <li>As of May 25, 2016 the company has planted a total of 3,463,100 different species with 480,950 species cleared at the Natural Mollusk coral mining area.</li> <li>The total of 2,431,984 of different species planted survived as of May 25, 2016.</li> <li>The total actual Mangrove survived and maintained by the Proponent in the affected areas as of May 25, 2016 (Please see attachment):</li> </ol> <table border="1"> <tr> <td>Total area of Mangrove Plantation established</td> <td>-</td> <td>196.43 has.</td> </tr> <tr> <td>Actual planted Mangrove since 2002-2015</td> <td></td> <td>673,070</td> </tr> <tr> <td>Total inventoried mangrove seedlings planted and surviving 2016</td> <td></td> <td>509,800 hills</td> </tr> <tr> <td>Total mangrove seedlings replanted (from January to May 2016)</td> <td></td> <td>101,318 hills</td> </tr> <tr> <td>Total mangrove seedlings surviving and maintained</td> <td></td> <td>631,118 hills</td> </tr> </table> <p><b>MANPOWER:</b></p> <p>As of May 2016, the total manpower of SMPC is 3,582 in which 3,512 (98%) were locals resident of Caluya group of island, from mainland Panay 4 (0.11%) and from other regions 66 (2%).</p> <table border="1"> <tr> <td>Gender Male</td> <td>-</td> <td>3359 (94%)</td> </tr> <tr> <td>Female</td> <td>-</td> <td>223 (6%)</td> </tr> <tr> <td>Total</td> <td>-</td> <td>3582 (100%)</td> </tr> </table> <p><b>SOLID WASTE MANAGEMENT:</b></p> <p>From April - May 2016, a total volume of 153.19 kilograms of mixed garbage were collected from company's housing, offices and shops including barangay households of barangay Sembrana were brought to SMPC Material Recovery Facility (MRF) for segregation and composting. The composting facility produced 20.40 kilograms compost and released 42.40 kilograms including the remaining compost on stock used for reforestation project and nursery.</p>	Total area of Mangrove Plantation established	-	196.43 has.	Actual planted Mangrove since 2002-2015		673,070	Total inventoried mangrove seedlings planted and surviving 2016		509,800 hills	Total mangrove seedlings replanted (from January to May 2016)		101,318 hills	Total mangrove seedlings surviving and maintained		631,118 hills	Gender Male	-	3359 (94%)	Female	-	223 (6%)	Total	-	3582 (100%)
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Total	-	3582 (100%)																									
<p>5. An independent third party shall be commissioned to undertake an annual environmental audit, including a continuing study on the effects of the project on the health of the workers and affected residents, particularly women and children. The result of the third party environmental audit, including the auditing of risks and hazards of the projects, shall be submitted to EMB, while the result of the continuing health study shall be submitted every two (2) years to the Department of Health.</p>	<p>✓</p>		<p>The SMPC commissioned the Antique Medical Society Group to undertake the study/survey on the health of the workers and affected residents last Nov. 26-28, 2015. Report/result will be submitted to EMB as soon as the medical group submit to the company.</p>																								

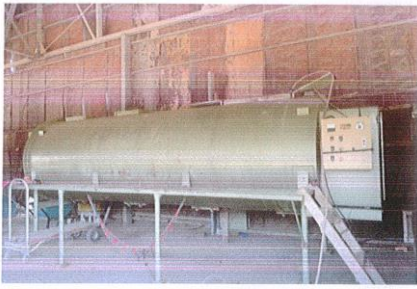
**VI. COMPLIANCE TO RA 9003**

**COMPLIANCE INSPECTION CHECKLIST FOR SOLID WASTE IN ESTABLISHMENT**

Legal References	Compliance Requirements	Compliant			Remarks
		YES	NO	N/A	
DAO 2001- 34 Rule IX Section 2d	1. Is there a separate container ( properly marked) for each type of wastes (e.g. recycable, non- recycable, recycable or special waste, or any other classification)?	✓			 <p>Painted drums to be used as Garbage Bins for company offices and facilities</p> <p>3 color coded and labelled containers present n the designated areas. Practice 3Rs (Re-use, Reduce &amp; Recycle)</p>
	2. Are bulky waste placed in a separate and designated area?	✓			 <p>Some collected recyclable waste at Materials Recovery Facility (MRF)</p>
	3. Are all workers, employees, and entities working in the premises aware of the requirements of RA 9003?	✓			Trainings conducted by the Environmental Unit
RA 9003 Section 30	4. Are the products placed in an environmentally acceptable packaging?			✓	
	5. Are consumer products for import packaged in non-environmentally acceptable materials?			✓	
Other Requirements	6. Is waste segregation at source practiced?	✓			
	7. Is there an MRF present in the establishment?	✓			 <p>In-process compost ongoing maturity at 1 of the bins of Composting Facility</p>
	8. Is the disposal of solid waste integrated with the LGU` s Solid Waste Management System?	✓			 <p>LGU ordinance of waste reduction is being observed and implemented (zero plastic use for packaging) in the company market and commissary.</p>

Additional Findings/Observations:

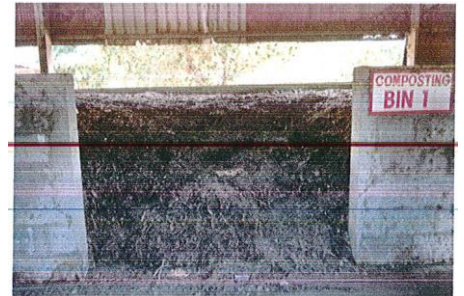
Garbage were collected from company's housing, offices, villages, food court including barangay households of Barangay Semirara were brought to SMPC Materials Recovery Facility (MRF) for sorting and composting. The SMPC has a bioreactor that has been operating for almost 6 years. Biodegradable waste collected and twigs during clearing operation turn into organic fertilizer and used in the nursery for the rehabilitation program.



1 unit Bio-Reactor Machine (DOST-ITDI technology)




1 unit Handy 4-in-1 Shredder Machine



In-process compost ongoing maturity at 1 of the bins of Composting Facility

List of Document Reviewed: Self-Monitoring Report, MMT Committee Report on Administration

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