

# SCS Global Services Evaluation of Thunderbolt Biomass, Inc. Compliance with the SBP Framework: Public Summary Report

Main (Initial) Audit

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## Completed in accordance with the CB Public Summary Report Template Version 1.4

*For further information on the SBP Framework and to view the full set of documentation see  
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### *Document history*

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# 1 Overview

CB Name and contact: SCS Global Services, 2000 Powell St. Ste 600 Emeryville, CA 94608  
Primary contact for SBP: Sarah Harris, SHarris@scsglobalservices.com  
Current report completion date: 08/Feb/2020  
Report authors: Shannon Wilks  
Name of the Company: Thunderbolt Biomass, Inc.  
Company contact for SBP: Knox Grant  
Certified Supply Base: Georgia and South Carolina  
SBP Certificate Code: SBP-04-53  
Date of certificate issue: 08/Jun/2020  
Date of certificate expiry: 07/Jun/2025

This report relates to the Main (Initial) Audit

## 2 Scope of the evaluation and SBP certificate

This certificate covers the production of wood pellets for transport to the Port of Savannah USA per SBP Standards 1, 2, 4, and 5. It also covers a Supply Base Evaluation for the sourcing of feedstock from Georgia and South Carolina. *The scope includes the communication of Dynamic Batch Sustainability Data.*

The scope of this main evaluation audit included a review of procedures, documentation, records and databases to ensure the organization's management system is appropriate for ensuring conformance to SBP Standards 1, 2, 4, and 5. Other audit methods used were site walkthrough of pellet mill, interviews with relevant staff, and interviews with three secondary suppliers. The evaluation included a review of documentation such as the Supply Base Report including the Risk Assessment, Due Diligence System and SAR, among others.

### 3 Specific objective

The specific objective of this evaluation audit was to confirm that the Biomass Producer's management system is capable of ensuring that all requirements of SBP Standards 1: Feedstock Compliance Standard, 2: Verification of SBP-compliant Feedstock, 4: Chain of Custody, and 5: Collection and Communication of Data (including Instruction Documents 5A: Collection and Communication of Data, 5B: Energy of GHG Data, 5C: Static Biomass Profiling Data, 5D: Dynamic Batch Sustainability Data) are implemented across the entire scope of certification. This was achieved by review of risk assessments, procedures, GHG and other data, and observation of BP facility. Interviews with key personnel were also conducted.

The following critical control points were identified and evaluated:

\*Feedstock procurement: All loads of pine shavings were recorded by load on a weekly delivery summary. The origin of the supplier is documented on the contractual documents and also observed on Bill of Ladings provided with each load. Prior to delivery, all suppliers are pre-approved and required to execute a Purchase Order Addendum with specific terms and conditions. Each load is visually inspected by the unloading operator and a moisture check is obtained. Loads are subject to rejection if moisture content is greater than 15%. Only dry pine shavings were being purchased at time of evaluation audit.

\*Storage and processing: The dry pine shavings (sole feedstock) are stored in a covered silo, hammered, and extruded into pellets in one of the two on-site pellet mills. Starch is added to the process as a lubrication agent.

\*Volume Accounting: The procedures detail the process to properly maintain the volume credit spreadsheet, with provisions for subtracting certified product sold and for carrying only the past 12 months of credits, in accordance with PEFC standards.

\*Outgoing transactions: Records of pellet shipments by truck will be recorded, and outgoing transactions of SBP-certified biomass will be recorded in the DTS. No shipments of SBP compliant pellets was observed during the on-site audit.

\*Energy data collection and reporting: The organization has developed internal systems based on their internal record keeping to record data values and calculate energy data as required by Standard 5 and is knowledgeable about the requirements of maintaining records to substantiate the data.

## 4 SBP Standards utilised

### 4.1 SBP Standards utilised

Please select all SBP Standards used during this evaluation. All Standards can be accessed and downloaded from <https://sbp-cert.org/documents/standards-documents/standards>

- SBP Framework Standard 1: Feedstock Compliance Standard (Version 1.0, 26 March 2015)
- SBP Framework Standard 2: Verification of SBP-compliant Feedstock (Version 1.0, 26 March 2015)
- SBP Framework Standard 4: Chain of Custody (Version 1.0, 26 March 2015)
- SBP Framework Standard 5: Collection and Communication of Data (Version 1.0, 26 March 2015)

### 4.2 SBP-endorsed Regional Risk Assessment

Not Applicable

## 5 Description of Company, Supply Base and Forest Management

### 5.1 Description of Company

Thunderbolt Biomass, Inc. is a pellet mill located in Allendale, South Carolina with two (2) pellet presses. Ownership of the organization is based on partnership of 80% Chilean Industrial Group and 20% Knox Grant. The sole feedstock is currently dry pine shavings. Thunderbolt Pellets operates a PEFC Chain of Custody system and current feedstock (100% Pre-Consumer Recycled-dry pine shavings) is not required to undergo PEFC Due Diligence System. Outputs are planned to be SBP Compliant Biomass. Construction is in process (at time of on-site audit) for installation of a dryer. Future plans include the purchase of pine residual chips and sawdust from area sawmills. Finished pellets will be transported to the Port of Savannah Georgia USA by truck. The ownership of pellets will transfer to customer once pellets are unloaded at the port.

### 5.2 Description of Company’s Supply Base

The facility sources secondary residual materials from approximately five sources over a largely rural area where forestry and agriculture (e.g. forests, crops, cattle) are prevalent and are the primary sources of income for workers and the local communities. The supply base, representing a sub-scope for evaluation, consists of planted and managed production pine forests in the U.S. States of South Carolina and Georgia. No hardwoods are sourced; there are no “Production Plantation Forests” and no “Genetically Modified Organisms.”

