JCM Verification Report Form

A. Summary of verification

A.1. General Information

Title of the project	Eco-Driving by Utilizing Digital Tachograph System
Reference number	VN001
Monitoring period	01/08/2015 – 30/06/2016
Date of completion of the monitoring report	25/08/2017
Third-party entity (TPE)	Lloyd's Register Quality Assurance Limited
Project participant contracting the TPE	Nippon Express Co., Ltd.
Date of completion of this report	28/08/2017

A.2 Conclusion of verification and level of assurance

Overall verification opinion	☒ Positive ☐ Negative
☒ Unqualified opinion	Based on the process and procedure conducted, *Lloyd's Register Quality Assurance Limited (LRQA)* (TPE's name) provides reasonable assurance that the emission reductions for *Eco-Driving by Utilizing Digital Tachograph System* (project name) ✓ Are free of material errors and are a fair representation of the GHG data and information, and ✓ Are prepared in line with the related JCM rules, procedure, guidelines, forms and other relevant documents
(If overall verification opinion is negative, please check below and state its reasons.) ☐ Qualified Opinion ☐ Adverse opinion ☐ Disclaimer	<State the reasons>

A.3. Overview of the verification results

Item	Verification requirements	No CAR or CL remaining
The project implementation with	The TPE determines the conformity of the actual project and its operation with the eligibility criteria of	☒

Item	Verification requirements	No CAR or CL remaining
the eligibility criteria of the applied methodology	the applied methodology.	
The project implementation against the registered PDD or any approved revised PDD	The TPE assesses the status of the actual project and its operation with the registered/validated PDD or any approved revised PDD.	☒
Calibration frequency and correction of measured values with related requirements	If monitoring Option C is selected, the TPE determines whether the measuring equipments have been properly calibrated in line with the monitoring plan and whether measured values are properly corrected, where necessary, to calculate emission reductions in line with the PDD and Monitoring Guidelines.	☒
Data and calculation of GHG emission reductions	The TPE assesses the data and calculations of GHG emission reductions achieved by/resulting from the project by the application of the selected approved methodology.	☒
Avoidance of double registration	The TPE determines whether the project is not registered under other international climate mitigation mechanisms.	☒
Post registration changes	The TPE determines whether there are post registration changes from the registered PDD and/or methodology which prevent the use of the applied methodology.	☒

Authorised signatory:	Mr. ☒	Ms. ☐
Last name: Chiba	First name: Michiaki	
Title: Climate Change Manager - Asia & Pacific		
Specimen si [redacted]		Date: 28/08/2017

B. Verification team and other experts

	Name	Company	Function*	Scheme competence*	Technical competence*	On-site visit
Mr. ☒ Ms. ☐	Michiaki Chiba	LRQA Ltd.	Verification team leader	☒	Technical competence authorised	☒
Mr. ☒ Ms. ☐	Nguyen Thang	External expert	Host country expert	☐	N/A	☒
Mr. ☐ Ms. ☐				☐		☐
Mr. ☒ Ms. ☐	Xianxin Yan	LRQA China	Internal reviewer	☒	N/A	☐

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 verification, findings and conclusions based on reporting requirements

C.1. Compliance of the project implementation and operation with the eligibility criteria of the applied methodology

<Means of verification>

LRQA has determined during the verification process that the actual implementation and operation of the project has been conducted in conformance with the eligibility criteria of the applied methodology.

The project applied the approved methodology: JCM_VN_AM001_ver02.0 "Transportation energy efficiency activities by installing digital tachograph systems".

LRQA assessed by means of an on-site visit that the physical features of the project are in place and that the project participants (PPs) have operated the project as per the eligibility criteria of the applied methodology. The steps taken to verify each eligibility criterion and the conclusions about implementation of the project are summarised as below. Through the post registration change process, the PPs applied the revised methodology to the revised PDD that were the subjects for the verification.

Criterion 1: This methodology applies to freight vehicle fleets to which a digital tachograph system has been installed.

