JCM Validation Report Form

A. Summary of validation

A.1. General Information

Title of the project	Reduction of Energy Consumption by Introducing an Energy-Efficient Waste Paper Processing System into a Packaging Paper Factory in Bekasi, West Java
Reference number	ID 011
Third-party entity (TPE)	Japan Quality Assurance Organization (JQA)
Project participant contracting the TPE	KANEMATSU CORPORATION
Date of completion of this report	29/11/2017

A.2 Conclusion of validation

Overall validation opinion	☒ Positive ☐ Negative

A.3. Overview of final validation conclusion

Only when all of the checkboxes are checked, overall validation opinion is positive.

Item	Validation requirements	No CAR or CL remaining
Project design document form	The TPE determines whether the PDD was completed using the latest version of the PDD forms appropriate to the type of project and drafted in line with the Guidelines for Developing the Joint Crediting Mechanism (JCM) Project Design Document, Monitoring Plan and Monitoring Report.	☒
Project description	The description of the proposed JCM project in the PDD is accurate, complete, and provides comprehension of the proposed JCM project.	☒
Application of approved JCM methodology (ies)	The project is eligible for applying applied methodology and that the applied version is valid at the time of submission of the proposed JCM project for validation.	☒
Emission sources and calculation of emission reductions	All relevant GHG emission sources covered in the methodology are addressed for the purpose of calculating project emissions and reference emissions for the proposed JCM project.	☒
	The values for project specific parameters to be fixed *ex ante* listed in the Monitoring Plan Sheet are appropriate, if applicable.	☒
Environmental impact assessment	The project participants conducted an environmental impact assessment, if required by the Republic of Indonesia, in line with Indonesia's procedures.	☒
Local stakeholder	The project participants have completed a local stakeholder consultation process and that due steps were taken to engage	☒

Item	Validation requirements	No CAR or CL remaining
consultation	stakeholders and solicit comments for the proposed project unless a local stakeholder consultation has been conducted under an environmental impact assessment.	
Monitoring	The description of the Monitoring Plan (Monitoring Plan Sheet and Monitoring Structure Sheet) is based on the approved methodology and/or Guidelines for Developing the Joint Crediting Mechanism (JCM) Project Design Document, Monitoring Plan, and Monitoring Report. The monitoring points for measurement are appropriate, as well as whether the types of equipment to be installed are appropriate if necessary.	☒
Public inputs	All inputs on the PDD of the proposed JCM project submitted in line with the Project Cycle Procedure are taken into due account by the project participants.	☒
Modalities of communications	The corporate identity of all project participants and a focal point, as well as the personal identities, including specimen signatures and employment status, of their authorized signatories are included in the MoC.	☒
	The MoC has been correctly completed and duly authorized.	☒
Avoidance of double registration	The proposed JCM project is not registered under other international climate mitigation mechanisms.	☒
Start of operation	The start of the operating date of the proposed JCM project does not predate January 1, 2013.	☒

Authorised signatory:	Mr. ☒ Ms. ☐
Last name: Asada	First name: Sumio
Title: Senior Executive	
Specimen signature: [redacted]	Date: 29/11/2017

B. Validation team and other experts

	Name	Company	Function*	Scheme competence*	Technical competence*	On-site visit
Mr. ☒ Ms. ☐	Tadashi Yoshida	JQA	Team leader	☒	Authorized	☒
Mr. ☒ Ms. ☐	Koichiro Tanabe	JQA	Technical Reviewer	☒	Authorized	☐
Mr. ☐ Ms. ☐				☐		☐
Mr. ☐ Ms. ☐				☐		☐

Please specify the following for each item.

* *Function: Indicate the role of the personnel in the validation activity such as team leader, team member, technical expert, or internal reviewer.*

* *Scheme competence: Check the boxes if the personnel have sufficient knowledge on the JCM.*

* *Technical competence: Indicate if the personnel have sufficient technical competence related to the project under validation.*

C. Means of validation, findings, and conclusion based on reporting requirements

C.1. Project design document form

<Means of validation>

The PDD form was checked and confirmed as complete in accordance with the JCM Guidelines for Developing Project Design Document and Monitoring Report (JCM_ID_GL_PDD_MR_ver02.1). A valid form of the JCM PDD form (JCM_ID_F_PDD_ver01.1) is used for the PDD of the proposed project (Version 0.1 dated 13/02/2017 for Initial draft and Version 1.2 dated 27/11/2017 for the final PDD). The validation was conducted on the initial draft of the PDD.

<Findings>

Please state if CARs, CLs, or FARs are raised, and how they are resolved.

No issues were identified to the requirement.