Total Supply Base area (ha): The Supply Base could include the entire states of Georgia and South Carolina. Acreage information is supplied by the US Forest Service Forest Inventory & Analysis Program, as well as the SFI and ATFS databases: 10,007,260 ha Georgia and 5,250,458 ha South Carolina.

Tenure by type (ha):

8,930,272 ha Private Land – Georgia  
4,604,628 ha Private Land – South Carolina  
 13,534,900 ha Total

1,076,988 ha Public Agencies – Georgia  
645,830 ha Public Agencies – South Carolina  
 1,722,818 ha Total

Forest by management type (ha): planted or managed natural conifer stands

3,127,355 ha Planted Forest – Georgia  
1,345,347 ha Planted Forest – South Carolina  
 4,472,702 ha Planted

6,879,904 ha Managed Natural Forest - Georgia  
3,905,111 ha Managed Natural Forest – S Carolina  
 10,785,015 ha Managed Natural



Certified forest by scheme (ha):

1,005,261 ha SFI – Georgia

439,807 ha SFI – South Carolina

1,445,068 ha SFI

1,208,353 ha ATFS – Georgia

539,284 ha ATFS – South Carolina

1,747,637 ha ATFS

Thunderbolt Biomass, Inc. employs approximately 14 people. The pellet mill contributes significantly to the local economy directly and indirectly by using local businesses, transportation companies and local contractors. For every direct job in the forest industry, approximately 3 additional jobs are supported.

Thunderbolt Biomass Inc.'s operations provide a market for low valued biomass and make a significant contribution to employment by loggers, harvesters and processors, trucking companies and income to landowners. Local harvesting contractors are always used. The economic contribution of forestry to the States of Georgia and South Carolina economies is substantial. In Georgia, forestry is the #2 industry in the state. Forestry ranks as the #1 manufacturing sector in South Carolina.

The six physiographic ecoregions of Georgia are the Southern Coastal Plain, Southeastern Coastal Plains, Piedmont, Blue Ridge, Ridge and Valley and Cumberland Plateau. The Southern Coastal Plain and Southeastern Plains, collectively referred to in this report as the Coastal Plain, are comprised mostly of loblolly, slash and longleaf pine and lowland hardwoods. The Piedmont is comprised mostly of loblolly pine, loblolly pine-hardwood mix, with small percentages of shortleaf pine, upland hardwoods and lowland hardwoods. The Blue Ridge has a majority of upland hardwood types with small percentages of white pine and hemlock types. The Ridge and Valley region varies between upland hardwoods on the ridges to mostly loblolly pine and Virginia pine in the valleys and lower slopes. The Cumberland Plateau, which only includes Dade County in extreme northwest Georgia, is comprised mostly of upland hardwoods, with some loblolly pine and Virginia pine.

South Carolina's forest lands can be divided into three areas: Piedmont, Southern Coastal Plain and Northern Coastal Plain. Loblolly-shortleaf pine is the predominant forest type in the State, accounting for over 44 percent of all forests. Oak-hickory is the second most recorded forest type, representing over one-fifth of the forest land base. Oak-gum-cypress, oak-pine, longleaf-slash pine and elmash- cottonwood account for 14.8 percent, 11.6 percent, 4.3 percent and 3.0 percent, respectively. Loblolly pine was the State's most common tree species, leading both in number of trees (44 percent of all live-trees with d.b.h. ≥ 5 inches) and in total volume (42 percent of all volume). Sweetgum followed second, accounting for 10 percent of all trees and 9 percent of all volume. Close to 52 percent of the state's volume is found in softwoods.

### 5.3 Detailed description of Supply Base

Thunderbolt Biomass, Inc. feedstock is currently dry pine shavings purchased from five (5) suppliers located in South Carolina. The suppliers supply base is within Georgia and South Carolina as confirmed by BP records and auditor interviews. Further details about Thunderbolt Biomass, Inc. can be found in their Supply Base Report.

## 5.4 Chain of Custody system

Thunderbolt Biomass, Inc. has recently been PEFC and SFI Chain of Custody certified and will use the management and control systems required for these certifications to implement the SBP program. The CoC certificate will be for a single site. Pellets are manufactured at the facility and ownership of the pellets transfers once unloaded at the Port of Savannah Georgia USA. The evaluation audit confirmed the organization's wood accounting system is capable of correctly tracking certified and uncertified inputs.

## 6 Evaluation process

### 6.1 Timing of evaluation activities

Lead auditor: Shannon Wilks

Participants applicant: CEO and Systems and Compliance Officer

|   |  |                           |
|---|--|---------------------------|
| <b>Site Name or Location:</b>                                   | Thunderbolt Biomass<br>1624 Bluff Road<br>Allendale, SC 29810 USA  |                           |
| <b>Date and Time of Audit:</b>                                  | February 4-6, 2020   |                           |
| <b>Audit Activity</b>   | <b>Items to Review / Actions</b>   | <b>Approx. Start Time</b> |
| <b>Day 1- (2/4/2020)</b><br>Opening meeting                     | Introductions, auditor review of audit scope, audit plan and intro/update to SBP and SCS standards and protocols, client description of organization   | 8:30 AM                   |
| Review of CoC/SBP procedures, products and material accounting  | Written procedures, work instructions, feedstock description (see ID 5B section 4)/, product group list (PEFC), accounting system (transfer, percentage or credit; physical separation, percentage method)   | 9:00 AM                   |
| Review of material balances and records                         | Review of the following: material tracking system, summary of purchases and sales, invoices, shipping documents, training records, outsourcing agreements, other applicable CoC systems, procedures and records, tracebacks from certified outputs to eligible inputs. | 10:30 AM                  |
| Evaluation of trademarks (if applicable)                        | Review of auditor-selected sample of FSC and/or SCS on-product and/or promotional trademark uses; review of any on-site trademark uses such as banners, posters, entryway signs  | 11:45 AM                  |
| Review of Safety Training, Procedures and Environmental Systems | Interviews with EHS Manager and Human Resources Manager (or designated representatives)  | 3:00 PM                   |
| Closing of day 1 and review of findings                         | Convene with all relevant staff to summarize day's audit findings and discuss next day's plan  | 4:30 PM                   |
| <b>Day 2- (2/5/2020)</b><br>SBP ST 5, ID5A, ID5B, ID5C & ID5D   | Review of STD 1 and STD 2: SBR, SBR Annex 1. Interviews with relevant staff.   | 8:30 AM                   |
| Secondary Supplier Interviews                                   | Desk/Phone interview with 3 auditor selected secondary suppliers. (Calls should last approximately 20 minutes).<br>1. Carolina Shavings<br>2. Queen Wood Products<br>3. Wannamaker Farms & Services  | 10:30 AM                  |
| BP Facility Tour  | Review of physical inputs and outputs, material receipt, processing, storage, credit account (if applicable), sale, and overall control  | 11:45 AM                  |
| Staff interviews  | Interviews with appropriate number and diversity of staff to assess knowledge of CoC procedures related to their position.   | During Tour               |

