RSPO SUPPLY CHAIN VERIFICATION REPORT (REVISED)

CLIENT NAME: HAWAIIAN ELECTRIC COMPANY, INC.
CLIENT REPRESENTATIVE: NICK PASLAY – PROGRAM MANAGER, BIOFUELS

DETAIL OF SELECTED SITE FOR VERIFICATION

COMPANY NAME: SIME DARBY PLANTATION SDN. BHD.
RSPO MEMBER NUMBER: 1-0008-04-000-00
COMPANY MANAGEMENT REPRESENTATIVE:
NORAZAM ABDUL HAMEED – HEAD, PLANTATION & GREEN TECHNOLOGY, TQEM PLANTATION

ADDRESS OF RELEVANT SITES OF OPERATION:

1) TANAH MERAH PALM OIL MILL AND ITS SUPPLY BASES
   i.e. TANAH MERAH, BUKIT PELANDUK AND SUA BETONG ESTATES
   71000 PORT DICKSON, NEGERI SEMBILAN, MALAYSIA.

2) WEST PALM OIL MILL AND ITS SUPPLY BASES
   i.e. WEST AND EAST ESTATES
   42960 CAREY ISLAND, SELANGOR, MALAYSIA.

3) SIME DARBY JOMALINA SDN. BHD.
   BATU 9, JALAN BANTING-KLANG, 42500 TELOK PANGLIMA GARANG INDUSTRIAL ESTATE,
   SELANGOR, MALAYSIA.

4) SIME DARBY JOMALINA SDN. BHD.
   LOT 27, PT 234, LEBUH SULTAN MOHAMED 1, KAWASAN PERINDUSTRIAN BANDAR
   SULTAN SULAIMAN, 42000 PELABUHAN KLANG, SELANGOR, MALAYSIA

5) SIME DARBY BIODIESEL SDN. BHD.
   LOT 2666, EAST ESTATE, CAREY ISLAND, 42960 KUALA LANGAT, SELANGOR, MALAYSIA.

6) FIMA BULKING SERVICES BERHAD AND FIMACHEM SDN.BHD.
   JALAN PARANG, 2ND EXTENSION, NORTH PORT, 42000 PORT KLANG,
   SELANGOR, MALAYSIA.
RSPO SUPPLY CHAIN VERIFICATION REPORT

1.0 Summary

Sime Darby Group consists of six core divisions which are Sime Darby Plantation, Sime Darby Property, Sime Darby Industrial, Sime Darby Motors, Sime Darby Energy & Utilities and Sime Darby Healthcare. Sime Darby Plantation Sdn. Bhd. involves in upstream activities which are oil palm cultivation and crude palm oil production. Its downstream activities are manufacturing and distribution of oils and fats products, oleochemical, palm oil based biodiesel. Apart from that it also involves in agribusiness and food, research and development and trading and marketing of commodities.

This assessment is limited to the supply chain for Sime Darby Plantation’s one-time processing and shipment of biofuel and biodiesel made from sustainable palm oil (SPO) for export to the Hawaiian Electric Company and Maui Electric Company respectively. It is the verification of traceability of SPO from the estates until the shore tanks which specifically to produce 1,567,000 US gallons (5,500 mt) ±5% of biofuel and 1,000,000 US gallons (3,400 mt) ±5% of biodiesel.

The methodology of this assessment consists of documentation review, sites verification and consultation with relevant personnel. The reference used for this assessment is the RSPO Supply Chain Certification Systems, November 2009 using the segregation model.

Generally, the sequence of the supply chain process starts with fresh fruit bunches (FFB) evacuation from the estate. The FFB are then sent to the palm oil mill via lorries to be processed to produce crude sustainable palm oil (CSPO). Next, the CSPO is sent to the refineries via bulking tanks and either is refined to Refined Bleached Deodorized Palm Oil (RBDPO) or undergo a drying process to obtain desired amount of moisture content. The end product of the drying process is called processed CSPO (biofuel). The RBDPO is then sent to Biodiesel Plant for further processing to produce Methyl Ester (biodiesel) as its end product. Both of the end products (biofuel and biodiesel) are then sent to the shore tanks via bulking tanks until the required amount is achieved. From there, the finished products are shipped to the buyers in Hawaii via ocean vessels.