Justification in the PDD: Each freight vehicles under the proposed project are equipped with digital tachograph system. Total 130 digital tachograph systems will be implemented under the project. A list of the participating vehicles at the time of validation is provided in Annex II of the PDD.
Steps taken for assessment: The verification team reviewed the project documentation, supporting evidence and conducted on site assessment.
Conclusion: Based on the verification processes taken, the verification team confirmed that the project was implemented with the freight vehicles to which digital tachograph systems were installed. Through the process of requesting post registration change, 9 out of 124 vehicles included in the originally registered PDD were replaced and 6 new vehicles were added that relevant documentation was assessed as the Validation Opinion issued to the request of the PPs on a voluntary basis. The verification team conducted on site assessment including physical observation and interviewing the related parties and confirmed that the project was implemented with total 130 freight vehicles installed with digital tachograph system. The post registration change was approved as below and the Criterion 1 was confirmed as satisfied.

Criterion 2: Data of fuel consumption and distance travelled before activation of digital tachograph system is available for each freight vehicle, except for the cases of application of Option (c) to the reference fuel efficiency (ηRE,i) in Section F.2. The data is to be collected for at least 60 days within 4 months of lower monthly mean temperature of the year (November, December, January and February).
Justification in the PDD: The project includes only vehicles in the fleet, with which data for fuel consumption and distance travelled before the activation of the digital tachograph system are available, or which applies Option (c) to the reference fuel efficiency (ηRE,i) in Section F2 of the applied methodology. The data are collected for at least 60 days for each vehicle in the period 01/11/2014 – 28/02/2015.
Steps taken for assessment: The verification team reviewed the project documentation, supporting evidence and conducted on site assessment.
Conclusion: The reference fuel efficiency was determined at the validation stage based on the available data and no change was made during the monitoring period for 115 freight vehicles included in the originally registered PDD and remained in the first monitoring period. The PPs applied the procedures for determining the reference fuel efficiency based on the revised methodology for the 15 new vehicles added/replaced in the post registration change. The post registration change was approved as below and the Criterion 2 was confirmed as satisfied.

Criterion 3: The project includes feedback of a driver's performance with the graphical representation to the driver regularly, at least once in three months.

Justification in the PDD: The project includes feedback of the driver's performance with graphical representation at least once a month.
Steps taken for assessment: The verification team conducted on site assessment, reviewed training records and interviewed related persons.
Conclusion: It was confirmed through the verification processes that the PPs implemented the established procedures for training of drivers including regular graphical representation of feedbacks of driver's performance using the outputs of the digital tachograph system more frequently than once a month. Therefore the Criterion 3 was satisfied through the first monitoring period.

Criterion 4: The project does not involve a fuel switch in existing freight vehicles, except for an optional switch to biofuel blends where the blending ratio is not greater than 20% by volume, in which case emission reductions are discounted by the percentage of biofuel in the blend.
Justification in the PDD: The project does not involve fuel switch in existing freight vehicles. In case of an optional switch to biodiesel blends where the blending ration is not greater than 20 % by volume, the emission reductions will be discounted accordingly by the percentage of biofuel in the blend.
Steps taken for assessment: The verification team reviewed records of fuel purchased, conducted on site assessment and interviewed the PPs.
Conclusion: The verification team confirmed that the project did not include a fuel switch of the existing freight vehicles and biofuel was used during the first monitoring period. Therefore the Criterion 4 was satisfied.

Criterion 5: The project participants identify each freight vehicle included in the project, and ensure that the type of service of the freight vehicle is the same before and during the project (e.g. refrigeration vehicle remains as a refrigeration vehicle, etc.).
Justification in the PDD: All 130 participating freight vehicles are identified by their plate numbers. The type of service of the vehicles is specified and is not expected to change after the project implementation. In case the type of services changes after the project implementation for any particular vehicles, that vehicle will be excluded from the project.
Steps taken for assessment: The verification team reviewed the project documentation, supporting evidence and conducted on site assessment.
Conclusion: Through the verification processes taken, the verification team confirmed that there was no change in type of services during the first monitoring period including the freight vehicles added/replaced in the post registration change. The post registration change was approved as below and the Criterion 5 was confirmed as satisfied.

