

CHAIN-OF-CUSTODY BASELINE ASSESSMENT

PT KARYA GUNA EKATAMA

Prepared by



for

PT Karya Guna Ekatama

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TERMINOLOGY

Various terms are used synonymously in this report. The reader is advised to be familiar with these terms to avoid any misunderstandings.

- ★ “**verified legal (logs, lumber, product)**” = logs or wood products verified as originating from a forest concession or source which has been verified as ‘legal’ by an independent auditor.
- ★ **Industry** = factory = plant = mill: (these terms are used interchangeably)
- ★ **Legal Right to Harvest** pertains to the basic legal documentation such as the SK HPH and the SK RKT which defines the legal right of the concession owner to harvest timber in the concession.
- ★ **Legal Origin** includes the legal aspects of the “Legal Right to Harvest” plus verification of origin. This definition requires that the timber being verified as legal originated from the HPH and RKT as claimed and requires proof of origin related to cruising (LHC report) as well as field verification of appropriate log marking and log administration protocols showing clear linkage to the claimed origin.
- ★ **Chain-of-Custody** is a system of protocols designed to provide assurance of the origin of materials associated with specific market claim(s) (FSC certified, legal, RIL Verified, etc.) CoC standards are well established and internationally recognized and include clear guidance on issues such as material marking, separation of materials, documentation, system description (manuals), understanding, etc. Credibility of the CoC is established and maintained by independent, third part auditor in a ‘business-to-business’ relationship.
- ★ For the purpose of this report, **Chain-of-Custody** discussions and recommendations will refer to the verified product claim of **Legal Origin**.

**CHAIN-OF-CUSTODY BASELINE ASSESSMENT:
PT. KARYA GUNA EKATAMA**

1.0 TERMS OF REFERENCE

The baseline assessment of the PT Karya Guna Ekatama (KGE) has been conducted by the Tropical Forest Foundation (TFF) on the request of the management of KGE.

TFF is a not-for-profit organization committed to the promotion of sustainable forest management and the sustainable trade in legal forest products.

This report deals with the chain-of-custody (CoC) issues pertaining to the handling and processing of raw materials from an unspecified source(s) of **verified legal** logs.

2.0 OBJECTIVE & SCOPE

The objective of this baseline assessment is to evaluate and report to KGE on the preparations needed to prepare for a third party audit against internationally recognized CoC standards.

3.0 INTRODUCTION

On June 7th and 8th, 2007, the Tropical Forest Foundation represented by A.W. Klassen and Hasbillah, accompanied by Robert Panie of DLH, visited the industry of KGE.

The visit was facilitated by Alex Harijanto, Managing Director of KGE.

A review of the material handling and manufacturing processes includes specific recommendations to be implemented by KGE in preparation for a CoC audit.

4.0 CHAIN-OF-CUSTODY: BASIC PRINCIPLES

What will an auditor be looking for when he conducts a CoC audit? What are the basic considerations in establishing a credible CoC system? These will be the guiding questions when preparing for a CoC audit.

There are a few fundamental principles which the auditor will take into account when confirming the integrity of a CoC system. These principles, and how they relate to the manufacturing process, need to be thoroughly understood before a credible CoC system can be developed

4.1 Chain-of-Custody Claim

A CoC system is established to provide independent verification and credibility to a specific product claim.

In this case, the “product” refers to finished solid wood products prepared from logs which have been verified as originating from a source that has the “legal right to harvest” and has been verified legal by an independent auditor.

4.2 CoC Configuration

Chain-of-custody systems can be set up as a continuous production system where a portion (or all) of the industry functions under CoC protocols. Or, it can be set up on a “batch run” basis where CoC protocols apply only during the processing of “verified legal” materials.

When designing a CoC system, it is important to decide on which approach will be used since the protocols and arrangements in the industry will be different.

4.3 Principle #1: Separation of Materials

A major objective of a CoC system is to minimize the risk of mixing of “verified legal” wood with wood from other sources.

Physical marking of “verified legal” wood is intended to help the company ensure that accidental mixing does not take place and also makes it easier for an auditor to distinguish and track “verified legal” wood through the supply chain and manufacturing process.

Physical marking applies to all parts of the supply chain; from log marking through to the marking of wood during the manufacturing process. Physical marking can take the form of numbers, symbols colors, bar codes, tags, or other marking techniques.

The physical marking of “verified legal” material should:

- Be clear and easy to distinguish by emphasizing the visual aspects of the system,
- Be distinct from any other identification or distinguishing marks being used in the manufacturing process,
- Be consistent (as much as possible) through the entire process. This relates to both the type of mark, color of mark, or any other characteristic of the distinguishing mark.