|   |   |          |
|---|---|----------|
| Auditor Review of SBP Checklists (STD 1,2,4 & 5)            | Review of SBP Checklists for Standards 1, 2, 4 & 5 (Review of SBR & SBE)  | 1:30 PM  |
| Closing of day and review of findings                       | Convene with all relevant staff to summarize audit findings, review identified nonconformities, and discuss next day's plan | 5:30 PM  |
| <b>Day 3-(2/6/2020)</b><br>SAR & STD 5                      | Review of GHG data collection, SAR, SREG (if applicable) and interviews with relevant staff                                 | 9:00 AM  |
| Auditor review of notes and preparation for closing meeting | Auditor review of notes and preparation for closing meeting.  | 12:30 PM |
| Closing meeting and review of findings                      | Convene with all relevant staff to summarize audit findings and discuss next steps  | 1:00 PM  |
| End   |   |          |

## 6.2 Description of evaluation activities

The onsite Evaluation Audit was conducted over the course of three days and included an audit of the Supply Base Evaluation, Documented Management System, Collection and Communication of Greenhouse Gas data, site tour and interviews with secondary suppliers.

Audit methods consisted of review of documentation, studies, assessments, surveys, websites, and staff interviews. The site tour was evaluated by review of documentation, monitoring results, observations, and interviews. Three (3) secondary supplier interviews were conducted to confirm compliance with SBP requirements and verify BP supply base. Selection of secondary suppliers was randomly selected by auditor from five (5) total. Most time was spent on the Supply Base Evaluation. Equal time was spent on the Documented Management System and Greenhouse Gases.

## 6.3 Process for consultation with stakeholders

SCS relies on its Master Stakeholder List, which contains stakeholders that are identified by type, e.g. ENGO, Government/regulatory, Educational/Academic, Industry, Indigenous/Aboriginal/Tribal, etc. This list is categorized by country and state/province at the very least, and for this consultation was filtered to omit any stakeholders that were not geographically relevant to the certificate-holder/applicant's supply base. SCS conducted a stakeholder consultation prior to the audit date. No comments were received or came to the attention of SCS or the auditor.

## 7 Results

### 7.1 Main strengths and weaknesses

The main strengths of Thunderbolt Biomass, Inc. includes an effective management system, knowledgeable personnel and greenhouse gas record keeping controls. Personnel involved in the SBP program at Thunderbolt Biomass are knowledgeable and demonstrated understanding of SBP procedures. Thunderbolt Biomass maintains an effective program to monitor origin of feedstock for all suppliers of secondary feedstock. Review of Sustainability Policy communicates the commitment of Biomass Producer to source feedstock sustainably. The weaknesses are described in section 10.

### 7.2 Rigour of Supply Base Evaluation

The supply base was determined based on secondary feedstock suppliers to ensure the complete geography of the supply area. USDA Forest Service Forest Inventory and Analysis (FIA) data based on this established supply base was used to verify forest growth and harvest levels, forest ownership and overall forest composition (species, age, stand structure) was not listed. Ecosystem and biodiversity data from credible third-party resources such as Nature Conservancy, WWF, GreenPeace, World Resources Institute (WRI), Conservation International (CI), NatureServe and the various state natural heritage programs from within the supply base was not reviewed to determine potential high conservation value (HCV) areas and the level of protection for these HCVs.

Forest management regimes for the supply base were determined from information gathered from credible resources within the region. Regional economic and forest health information was gathered from state forestry agencies and forestry associations.

### 7.3 Collection and Communication of Data

BP has a comprehensive set of records where all Standard 5 data is compiled and maintained. All compilation will be conducted by organizations SBP representative and/or Compliance Officer through use of records and internal systems. Energy use has been documented by actual invoice records and validated during on-site audit.

### 7.4 Competency of involved personnel

The SBR and SBE was conducted in conjunction with BP personnel and by a well-known Forestry Program certification consultant. The Biomass Producer's management and control systems for SBP are the same as those used to meet SFI/PEFC Chain of Custody requirements. Key personnel tasked with implementing the management and control systems relating to SBP compliance are trained and competent, with strengths in record keeping. Their knowledge of SBP requirements is adequate to implement the program.

## 7.5 Stakeholder feedback

Review of BP stakeholder communication records confirmed one (1) positive response from Georgia Forestry Commission. No actions or response was required by BP.

## 7.6 Preconditions

Major CARs were identified and are preconditional to initial certification.

## 8 Review of Company’s Risk Assessments

*Describe how the Certification Body assessed risk for the Indicators. Summarise the CB’s final risk ratings in Table 1, together with the Company’s final risk ratings. Default for each indicator is ‘Low’, click on the rating to change. Note: this summary should show the risk ratings before AND after the SVP has been performed and after any mitigation measures have been implemented.*

Auditor initial results of the supply base evaluation determined there is low risk to all indicators SBP Framework Standard 1: Feedstock Compliance except for indicators 2.1.1, 2.1.2, 2.1.3, 2.2.3, and 2.2.4 which are determined to be “specified risk” by auditor review of credible 3<sup>rd</sup>-Party data such as FSC US CWNRA.