It is noted that the current management system of each facility is capable to provide adequate handling method of raw materials and its products along the supply chain. The purchase and sales of raw material and finished product within the facilities are managed by their Commodities Trading and Marketing (CTM) department.

In order to support the management system, procedures have been established and records are maintained to outline and ensure that the traceability of the SPO is in place. The procedures sighted during the assessment are listed in this report. The assessors has also verified the records such as production report and summary of every facility, logistic records and its accompanying documents (dispatch notes, delivery orders, bill of lading, etc), purchasing and sales documents and training records. Guided by their procedures, all of the records that relate to the supply chain are retained for minimum of five years. The assessors have found that the data inside all the records for this particular biofuel and biodiesel productions were correct.

Initially, there was an issue of fulfilling the 5% minimum contamination with the non-sustainable FFB at the palm oil mill stage. The related facility had then taken a corrective action to rectify the issue. The assessors had verify the corrective action and confirmed that the conformance has been met.

Based on the evidence gathered from this assessment, the assessors conclude that Sime Darby Plantation has conformed to the requirements stated in the RSPO Supply Chain Certification Systems, November 2009 by using the segregation model. The traceability system also was able to trace back the origin of the biofuel and biodiesel back to the source of crude sustainable palm oil.

2.0 Certification Body Details

| Name | SIRIM QAS International Sdn. Bhd. |
| Date of approval by RSPO | 7th September 2010 |
| Certificate number | 004-10 |
| Assessment team members | Ruzita Abd Gani and Valence Shem |
3.0 Scope of the Assessment and Supply Chain Model(s) Used:

The coverage of this assessment was limited to the one-time processing and shipment of biofuel and biodiesel by Sime Darby Plantation Sdn. Bhd. (hereafter referred as Sime Darby Plantation) made from sustainable palm oil (SPO) for export to the Hawaiian Electric Company and Maui Electric Company in Hawaii, USA. The volume of biofuel involved in this supply chain assessment was 1,567,000 US gallons (5,500 metric tonnes), while that for biodiesel was 1,000,000 US gallons (3,400 metric tonnes).* 

*Note: * (±5%)

The assessment team had visited the oil palm estates, palm oil mills, refineries, biodiesel plant and bulking storage at the port in Port Klang. The sites and dates of the visits as follows:

- 22nd September 2010 : Tanah Merah palm oil mill and its supply bases
  i.e. Tanah Merah, Bukit Pelanduk, and Sua Betong estates
- 30th September 2010 : West palm oil mill and its supply bases
  i.e. West and East estates
- 8th October 2010 : Sime Darby Jomalina Sdn.Bhd., North Port, Port Klang
- 11th November 2010 : Verification on corrective action taken at Tanah Merah palm oil mill

The methodology of this assessment consisted of documentation review, sites verification and consultation with relevant personnel. The reference standard used for the assessment is the RSPO Supply Chain Certification Systems, November 2009. The supply chain model used by Sime Darby Plantation for this one-time shipment of biofuel and biodiesel is the segregation model.

4.0 Description of the Organization’s Activities

Sime Darby Plantation represents one of the six core divisions of the Sime Darby Group. The other divisions of the group are Sime Darby Property, Sime Darby Industrial, Sime Darby Motors, Sime Darby Energy & Utilities and Sime Darby Healthcare. Sime Darby Plantation is involved in the full spectrum of the palm oil value chain. Its business operations involved both in the upstream and downstream activities of the oil palm industry. The upstream activities are mainly on oil palm plantation and oil palm milling while the downstream activities include refining of crude palm oil and processing of edible oils and fats products, oleochemicals and biodiesel. The purchase and sales of raw material and finished product within the facilities are managed by their Commodities Trading and Marketing (CTM) department.

**Upstream activities**

There were two palm oil mills namely the Tanah Merah palm oil mill and West palm oil mill which processed the fresh fruit bunches (FFBs) into CSPO. The FFB for these two palm oil mills were supplied by their respective supply bases, which were RSPO Principle and Criteria certified. In the case of the Tanah Merah palm oil mill, the certified FFBs were supplied by the Tanah Merah, Bukit Pelandok and Sua Betong estates while supplies to West palm oil mill were from the West and East estates.