To further strengthen the marking system, a CoC auditor will also insist on physical separation of materials wherever possible. This can apply to a variety of situations such as separate log storage areas, separation of production lines, clearly identified working areas such as the cross-cut area, and separate storage areas in the shipping department.

An additional requirement in the physical separation of “verified legal” materials, will be the clear labeling or sign-posting of “verified legal” storage areas, production lines, and working areas wherever applicable.

Signs identifying the “verified legal” areas, must be in place at all times during the active production under the CoC and must be removed when the area or production line is not being used for the handling or processing of “verified legal” products.

4.4 Principle #2: Documentation

Of equal significance in establishing the credibility of a CoC system, is the documentation of the “verified legal” materials. Documentation verifies the separation of materials and establishes the linkage between the various stages of the chain.

In many cases, existing documentation which tracks material movement and production process, is adequate, however, a CoC auditor will usually require that:

- “verified legal” documentation be clearly identified and visually different from other documentation. This could involve the use of a clearly recognizable labels or colors on the documentation forms which distinguish the documentation of “verified legal” materials from other documents.
- “verified legal” documents must record only “known sources” material or production performance.
- Documentation of “verified legal” material must permit the calculation of recovery factors for “verified legal” manufacturing processes.
- “verified legal” documentation must be kept and filed together and separately from the documentation of other materials. This is particularly relevant for batch runs of “verified legal” materials through the manufacturing process

4.5 Principle #3: General Understanding

A third aspect that a CoC auditor will check, is the company’s understanding of the CoC system. This will be evaluated through questions asked of the supervisors, foremen, and production personnel. The auditor will try to satisfy himself that there is a good understanding of why actions such as separate physical marking, separation, and documentation are being used and how this fits together as a coherent system with clearly identified objectives.

The company will have to socialize the concept, objectives, and functioning of a CoC system among its employees at all stages covered by the CoC system.

The auditor will look for records of training activities, as well as memos and instructions related to the socialization of the CoC system.

It is important that the company develop a written CoC procedures manual which clearly describes the objectives of the CoC organization as well as providing details of all aspects of the CoC system. Such documentation could take the form of standard operating procedures for each stage of the process or, in the form of a simple manual providing details on:

- Objectives and scope of the CoC
- Key person(s) responsible for implementing the various elements of the CoC
- Description of the stages in the CoC process
- Details of the marking and labeling systems to be used
- Details of the documentation which supports the integrity of the CoC. This includes government required forms and permits as well as internal documentation such as production record forms at the different stages of production.

5.0 DESCRIPTION OF MANUFACTURING PROCESS

KGE converts Merbau logs into finished, solid wood flooring products.

Logs arrive at the mill log yard from the port of Surabaya on trucks and are stored stacked according to source. Logs are bucked into shorter lengths just before entering the sawmill.

The industry is organized into two parts. The first is the sawmill consisting of a series of band saws that break the log down into basic flooring stock according to customer requirements.

Rough lumber stock is air dried for approximately one week before kiln drying for another 2-3 weeks. During this process, lumber is moved around on palettes which are given an identifying tag.

The second part of the industry consists of a moulding plant where the rough sawn stock is processed into finished product ready for shipping.

The moulding process begins with the rough sawn planks being run through the planer (3 units). After grading, the planed materials is cross-cut (10 units). Depending on the final product and the buyers specifications, materials is then sent through the rip saw (3 units) or sanders (3 units) before going through the moulding machine.

An additional manufacturing process involves laminating narrow pieces of wood into 2 or 3 piece flooring strips. This process includes double ended moulding (2 units).

For most flooring products, the final process is the tongue and groove moulding machines (4 units). After quality control (8 working tables), finished products are then packaged in preparation for shipping.

The KGE industry recovers waste wood to make an industrial flooring product. This consists of squares of thin strips of wood held together with tape. Wood for this product is recovered from all parts of the manufacturing process.

6.0 COC CONSIDERATIONS

The following sections of this report will comment on observations relevant to establishing a CoC system. Recommendations are inserted in the report where, in the opinion of TFF, basic assumptions need to be agreed on and where adjustments may have to be made in order to pass a third-party CoC audit.

It is assumed that KGE will be able to source logs “verified legal” by an independent auditor but that it will also continue to source logs through the normal trade channels involving brokers. In order to gain market benefit from the verified legal raw material, an independently verified CoC will have to be established through the industry. This will be the second part of a complete CoC starting at the forest management unit.

6.1 Receiving Logs

It is understood that KGE already processes logs separately by source and keeps production records according to source. It could therefore, be said that KGE is already implementing the basic aspects of a “batch run” system.

Recommendation #1 Based on current purchasing and processing practices, TFF recommends that the *modus operandi* for establishing a CoC system should be based on a “batch run” assumption.

