JCM Project Design Document Form

A. Project description

A.1. Title of the JCM project

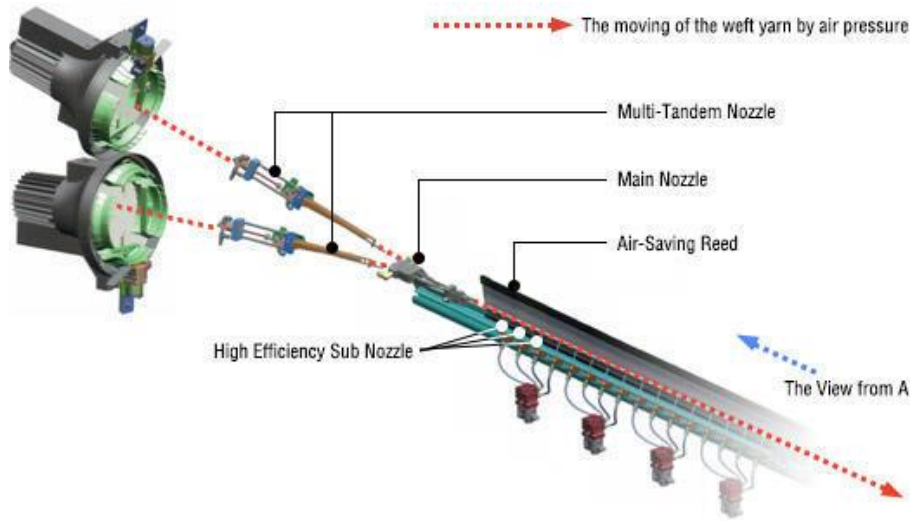
Reducing GHG emission at Textile Factory of Luckytex (Thailand) Public Company Limited by Upgrading to Air-saving Loom

A.2. General description of project and applied technologies and/or measures

The latest air-saving looms, namely "JAT810" manufactured by Toyota Industries Corporation, are introduced at the textile factory of Luckytex (Thailand) Public Company Limited. 119 air jet looms are installed in total to replace existing air jet looms which are not JAT810 (e.g. JAT710 from Toyota Industries Corporation).

Electricity consumption is reduced by introducing air-saving looms, which leads to GHG emission reductions.

[Technology to reduce air consumption (JAT810)]



In air jet looms, a jet of air from the main nozzle, tandem nozzle, and sub nozzle is used to insert the weft yarn, and the weft yarn is inserted. The JAT810 realized the reduction of air pressure by Air-Saving Reed, Multi-Tandem Nozzle, and High Efficiency Sub Nozzle. And it reduced air consumption about 20% compared with our conventional product.

(Source) Website of Toyota Industries Corporation

https://www.toyota-industries.com/csr/environment/technology/product_13/

A.3. Location of project, including coordinates

Country	The Kingdom of Thailand
Region/State/Province etc.:	Samutprakarn
City/Town/Community etc:	Mill-1, 38 Moo 14, Suksawad Road, Amphur Phrapradaeng 10130
Latitude, longitude	13°39'25.7"N 100°31'08.5"E

A.4. Name of project participants

The Kingdom of Thailand	Luckytex (Thailand) Public Company Limited
Japan	Toray Industries, Inc.

A.5. Duration

Starting date of project operation	29/01/2016
Expected operational lifetime of project	7 years

A.6. Contribution from Japan

The proposed project was partially supported by the Ministry of the Environment, Japan through the financing programme for JCM model projects which provided financial supports up to 50% of initial investment for the projects in order to acquire JCM credits.
As for technology transfer, the manufacturer of project air jet loom, Toyota Industries Corporation prepared an operation manual and provided to the project participant, Luckytex (Thailand) Public Company Limited.

B. Application of an approved methodology(ies)

B.1. Selection of methodology(ies)

Selected approved methodology No.	JCM_TH_AM004
Version number	Version 01.0

B.2. Explanation of how the project meets eligibility criteria of the approved methodology

Eligibility criteria	Descriptions specified in the methodology	Project information
Criterion 1	The project replaces existing air jet looms at a weaving factory with air jet looms equipped with energy	119 air jet looms (model number "JAT810") are installed to replace existing air jet looms at the weaving

