

## **2015 SFI Public Summary Report**

### **Solvay Biomass Energy, LLC Sustainable Forestry Initiative® (SFI) 2015-2019 Fiber Sourcing Standard**

#### **Project Scope and Objectives**

PricewaterhouseCoopers LLP (PwC) completed an SFI Maintenance / Transition Assessment on the single site wood fiber procurement system at Solvay Biomass Energy LLC's (Solvay) wood pellet manufacturing plant in Quitman, MS. The PwC Lead Assessor was Bruce Eaket, RPF, EP (EMSLA) who was assisted by Stephen Grado (contract lead auditor in training). The assessment was also witnessed by two auditors from the Standards Council of Canada and PwC was accompanied throughout the assessment by Solvay representatives: Mark McKelvaine, Laurent Valiergue and Jacob Rheuban.

The primary objective of the assessment was to assess Solvay's SFI fiber sourcing management system in the office, and to evaluate the implementation of the SFI Standard in the field and at the pellet plant.

#### **Indicators**

Objectives 1 – 7 and 9 – 10 in the SFI Fiber Sourcing Standard were within the scope of the assessment. There were no substitute indicators.

#### **Assessment Process**

On November 3, 2015, the assessment team conducted interviews and reviewed appropriate documentation in Quitman, MS to assess policies and procedures, and tested implementation of SFI program requirements at the plant and in the field. The report was dated January 8, 2016.

#### **Fiber Sourcing Summary**

Solvay is a renewable energy company that specializes in developing and operating wood pellet and torrefied wood pellet facilities. The plant in Quitman, Mississippi (the "Plant") sources softwood and hardwood wood fiber from counties in Mississippi (MS) and Alabama (AL) within the United States. Forestry is the predominant land use in both states with forests occupying 65% of MS and almost 71% of AL respectively. Pine forests comprise the largest forest type (almost 48%) of the supply area's forest followed by hardwood forests (39%).

Solvay has an internal fiber procurement group that has responsibility for the implementation of voluntary standards including the Sustainable Forestry Initiative® (SFI) Fiber Sourcing and Chain of Custody (CoC) standards, the Programme for the Endorsement of Forest Certification (PEFC™) CoC Standards, the Forest Stewardship Council™ (FSC) Standards and the SBP Standards.

Wood sourced is generally raw chips delivered from the forests or via chip yards and residuals from saw mill operations. Wood is received at the plant, dried and processed into pellets. Finished pellets are transported via truck to the Port of Mobile, Alabama.