Criterion 6: A plan to present new reference data for freight vehicles of new routes in case route changes have occurred due to construction of new expressways or to modal shift after the introduction of the project is prepared.
Justification in the PDD: A declaration confirming that a plan to present new reference data for freight vehicles of new routes in case route changes have occurred due to construction of new expressways or to modal shift after the introduction of the project is provided in Annex I to the PDD. A summary of the plan is prepared and presented to the TPE.
Steps taken for assessment: The verification team reviewed the project documentation, supporting evidence, conducted on site assessment, and interviewed related persons.
Conclusion: Through the processes of verification taken, the verification team confirmed changes did not take place during the first monitoring period on the transportation routes by reasons such as construction of new expressways or modal shift after validation and registration of the project. Therefore the plan to present new reference data for freight vehicles of new routes was not required to be applied during the first monitoring period and the verification team confirmed the status of the project's conformance to the eligibility condition remained unchanged during the monitoring period.

The verification team confirmed that the eligibility condition is satisfied by the project by reviewing records of activities and interviewing the PPs through the on site assessment with the findings and the resolution below.
The details of the persons interviewed and the documents reviewed are shown in the Section F of this report.
<**Findings**>
Please state if CARs, CLs, or FARs are raised, and how they are resolved.
Grade / Ref: CAR 2
Nature of the issue raised: The PPs were requested to demonstrate that the project has been implemented in compliance with the applied methodology and the post registration change has been addressed with the revised methodology approved by the JC.
Nature of responses provided by the PPs: The revised methodology has been approved by the JC. The PPs requested the post registration change to the registered project, so that the approved revision to the applied JCM methodology is reflected into the PDD. The request for post registration change was approved by the JC.
Assessment of the responses: The verification team confirmed that the post registration change with application of the revised version of the approved methodology has been approved by the JC and the project implementation in accordance with the registered PDD with the post registration change approved by the JC has been demonstrated in the MR as appropriate. The CAR 2 was closed.

<Conclusion based on reporting requirements> *Please state conclusion based on reporting requirements.* The verification team confirmed that the project has been implemented in conformity with the eligibility criteria of the applied methodology.

C.2. Assessment of the project implementation against the registered PDD or any approved revised PDD

<Means of verification> The project is to improve transportation fuel efficiency in diesel-fired transportation fleet vehicles of Nippon Express (Viet Nam) Co., Ltd. through the use of a digital tachograph system, while providing the same level of freight transportation services. The digital tachograph system is composed of the hardware and software, and applied with a tailor-made driver training system. The hardware component consists of an on board terminal with a feedback indicator installed in each vehicle, and a server that will collect and process the information received via wireless signal from each vehicle. Sound indicators will warn the drivers in instances of inefficient driving. All the information is collected and processed using specialized software. The system enables the recording and analysis of driving patterns for use in personalized education in efficient driving principles. Each driver will receive individual feedback and evaluation of their skills from their supervisors. Regular group trainings are also planned. In this way safer and more efficient driving patterns are expected to be introduced, leading to less fossil fuel consumption and less GHG emissions. The project has two main operational bases in Hanoi and Ho Chi Minh City. Information of project locations is provided for Nippon Express (Vietnam) Co., Ltd.'s Quang Minh Warehouse for Hanoi operations and Song Than Logistics Center for Ho Chi Minh City operations. The project implementation will lead to technology and know-how transfer from Japan. The digital tachograph system has already been introduced throughout the Nippon Express' operation in Japan. The Nippon Express has implemented a similar project in Malaysia under CDM "Nittsu Fuel Efficiency Improvement with Digital Tachograph Systems on Road Freight Transportation CDM Project in Malaysia" (Project No. 7455, registered on 28/09/2012), that demonstrated the additionality based on the First-of-its kind and no other case has been developed yet. The project was the first case in Vietnam and the introduction in Viet Nam is expected to become a pioneering example for other truck companies in the county for implementation in the greater scale. The project is implemented by Nippon Express (Vietnam) Co., Ltd. from the Socialist Republic of Viet Nam and Nippon Express Co., Ltd. from Japan. The start date of the project operation is 01/08/2015 based on the equipment installation and readiness of the data collection. The expected operational lifetime of the project is for 10 years.

