Rock-Tenn Current Manufacturing Process

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Rock-Tenn has 4 papers machines that produce a total of approximately 1000 tons of paper per day. Paper Machines #1 and #2 are located in the Boxboard Mill and Paper Machines #4 and #5 are located in the Corrugated Medium Mill.

Recycled paper is brought into the plant and mixed with heated water to form slurry. Metal and other solid contaminants are removed through centrifugal and screen filters. Paper is formed by pouring the slurry on moving screens and then dried through a two step process.

The first stage of the drying process is the transfer of water to a moving felt sheet. Rollers squeeze the paper and felt together and the water absorbed by the felt is sucked off the felt sheet by vacuum compressors.

The second stage of the drying process is evaporation. Steam heated rollers evaporate the water from the paper, where the water vapor is absorbed by heated (outside) makeup air and exhausted. Based on the percent solids from the wet to the dry end of the paper machines, a total of 96,800 lbs/hr of water are evaporated.

Steam boilers produce 625 Psig superheated steam at 750˚F. The 625 Psig superheated steam is used to produce nine megawatts of electrical power. The 65 Psig turbine exhaust steam is used for process and non-process uses.

Based on the difference in moisture content from the wet end to dry end of paper mills, current paper production rates require approximately 96,800 lbs water/hr of dehumidification. Based on temperature and relative humidity measurements with traceable instrumentation on November 11 &12, 2007, the exhaust air mass flow is equal to 2,034,773 Lbs-moist air/Hr.

The dryer exhaust arrangement is an open hood design.