## Summary of Conformance, Findings, and Good Management Practices

### SFI FIBER SOURCING

<b>Objective</b>	<b>Performance Measure</b>	<b>Evidence of Conformity</b>
<b>Objective 1: Biodiversity in Fiber Sourcing</b>	<i>Performance Measure 1.1. Promotion and conservation of biological diversity.</i>	<p><i>Evidence: interviews, risk assessments, documented sourcing procedures</i></p> <p>The Company has a thorough risk assessment for their district of origin and have already ordered the performance of an updated risk assessment to continue to maintain the integrity of the fiber sourcing program. Forests of exceptional conservation value do not exist in the district of origin where purchased stumpage is harvested.</p>
	No Nonconformities or Opportunities for Improvement were identified related to this performance measure.	
<b>Objective 2: Adherence to Best Management Practices</b>	<i>Performance Measure 2.1. Program Participants shall clearly define and implement policies to ensure that facility inventories and fiber sourcing activities do not compromise adherence to the principles of sustainable forestry.</i>	<p><i>Evidence: interviews, reviewed contracts, documented procedures</i></p> <p>The Company has a policy supported by a contract titled the “Fiber Purchase Agreement” which states that all suppliers will follow Best Management Practices (BMPs). There is statement included that says “Seller shall follow applicable state forestry best management practices.” The Company maintains a documented wet weather contingency plan to manage operations during adverse weather and posts their fiber sourcing policies on their corporate website. They also distribute copies of their sustainability policy as requested.</p>
	No Nonconformities or Opportunities for Improvement were identified related to this performance measure.	
	<i>Performance Measure 2.2. Program Participants shall monitor the use of best management practices.</i>	<p><i>Evidence: interviews, documented procedures, monitoring inspections</i></p> <p>The Company inspects/monitors the activities of their contractors and documents their inspections on a "Solvay BMP Compliance Checklist" which ensures appropriate BMPs are being practiced in the field.</p>
	An Opportunity for Improvement was identified related to this performance measure. The Company has a detailed BMP Compliance Checklist in use, however, some consideration could be given to adding a “Streamside Management Zone (SMZ) marking” checklist item to it and consideration could also be given to training Company inspectors with regards to when to engage contractors with feedback. Consideration could also be given to ensuring that Company inspectors are clear with regards to what the “Utilization” checklist item entails and when to assess it.	
<b>Objective 3: Use of Qualified Resource and Qualified Logging Professionals</b>	<i>Performance Measure 3.1. Program Participants shall encourage landowners to utilize the services of qualified logging professionals, certified logging professionals (where available), qualified resource professionals and to apply principles of sustainable forest management to their lands.</i>	<p><i>Evidence: written contracts, interviews with loggers</i></p> <p>The Company’s Fiber Purchase Agreements (i.e., contracts) call for only using SFI trained loggers. With residual wood material suppliers a secondary supply audit process, following procedures in place, has begun. The Company is just embarking on this activity in a more frequent manner. Through their participation in the Sustainable Biomass Partnership, the Company is able to make inquiries as to whether harvests leading to these materials are performed by trained loggers. The Company maintains a detailed list of all loggers currently being used in their district of origin.</p>
	No Nonconformities or Opportunities for Improvement were identified related to this performance measure.	

<b>Objective 4: Legal and Regulatory Compliance</b>	<i>Performance Measure 4.1. Program Participants shall comply with applicable federal, provincial, state and local forestry and related social and environmental laws and regulations and take steps to avoid illegal logging.</i>	<i>Evidence: written contracts, interviews with staff and loggers</i>  The Procurement and Sustainability Manager has a copy of state BMPs. The Company's membership in the SFI and its State Implementation Committee (SIC) provides access to current laws and regulations as does their membership in the Mississippi Forestry Association (MFA). The Manager regularly attends SIC meetings. Access to Mississippi State University (MSU) provides access to materials that cover regulations and training resources. The Company maintains a database of infractions, although thus far there has been nothing of significance (e.g., no permit violations to date) and no contractors have been removed from their approved list for improper activity. The Company also refers to SIC listed violators and those brought to public attention by MFA. The Company's risk assessment has examined the potential risk of fiber sourcing from illegal logging in its district of origin. The Company's manager is in constant communication with its loggers, provides them with documentation to guide their logging activity and then documents their logging activity in the district of origin. Fiber Purchase Agreements provide a commitment from logging contractors and wood buyers to refrain from illegal logging.
	No Nonconformities or Opportunities for Improvement were identified related to this performance measure.	
	<i>Performance Measure 4.2. Program Participants shall take appropriate steps to comply with all applicable social laws at the federal, provincial, state and local levels in the country in which they Program Participant operates.</i>	<i>Evidence: interviews, field observations</i>  The Company documents procedures and implements activities that demonstrate a commitment to comply with social laws. The Company has demonstrated from its policies and documented evidence and from observations in the forest and office that they are complying with laws and regulations relative to their operation.
No Nonconformities or Opportunities for Improvement were identified related to this performance measure.		
<b>Objective 5. Forestry Research, Science and Technology</b>	<i>Performance Measure 5.1. Program Participants shall – individually and/or through cooperative efforts involving SFI Implementation Committees, associations or other partners – provide in-kind support or funding for forest research to improve forest health, productivity, and sustainable management of forest resources, and the environmental benefits and performance of forest products.</i>	<i>Evidence: Interviews with staff and confirmation of financial records</i>  The Company has made financial contributions to MSU for research purposes. As a dues paying member of the SIC they are part of an entity that will fund research and outreach efforts, support the SFI Logger Education Program, and provide a majority of the budget for MFA's Communications Sub-committee. Company operations have spurred research on their own processes. In-kind support has been made relative to their cutting edge fossil fuels use reduction in their processes, their end-product impacts on fossil fuel reductions, and their minimization of emissions from their wood pellet processes (e.g., internal capture of gases to re-fire their furnace). The Company does not perform or support research on genetically engineered trees.
	No Nonconformities or Opportunities for Improvement were identified related to this performance measure.	
	<i>Performance Measure 5.2. Program Participants shall individually and/or through cooperative efforts involving SFI Implementation Committees, associations or other partners develop or use state, provincial or regional analyses in support of their sustainable forestry programs.</i>	<i>Evidence: Interviews with staff and confirmation of financial records.</i>  As a member of the SIC, the Company has directly and indirectly funded research on regeneration, growth, and drain by supporting the Mississippi Institute for Forest Inventory (MIFI). The Company has also performed their own assessment titled the "Forest to Market Supply Assessment."