The project receives financial supports to JCM model projects from the Ministry of the Environment, Japan.
The verification team determined through the verification process that the implementation and operation of the project has been in accordance with the description contained in the registered PDD with the post registration change being proposed. The verification team, by means of a desk review and an on-site visit, assessed that:
- all physical features of the JCM project described in the registered PDD with the post registration change being proposed are in place, and
- the PPs have operated the JCM project as per the registered PDD with the post registration change being proposed.
The Monitoring Report (MR) follows the Monitoring Plan (MP) of the registered PDD with the post registration change being proposed that have been established based on the approved methodology. There are monitoring points as the methodology provides, namely No. 1: PFCi,p Project fuel consumption of freight vehicle i during the period p and No. 2: PDi,p Project distance travelled by freight vehicle i during the period p.

Through the processes taken, CL 1 and CL 2 were raised and subsequently closed as the resolution detailed below.
The post registration change was approved as above.
The details of the persons interviewed and the documents reviewed are shown in the Section F of this report.

<**Findings**>

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

Grade / Ref: CL 1
Nature of the issue raised: The PPs were requested to clarify the QA/QC procedures implemented to the parameter PDi,p, in particular, on double checking the monitored data with the Black Box devices, that are to be consistently applied.
The PPs were also requested to demonstrate the QA/QC procedures applied to the vehicle #61 (registration #52LD-6318) for which data from the Black Box device was missed in some months during the monitoring period.
Nature of responses provided by the PPs: The QA/QC procedures for the double checking of the monitored data against the Black Box devices has been established and applied to the monitored PDi,p for the covered monitoring period. While the PPs apply the QA/QC procedures for PDi,p data monitored by digital tachograph against the data monitored by black box devices, reliable black box data was not available for the vehicle 52LD-6318 (#61) and 29LD-01766 (#71) in some months during the monitoring period. In order to avoid overestimating the fuel efficiency improvement for these two vehicles, the PP decided to exclude these two vehicles from emission

reduction calculation for this particular monitoring period. The emission reductions calculation has been revised accordingly. Emission reductions achieved by the project during the monitoring period has been reduced to 288 ton CO2.
Assessment of the responses: The verification team reviewed the revised calculation and confirmed that the PPs amended the calculation to remove inconsistency and demonstrated implementation of the QA/QC procedures as appropriate. The CL was closed.

Grade / Ref: CL 2
Nature of the issue raised: The PPs were requested to clarify indications of information related to the cross-border transportations to demonstrate relevance of fuel consumption and travel distance outside Vietnam and excluded from calculation of the emission reductions.
Nature of responses provided by the PPs: In the monitored data, indication of cross-border transportation was revised.
Assessment of the responses: The verification team confirmed indications of information related to the cross-border transportations were amended to avoid mis-understanding. The CL was closed.

<**Conclusion based on reporting requirements**>

Please state conclusion based on reporting requirements.

The verification team confirmed that the project was implemented and operated in accordance with the registered PDD with the post registration change approved by the JC.