<Conclusion based on reporting requirements>

Please state conclusion based on reporting requirements.

JQA concludes that the PDD is completed using the latest version of the PDD form and drafted in line with the JCM Guidelines for Developing the JCM Project Design Document, Monitoring Plan and Monitoring Report.

C.2. Project description

<Means of validation>

The purpose of the proposed project is to reduce CO2 emissions from electricity consumption in the corrugated carton process of the packaging paper factory. The cardboad making process consists of mainly corrugated carton process (OCC process) and sheet forming process (PM process). In the proposed project, to achieve the reduction of electricity consumption in the OCC process per unit of paper production, PT Fajar Surya Wisesa Tbk, which is located in Cikarang Bar, Indonesia and is one of the leading companies of corrugated carton production in Indonesia, has decided to introduce higher energy-efficient technology from Aikawa Iron Works Co., Ltd. into an OCC line (Line 8) newly installed as a JCM project. The new technology provides less electricity consumption in the operation of the OCC line compared to the existing OCC line (Line 5) which is similar to Line 8 in the product.

In the OCC process consisting of four main components, the recycled waste paper is first liquefied with water by the use of pulper where the foreign substances such as plastics and others are removed, and then followed by the coarse/fine screen processes to remove small amounts of impurities from the material of paper sheet supplied to the next PM process. Thus, the installation of new pulper and coarse/fine screens with higher efficiency contributes to the great reduction of electricity consumption in the OCC line and the annual emission reductions of 19,011 tCO2/yr would be achieved by the proposed JCM project.

The project is implemented by PT Fajar Surya Wisesa Tbk. from the Republic of Indonesia and Kanematsu Corporation from Japan. The commissioning date of project facilities was 19/12/2016, which is supported by Start-Up Certificate signed by PT Fajar Surya Wisesa Tbk. and Kanematsu Corporation, and the starting date of the project monitoring activity was 01/04/2017, which is confirmed by the monitoring data collected from this date. The expected operational lifetime of the project is 12 years which is based on the legal durable years list issued by Ministry of Finance, Japan.

The project is partially supported by the Ministry of the Environment, Japan (MOEJ) through the Financing programme for JCM Model projects, which provided financial support of less than half of the initial investment for the projects in order to acquire JCM credits. As for technology transfer, Aikawa Iron Works Co., Ltd. has conducted OJT training on the operation and maintenance of newly installed equipments at the project site. The maintenance service after project operation start will be provided by Aikawa Iron Works Co., Ltd. It also contributes to technical transfer to the staff of PT Fajar Surya Wisesa Tbk. through maintenance experiences.

JQA has assessed the revised PDD and the supporting documents and conducted an on-site

inspection to validate the requirements about accuracy and completeness of the project description. The details of the persons interviewed and documents reviewed are provided in Section E of this report.

<Findings>

Please state if CARs, CLs, or FARs are raised, and how they are resolved.

No issue was raised to the requirement.

<Conclusion based on reporting requirements>

Please state conclusion based on reporting requirements.

JQA concludes that the description of the proposed JCM project in the revised PDD complies with the supporting documents and information obtained through the on-site visit and the interview with the PPs, and the description contained in the PDD is accurate, complete, and provides comprehension of the proposed JCM project.

C.3. Application of approved methodology(ies)

<Means of validation>

The approved methodology JCM_ID_AM012_ver01.0 "Reduction of Energy Consumption by Introducing an Energy-Efficient Old Corrugated Carton Processing System into a Cardboard Factory, Version 1.0" is applied to the proposed project. The methodology is approved by the JC on 20/02/2017 (JC6, Annex 5) and valid at the time of the validation.

JQA assessed whether the selected methodology was applicable to the proposed project. The project applicability was checked against four eligibility criteria contained in the approved methodology. The steps taken to validate each eligibility criterion and the conclusion about its applicability to the proposed project are summarized as follows:

Criterion 1: The specific energy consumption of the project OCC line guaranteed by the manufacture is, at the minimum, less than the reference specific energy consumption set for the project factory.

Justification in the PDD : Project specific energy consumption of Line 8 (0.120 MWh/ton for 1,400 ton/day) expected by Aikawa Iron Works is less than historical performance of Line 5 (0.188 MWh/ton) which produces equivalent product. [Note: ton implies BDt (Bone dry ton)]

Assessment and conclusion : It is confirmed through the review of the relevant documents provided by Aikawa Iron Works and the on-site inspection that the sum of the rated electricity consumption of equipments newly installed for the OCC Line 8 is 6,992.8 kW (6.993 MW) and the yield of daily paper production of Line 8 is 1,400 ton/day. Hence, the project specific

energy consumption of Line 8 gives 0.120 kWh/ton- paper production (= 6.993 MW x 24 hr/1,400 ton). This value is less than 0.188 MWh/ton of the reference OCC Line 5 which produces the similar paper product with Line 8.