**Downstream activities**

The CSPO from both palm oil mills was sent to Sime Darby Jomalina Sdn. Bhd (Jomalina) for refining. Jomalina has two refineries; one is located at Telok Panglima Garang while the other one at the North Port, Port Klang.

The activity at the refinery in Telok Panglima Garang is the CSPO drying (processed CSPO) for the production of biofuel whilst the activity in the other refinery in North Port, Port Klang is the refining of the CSPO into Refined Bleached Deodorized Palm Oil (RBDPO) which is then sent to Sime Darby Biodiesel Sdn. Bhd. for further processing to produce Methyl Ester (biodiesel).
The processed CSPO (biofuel) was sent to FIMA Bulking Services Berhad, while the methyl ester (biodiesel) is sent to FIMACHEM Sdn. Bhd. for storage prior to shipping. FIMA Bulking Services Berhad and FIMACHEM Sdn. Bhd. are external bulking storage facilities which are rented by Sime Darby Biodiesel Sdn. Bhd. to provide services for storage and loading into the vessel for shipment.

5.0 Other Certifications by Independent Certification Body

Tanah Merah palm oil mill and West palm oil mill and their supply bases have been certified against the RSPO Principle and Criteria for sustainable palm oil production on 19th May 2010. The certificates issued to both of the companies SPO 541905 and SPO 543594 respectively expires on 18th May 2015. In addition, all the supply bases of the Tanah Merah palm oil mill have been certified against Global G.A.P. CPPC IFA Version 3.0. The certificate reference numbers are 4049929289284 for the Tanah Merah estate, 4049929289277 for Bukit Pelandok estate and 4049929289260 for the Sua Betong estate. In addition to the Global G.A.P. certification, both the Tanah Merah palm oil mill and the West palm oil mill and their supply bases have been implementing the Quality, Environment, Health & Safety Management Systems.

The refinery, Sime Darby Jomalina Sdn. Bhd. in Teluk Panglima Garang has obtained the following management system certificates:

a) ISO 14001: 2004 Environmental Management System (Cert. No.: KLR 6003376)
b) OHSAS 18001: 2007 Occupational Health & Safety Management System (Cert. No.: KLR 0197072)
c) ISO 9001: 2008 Quality Management System (Cert. No.: KLR 0500181)
d) Hazard Analysis and Critical Control Point (HACCP) (Cert. No.: KLR 0500180/A)

The assessors had sighted and verified that all the above management system certificates are still valid at the time the assessment was conducted.

Sime Darby Biodiesel Sdn. Bhd. has obtained RSPO supply chain interim approval using the segregation and mass balance models on the 30th March 2010. The approval is valid for a year from the date of approval. In addition, the facility also has just been certified against ISO 9001: 2008 Quality Management System on 1st November 2010 (Cert. No: KLR 6010179).

Both bulking facilities (FIMA Bulking Services Berhad and FIMACHEM Sdn. Bhd.) has also been certified against ISO 9001: 2008 Quality Management System (Cert. No: AR 4278 & AR 1157). Both of the certificates are still valid at the time the assessment was conducted.

All management system certifications obtained by the related companies has contributed significantly to the improvement of the companies’ management systems and operations in terms of systematic documented work procedures and record keeping to facilitate the product traceability.

6.0 Name and Affiliations of Persons Consulted

Tanah Merah Palm Oil Mill and its supply bases

Abdul Ghafar Sulaiman - Mill Manager
Ainudin Mohd Bahari – Senior Estate Manager
Gunasegaran a/l Manickam – Manager, Sua Betong Estate
Rizalman Abd Rahim – Senior Mill Assistant
Mohamad Fauzi Yahaya – Senior Estate Assistant
Estate Chief clerk
Mill Weighbridge Operator
Norazam Abdul Hameed – Head, Plantation & Green Technology, TQEM
Lee Swee Yin – Senior Executive, TQEM Plantation