		Through assess to MSU's Extension office and MFA they are able to collect and distribute biodiversity and conservation materials and other information (e.g., economic information) for family forest landowners.
No Nonconformities or Opportunities for Improvement were identified related to this performance measure.		
	<i>Performance Measure 5.3. Program Participants shall individually and/or through cooperative efforts involving SFI Implementation Committees, associations or other partners broaden the awareness of climate change impacts of forests, wildlife and biological diversity.</i>	<i>Evidence: Interviews with staff</i>  The Company's product will be used to reduce the use of fossil fuels. As a result, they are actively interested in monitoring information on climate issues. The SIC, of which the Company is a member, discusses and supports studies on the impacts of climate change on southern forests. Climate change impacts on forests, wildlife, and biological diversity are often topics of discussion at SIC and MFA meetings. There is no significant climate change impact program in operation in its operating area, but the Company is monitoring new developments in the area through SIC membership. Relative to the size of its operation, the Company is an active participant in forest and forest products research and related technology advancements.
No Nonconformities or Opportunities for Improvement were identified related to this performance measure.		
<b>Objective 6. Training and Education</b>	<i>Performance Measure 6.1. Program Participants shall require appropriate training of personnel and contractors so that they are competent to fulfill their responsibilities under the SFI 2015-2019 Fiber Sourcing Standard.</i>	<i>Evidence: policy statement, training records</i>  The Company has a signed written commitment to the SFI 2015-2019 Fiber Sourcing Standard that is distributed to its staff and throughout its facility, with references embedded in associated documents. The Company has assigned roles and responsibilities for achieving the SFI 2015-2019 Fiber Sourcing Standard objectives noted in its documented control procedures. Primary responsibility and oversight falls on the Procurement and Sustainability Manager. The Company has a robust training program relative to certification and requires that their loggers go through logger education training. For example, the SFI Logger Education Training Program, delivered by MSU's Extension personnel and supported by the SIC, is used by most Mississippi loggers. A similar program, the Alabama Professional Logging Manager program, is supported by the Alabama Forestry Association. The Company uses its Fiber Purchase Agreement for logging contractors and wood producers.
No Nonconformities or Opportunities for Improvement were identified related to this performance measure.		
	<i>Performance Measure 6.2. Program Participants shall work individually and/or with SFI Implementation Committees, logging or forestry associations, or appropriate agencies or others in the forestry community to foster improvement in the professionalism of wood producers.</i>	<i>Evidence: Interviews with staff, SIC Logger Education Program</i>  The Company is a member of the SIC and MFA. Through these entities training is provided for wood producers, along with continuing education programs that cover all SFI Fiber Sourcing requirements. MSU's Extension program, in part supported by the SIC (i.e., Logger Education Program), also provides continuing education programs in which the Manager and wood producers participate. The Company is engaged in the appropriate training and continuing education of personnel and contractors to promote the assurance that they are competent to fulfill their responsibilities under the SFI 2015-2019 Fiber Sourcing Standard.