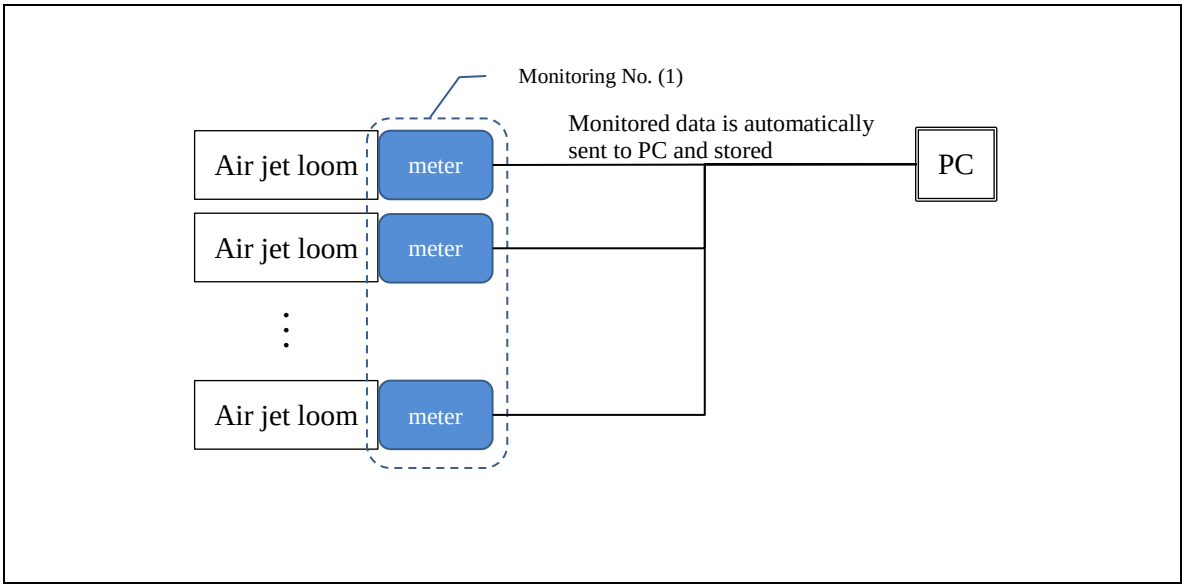
	saving technologies such as an optimized shape reed's tunnel of nozzles and a pressure sensor to measure air pressure of nozzles for optimization of compressed air consumption of welt insertion.	factory of Luckytex (Thailand) Public Company Limited. JAT810 is equipped with energy saving technologies such as an optimized shape reed's tunnel of nozzles and a pressure sensor to measure air pressure of nozzles for optimization of compressed air consumption of welt insertion.
Criterion 2	The air jet looms which are installed by the project reduce the specific air consumption by at least 15% compared with the reference air jet looms in line with the description in Section I of this methodology.	The air jet looms which are installed by the project reduce the specific air consumption by more than 20% compared with the reference air jet looms in line with the description in Section I of this methodology.

C. Calculation of emission reductions

C.1. All emission sources and their associated greenhouse gases relevant to the JCM project

Reference emissions	
Emission sources	GHG type
Electricity consumption by air compressors to generate compressed air for the reference air jet looms	CO_2
Project emissions	
Emission sources	GHG type
Electricity consumption by air compressors to generate compressed air for the project air jet looms	CO_2

C.2. Figure of all emission sources and monitoring points relevant to the JCM project



C.3. Estimated emissions reductions in each year

Year	Estimated Reference emissions (tCO_2e)	Estimated Project Emissions (tCO_2e)	Estimated Emission Reductions (tCO_2e)
2013	-	-	-
2014	-	-	-
2015	-	-	-
2016	23.8	17.8	6
2017	149.8	112.0	37
2018	1,550.2	1,159.5	390
2019	1,550.2	1,159.5	390
2020	1,550.2	1,159.5	390
2021	1,550.2	1,159.5	390
2022	1,550.2	1,159.5	390
2023	129.1	96.6	32
2024			
2025			
2026			
2027			
2028			
2029			
2030			
Total (tCO_2e)			2,025

D. Environmental impact assessment	
Legal requirement of environmental impact assessment for the proposed project	No

E. Local stakeholder consultation

E.1. Solicitation of comments from local stakeholders

A local stakeholder consultation has been conducted on 13th December, 2017. The participants are listed in the table below.

The list of participants to the meeting has been consulted to the JC secretariat of Thai side (Thailand Greenhouse Gas Management Organization), and the local stakeholders to be invited have been fixed.

The schedule and participants of the meetings is provided below.

Date: 13th December 2017

Venue: Mill No. 1, 38 Moo 14, Suksawad Road, Amphur Phrapradaeng, Samutprakarn 10130, Thailand

Time: 13:30-15:00

Agenda

1. Opening remarks
2. Introduction about Luckytex (Thailand) Public Company Limited
3. Overview of the project and technology introduced
4. Q&A and collection of comments
5. Closing

[Local stakeholders]

No.	Organization	Position
1	Thailand Greenhouse Gas Management Organization (TGO), Ministry of Natural Resources and Environment	Manager
2	Thailand Greenhouse Gas Management Organization (TGO), Ministry of Natural Resources and Environment	Manager

3	Thailand Greenhouse Gas Management Organization (TGO), Ministry of Natural Resources and Environment	Staff
4	Luckytex (Thailand) Public Company Limited	Section Manager - Maintenance
5	Luckytex (Thailand) Public Company Limited	QA. Staff
6	Luckytex (Thailand) Public Company Limited	Inspection Staff

[Project participants]
Project participant: [Thailand] Luckytex (Thailand) Public Company Limited

At each agenda item, a brief presentation was made by the project participant, and after Q&A, opinions of the stakeholders were solicited. A summary of the comments received and consideration of those comments are provided in Section E.2. below.

E.2. Summary of comments received and their consideration

Stakeholders	Comments received	Consideration of comments received
Section Manager – Maintenance, Luckytex	I appreciate reduction of air consumptions as a result of installing the energy efficient air jet looms in the project. I would expect the same rate of reductions in air jet looms which will be installed in the future.	Old types of air jet looms are still in operation in the factory. We would also like to replace the old types with new energy efficient type when the time comes. No further action is needed.
Section Manager – Maintenance, Luckytex	The project air jet loom is easy to control compared to the old types, which is good for operation.	No further action is needed.

F. References

Reference lists to support descriptions in the PDD, if any.

Annex

Revision history of PDD		
Version	Date	Contents revised
1.0	05/1/2018	First edition