West Palm Oil Mill and its supply bases

Wan Syahril Izan Wan Sabri – Mill Manager
Mohammad Taib Lebai Abu – Senior Estate Manager
Mohamad Maidin – Senior Estate Manager
Azlan Hut – Senior Assistant Manager
7.0 Description of Operation’s Management System

- 7.1 Documented procedures

Sime Darby Plantation has established its documented procedures to fulfill the requirements of RSPO Supply Chain System. Among the documented procedures which were inspected during the assessment were

Estate operations
- Harvesting and evacuation of FFB from the field
- Transportation of FFB to the mill

Mill operations
- FFB reception
- FFB processing
- Product storage and dispatch
Refinery operations
- Logistic operations
- Receiving and weighbridge operation
- Disposition of non conforming product
- Plant operation
- Raw material and product Storage

Biodiesel operations
- Logistic operations including raw material and product storage
- Product recall procedure
- Control of document and records
- Marketing and sales

Bulking facility
- Storage and Preservation Work Instruction
- Control of Non-conforming Product.
- Loading and unloading of products
- Export & import activity

7.2 Purchasing and goods in

Under Sime Darby Plantation, there is a department called Commodities Trading and Marketing (CTM). This department is responsible for managing the trading of palm oil and rubber commodities for Sime Darby Plantation. For the purpose of this assessment, the assessors had confined the verification of the company’s compliance against the RSPO Supply Chain requirements on the purchase of crude sustainable palm oil (CSPO) and sales of biofuel and biodiesel for the company’s contract with the Hawaiian Electric Company and Maui Electric Company.

The purchasing of raw material (i.e. CSPO from the palm oil mills and RBDPO from the refinery) is managed by CTM. In order to fulfill the contract with the Hawaiian Electric Company for 5,500 metric tonnes ±5% of biofuel and 3,400 metric tonnes ±5% of biodiesel for the Maui Electric Company, CTM has broken the contract into several contract volumes. The relevant document related to this specific contract sighted during the assessment was the purchase contract.

CTM has also generated a separate purchase contracts and issued them to the respective operation units (i.e. Tanah Merah palm oil mill or West oil mill, Sime Darby Jomalina Sdn. Bhd.) via e-mail. Each of the purchase contract has its own unique contract number for example S/AGC/0910/CPO11870. In addition, the purchase contract had also indicated the contract volume and price.

7.3 Sales and goods out

At the point of domestic sale, palm oil mill and refinery will provide their customer with sales-related documents (i.e. weighbridge ticket, CPO dispatch authorization from Malaysian Palm Oil Board (MPOB) and Dispatch Note). Among the information printed on these sales-related document are the contract number, name and address of the buyer, date of the document was generated, product description, quantity and seal number. The sales-related document will be carried together by the tanker driver and will be handed over to the next operating unit.

Export sales document such as tanker bill of lading contains details which indicates supplier’s name, shipping company, name of port, destination, product description, date of departure, stowage number, quantity. The certificate of weight complete with shore tank calculation, certificate of sealing, certificate of sampling shore and ship’s tanks, certificate of quality prepared by independent surveyor. In the sales contract from Sime Darby Biodiesel Sdn. Bhd., there were details on product specification, contract number between Sime Darby Biodiesel Sdn. Bhd. and Hawaiian Electric Company and Maui Electric Company, and contract quantity. All these documents follow the trail of the biofuel and biodiesel consignment.
• 7.4 Processing

**Estates**

It was noted that FFBs were delivered to the palm oil mill by lorries. Checkers were assigned to record down in the bunch count chit the field number where the FFB were collected and the number of FFBs delivered for each trip. Each trip of the lorry carrying the oil palm FFB was accompanied with a dispatch note. In the dispatch note, details such as the field number, driver’s name and harvesting date were indicated. The dispatch note, with a unique serial number, was issued in three copies, of which two copies were retained by the estate and the original copy to the palm oil mill.

Upon arrival at the palm oil mill, a weighbridge ticket was issued. The supplying estate was given a copy of the weighbridge ticket by the mill. From this weighbridge ticket, the estate will know exactly the amount of oil palm FFBs delivered to the mill on a particular day and at the quantity could be counter checked with the record kept by the mill. Based on the verification done on these records and interviews held with the relevant staff, the assessor had found that the traceability system was in place. All oil palm delivered by the estate to the mill had originated from RSPO certified oil palm estates.

