

# The Palatka Mill is an Industrial Model



## Overview

In 1998, Georgia-Pacific reached a ground-breaking cooperative agreement with the U.S. Environmental Protection Agency and the Florida Department of Environmental Protection. Under the agreement, Georgia-Pacific voluntarily agreed to upgrades and improvements at the Palatka facility. These upgrades and improvements turned the mill's pulp washing and bleaching system into a state-of-the-art operation.



Over the last decade, Georgia-Pacific has spent a total of \$250 million on environmental upgrades for the mill, resulting in environmental progress on the ecosystems of Rice Creek and the St. Johns River basin. The majority of the spending, \$200 million, covered environmentally beneficial manufacturing process upgrades that improved effluent water quality.

Many of the modifications, more than \$100 million worth, were not required to meet existing effluent standards for pulping and bleaching systems. Georgia-Pacific agreed to these changes in good faith to improve the environment while also meeting the desires of state and federal government officials.



## Key Manufacturing Improvements

**NEW ELEMENTAL CHLORINE-FREE (ECF) BLEACH PLANT** The first major manufacturing change was the installation of a new \$66 million bleach line at the plant. The 2002 startup removed elemental chlorine from the bleaching process at the facility, resulting in significant reduction in water consumption and improvement in the quality of the mill's effluent.



**NEW BROWNSTOCK WASHING SYSTEM** A key part of the manufacturing process is preparation of pulp for the bleaching plant. A brownstock system "washes out" impurities (chemicals and organic matter) that bind the pulp together. Georgia-Pacific spent \$94 million to install a new, state-of-the-art brownstock washing and oxygen delignification system. Optimizing the brownstock system has reduced the amount of bleaching chemicals needed to process its products.

**NEW OXYGEN DELIGNIFICATION** Delignification reduces the brown color found in natural wood, therefore reducing the amount of chemicals such as chlorine dioxide used in the production of the mill's products. Oxygen delignification is an alternative to using chemicals such as chlorine to bleach the paper.

**NEW DREGS FILTER** The installation of the company's dregs filter significantly reduced conductivity in the mill's effluent. Inert materials, or chemical solids, are now removed, dewatered and reclaimed to landfill. Prior to the installation of the dregs filter, those chemical solids and associated process chemicals were sewered and entered the mill's effluent treatment system.



**Georgia-Pacific**