BP Risk ratings were determined to be Low Risk for all SBP Framework Standard 1: Feedstock Compliance indicators as auditor review of SBE, SBR and other supporting evidence such as SBP Procurement Procedures and Due Diligence Systems.

**Table 1. Final risk ratings of Indicators as determined BEFORE the SVP and any mitigation measures.**

| Indicator | Risk rating<br>(Low or Specified) |           | Indicator | Risk rating<br>(Low or Specified) |     |
|-----------|-----------------------------------|-----------|-----------|-----------------------------------|-----|
|           | Producer                          | CB        |           | Producer                          | CB  |
| 1.1.1     | Low                               | Low       | 2.3.3     | Low                               | Low |
| 1.1.2     | Low                               | Low       | 2.4.1     | Low                               | Low |
| 1.1.3     | Low                               | Low       | 2.4.2     | Low                               | Low |
| 1.2.1     | Low                               | Low       | 2.4.3     | Low                               | Low |
| 1.3.1     | Low                               | Low       | 2.5.1     | Low                               | Low |
| 1.4.1     | Low                               | Low       | 2.5.2     | Low                               | Low |
| 1.5.1     | Low                               | Low       | 2.6.1     | Low                               | Low |
| 1.6.1     | Low                               | Low       | 2.7.1     | Low                               | Low |
| 2.1.1     | Low                               | Low       | 2.7.2     | Low                               | Low |
| 2.1.2     | Specified                         | Specified | 2.7.3     | Low                               | Low |
| 2.1.3     | Specified                         | Specified | 2.7.4     | Low                               | Low |
| 2.2.1     | Low                               | Low       | 2.7.5     | Low                               | Low |
| 2.2.2     | Low                               | Low       | 2.8.1     | Low                               | Low |

|       |           |           |
|-------|-----------|-----------|
| 2.2.3 | Specified | Specified |
| 2.2.4 | Specified | Specified |
| 2.2.5 | Low       | Low       |
| 2.2.6 | Low       | Low       |
| 2.2.7 | Low       | Low       |
| 2.2.8 | Low       | Low       |
| 2.2.9 | Low       | Low       |
| 2.3.1 | Low       | Low       |
| 2.3.2 | Low       | Low       |

|        |     |     |
|--------|-----|-----|
| 2.9.1  | Low | Low |
| 2.9.2  | Low | Low |
| 2.10.1 | Low | Low |

**Table 2. Final risk ratings of Indicators as determined AFTER the SVP and any mitigation measures.**

| Indicator | Risk rating<br>(Low or Specified) |     |
|-----------|-----------------------------------|-----|
|           | Producer                          | CB  |
| 1.1.1     | Low                               | Low |
| 1.1.2     | Low                               | Low |
| 1.1.3     | Low                               | Low |
| 1.2.1     | Low                               | Low |
| 1.3.1     | Low                               | Low |
| 1.4.1     | Low                               | Low |
| 1.5.1     | Low                               | Low |
| 1.6.1     | Low                               | Low |
| 2.1.1     | Low                               | Low |
| 2.1.2     | Low                               | Low |
| 2.1.3     | Low                               | Low |
| 2.2.1     | Low                               | Low |
| 2.2.2     | Low                               | Low |
| 2.2.3     | Low                               | Low |

| Indicator | Risk rating<br>(Low or Specified) |     |
|-----------|-----------------------------------|-----|
|           | Producer                          | CB  |
| 2.3.3     | Low                               | Low |
| 2.4.1     | Low                               | Low |
| 2.4.2     | Low                               | Low |
| 2.4.3     | Low                               | Low |
| 2.5.1     | Low                               | Low |
| 2.5.2     | Low                               | Low |
| 2.6.1     | Low                               | Low |
| 2.7.1     | Low                               | Low |
| 2.7.2     | Low                               | Low |
| 2.7.3     | Low                               | Low |
| 2.7.4     | Low                               | Low |
| 2.7.5     | Low                               | Low |
| 2.8.1     | Low                               | Low |
| 2.9.1     | Low                               | Low |



|       |     |     |
|-------|-----|-----|
| 2.2.4 | Low | Low |
| 2.2.5 | Low | Low |
| 2.2.6 | Low | Low |
| 2.2.7 | Low | Low |
| 2.2.8 | Low | Low |
| 2.2.9 | Low | Low |
| 2.3.1 | Low | Low |
| 2.3.2 | Low | Low |

|        |     |     |
|--------|-----|-----|
| 2.9.2  | Low | Low |
| 2.10.1 | Low | Low |

## 9 Review of Company's mitigation measures

Thunderbolt Biomass Inc. Standard Operating Procedures (SOPs) addressing sustainability and legality are already in place and have been functioning under the SFI Fiber Sourcing and SFI/PEFC/SBP Chain of Custody and Due Diligence System programs.

Thunderbolt Biomass Inc. has incorporated legality and sustainability provisions in its Purchase Order Addendum. Supplier compliance is assessed via monitoring of Thunderbolt Biomass Inc.'s suppliers, state agency inspections, stakeholder feedback, and state agency inspections or reports where relevant and available.

Further mitigation measures have been adopted as part of the SBE Risk Assessment.