**Palm Oil Mills**

The name of the estate supplying the certified FFB was recorded in the mill weighbridge ticket. The ticket also had all the same information as indicated in the dispatch note issued by the estate. The weighbridge ticket together with the dispatch notes were then submitted to the estate administration staff for recordings.

The mill processed the oil palm fruits according to ‘first in first out (FIFO) basis’. The basic processes of converting from FFB to CPO consist of sterilization, threshing, pressing and clarification. The CPO was kept in a designated storage tank.

During the first visit on 22nd September 2010 to the Tanah Merah palm oil mill, the assessor was informed that the mill had started processing FFB since August 2010 to fulfill the contract. However, assessment on records had found that the mill had received and processed more than 5% of FFB which had been sourced from non-sustainable suppliers as detail in Table 1. Consequently, the assessor had raised this finding to the Management Representative as non-compliance to the segregation model. Sime Darby Plantation had taken a corrective action by diverting all supply of non-sustainable FFBs to other palm oil mills.

**Table 1 : Summary of Tanah Merah palm oil mill source of FFB and production of CPO**

<table>
<thead>
<tr>
<th>Month / Source</th>
<th>Sustainable (metric tonnes)</th>
<th></th>
<th>Non-sustainable (metric tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FFB processed</td>
<td>CPO production</td>
<td>FFB processed</td>
</tr>
<tr>
<td>August 2010</td>
<td>15,573.40 (96.28%)</td>
<td>3,249.46 (96.27%)</td>
<td>601.15 (3.72%)</td>
</tr>
<tr>
<td>September 2010</td>
<td>15,687.08 (94.55%)</td>
<td>3,316.93 (94.53%)</td>
<td>904.06 (5.45%)</td>
</tr>
<tr>
<td>October 2010</td>
<td>16,976.60 (100%)</td>
<td>3,670.42 (100%)</td>
<td>0 (0%)</td>
</tr>
</tbody>
</table>

The assessor has conducted a site verification on 11th November 2010 to verify on the corrective action taken by the mill to address the non-compliance. During that visit, the assessor had confirmed that for the month of October 2010, the mill had no longer accepted and processed FFB from non-sustainable sources. This was verified through inspection of the weighbridge ticket, FFB transport summary, monthly oil palm FFBs report, the details on the CPO dispatch and interview with the relevant staff.

At the point of assessment day (i.e. 30th September 2010) at West palm oil mill, the assessors had confirmed through inspection of records and interview with mill personnel that the mill has yet to process any FFB to fulfill the contract. However based on the document presented by Sime Darby Management Representative on 9th December 2010 and verification on records was confirmed that the mill had started processing FFB to fulfill the contract since 1st October 2010 till November 2010.
Among the document sighted by the assessment team were contract document, monthly crop report, weighbridge ticket, CPO dispatch note, and good received note. It was confirmed that West palm oil mill has received and process FFB from the certified source (Refer table 2).

Table 2 : Summary of West palm oil mill source of FFB and production of CPO

<table>
<thead>
<tr>
<th>Month / Source</th>
<th>Sustainable (metric tonnes)</th>
<th>Non-sustainable (metric tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FFB processed</td>
<td>CPO production</td>
</tr>
<tr>
<td>October 2010</td>
<td>16,824.35 (100%)</td>
<td>3,527.56 (100%)</td>
</tr>
<tr>
<td>November 2010</td>
<td>17,257.04 (100%)</td>
<td>3,409.62 (100%)</td>
</tr>
</tbody>
</table>

Refineries

The CPO from the mill was sent to two refineries i.e. in Telok Panglima Garang and in the North Port of Port Klang. The refinery in Telok Panglima Garang processed CSPO to biofuel, whereas the refinery at the North Port processed CSPO into RBDPO for biodiesel.

The assessment team has verified that both refineries had clear procedures and able to demonstrate that they had taken all necessary measures to ensure that the CSPO was kept segregated from non certified palm oil.