C.3. Compliance of calibration frequency and correction of measured values with related requirements

<**Means of verification**>

The parameter PDi,p applies the monitoring Option C and the monitoring of the parameter uses GPS tracking system which is part of the digital tachograph system as a measuring equipment. The digital tachograph system has a level of precision equivalent to the "Black Box" devices approved by the Vietnamese Government and is subject to regular maintenance and operational control as per the manufacturer's requirements. Any irregular values will be double‐checked against the GPS data from the "Black Box" devices. During the first monitoring period, digital tachograph system installed to some of the freight vehicles was reported technical problem and application of the measured values in the ERs calculation was subject to QA/QC procedures. The verification team raised findings on the QA/QC procedures as above.

<**Findings**>

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

No issue was raised to the requirements of the section.

<**Conclusion based on reporting requirements**>

Please state conclusion based on reporting requirements. The verification team confirmed that the measuring equipment applied for the parameter PDi,p was subject to QA/QC procedures in accordance with the requirements of the MP during the monitoring period.

C.4. Assessment of data and calculation of GHG emission reductions

<**Means of verification**> The MR is developed using the MRS applied to the registered JCM project that is confirmed fulfilment of the requirements of the MRS of the applied methodology. LRQA has determined whether: 1. a complete set of data for the specified monitoring period is available, 2. information provided in the MR has been cross-checked with other sources such as plant log books, inventories, purchase records, laboratory analysis, 3. calculations of reference emissions and project emissions, as appropriate, have been carried out in accordance with the formulae and methods described in the MP and the applied methodology, 4. any assumptions used in emission calculations have been justified, and 5. appropriate emission factors, default values and other reference values have been correctly applied. The project is to improve transportation fuel efficiency in diesel-fired transportation fleet vehicles of Nippon Express (Viet Nam) Co., Ltd. through the use of a digital tachograph system, while providing the same level of freight transportation services. The project accounts for CO2 emissions from consumption of fossil fuel by freight vehicles in accordance with the approved methodology. The reference emissions are calculated for each freight vehicle by reference fuel efficiency, travel distance during the project period, fuel NCV and CO2 emission factor. For the vehicles included in the originally registered PDD and remained in the first monitoring period, the reference fuel efficiency has been determined for each freight vehicle based on the actual measurement before activation of digital tachograph system at least 60 days in 4 months of lower monthly mean temperature of a year in Vietnam, that are November, December, January and February, that remained unchanged as the registered PDD. The PP has collected the data of fuel consumption and travel distance for each vehicle included in the project for more than 60 days during the period from 01/11/2014 to 28/02/2015 to determine the reference emissions. Freight ton-km data was not used due to limitation of available data. Those vehicles added/replaced in the post registration change applied the procedures following the revised methodology. The project emissions are calculated for each freight vehicle by the fuel consumption, fuel NCV

and CO2 emission factor, then the emission reductions are determined as the difference of the reference emissions and the project emissions, but the emission reductions are limited to 10% of the reference emissions at maximum in accordance with the methodology. In absence of country specific data, the fuel NCV and CO2 emission factor were chosen from the lower limit values of the default values in 2006 IPCC Guidelines for National Greenhouse Gas Inventory in accordance with the methodology and fixed ex-ante at the validation.
The verification team assessed the reported data with documented evidence and by means of on site assessment. Through the processes taken, CAR 1, CAR 3 and CAR 4 were raised as the resolution detailed below.
The details of the persons interviewed and the documents reviewed are shown in the Section F of this report.

Parameters	Monitored values	Method to check values in the monitoring report with sources
PFCi,p	1,274.264 kL/p	Assessment was conducted based on review of fuel purchase records, fuelling records of in-house fuel tanks, and records of cross border operations.
PDi,p	4,664,205 km/p	Assessment was conducted based on review of records of travel distance, data of GPS tracking system, and records of cross border operations.

