

Western Maintenance Conference 2003

Paper School

Norpac showed a video of the paper-making process. They use Old Newspapers Papers (ONP) in their recycling process. We as consumers can get the same fiber up to 10 times, given the recycle process. The paper starts out at 99% water at one end of the paper machine and becomes 8% moisture at the other end. Craig and Jack passed around samples of the chips/pulp in different stages of production. 90% of their chips are residual chips from saw mills. They currently use 100% hemlock but at time mix others. Hemlock takes more bleach, but less chemistry. Norpac's chips come from Washington, Oregon, Idaho and Montana. 70% of the recycled papers come from Washington and Oregon, 17% from Northern California. Norpac uses 600 tons of ONP per day.

Showed overheads of samples of scanners on the paper machine that measure weight and moisture content. It takes anywhere from 1-30 minutes to clear breaks on the paper machine, depending on where the break occurs. Passed around samples of holes that occur on the paper machine. Holes can range from 0 to over 25 mms in diameter. The paper machine has hole detectors. The most common paper defects are holes and dryer wrinkles. The paper machine travels at 4,000 feet per minute. There are a minimum of 8 cameras set up on the paper machine to film breaks and problems, so corrections can be made.

What causes lint? Additives like PCC and bonding agents, recycled content, type of fiber, blanket wash can all contribute to lint. Norpac avoids cleaning the floors when the winder is running in order to try to minimize debris and lint. Why is there not a vacuum system around the paper machine? Norpac tried this and it actually made linting worse, due to roughing up the sheet. They could not justify doing this.

It's important to keep the slitters sharp and maintained on a regular basis. Norpac used to use 1 slitter per 8 hours, and now they use 1 slitter per 1-2 weeks. Automation has helped here. With a straight wind, the top side of the sheet is smooth and the bottom side is rough. With a reverse wind, the opposite is true, the top side of the sheet is rough and the bottom is smooth.