On arrival at the refinery, the lorry tanker was weighed for gross and tare. The SCPO was pumped into a designated storage tank. The volume of SCPO (ullage level) in the tank was monitored daily by the plant operator. It was noted that the production line was emptied before the start of the processing of SCPO. In-process production report was available to trace the movement of the SCPO.

Finally the product (i.e. processed CPO (biofuel) and RBDPO) was stored in the designated storage tank. During site visit to the refinery at North Port, Port Klang, the assessment team had witnessed the activity for checking the level of storage tank (ullage checking). The volume of CSPO in the storage tank was monitored twice a day (at the beginning and end of the production shift). The inspection was carried out according to the procedures and data on the readings was recorded.

Biofuel, was then sent to the bulking facilities by lorry accompanied by the sales-related documents such as weighbridge ticket, dispatch note and certificate of analysis. Each of this document has the contract number and product description printed. The RBDPO was then sent to biodiesel plant for further processing.

Biodiesel

Upon arrival of the lorry tanker at the Biodiesel plant, the tanker was weighed and sample of the RBDPO was taken by laboratory staff for quality assurance prior to loading into the designated storage tank. The level of RBDPO in the storage tank level was monitored continuously via radar system and data were updated into the production system.

Each production unit operation was emptied before the start of the processing of RBDPO. The level of each unit operation was monitored at the control room by the process supervisor to ensure that there was no contamination with non certified material. The biodiesel produced was then channeled into a designated storage tank prior to dispatching by lorry to bulking facilities. The lorry accompanied by weighbridge ticket, certificate of analysis and loading form where the product description, contract number, seal number and destination code i.e. company name and storage tank number were printed on these document.

Storage bulking facilities

At the loading bay, it was observed that a signage complete with seal indicating the names of the
product and supplier to ensure that there was no contamination with non certified materials. The biofuel was stored at designated shore tank (i.e. shore tank no. 9, 15 and 19) while biodiesel was stored in shore tank namely T/P12. All shore tanks were provided with seals as to ensure security and to avoid mis handling by the operator.

During the assessment, it was observed that loading into the storage tank by lorry tanker with biofuel and biodiesel are in progress loading into the dedicated storage tank.

- **7.5 Record keeping**

  Procedure for record keeping was well established and the retention period was clearly defined at a minimum of five years. The relevant record was found to be up to date and well maintained. The information provided in the records enabled the tracing of the origin of the biofuel and biodiesel back to the source of crude palm oil.

- **7.6 Training**

  Relevant training related to traceability was provided to the staff and attendance on staff training was made available at related offices/premises. Based on random interviews held with the staff, it was found they were aware of the requirements of the supply chain system using the segregation model.

8. **Assessment Conclusion**

From the assessment and through evaluation of records and documentation as well as interviews, it was found that Sime Darby Plantation Sdn. Bhd. has established a documented and implemented the RSPO supply chain system fulfilling the requirements of the RSPO Supply Chain Certification Systems – November 2009 by using the segregation model.

The percentage of sustainable FFB and crude palm oil processed by Sime Darby Plantations Sdn Bhd for as in Table 3

<table>
<thead>
<tr>
<th>Palm Oil Mill</th>
<th>FFB processed (metric tonnes)</th>
<th>CPO production (metric tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sustainable FFB</td>
<td>Non-sustainable FFB</td>
</tr>
<tr>
<td>Tanah Merah</td>
<td>48,237.08</td>
<td>1,505.21</td>
</tr>
<tr>
<td>West</td>
<td>34,081.39</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>**82,318.47 *</td>
<td>**1,505.21 *</td>
</tr>
<tr>
<td></td>
<td>*(98.20%)</td>
<td>*(1.80%)</td>
</tr>
</tbody>
</table>

Note: * The total FFB processed and CPO production from Tanah Merah and West palm oil mills are for clients of Sime Darby including Hawaiian Electric Company and Maui Electric Company.

Based on the evidence gathered from the above table (refer Table 3) Sime Darby Plantation Sdn. Bhd. has conformed to the requirements stated in the RSPO Supply Chain Certification Systems, November 2009 by using the segregation model. The traceability system also was able to trace back the origin of the biofuel and biodiesel back to the source of crude sustainable palm oil from the two mills.