*2.1.2 The Biomass Producer has implemented appropriate control systems and procedures to identify and address potential threats to forests and other areas with high conservation values from forest management activities.*

### World Wildlife Fund (WWF) Ecoregions

#### NA517 Mid-Atlantic Coastal Forests

- a) WWF has declared about 88% of this ecoregion having been converted. The remaining examples of this HCV are known to occur on protected lands.
- b) The Company through its feedstock purchase contracts or supply agreements requires suppliers to comply with laws and regulations, including the Clean Water Act, and compliance with state Best Management Practices (BMPs). Verification of compliance is accomplished through supplier audits using TBI-SBP-07 Supplier Monitoring Checklists.
- c) The Company has committed to improving the education and awareness of this ecoregion through the representation of the Company at the South Carolina Forestry Association and the South Carolina SFI Implementation Committee. Information from these organizations was reviewed by company personnel.
- d) The Company reviews this educational information with its suppliers who source wood fiber from this ecoregion to educate the suppliers, their loggers and landowners on conservation values, threats from incompatible forest management, & opportunities for conservation through management that enhances biodiversity and reduces or eliminates threats. This education & outreach measure is documented using TBI-SBP-07 Supplier Monitoring Checklists.

#### NA529 Southeastern Conifer Forests

- a) WWF has declared over 98% of this ecoregion having been converted. The remaining examples of this HCV are known to occur on protected lands.
- b) The Company has committed to improving the education and awareness of this ecoregion through the representation of the Company at the South Carolina Forestry Association and the South Carolina SFI Implementation Committee. Information from these organizations was reviewed by company personnel. Information from these regional meetings on Native Long Leaf Pine Systems (NLPS) was reviewed by company personnel.

- c) The Company reviews this educational information with its suppliers who source wood fiber from this ecoregion to educate the suppliers, their loggers and landowners on the social benefits and values of NLPS, threats from forest management and related loss of values, and opportunities for conservation through management that restores or maintains NLPS and reduces or eliminates these threats. Communications should recognize the importance of the forest understory and fire to NLPS. This education and outreach measure will be documented using TBI-SBP-07 Supplier Monitoring Checklists.
- d) The Company will engage with and/or provide monetary or in-kind resources to conservation organizations such as the Longleaf Alliance that are facilitating active on-the-ground implementation of management activities to restore or maintain existing examples of NLPS, with a goal of long-term conservation of this system within the specified risk area and the company's supply area.

#### Green Peace Intact Forests

- a) There is a strong system of protection (effective protected areas and legislation) in place within the Company's supply area that ensures survival of this intact forest.
- b) No wood is harvested out of the described National Wilderness Area which is managed by the Department of Interior. If wood is harvested from the surrounding forests described above, The Department of Interior or the Georgia Forestry Commission conducts environment impact studies and oversees all timber harvesting on these forests within the HCV providing complete protection of the site.

#### FSC US Controlled Wood National Risk Assessment (US NRA)

##### Category 3: HCV3 - Native Longleaf Pine Systems

- a) The Company has committed to improving the education and awareness of this ecoregion through the representation of the Company at the South Carolina Forestry Association and the South Carolina SFI Implementation Committee. Information from these regional organizations on Native Long Leaf Pine Systems (NLPS) was reviewed by company personnel.
- b) The Company reviews this educational information with its suppliers who source wood fiber from these counties to educate the suppliers, their loggers and landowners on the social benefits and values of NLPS, threats from forest management and related loss of values, and opportunities for conservation through management that restores or maintains NLPS and reduces or eliminates these threats. Communications should recognize the importance of the forest understory and fire to NLPS. This education and outreach measure will be documented using TBI-SBP-07 Supplier Monitoring Checklists.
- c) The Company will engage with and/or provide monetary or in-kind resources to conservation organizations such as the Longleaf Alliance that are facilitating active, on-the-ground implementation of management activities to restore or maintain existing examples of NLPS, with a goal of long-term conservation of this system within the specified risk area and the company's supply area.

The Company has developed & implemented feedstock purchase contracts with its feedstock suppliers that:

- i. mitigate the risk that material supplied originates from forest areas or using techniques where key ecosystems or habitats may not be conserved, or

- ii. assure that if some deviation from these standards has occurred the Company can reject individual loads from suppliers or discontinue its relationship with the supplier.

The Company has developed & implemented feedstock purchase contracts with its feedstock suppliers that:

- i. mitigate the risk that material supplied originates from forest areas or using techniques where key ecosystems or habitats may not be conserved, or
- ii. assure that if some deviation from these standards has occurred the Company can reject individual loads from suppliers or discontinue its relationship with the supplier.

*2.1.3 The Biomass Producer has implemented appropriate control systems and procedures for verifying that feedstock is not sourced from forests converted to production plantation forest or non-forest lands after January 2008.*

#### FSC US Controlled Wood National Risk Assessment (US NRA)

##### Category 4: Forestland Conversion

###### Mitigation Measures:

- a) The BP has developed and implemented binding written agreements with its feedstock suppliers that:
  - i. mitigate the risk that material supplied originates from forest areas converted into plantation or non-forest use.
  - ii.
- b) The BP has committed to improving the education and awareness of this ecoregion through the representation of the BP at the South Carolina Forestry Association and the South Carolina SFI Implementation Committee. Information from these organizations was reviewed by BP personnel.

The BP reviews this educational information with its suppliers who source wood fiber from these counties to educate the suppliers, their loggers and landowners on the social benefits of keeping forests as forests, and the value enhancing alternatives to conversion and opportunities for the maintenance of forests. This education and outreach measure will be documented using TBI-SBP-07 Supplier Audit Checklists

*2.2.3 The Biomass Producer has implemented appropriate control systems and procedures to ensure that key ecosystems and habitats are conserved or set aside in their natural state (CPET S8b).*

#### World Wildlife Fund (WWF) Ecoregions

##### NA517 Mid-Atlantic Coastal Forests

- a) WWF has declared about 88% of this ecoregion having been converted. The remaining examples of this HCV are known to occur on protected lands.
- b) The Company through its feedstock purchase contracts or supply agreements requires suppliers to comply with laws and regulations, including the Clean Water Act, and compliance with state Best Management Practices (BMPs). Verification of compliance is accomplished through supplier audits using TBI-SBP-07 Supplier Monitoring Checklists.