	No Nonconformities or Opportunities for Improvement were identified related to this performance measure.	
<b>Objective 7. Community Involvement and Landowner Outreach</b>	<p><i>Performance Measure 7.1. Program Participants shall support and promote efforts by consulting foresters, state, provincial and federal agencies, state or local groups, professional societies, conservation organizations, Indigenous Peoples and governments, community groups, sporting organizations, labor, universities, extension agencies, the American Tree Farm System® and/or other landowner cooperative programs to apply principles of sustainable forest management.</i></p>	<p><i>Evidence: outreach packages</i></p> <p>The Company is a member which financially and actively supports the efforts of the SFI SIC, MFA, and the American Tree Farm System (ATFS). Outreach and education efforts are facilitated through the SIC, MFA, Mississippi Forestry Commission (MFC), and MSU Extension's Logger Education Program which provide information, documentation and guidance to wood producers to distribute to forest landowners. The ATFS and County Forestry Associations (CFAs) are other organizations related to the SIC and MFA and used for this distribution. Financial support is used to maintain a MFA lobbyist who advocates on behalf of forestry and the forest products industry. This effort is directly tied to support of programs related to tax issues and other forestry-based incentive programs. MIFI, to which the Company has donated funds, is housed in the MFC and supports information and documentation on the state's forest inventory and forest growth and drain.</p>
	No Nonconformities or Opportunities for Improvement were identified related to this performance measure.	
	<p><i>Performance Measure 7.2. Program Participants shall support and promote, at the state, provincial or other appropriate levels, mechanisms for public outreach, education and involvement related to sustainable forest management.</i></p>	<p><i>Evidence: SIC, MFA, MFC and MSU collaborations, articles and education initiatives</i></p> <p>Education and outreach associated with SFI Fiber Sourcing requirements are facilitated through the Company's association with the SIC, MFA, MFC and MSU. In addition, the Company has published articles on changing the biomass properties of wood chips to provide a much better fuel quality for combustion and gasification applications (ie. torrefaction). Company personnel have also spoken at industry conferences with regards to this topic.</p>
	No Nonconformities or Opportunities for Improvement were identified related to this performance measure.	
	<p><i>Performance Measure 7.3. Program Participants shall establish, at the state, provincial, or other appropriate levels, procedures to address concerns raised by loggers, consulting foresters, employees, unions, the public or other Program Participants regarding practices that appear inconsistent with the SFI 2015-2019 Fiber Sourcing Standard principles and objectives.</i></p>	<p><i>Evidence: record of public communications</i></p> <p>The Company is a dues paying member of SIC. As part of the SIC budget, there is financial support for a telephone number for individuals to call and report concerns, issues or inconsistencies about nonconforming forest practices. Complaints are forwarded from all sources to the SIC and potentially to the Company. The Company has procedures in place to write up complaint reports, log them and then develop a plan of action. The Company directly and indirectly supports efforts aimed at community and professional involvement and outreach. This lends further support for sustainable forest management practices for fiber sourcing.</p>
	No Nonconformities or Opportunities for Improvement were identified related to this performance measure.	
<b>Objective 8. Public Land Management Responsibilities</b>	<p><i>Performance Measure 8.1. Program Participants with forest management responsibilities on public lands shall participate in the development of public land planning and management processes.</i></p>	<p>Not Applicable – The Company does not manage public or private land.</p>
	No Nonconformities or Opportunities for Improvement were identified related to this performance measure.	