Recommendation #2 Verified legal logs should be stored separately in the log yard. If they do not already have a distinct mark, KGE may consider giving them a distinct color mark on arrival.

6.2 Log Intake

Once KGE has secured a supply of “legally verified” logs and is ready for a CoC audit, KGE will need to formalize its practice of separating logs by source in the factory log yard. Log intake record forms are the first step in monitoring recovery and verifying the integrity of the CoC system within the manufacturing process.

Recommendation #3 Log intake forms for legally verified logs should be clearly identified and used only to record legally verified inputs. One possible method of distinguishing these forms from the standard forms, is to use a different color for the “verified legal” log intake forms. The same color could then be used for all subsequent production forms, palette tags, etc.

6.3 Log Breakdown

Log breakdown involves a series of band saws that produce progressively smaller material with the finished product being rough cut lumber stock as input into the moulding plant.

To ensure a compliance with CoC principles, the entire log breakdown process should run on “verified legal” raw material only during the CoC production run.

6.4 Drying and Temporary Storage

As the logs and cants are converted into basic flooring stock, this material is placed on palettes for air drying and then restacked onto palettes for kiln drying.

Recommendation #4 Palettes of rough sawn flooring stock should be labeled using distinct labels for CoC material (see Recommendation #3). Palettes can be identified with batch numbers linked to production records.

6.5 Secondary Processing

KGE will need to decide whether the entire production lines within the secondary processing facility (moulding plant) will also run on the batch run concept during a CoC production run. Clearly this would be the easiest solution from a CoC perspective.

If some machines continue to process non-CoC material during a CoC production run, then these machines should be clearly sign posted as non-CoC machines during the CoC production run.

The movement of materials from one stage of the manufacturing process to the next involves transferring materials on palettes. Refer to Recommendation 3 and 4 regarding the labeling and record keeping of the content of each palette.

6.6 Waste Recovery

KGE has an efficient waste recovery system which takes small off-cuts from the various production machines and produces small wooden slats of standard size. These are then assembled in squares held together by adhesive tape and marketed as industrial flooring.

This material presents more of a CoC challenge than the normal production lines but essentially the same practices will have to apply. As the waste material from the various stages of production are resawn into standard slats. The pieces are stacked on small palettes and processed through planers before final assembly into squares and packaging for shipment.

The same system of batch tags for each palette will have to be used to track the verified legal material through to the point of packaging.

6.7 Packaging and Storage

Recommendation #5 Temporary storage of CoC material requires that a CoC storage area be designated in the warehouse and signposted as the CoC storage area. Packages of legally verified product should be clearly labeled in a manner consistent with the procedures used for the rest of the manufacturing process.

6.8 Administration of the CoC

In order to facilitate the CoC audit and in order to verify understanding of the purpose and functioning of the CoC system, the auditor will require evidence that a uniform protocol exists within the company. The auditor will also expect to see evidence that the management has provided adequate training and/or instruction to all personnel involved in the implementation of the CoC.

Recommendation #6 Procedures Manual: To facilitate the implementation and the auditing of the CoC system, management should prepare a simple procedures manual.

A procedures manual should be prepared which describes the entire CoC system from the log yard to the shipping department. This document can be in the form of a simple manual or it can be developed as a series of Standard Operating Procedures (SOP) for each stage of the operation. The manual (or SOPs) should:

- state the objectives of the CoC system
- name the person(s) responsible for each stage of implementation of the CoC
- describe the manufacturing processes that make up the CoC within the factory and the specific CoC arrangement for each step in the process.
- specify standards which will be applied (colors, marks, labels, tags, etc.)

Recommendation #7 Training: It is recommended that records be kept of any in-house training, written instructions, minutes of briefing meetings, etc. that have been carried out to socialize CoC objectives, standards, and procedures within the company. These records may be required by the auditor to demonstrate that Management has prepared itself and its staff for the implementation of the CoC.

7.0 THE NEXT STEPS

Establishing a chain-of-custody system within the industry of KGE to separate “verified legal” material from ‘other material’ through the manufacturing process, will be a relatively easy undertaking that should not take more than a month to implement. The most difficult part will be the task of preparing a procedures manual.

In order to permit a market claim of “verified legal” to be attached to a finished product, KGE will have to find a legal source (HPH, IPK, etc) which is willing to submit to a basic legality audit according to the definition of “Legal Origin” as established for the DLH VLO program. It is understood that this is very likely to involve a broker.

It is important to understand that this should not be perceived as a threat to the established business connection related to the sourcing of Merbau logs, but rather as an opportunity to strengthen such connections and to provide greater market credibility to the forest concession.

TFF is available to meet with brokers and HPH owners to discuss participation in the VLO program.