- c) The Company has committed to improving the education and awareness of this ecoregion through the representation of the Company at the South Carolina Forestry Association and the South Carolina SFI Implementation Committee. Information from these organizations was reviewed by company personnel.
- d) The Company reviews this educational information with its suppliers who source wood fiber from this ecoregion to educate the suppliers, their loggers and landowners on conservation values, threats from incompatible forest management, & opportunities for conservation through management that enhances biodiversity and reduces or eliminates threats. This education & outreach measure is documented using TBI-SBP-07 Supplier Monitoring Checklists.

NA529 Southeastern Conifer Forests

- a) WWF has declared over 98% of this ecoregion having been converted. The remaining examples of this HCV are known to occur on protected lands.
- b) The Company has committed to improving the education and awareness of this ecoregion through the representation of the Company at the South Carolina Forestry Association and the South Carolina SFI Implementation Committee. Information from these organizations was reviewed by company personnel. Information from these regional meetings on Native Long Leaf Pine Systems (NLPS) was reviewed by company personnel.
- c) The Company reviews this educational information with its suppliers who source wood fiber from this ecoregion to educate the suppliers, their loggers and landowners on the social benefits and values of NLPS, threats from forest management and related loss of values, and opportunities for conservation through management that restores or maintains NLPS and reduces or eliminates these threats. Communications should recognize the importance of the forest understory and fire to NLPS. This education and outreach measure will be documented using TBI-SBP-07 Supplier Monitoring Checklists.
- d) The Company will engage with and/or provide monetary or in-kind resources to conservation organizations such as the Longleaf Alliance that are facilitating active on-the-ground implementation of management activities to restore or maintain existing examples of NLPS, with a goal of long-term conservation of this system within the specified risk area and the company's supply area.

Green Peace Intact Forests

- a) There is a strong system of protection (effective protected areas and legislation) in place within the Company's supply area that ensures survival of this intact forest.
- b) No wood is harvested out of the described National Wilderness Area which is managed by the Department of Interior. If wood is harvested from the surrounding forests described above, The Department of Interior or the Georgia Forestry Commission conducts environment impact studies and oversees all timber harvesting on these forests within the HCV providing complete protection of the site.

FSC US Controlled Wood National Risk Assessment (US NRA)

Category 3: HCV3 - Native Longleaf Pine Systems

- a) The Company has committed to improving the education and awareness of this ecoregion through the representation of the Company at the South Carolina Forestry Association and the

- South Carolina SFI Implementation Committee. Information from these regional organizations on Native Long Leaf Pine Systems (NLPS) was reviewed by company personnel.
- b) The Company reviews this educational information with its suppliers who source wood fiber from these counties to educate the suppliers, their loggers and landowners on the social benefits and values of NLPS, threats from forest management and related loss of values, and opportunities for conservation through management that restores or maintains NLPS and reduces or eliminates these threats. Communications should recognize the importance of the forest understory and fire to NLPS. This education and outreach measure will be documented using TBI-SBP-07 Supplier Monitoring Checklists.
  - c) The Company will engage with and/or provide monetary or in-kind resources to conservation organizations such as the Longleaf Alliance that are facilitating active, on-the-ground implementation of management activities to restore or maintain existing examples of NLPS, with a goal of long-term conservation of this system within the specified risk area and the company's supply area.

The Company has developed & implemented feedstock purchase contracts with its feedstock suppliers that:

- i. mitigate the risk that material supplied originates from forest areas or using techniques where key ecosystems or habitats may not be conserved, or
- ii. assure that if some deviation from these standards has occurred the Company can reject individual loads from suppliers or discontinue its relationship with the supplier.

*2.2.4 The Biomass Producer has implemented appropriate control systems and procedures to ensure that biodiversity is protected (CPET S5b).*

#### World Wildlife Fund (WWF) Ecoregions

##### NA517 Mid-Atlantic Coastal Forests

- a) WWF has declared about 88% of this ecoregion having been converted. The remaining examples of this HCV are known to occur on protected lands.
- b) The Company through its feedstock purchase contracts or supply agreements requires suppliers to comply with laws and regulations, including the Clean Water Act, and compliance with state Best Management Practices (BMPs). Verification of compliance is accomplished through supplier audits using TBI-SBP-07 Supplier Monitoring Checklists.
- c) The Company has committed to improving the education and awareness of this ecoregion through the representation of the Company at the South Carolina Forestry Association and the South Carolina SFI Implementation Committee. Information from these organizations was reviewed by company personnel.
- d) The Company reviews this educational information with its suppliers who source wood fiber from this ecoregion to educate the suppliers, their loggers and landowners on conservation values, threats from incompatible forest management, & opportunities for conservation through management that enhances biodiversity and reduces or eliminates threats. This education & outreach measure is documented using TBI-SBP-07 Supplier Monitoring Checklists.

NA529 Southeastern Conifer Forests

- a) WWF has declared over 98% of this ecoregion having been converted. The remaining examples of this HCV are known to occur on protected lands.
- b) The Company has committed to improving the education and awareness of this ecoregion through the representation of the Company at the South Carolina Forestry Association and the South Carolina SFI Implementation Committee. Information from these organizations was reviewed by company personnel. Information from these regional meetings on Native Long Leaf Pine Systems (NLPS) was reviewed by company personnel.
- c) The Company reviews this educational information with its suppliers who source wood fiber from this ecoregion to educate the suppliers, their loggers and landowners on the social benefits and values of NLPS, threats from forest management and related loss of values, and opportunities for conservation through management that restores or maintains NLPS and reduces or eliminates these threats. Communications should recognize the importance of the forest understory and fire to NLPS. This education and outreach measure will be documented using TBI-SBP-07 Supplier Monitoring Checklists.
- d) The Company will engage with and/or provide monetary or in-kind resources to conservation organizations such as the Longleaf Alliance that are facilitating active on-the-ground implementation of management activities to restore or maintain existing examples of NLPS, with a goal of long-term conservation of this system within the specified risk area and the company's supply area.