Regarding the energy saving effect of Line 8 and the determination of reference specific electricity consumption, JQA raised CL 01 and CL 02 and these issues were resolved as explained in "Findings".

Criterion 2 : The paper yield of the project OCC line(s) guaranteed by the manufacture is equal to or more than 90% at the range of designed production capacity.
Justification in the PDD : The guaranteed paper yield is 92% in the project OCC Line 8 as shown in "6.4.4.2. Fiber Loss Amount" of the "Technical guarantees" provided by Aikawa Iron Works.
Assessment and conclusion : It is confirmed through the review of the technical specification provided by Aikawa Iron Works, on-site inspection and the interview with the PPs that Line 8 guarantees the paper yield of more than 92% from the waste paper feedstock except the foreign substanstances such as plastics. Therefore, JQA concludes that the Criterion 2 is satisfied.

Criterion 3 : Production capacity of the project OCC line is no more than the twice as large as the capacity of the existing OCC line.
Justification in the PDD : Project capacity of the OCC line (1,400 ton/day) is less than the twice as large as 1,150 ton/day, which is the maximum capacity of existing OCC Line 5 which produces equivalent product.
Assessment and conclusion : It is confirmed through the review of technical specification provided by Aikawa Iron Works, on-site inspection and the interview with the PPs that the paper production capacity of Line 8 is 1,400 ton/day and the maximum capacity of the existing OCC Line 5 is 1,150 ton/day. Thus, the capacity of Line 8 is less than the twice as large as the capacity of Line 5. Therefore, JQA concludes that the Criterion 3 is satisfied.

Criterion 4 : Plan for regular adjustment, replacement, and improvement of project OCC line(s) are prepared (at least once every six months).
Justification in the PDD : Aikawa Iron Works agreed with Fajar to give the appropriate advices for the stable operation of the Line 8 every 3 months with the visit at least every 6 months (Agreement signed on August 28, 2015).
Assessment and conclusion : Under the contract (Contract No. 3200003832 dated 28/08/2015) between PT Fajar Surya Wisesa Tbk and Kanematsu Corporation for Line 8, Aikawa Iron Works Co., Ltd. and PT Fajar Surya Wisesa Tbk made agreement on 28/08/2015 that Aikawa Iron Works Co., Ltd. visits PT Fajar Surya Wisesa Tbk with a target frequency of once per 3

months to give the appropriate advices for the stable operational performance and parts replacement based on the equipment's inspections of Line 8. The frequency of the visit could be as many as at least once per six months and this Agreement is effective for the period of 12 years from the date indicated on the Start-up Certificate of Line 8 (i.e., 19/12/2016). It is confirmed through the review of these documents and the interview with the PPs that the plan for regular adjustment, replacement and improvement of Line 8 is prepared.

Regarding the service plan for the project OCC line, JQA raised CL 03 and this issue was resolved as explained in "Findings".

<Findings>

Please state if CARs, CLs, or FARs are raised, and how they are resolved.

CL 01

As for Criterion 1, project specific energy consumption of Line 8 gives energy saving of 36% (= (0.188-0.120)/ 0.188 x 100), which is much larger than the target value of 10%. This inconsistency is to be clarified.

Resolution of CL 01 by the PPs :

The description in A.2 of the PDD is clarified to avoid confusion due to the different definition of "reductions". It is confirmed through the review of the relevant documents and the interview with the PPs that the project specific electricity consumption of Line 8 (0.120 MWh/ton) for a capacity of 1,400 ton/day is guaranteed by Aikawa Iron Works Co., Ltd. and this value is apparently less than the historical performance of Line 5 (0.188 MWh/ton) which produces the equivalent product with Line 8. The operation of the highly efficient OCC line would contribute to the large reductions in the emission reductions. Thus, CL 01 is closed.

CL 02

As for Criterion 1, the reference specific electricity consumption based on data of Line 5 (SEC_RE) is calculated using the data of electricity consumption and paper production in 2013-2014. The PPs are requested to justify the use of 2013-2014 data of Line 5 in accordance with the requiement in the methodology ID_AM012_ver01.0.

Resolution of CL 02 by the PPs :

The calculation of SEC_RE is revised based on the data of 2016. The result is almost the same as that of 2013-2014. It is confirmed through the review of the 2016 data from Line 5, in accordance with the requirement of the methodology ID_AM012_ver01.0, that the re-calculated reference specific electricity consumption of the OCC Line 5 is 0.188 MWh/ton. Thus, CL 02 is closed.