<**Findings**>
Please state if CARs, CLs, or FARs are raised, and how they are resolved.
Grade / Ref: CAR 1
Nature of the issue raised: The Monitoring Report Sheet was not described with the appropriate information for the items below to demonstrate fulfilment of the requirements in the registered MP and to describe the monitoring as implemented during the monitoring period:
(1) Monitoring option – Parameter PFCi,p
(2) Source of data – Parameters PFCi,p and PDi,p
(3) Measurement methods and procedures – Parameters PFCi,p and PDi,p
(4) Other comments – Parameters PFCi,p, PDi,p, NCVi and EFCO2,i

Nature of responses provided by the PPs:
(1) Monitoring option for the parameter PFCi,p has been revised to Option B which is the option stipulated in the registered MP and is in line with the actual practice.

(2) Source of data in the MR for the parameters PFCi,p and PDi,p have been revised to be in line with the MP as well as the actual practice.
(3) Measurement methods and procedures in the MR for the parameters PFCi,p and PDi,p have been revised to be in line with the MP as well as the actual practice.
(4) Other comments in the MR for the parameters PFCi,p and PDi,p have been revised in order to provide appropriate information.
Assessment of the responses: The verification team reviewed the revised MRS and confirmed that the description is in accordance with the registered MP. In the meantime, the post registration change applied by the PPs has been approved by the JC as mentioned in the above CAR 2. The verification team further confirmed relevant application and implementation of revised MP. The CAR 1 was closed.

Grade / Ref: CAR 3
Nature of the issue raised: An error was found in the monitored data for the parameter PFCi,p reported for the vehicle #40 (registration # 51LD-5815) in January 2016.
Nature of responses provided by the PPs: The PPs submitted revised data. Refuelling for 18 January 2016 was mistakenly inputted in the monitoring data sheet twice. The redundant data was deleted and the refuelled amount for January 2016 was corrected.
Assessment of the responses: The verification team reviewed the revised data sets and confirmed the correction. The data after correction is reflected to the revised MR. The CAR was closed.

Grade / Ref: CAR 4
Nature of the issue raised: Errors were found in the monitored data for the parameter PDi,p reported for the vehicles #101, #109, #111 and #117 (registration #51LD-5432, #29LD-01831, #29LD-02170 and #52LD-4057) in April 2016. The PPs were requested, besides the corrections, to confirm whether weakness exists in the monitoring and reporting system and strengthen the internal data checks to prevent such error from occurring in the future monitoring period.
Nature of responses provided by the PPs: There were data input errors in the monitored data for the parameter PDi,p. All monitored data for the parameter PDi,p was reviewed and corrected accordingly. In addition, the PPs have established internal data check procedures in order to prevent data input errors. Internal data check procedures have been submitted for review by the verification team.
Assessment of the responses: Erroneous data was corrected in the revised data sheet. The PPs also demonstrated internal checks that would prevent erroneous data from entry into the MR. The verification team confirmed that the erroneous data was corrected and the PPs implemented the procedures of internal data checks to prevent the errors in the future monitoring

period. The data after correction is reflected to the revised MR. The CAR was closed.

<**Conclusion based on reporting requirements**>

Please state conclusion based on reporting requirements.

The verification team confirmed that appropriate methods and formulae for calculating reference emissions and project emissions have been followed. The verification team is of the opinion that all assumptions, emissions factors and default values that were applied in calculations have been justified.

C.5. Assessment of avoidance of double registration

<**Means of verification**>

The verification team assessed and confirmed relevance of the written confirmation from the PPs that the project is not registered under the other international climate mitigation mechanisms.

The team in addition to the interviews with the PPs checked publicly accessible information of Clean Development Mechanism (CDM), Joint Implementation (JI), Verified Carbon Standard (VCS) and Gold Standard (GS) and found no identical project as the proposed JCM project in terms of the name of entities, applied technology, scale and the location. The result of researches confirmed that the proposed project was not registered under the other international climate mitigation mechanisms than JCM and it will not result in a double counting of GHG emission reductions.

Particular attention was given to that there is an approved small scale CDM methodology AMS III.AT. Transportation energy efficiency activities installing digital tachograph system or similar devices to transport fleets, and a project activity titled "Nittsu Fuel Efficiency Improvement with Digital Tachograph Systems on Road Freight Transportation CDM Project in Malaysia" has been registered (Project No. 7455) applying the methodology. The project is developed by Nippon Express Co., Ltd., who is the PP of this JCM project and no other project has been proposed for registration as a CDM project.