Green Peace Intact Forests

- a) There is a strong system of protection (effective protected areas and legislation) in place within the Company's supply area that ensures survival of this intact forest.
- b) No wood is harvested out of the described National Wilderness Area which is managed by the Department of Interior. If wood is harvested from the surrounding forests described above, The Department of Interior or the Georgia Forestry Commission conducts environment impact studies and oversees all timber harvesting on these forests within the HCV providing complete protection of the site.

FSC US Controlled Wood National Risk Assessment (US NRA)

Category 3: HCV3 - Native Longleaf Pine Systems

- a) The Company has committed to improving the education and awareness of this ecoregion through the representation of the Company at the South Carolina Forestry Association and the South Carolina SFI Implementation Committee. Information from these regional organizations on Native Long Leaf Pine Systems (NLPS) was reviewed by company personnel.
- b) The Company reviews this educational information with its suppliers who source wood fiber from these counties to educate the suppliers, their loggers and landowners on the social benefits and values of NLPS, threats from forest management and related loss of values, and opportunities for conservation through management that restores or maintains NLPS and reduces or eliminates these threats. Communications should recognize the importance of the

forest understory and fire to NLPS. This education and outreach measure will be documented using TBI-SBP-07 Supplier Monitoring Checklists.

- c) The Company will engage with and/or provide monetary or in-kind resources to conservation organizations such as the Longleaf Alliance that are facilitating active, on-the-ground implementation of management activities to restore or maintain existing examples of NLPS, with a goal of long-term conservation of this system within the specified risk area and the company's supply area.

The Company has developed & implemented feedstock purchase contracts with its feedstock suppliers that:

- i. mitigate the risk that material supplied originates from forest areas or using techniques where key ecosystems or habitats may not be conserved, or
- ii. assure that if some deviation from these standards has occurred the Company can reject individual loads from suppliers or discontinue its relationship with the supplier.

Thunderbolt Biomass Inc. Periodically and annually interviews and monitors its suppliers to confirm compliance with the Purchase Order Addendums as part of its internal monitoring and management review process. Suppliers are assessed by using the Supplier Monitoring Checklist.

Further details of the monitoring plan can be found in the organization's SBR.



## 10 Non-conformities and observations

Identify all non-conformities and observations raised/closed during the evaluation (a tabular format below may be used here). Please use as many copies of the table as needed. For each, give details to include at least the following:

- applicable requirement(s)
- grading of the non-conformity (major or minor) or observation with supporting rationale
- timeframe for resolution of the non-conformity
- a statement as to whether the non-conformity is likely to impact upon the integrity of the affected SBP-certified products and the credibility of the SBP trademarks.

|  |   |
|--|---|
| <b>NC number 1</b>   | <b>NC Grading:</b> Observation  |
| <b>Standard &amp; Requirement:</b>   | SBP ST 4: 6.3.1; ST 1: 2.3.2, 2.8.1   |
| <b>Description of Non-conformance and Related Evidence:</b>  |   |
| Auditor observation during facility tour of eye protection not being utilized by personnel during high concentrations of wood dust particles in air. |   |
| <b>Timeline for Conformance:</b>   | Other   |
| <b>Evidence Provided by Company to close NC:</b>   | <i>Click or tap here to enter description provided by Company to close the NC.</i>    |
| <b>Findings for Evaluation of Evidence:</b>  | <i>Click or tap here to enter findings for evaluation of evidence by the auditor.</i> |
| <b>NC Status:</b>  | Open  |

|   |                             |
|---|-----------------------------|
| <b>NC number 2</b>  | <b>NC Grading:</b> Minor    |
| <b>Standard &amp; Requirement:</b>  | SBP STD 1: 4.3, STD 2, 13.4 |
| <b>Description of Non-conformance and Related Evidence:</b>   |                             |
| No representatives of Indigenous group on Stakeholder List. One federal recognized tribe in South Carolina. |                             |

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| <b>Timeline for Conformance:</b>                 | By the next surveillance audit, but no later than 12 months from report finalisation date  |
| <b>Evidence Provided by Company to close NC:</b> | Stakeholder letter sent to representatives of Native American tribes   |
| <b>Findings for Evaluation of Evidence:</b>      | The letter was reviewed and assessed as adequate stakeholder consultation. The CAR remains open until the end of the consultation period and the assessment of any comments by the BP. |
| <b>NC Status:</b>                                | Open   |