<b>Objective 9. Communications and Public Reporting</b>	<i>Performance Measure 9.1. A Program Participant shall provide a summary audit report, prepared by the certification body, to SFI Inc. after the successful completion of a certification, recertification or surveillance audit to the SFI 2015-2019 Fiber Sourcing Standard.</i>	<i>Evidence: SFI website and staff interviews</i>  PwC prepared the annual public summary report after the completion of the surveillance / transition assessment to the SFI 2015-2019 Fiber Sourcing Standard. The Company has procedures and operations in place to enable the certification body to produce an annual progress report demonstrating its conformance with the SFI 2015-2019 Fiber Sourcing Standard.
	No Nonconformities or Opportunities for Improvement were identified related to this performance measure.	
	<i>Performance Measure 9.2. Program Participants shall report annually to SFI Inc. on their conformance with the SFI 2015-2019 Fiber Sourcing Standard.</i>	<i>Evidence: SFI website and staff interviews</i>  The Company maintains adequate recordkeeping to produce an Annual Progress Report needed for SFI annual progress report surveys.
No Nonconformities or Opportunities for Improvement were identified related to this performance measure.		
<b>Objective 10. Management Review and Continual Improvement</b>	<i>Performance Measure 10.1. Program Participants shall establish a management review system to examine findings and progress in implementing the SFI 2015-2019 Fiber Sourcing Standard, to make appropriate improvements in programs, and to inform their employees of changes.</i>	<i>Evidence: fiber sourcing procedures, internal audit records, management review meeting minutes</i>  The Company is implementing a regular audit process of their fiber sourcing system. The manager visits each stand before, during and after each cut to verify district of origin, confirm associated documentation matches the cut and verify harvesting practices. An annual internal audit is also performed to the SFI Fiber Sourcing requirements and is reviewed by upper management. After the management review a response is generated commenting on activities during the past year and whether there are any management recommendations going forward. If so, personnel are duly informed. The Company has a management review system and internal audit program capable of examining and reviewing their operating system when implementing the SFI 2015-2019 Fiber Sourcing Standard. The procedures are also capable of making the appropriate changes if deemed necessary.
	No Nonconformities or Opportunities for Improvement were identified related to this performance measure.	
<b>Objective 11. Promote Conservation of Biological Diversity, Biodiversity Hotspots and High-Biodiversity Wilderness Areas</b>	<i>Performance Measure 11.1. Program Participants shall ensure that their fiber sourcing programs support the principles of sustainable forestry, including efforts to promote conservation of biological diversity.</i>	Not Applicable – The Company is not sourcing outside Canada/US.
	No Nonconformities or Opportunities for Improvement were identified related to this performance measure.	
<b>Objective 12. Avoidance of Controversial Sources including Illegal Logging</b>	<i>Performance Measure 12.1. Program Participants shall ensure that their fiber sourcing programs support the principles of sustainable forestry, including efforts to reduce the risk of illegal logging.</i>	N/A – The Company is not sourcing outside Canada/US.
	No Nonconformities or Opportunities for Improvement were identified related to this performance measure.	

<p><b>Objective 13. Avoidance of Controversial Sources including Fiber Sourced from Areas without Effective Social Laws</b></p>	<p><i>Performance Measure 13.1. Program Participants shall avoid controversial sources and encourage socially sound practices.</i></p>	<p>N/A – The Company is not sourcing outside Canada/US.</p>
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**Specific good management practices are noted below:**

- When completing on-site BMP monitoring of their contractor’s activities, Solvay inspectors are identifying good feedback opportunities for the contractors and are using detailed hand drawn maps to communicate the issues.
- A Solvay contractor left trees standing along a SMZ even though the landowner had included them within the harvest area. On the same site, the contractor pulled out of a wet/soft area that was not previously identified by the landowner.

**Conclusion**

Solvay Biomass Energy, LLC has maintained their SFI Fiber Sourcing program and has implemented the requirements of the 2015-2019 SFI Standard at the Quitman, MS wood pellet manufacturing plant. The Certificate can be obtained by contacting Mark McKelvaine of Solvay Biomass Energy, LLC at 601-776-3444 (#228) or on [www.solvaybiomassenergy.com](http://www.solvaybiomassenergy.com).