CL 03

As for Criterion 4, the PPs are requested to provide the plan for regular adjustment, replacement, and improvements of the project OCC line(s).

Resolution of CL 03 by the PPs:

Aikawa Iron Works Co., Ltd. agreed with PT Fajar Surya Wisesa Tbk to give the appropriate advices for the stable operation of Line 8 every three months with the visit at least every six months (Agreement signed on 28/08/2015). It is confirmed through the review of the Agreement (Contract No. 3200003882 B) and the interview with the PPs that the plan for regular adjustment, replacement and improvements of the project OCC Line 8 was prepared through the agreement between Aikawa Iron Works Co., Ltd. and PT Fajar Surya Wisesa Tbk on 28/08/2015. Thus, CL 03 is closed.

<Conclusion based on reporting requirements>

Please state conclusion based on reporting requirements.

JQA concludes that the proposed project is eligible for applying the valid version of the approved methodology ID_AM012_ver01.0 and all eligibility criteria have been met by the proposed JCM project.

C.4. Emission sources and calculation of emission reductions

<Means of validation>

The proposed project aims to reduce the electricity consumption from the OCC line in the corrugated carton production process by introducing higher energy efficient technologies. The sources of GHG emissions are electricity consumption by the reference OCC line and the project OCC line. The annual electricity consumption by the project OCC line (Line 8) is estimated to be 50,400 MWh for the paper production of 420,000 ton/yr. There is captive power generators using natural gas on-site to supply electricity continuously to a packaging paper factory of PT Fajar Surya Wisesa Tbk. The gross heat rate of the generator is 11,660 kJ/kWh which is sourced from the manufacturer's specification. The proposed project consumes electricity from both the captive power plant and the grid (JAMALI grid system), and the ratio of electricity consumption from the captive power plant and the grid is 87.5% and 12.5%, respectively, based on the data in 2014.

The CO2 emission factor of the grid electricity is determined as 0.903 tCO2/MWh (ex-post) based on the latest data (2015), sourced from "Emission Factors of Electricity Interconnection Systems" published by National Committee on CDM Indonesian Designated

National Authority (DNA), based on data obtained by Directorate General of Electricity, Ministry of Energy and Mineral Resources, Indonesia. The CO2 emission factor of the captive power plant using natural gas is determined as 0.633 tCO2/MWh (= 11,660 kJ/kWh x 54.3 tCO2/TJ x 10^-6), based on the manufacturer's specification and the 2006 IPCC lower value for emission factor of natural gas. Therefore, the combined CO2 emission factor of electricity consumed by the proposed project is determined to be 0.666 tCO2/MWh (= (0.903 x 0.125) + (0.633 x 0.875)).

The reference specific electricity consumption of the OCC line (SEC_RE) which is calculated ex-ante by using the historical data (more than 300 data sets) of the existing OCC Line 5 in 2016 is correctly determined to be 0.188 MWh/ton in accordance with the requirements of the approved methodology.

The GHG emission reductions during the period p are calculated by the following equations, in line with the approved methodology:

ERp = REp - PEp

= Σ(EC_RE,j,p x EF_elec } - Σ(EC_PJ,j,p x EF_elec)

= Σ(SEC_RE x PP_j,p x EF_elec) - Σ(EC_PJ,j,p x EF_elec)

The annual GHG emission reductions are calculated from the reference specific electricity consumption (SEC_RE) of the existing OCC Line 5, weight of paper production (PP_j,p), electricity consumption of the new OCC Line 8 (EC_PJ,j,p) and combined CO2 emission factor of electricity consumed (EF_elec). The annual emission reductions are calculated as follows:

ERp = (0.188 MWh/ton x 420,000 ton/yr x 0.666 tCO2/MWh) - (50,400 MWh/yr x 0.666 tCO2/MWh)

= 52,578.0 - 33,566.4

= 19011.6 tCO2/yr

The proposed project was commissioned on 19/12/2016 and started monitoring activity on 01/04/2017 after test operation. The GHG emission reductions in 2017 are estimated to be 14,258 tCO2 and the sum of the emission reductions up to 2020 is estimated to be 71,291 tCO2.

It is confirmed through the review of relevant documents and on-site inspection that all GHG emission sources specified by the applied methodology are identified, and the reference emissions, project emissions and emission reductions in the PDD_(ver.1.2) and Monitoring Plan Sheet are correctly calculated, in accordance with the methodology ID_AM012.ver01.0.

Regarding the parameters to be provided in MPS, JQA raised CAR 04 and this issue was resolved as explained in "Findings".

<Findings>

Please state if CARs, CLs, or FARs are raised, and how they are resolved.