Through the processes taken, CAR 5 was raised and subsequently closed as the resolution detailed below.

The details of the persons interviewed and the documents reviewed are shown in the Section F of this report.

<**Findings**>

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

Grade / Ref: CAR 5

Nature of the issue raised: The PPs are requested to submit a written confirmation on that the project is not registered under other international climate mitigation mechanisms.

Nature of responses provided by the PPs: The PPs submitted the written confirmations for

review by the verification team.

Assessment of the responses: The verification team reviewed the written confirmations submitted by the PPs as appropriate. The CAR was closed.

<**Conclusion based on reporting requirements**>

Please state conclusion based on reporting requirements.

The verification team confirmed that the projects not registered under other international climate mitigation programs.

C.6. Post registration changes

<**Means of verification**>

The verification team assessed the project documentation and through the on site visit and confirmed that there was no post registration change from the registered PDD or the approved methodology except for the application of the revised methodology that was proposed by the PPs for validation on a voluntary basis and to be approved by the JC prior to the verification. The post registration change has been approved by the JC as above.

<**Findings**>

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

No issue was raised to the requirements of this section.

<**Conclusion based on reporting requirements**>

Please state conclusion based on reporting requirements.

The verification through the verification processes determined that there was no post registration change from the registered PDD or approved methodology which prevent from use of the applied methodology except for the application of the revised methodology that was proposed by the PPs for validation on a voluntary basis and approved by the JC prior to the verification.

D. Assessment of response to remaining issues

An assessment of response to the remaining issues including FARs from the validation and/or previous verification period, if appropriate

FAR 1 issued in the validation requested the PPs to establish detailed monitoring procedures that include how to implement the QA/QC to assure reliability of the monitored data during the monitoring period. In the first verification of the project, the verification team reviewed the detailed monitoring procedures established as part of the monitoring manual and conducted the on site assessment including interviews with the related persons. The FAR 1 in the validation was closed on confirmation of the monitoring procedures established by the PPs while issues on actual implementation during the monitoring period have been raised as above.

E. Verified amount of emission reductions achieved

Year	Verified Reference Emissions (tCO_2e)	Verified Project Emissions (tCO_2e)	Verified Emission Reductions (tCO_2e)
2013			
2014			
2015	1,593	1,462	131
2016	1,912	1,755	157
2017			
2018			
2019			
2020			
Total (tCO_2e)			288

F. List of interviewees and documents received

F.1. List of interviewees

Nippon Express Co., Ltd.

Kengo Sato, Assistant Group General Manager, Corporate Social Responsibility Division, Environment & Social Contributions Group

Nippon Express (Vietnam) Co., Ltd.

Yuji Nakagawa, General Manager

Lam Dieu Tam Hao, Deputy General Manager, Administrative Department

Nguyen Minh Duc, Deputy Manager, Transportation Department

Le Thanh Hai, Supervisor

Nguyen Duc Dong, Staff

Nguyen Van Chinh, Deputy General Manager, Logistics Dept., Hanoi Branch

Shohei Yasufuku, Sales Senior Manager, Hanoi Branch

Nguyen Tran Duc, Supervisor, Hanoi Branch

Pham Van Quyet, Operator, Trailer Control Dept., Hanoi Branch

Tran Minh Hieu, Driver

Nguyen Trong Cuong, Driver

Nguyen Anh Tuan, Driver

Ngo Quy Trang, Driver

Nguyen Quang Ninh, Driver To Quang Chien, Driver Le Huu Hao, Driver Cao Duc Khunh, Driver Nittsu Research Institute and Consulting, Inc. Daijiro Sato, Researcher, Safety Consulting Division Mitsubishi UFJ Morgan Stanley Secutiries Co., Ltd. Chisato Nakade, Consultant, Clean Energy Finance Division