|  |   |
|--|---|
| <b>NC number 3</b>   | <b>NC Grading: Major</b>  |
| <b>Standard &amp; Requirement:</b>   | ST 1, 2.7, & various indicators as cited below; SBP ST 2: 8.4, 9.3  |
| <b>Description of Non-conformance and Related Evidence:</b>  |   |
| <p>The BP has not provided sufficient evidence for the risk conclusions given in the SBE. It has not identified specified risk to SBP indicators within supply base although risks were identified through a multi-stakeholder risk assessment provided by the FSC Controlled Wood NRA for the US. The CB assessed 5 indicators that have specified risk: 2.1.2, 2.1.3, 2.2.3, 2.2.4 and 2.2.5. Two indicators, 2.2.5, 2.10.1, the indicator was identified as “not applicable”, though this cannot be the case as all indicators are applicable. Furthermore, for this indicator, an outdated internet source is listed (globalforestregistry.org). No mitigation measures are implemented for risks in the supply base. The evidence and means of verification for some indicators are not specific enough. For example, for 2.2.1, 2.2.2, 2.2.6, 2.2.8, 2.2.9, 2.4.1 BMPs are mentioned as MoV, but it is not detailed why BMPs are effective in proving that the risk is low. The same applies to logger training which is used as evidence in 2.2.2, but not explained why logger training is effective in reducing the risk to low. For indicator 2.3.3 the number of employees is not included. Indicator 2.4.1 does not list enough evidence how health, vitality and other services provided by forest are maintained in the supply base. Issues such as forest regeneration, genetics and species diversity, functions the forest provide to people and the environment – erosion and flood control, access for recreation (Hunting, biking, hiking) are not discussed. Where laws and regulations are cited, there is no data on the enforcement of the law, such as the World Governance Indicators Rule of law index, given to support the evidence. An example is indicator 1.3.1, 2.7.3, 2.7.4 and 2.7.5 and 2.8.1. For indicator 2.1.1 the SBE lists sources that cannot be accessed anymore such as <a href="https://www.biodiv.org/world/parties.asp">https://www.biodiv.org/world/parties.asp</a>, <a href="https://www.biodiv.org/reports/list.aspx?type=for">https://www.biodiv.org/reports/list.aspx?type=for</a>, <a href="http://www.fws.maps.arcgis.org/">www.fws.maps.arcgis.org/</a>, and <a href="http://www.globlforestregistry.org/map">www.globlforestregistry.org/map</a>.</p> |   |
| <b>Timeline for Conformance:</b>   | Prior to (re)certification  |
| <b>Evidence Provided by Company to close NC:</b>   | Revised SBR and SBR Annex I   |
| <b>Findings for Evaluation of Evidence:</b>  | The revisions have addressed the nonconforming parts identified above. The company specified risk and implemented mitigation measures for indicators 2.1.2, 2.1.3, 2.2.3 and 2.2.4. |

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| <b>NC Status:</b> | Closed |
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| <b>NC number 4</b>   | <b>NC Grading: Major</b>  |
| <b>Standard &amp; Requirement:</b>   | SBP ST 2: 7.3 & IN-2C 4.1, Section 5  |
| <b>Description of Non-conformance and Related Evidence:</b>  |   |
| <p>Several sections in the SBR and SBR Annex I are not in compliance with the standard. The supply base is not defined consistently in the section 2.1 &amp; 2.5, incorrect risk ratings for SBP indicators and incorrect forestry certifications such as FSC CW and SFI Fiber Sourcing are included in the SBR. The BP has not used the latest version of the SBR and SBR Annex I template as available on the SBP website. In the SBR section 2.1 there is no mention if IUCN species are present in the supply base. The general description of forest resources is not complete. Missing items are land use and ownership status, socio-economic conditions, forest composition, profile of adjacent lands. An overview of the proportions of SBP feedstock product groups does not show the proportions of each which are certified and uncertified. In section 2.5, item e the percentages of FSC-certified areas are not included. According to the risk ratings of the initial risk assessment, no indicators were identified as “unspecified”. However, the organization completed the section “Supplier Verification Program (SVP). The SVP is not applicable for the SBE, because no risk was determined “unspecified” from the initial risk assessment on. The feedstock type is not defined correctly: the company sources residuals from sawmills and secondary remanufacturing facilities. The residuals from the latter constitute pre-consumer tertiary feedstock as per the SBP definitions in the SBP glossary. The SBR section 2 however states that tertiary feedstock is not procured.</p> |   |
| <b>Timeline for Conformance:</b>   | Prior to (re)certification  |
| <b>Evidence Provided by Company to close NC:</b>   | Revised SBR   |
| <b>Findings for Evaluation of Evidence:</b>  | The revisions presented are sufficient to address the finding. All respective sections in the SBR were corrected. |
| <b>NC Status:</b>  | Closed  |

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|--|--|
| <b>NC number 5</b>   | <b>NC Grading: Major</b>   |
| <b>Standard &amp; Requirement:</b>   | SBP ST 2: 11.1, 11.2, 11.4, 11.6, 11.7, 16.1, 16.2, 16.3, 16.4, 18.3, 18.4 |
| <b>Description of Non-conformance and Related Evidence:</b>  |  |
| <p>No mitigation measures identified within SBR and SBR Annex 1 for Specified Risk indicators. Organization has not used region-based approach to determine risk within defined supply base.</p> |  |
| <b>Timeline for Conformance:</b>   | Prior to (re)certification   |

|   |   |
|---|---|
| <b>Evidence Provided by Company to close NC:</b>  | Revised SBR and SBR Annex I   |
| <b>Findings for Evaluation of Evidence:</b>   | The revisions have addressed the nonconforming parts identified above. The company specified risk and implemented mitigation measures for indicators 2.1.2, 2.1.3, 2.2.3 and 2.2.4. |
| <b>NC Status:</b>   | Closed  |
|   |   |
| <b>NC number 6</b>  | <b>NC Grading: Major</b>  |
| <b>Standard &amp; Requirement:</b>  | SBP ST4: IN-4B, Section 1.7 & SBP certification mark and trade mark use Guidance for certificate holders section 2 & 4  |
| <b>Description of Non-conformance and Related Evidence:</b>   |   |
| Organization has utilized SBP trademark on website without prior written approval. The organization has a signed and countersigned TMLA with SBP in place and the trademarks were used correctly. |   |
| <b>Timeline for Conformance:</b>  | Prior to (re)certification  |
| <b>Evidence Provided by Company to close NC:</b>  | Removed SBP trademarks from website   |
| <b>Findings for Evaluation of Evidence:</b>   | The SBP trademarks have been remove from the website. CAR is closed.  |
| <b>NC Status:</b>   | Closed  |
|   |   |

## 11 Certification decision

| <b>Based on the auditor's recommendation and the Certification Body's quality review, the following certification decision is taken:</b> |  |
|--|--|
| <b>Certification decision:</b>   | Certification approved   |
| <b>Certification decision by (name of the person):</b>   | Sebastian Häfele   |
| <b>Date of decision:</b>   | 09/Mar/2020  |
| <b>Other comments:</b>   | After succesful closure of the conditional CARs initial certification is approved. |