CAR 04

The parameters necessary to calculate the reference and project emissions such as SEC_RE, PP_j,p, EF_elec, EC_PJ.j.p, are not provided in the cell of MPS (calc_process) sheet.

Resolution of CAR 04 by the PPs :

The sheet of MPS (calc_process) is protected and does not allow the users to edit them, just referring the results from the previous sheet. It is confirmed through the review of the MPS approved by the Joint Committee that the sheet is protected not to edit by the users. Thus, CAR 04 is closed.

<Conclusion based on reporting requirements>

Please state conclusion based on reporting requirements.

JQA concludes that all relevant GHG emission sources covered in the approved methodology are addressed for the purpose of calculating project emissions, reference emissions and emission reductions for the proposed JCM project and the values for the project specific parameters to be fixed ex-ante listed in the Monitoring Plan Sheet are correctly determined.

C.5. Environmental impact assessment

<Means of validation>

The proposed project introduces an energy-efficient waste paper processing system into a packaging paper factory to reduce electricity consumption by the OCC line in a corrugated carton production process. The PDD states that an environmental impact assessment is required by laws of the host country. According to Environmental Protection and Management Act (EPMA) No.32/2009, there are three categories of environmental management and reporting, depending on the significance of the environmental impacts of project activity, i.e. AMDAL (Environmental Impact Assessment), UKL/UPL (Environmental Management and Monitoring) and SPPL (Statement and Management Capability).

The proposed project is classified into UKL/UPL because of no significant impacts on the environment. The UKL/UPL report was submitted to Environmental Management Bureau of Bekasi local government by PT Fajar Surya Wisesa Tbk on 29/01/2015 and approved with approval letter (660.2.1./084/TL&ADL/BPLH) on 01/04/2015. In addition , the PPs got Environmental Permit (503.9.a/Kep 127/BPMPPT/V/2015) from Investment Board and Integrated Licensing Services of Government of Bekasi Regency on 06/05/2015, under the Government regulation of No. 27/2012.

It is confirmed through the review of the relevant documents and the interview with the PPs that the proposed project has no significant impacts on the environment and therefore

UKL/UPL report was successfully approved by the local government.

Regarding the conclusion of environmental assessment, Jqa raised CAR 01 and this issue was resolved as explained in "Findings".

<Findings>

Please state if CARs, CLs, or FARs are raised, and how they are resolved.

CAR 01

The conclusion of environmental assessment shall be attached in case the PPs selected "Yes", in accordance with the Guideline of the PDD.

Resolution of CAR 01 by the PPs:

In addition to the EIA (UKL-UPL) obtained in 2015 (660.2.1/084/TL&ADL/BPLH), Fajar owns the Environmental Permit (Nomor: 503.9.a/Kep 127/ BPMPPT/V/2015). EIA (UKL-UPL) is governed by the Indonesian Law Number 32 (2009). While the Environmental Permit is governed by Government Regulation Number 27 (2012). Both the Permit and EIA complement each other. It is confirmed through the review of the relevant documents and the interview with the PPs that the proposed project has no significant impacts on the environment and therefore the UKL/UPL report was approved by the local government on 01/04/2015. In addition to this, Environmental Permit was issued by the local authority on 06/05/2015. Thus, CAR 01 is closed.

<Conclusion based on reporting requirements>

Please state conclusion based on reporting requirements.

JQA concludes that the PPs have conducted an environmental impact assessment (UKL/UPL) and got the approval and permit from the local authorities, in line with procedures as required by the Republic of Indonesia.

C.6. Local stakeholder consultation

<Means of validation>

The PPs conducted a local stakeholder consultation under an environmental impact assessment at the mill site of PT Fajar Surya Wisesa Tbk on 20/12/2016. Prior to the meeting, the opening notice of the local stakeholder consultation was distributed to the stakeholders. The name of the organization participated in the consultation are as follows:

- JCM Secretariat of Indonesia
- Coordinating Ministry of Economic Affairs
- Ministry of Industry

- Indonesian Pulp and Paper Association
- PT Fajar Surya Wisesa Tbk
- Kanematsu Corporation
- AAikawa Iron Works Co., Ltd.
- Nomura Research Institute
- SUNCOSMO

As there is no residence near the area where any environmental impact could be caused by the proposed project, the representative of the residents is not included in the participants.
The local stakeholders provided positive comments for the proposed project. No negative issues that require actions to be taken by the PPs were raised through the consultation. It is confirmed through the review of the relevant documents and the interview with the PPs that the stakeholder consultation process was appropriately conducted to collect stakeholders' opinions about the project. The summary of the comments received in the consultation and due account of all comments taken by the PPs are fully described in the PDD.