F.2. List of documents received

- Monitoring Report Sheet completed on 01/11/2016, 10/03/2017 and 25/08/2017 - Revised PDD with the annexes Version 2.0 dated 16/12/2016 - Nippon Express Vietnam JCM Project Monitoring Manual Version 1.1 dated 11/10/2016 - List of vehicles - Registration Certificates for Vehicles included in the JCM project - Technical specification of the digital tachograph system - Fuel purchase receipts - Records of in-house fuel tanks - Records of GPS tracking system - Records of travel outside the borders of Vietnam - Records of drivers training including the minutes of meetings, scores and feedbacks sheets - Failure corresponding history on countermeasure report, DataTec Co., Ltd. - Reports for uninstallation of digital tachograph system dated 03 & 04/10/2016 - Motor Vehicle Registration Certificates for change of registration number dated 21/10/2016 - Research reports on use of digitalised drive recorders issued by Japan Automobile Transport Technology Association in November 2011 and November 2016 - Declaration of avoidance of double registration by Nippon Express Co., Ltd. dated 25/11/2016 and by Nippon Express (Viet Nam) Co., Ltd. dated 21/11/2016 - Records of internal data checks - Draft JCM Request for Post Registration Form - Validation Opinion on the post registration change - PDD with the annexes Version 1.3 dated 10/07/2015

- JCM_VN_AM001_ver02.0 Transportation energy efficiency activities by installing digital tachograph systems, Version 2.0
- JCM_VN_AM001_ver01.0 Transportation energy efficiency activities by installing digital tachograph systems, Version 1.0
- Report of the Fifth Meeting of Joint Committee of the Joint Crediting Mechanism between Viet Nam and Japan dated 20/10/2016
- JCM Project Cycle Procedure JCM_VN_PCP_ver03.0
- JCM Guidelines for Validation and Verification JCM_VN_GL_VV_ver01.0
- JCM Guidelines for Developing PDD and MR JCM_VN_GL_PDD_MR_ver02.0
- JCM Glossary of Terms JCM_VN_Glossary_ver01.0
- Approved Small Scale Methodology AMS III.AT. Transportation energy efficiency activities installing digital tachograph systems or similar devices to transport fleets
- PDD for Nittsu Fuel Efficiency Improvement with Digital Tachograph Systems on Road Freight Transportation CDM Project in Malaysia (Project No. 7455)
- Validation Report for Nittsu Fuel Efficiency Improvement with Digital Tachograph Systems on Road Freight Transportation CDM Project in Malaysia (Project No. 7455)
- Monitoring Report (the Monitoring Periods 1 & 2) for Nittsu Fuel Efficiency Improvement with Digital Tachograph Systems on Road Freight Transportation CDM Project in Malaysia (Project No. 7455)
- Verification and Certification Report (the Monitoring Periods 1 & 2) for Nittsu Fuel Efficiency Improvement with Digital Tachograph Systems on Road Freight Transportation CDM Project in Malaysia (Project No. 7455)
- Notice from the JCM secretariat on approval of the JC for the post registration change dated 02/08/2017

Annex Certificates or curricula vitae of TPE's verification 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.

Certificate of Appointment is attached to this report.

Lloyd's Register
LRQA

Joint Crediting Mechanism Certificate of Appointment

Title of Project: Eco-Driving by Utilizing Digital Tachograph System
(Project #VN001)
Verification for the first monitoring period: 01/08/2015 – 30/06/2016

We hereby certify that the following personnel have engaged in the verification process that has fully satisfied the competence requirements of the verification of the JCM project.

Name of Person	Assigned Roles
Michiaki Chiba	Team Leader
Nguyen Tri Thang	Team Member
Xianxin Yan	Technical Reviewer

Signed by

[redacted]

Michiaki Chiba
Climate Change Manager – Asia & Pacific
28/10/2016