BRUKS Siwertell
BULK HANDLING & WOOD PROCESSING



STORAGE & RECLAIMING - USA

INTEGRATED WOODYARD OPERATIONS BOOST SOUTH CAROLINA PELLET PLANT

Ambitious steps towards sustainable energy production saw a Greenwood, South Carolina, pellet plant require an integrated, automated approach to handling the huge volumes of processed wood chips required for production. Bruks Siwertell technology was selected for the complete woodyard, delivering an efficient, high-capacity solution.

Customer need

In 2016, the US Greenwood Colombo Energy plant - now part of Enviva, after being acquired from The Navigator Company that built and commissioned the plant - commenced operations. At the time, the 500,000 metric ton per year facility was one of the most advanced of its kind and needed a suitable woodyard that could realize its owners' ambitious plans for sustainable bioenergy production.

Known for its integrated forest, pulp and paper, and energy ventures, the company's new pellet plant required something out of the ordinary and approached various technology specialists to fulfil its equipment brief. This included chipping capabilities, an automated stacker reclaimer and a bulk truck receiving facility.

Several years later, when it needed to expand its truck-receiving capabilities even further, it turned to technology that it knew it could rely on.

Our solution

Bruks Siwertell was selected to engineer and install the plant's original complete woodyard. The biomass pellet mill is fed with raw materials in two ways. It receives trucks full of southern yellow pine trees that are placed onto the log deck and from here the debarking and chipping process commences using a Bruks drum chipper. To ensure a continuous flow of wood chips, the mill is also fitted with bulk truck-receiving facilities so that it has the option to buy-in pre-processed wood chips from alternative sources. This serves the additional purpose of offering redundancy in the system, so the mill can remain operational during log line maintenance. Initially, a single Bruks truck dumper and receiving hopper, with capacity to unload wood chips at 130t/h was installed. This capacity was doubled in 2021 with the addition of a second Bruks back-on truck dumper.

All wood chips are stacked and stored using a Bruks circular blending bed stacker reclaimer (CBBSR), which can build a maximum pile of 28,317m3

FACTS

CATEGORIES:

- **Storage & Reclaiming**

MATERIALS:

- **Biomass**

CUSTOMER:

Colombo Energy

ADDITIONAL FACTS:

Product	Complete woodyard with circular blending bed stacker reclaimer; two 22.9m (75ft) back-on truck dumper systems; and drum chipper
Materials handled	Wood chips and bark

PRODUCTS:

- Storage & Reclaiming

LOCATION:

Greenwood, South Carolina, USA

SCAN THE QR-CODE:
View the Case online

(1,000,000 ft3). The circular blending bed stacker reclaimer uses a traversing harrow that agitates the pile to evenly feed the screw reclaimer under the moving bridge that travels on wheels. This process creates a true first-in and first-out reclaiming profile of the wood chips. The reclaimed wood chips are then conveyed to the Bruks hammermills for secondary sizing, while the bark is conveyed to a hydraulic stoker floor to be reclaimed into the process.

The entire wood-processing and handling operation delivers a very efficient system that benefits from all the advantages of automation, ensuring the plant's highest yields.

Enviva plans to make investments in the plant to increase its production capacity even further and embrace any additional dust emissions measures.