<Findings>

Please state if CARs, CLs, or FARs are raised, and how they are resolved.

No issue was identified to the requirement.

<Conclusion based on reporting requirements>

Please state conclusion based on reporting requirements.

JQA concludes that the PPs have completed a local stakeholder consultation process under an environmental impact assessment and invited comments on the proposed project from the local stakeholders. The summary of the comments received is provided in the PDD in a complete manner and the PPs have taken due account of all the comments received and described this process in the PDD.

C.7. Monitoring

<Means of validation>

The description of the monitoring plan (Monitoring Plan Sheet and Monitoring Structure Sheet) is based on the approved methodology ID_AM012_ver01.0. Two monitoring parameters, i.e., paper production weight measured at the PM line connected to the project OCC line j during the period p (PP_j,p) and electricity consumption by the project OCC line j during the period p (EC_PJ,j,p), are measured by the weight bridge and electricity meter, respectively, and the measured data is automatically transmitted to the remote server/PC for recording. The monitoring point is located at the end of the PM line for paper production

weight and at the end of the OCC line for electricity consumption of pulper, coarse/fine screen processes, respectively.

The paper production weight and electricity consumption are monitored hourly and recorded monthly for aggregation and the data recorded is double-checked by a responsible staff on a monthly basis to prevent the missing of data. The weight bridge is calibrated by a qualified entity (Government of Karawang, Industrial and Trade Service, Regional Technical Implementation Unit for Metrology Legal) every year in compliance with international recommendation OIML R 76-1:2002. In case a calibration certificate issued by an entity accredited under national/ international standards is not provided at the time of verification, the weight bridge is required to be calibrated. The periodic calibration of electricity meter, except a test for shipping, is not required according to the manufacturer's specification.

The data monitored and required for verification and issuance is kept and archived electronically for two years after the final issuance of credits.

The roles and responsibilities of the personnels are described in Monitoring Structure Sheet in accordance with the requirements of the applied methodology. The monitoring structure consists of Project Director, Project Leader, Project Manager and Monitoring Manager. Monitoring Manager is responsible for monitoring, collecting and archiving of data as well as the calibration of the measuring equipment. He reports the data to the Project Leader. Project Leader is reported the monitored data from Monitoring Manager and is responsible for the checking of the data. Project Manager is a point of contact related to all JCM inquiries, including JCM Secretariat Indonesia. He prepares the monitoring report.

It is confirmed through the review of the relevant documents and the interview with the PPs that the monitoring plan complies with the requirements of the approved methodology and the PPs will be able to implement the monitoring activity appropriately according to the monitoring plan.

Regarding the calibration information of measuring equipment and the archiving procedure of data, JQA raised CAR 02 and CAR 03 and these issues were resolved as explained in "Findings".

<Findings>

Please state if CARs, CLs, or FARs are raised, and how they are resolved.

CAR 02

Following issues are raised:

1) The PPs are requested to provide information on calibration frequency of electricity meter and weight bridge in MPS, in accordance with the Guideline of the PDD (para. 31),

2) The PPs are requested to provide calibration certificate in case the electricity meter and weight bridge are already calibrated.

Resolution of CAR 02 by the PPs :
1) Weight bridge is to be calibrated annually in accordance with the international recommendation OIML R 76-1:2006. The electricity meter does not require additional calibration as specified in the manufacturer's specification.
2) The calibration certificate of weight bridge in 2016 is provided.

It is confirmed through the review of the relevant documents and the interview with the PPs that the calibration of measuring equipment is conducted at the frequency specified in the manufacturer's specification or international recommendation. Thus, CAR 02 is closed.

CAR 03
The PPs are requested to describe archiving procedures of data in MPS in accordance with the Guideline of the PDD (para. 28).

Resolution of CAR 03 by the PPs: It is mentioned in the MPS that "Compiled data is to be stored electronically for 2 years after the end of the JCM project." It is confirmed through the review of the MPS that the description on the archiving procedures is added in MPS, in accordance with the PDD Guideline (para. 28). Thus, CAR 03 is closed.

<Conclusion based on reporting requirements>
Please state conclusion based on reporting requirements.

JQA concludes that the description of Monitoring Plan is based on the approved methodology and Guidelines for Developing the JCM project design document (PDD) and Monitoring Plan, and the monitoring points as well as monitoring equipment for measurement are also appropriate. Thus, the PPs have demonstrated feasibility of the monitoring structure and their abilities to implement the monitoring activity appropriately.

C.8. Modalities of Communication

<Means of validation>

JQA obtained the MoC from the PPs on 16/08/2017 for review in which Kanematsu Corporation is nominated as the focal point entity. The form used is the latest version (JCM_ID_F_MoC_ver01.0) at the time of validation. The MoC is signed by the authorized representatives of all the PPs with the contact details on 23/06/2017.

JQA has checked the personal identities including specimen signatures and employment status of the authorized signatories directly through the interview with the PPs during the site-visit. Primary authorized signaory of Kanematsu Corporation is Mr. Makoto Yokoshi,

Manager of Industrial Machinery & Plant Section, Plant & Ships Department and Alternate authorized signatory is Mr. Norio Asami, Assistant manager of the same department. Primary authorized signatory of PT Fajar Surya Wisesa Tbk is Mr. Roy Teguh, Director and Alternate authorized signatory is Mr. Marco Hardy, Finance manager. It is confirmed that all corporate and personal details including specimen signatures and the information contained in the MoC are valid and accurate as requested in the JCM Guidelines for Validation and Verification.

<Findings>

Please state if CARs, CLs, or FARs are raised, and how they are resolved.

No issue was raised to the requirement.

<Conclusion based on reporting requirements>

Please state conclusion based on reporting requirements.

JQA concludes that the MoC is completed using the latest version of the form and the information and the specimen signature of the PPs contained in the MoC are correct and sufficient, in compliance with the requirements of the JCM Guidelines. It is demonstrated that the MoC has been correctly completed and dully authorized.

C.9. Avoidance of double registration

<Means of validation>

The representative of focal point entity, Mr. Makoto Yokoshi, Manager of Industrial Machinery & Plant Section, Plant & Ships Department of Kanematsu Corporation, declares in the MoC that the proposed project is not registered under any other international climate mitigation mechanism other than the JCM. It is confirmed through the check of publicly available information of Clean Development Mechanism (CDM), Verified Carbon Standard (VCS), etc. that the proposed project is not registered under any other international climate mitigation mechanisms in terms of the name of entity, applied technology, scale and the location.

<Findings>

Please state if CARs, CLs, or FARs are raised, and how they are resolved.

No issue was raised to the requirement.

<Conclusion based on reporting requirements>

Please state conclusion based on reporting requirements.

JQA concludes that the proposed project is not registered under any other international

climate mitigation mechanisms and hence will not result in double counting of GHG emission reductions.

C.10. Start of operation

<Means of validation>

For the proposed project, the machine commissioning was completed on 19/12/2016 as agreed between Kanematsu Corporation and PT Fajar Surya Wisesa Tbk in Start-Up Certificate. After completing the Accceptance Test, the proposed project started monitoring activity on 01/04/2017. Furthermore, the staff training for operation, monitoring and maintenance of the system was conducted in June and August 2017. It is confirmed through the review of relevant documents, on-site inspection and the interview with the PPs that the starting date of the proposed project given in the PDD, 01/04/2017, is correct and the staff training for PT Fajar Surya Wisesa Tbk was appropriately implemented.

<Findings>

Please state if CARs, CLs, or FARs are raised, and how they are resolved.

No issue was raised to the requirement.

<Conclusion based on reporting requirements>

Please state conclusion based on reporting requirements.

JQA concludes that the starting date of project operation is 01/04/2017 and does not predate 01/01/2013 as required by the Guideline of the JCM project.

C.11. Other issues

<Means of validation>

There is no issue.

<Findings>

Please state if CARs, CLs, or FARs are raised, and how they are resolved.

Not applicable.

<Conclusion based on reporting requirements>

Please state conclusion based on reporting requirements.

Not applicable.

D. Information on public inputs

D.1. Summary of public inputs

In line with the JCM Project Cycle Procedure, the PDD was made publicly available for 30 days from 22/07/2017 to 20/08/2017 to invite public comments on the JCM website.
https://www.jcm.go.jp/id-jp/information/70
No public comments were received.

D.2. Summary of how inputs received have been taken into account by the project participants

Not applicable

E. List of interviewees and documents received

E.1. List of interviewees

Mr. Wimba Wibawa Wanadiardja	Director, PT Fajar Surya Wisesa Tbk
Mr. Marco Hardy	Finance Manager, PT Fajar Surya Wisesa Tbk
Mr. Shandy Koeswanto	Corporate Finance, PT Fajar Surya Wisesa Tbk
Mr. Sarwi	Health Safety & Environment Division, PT Fajar Surya Wisesa Tbk
Mr. Naoki Matsuo	Senior Research Fellow, Climate Experts Ltd.

E.2. List of documents received

- PDD, version 0.1 13/02/2017, version 1.0 18/09/2017, version 1.2 27/11/2017.
- MPS and MSS, version 0.1 13/02/2017, version 1.0 18/09/2017, version 1.2 27/11/2017
- Methodology ID_AM012_ver01.0 approved on 10/02/2017 (JC6, Annex 5)
- Modalities of Communication, 30/06/2017
- Historical data of electricity consumption and paper production weight of Line 5 in 2016
- Process flow diagram of packaging paper factory including corrugated carton production process

- Flow diagram overview of the OCC process
- Plant layout of Fajar Paper PM8
- Feasibility Study Report on the proposed project (JCM FS Final Report), 2014: "Introduction of Energy-Efficient Old Corrugated Cartons Process at a Paper Factory".
- Fajar Paper 2016 Annual Report, including company's profile. http://www.fajarpaper.com/products/our-products
- Kanematsu Corporate Profile 2017 http://www.kanematsu.co.jp/en/
- Profile of Aikawa Iron Works Co., Ltd. http://www.kanematsu.co.jp/en/
- Commissioning of stock preparation system for PM8 (Line 8), Start-up Certificate dated 19/12/2016
- Monitoring data of electricity consumption and paper production of Line 8 in April 2017 for starting date of project operation
- Legal durable years list issued by Ministry of Finance, Japan, for operational lifetime of the project
- List of equipment installed in Line 8 and the sum of electricity consumption
- Aikawa newest OCC treating system for corrugate medium in 2014
- Technical guarantees of Line 8 prepared by Aikawa Iron Works Co., Ltd.
- Supply contract (No. 3200003882-1) between PT Fajar Surya Wisesa Tbk and Kanematsu Corporation
- Maintenance plan agreed by Aikawa Iron Works Co., Ltd and PT Fajar Surya Wisesa Tbk dated 28/08/2015 (No. 3200003882 B)
- UKL/UPL (Environmental Management and Monitoring) of the proposed project submitted to Environmental Management Bureau of Bekasi local government on 29/01/2015
- Approval letter of UKL/UPL (660.2.1./084/TL&ADL/BPLH) on 01/04/2015.
- Environmental Permit (503.9.a/Kep 127/BPMPPT/V/2015) of the proposed project from Investment Board and Integrated Licensing Services of Government of Bekasi Regency on 06/05/2015
- Minutes of local stakeholder consultation held on 19/12/2016
- Presentation material for the local stakeholder consultation
- Schematic diagram of monitoring structure for the proposed project
- User guide - Power Logic TM PM5300 Series Power and Energy Meter issued by Schneider Electric
- Mettler Toledo - Terminals PLC Interface Manual IND131/IND331
- Calibration certificate of weight bridge issued by Government of Karawang, Industrial and Trade Service, Regional Technical Implementation Unit for Metrology Legal in 2016
- International Recommendation OIML R 76-1: 2006, Part 1- Metrological and technical requirements-Tests

- Training text - ABB DCS 800xA Industrial I
- Attendee list of training conducted in June and August 2017

Annex Certificates or curricula vitae of TPE's validation team members, technical experts and internal technical reviewers

Please attach certificates or curricula vitae of TPE's validation team members, technical experts and internal technical reviewers.

Statement of competence

Name: Dr. Tadashi Yoshida

Qualified and authorized by Japan Quality Assurance Organization.

Function

	Date of qualification
Validator	2014/12/22
Verifier	2014/12/22
Team leader	2014/12/22

Technical area within sectoral scopes

	Date of qualification
TA 1.1. Thermal energy generation	2014/12/22
TA 1.2. Renewables	2014/12/22
TA 3.1. Energy demand	2014/12/22
TA 4.1. Cement and lime production	2015/11/12
TA 4.6. Other manufacturing industries	2014/12/22
TA 5.1. Chemical industry	2014/12/22
TA 10.1. Fugitive emissions from oil and gas	2014/12/22
TA 13.1. Solid waste and wastewater	2014/12/22
TA 14.1. Afforestation and reforestation	-

Statement of competence

Name: Mr. Koichiro Tanabe

Qualified and authorized by Japan Quality Assurance Organization.

Function

	Date of qualification
Validator	-
Verifier	2014/12/22
Team leader	2014/12/22

Technical area within sectoral scopes

	Date of qualification
TA 1.1. Thermal energy generation	2014/12/22
TA 1.2. Renewables	2014/12/22
TA 3.1. Energy demand	2014/12/22
TA 4.1. Cement and lime production	-
TA 4.6. Other manufacturing industries	2014/12/22
TA 5.1. Chemical industry	2014/12/22
TA 10.1. Fugitive emissions from oil and gas	2014/12/22
TA 13.1. Solid waste and wastewater	2014/12/22
TA 14.1. Afforestation and reforestation	-