Problem

At the plywood mill, the putty patch operators fill holes and gaps in the surface veneer using putty guns. The operators repetitively squeeze putty gun triggers while reaching and twisting.

Solution

An ergonomics committee was formed to evaluate jobs in the mill. The committee met with the operators to identify the ergonomic hazards and brainstorm solutions. Upstream of the putty line, the square-edge quality of the faces was improved by preventing cupping though the proper sharpening and rotating of the clipper knives. This reduces the amount of patching necessary, which saves time and uses less putty. Also, the oldest putty is used first because the putty gets thicker and requires more force to apply over time.

Initially, the existing putty guns were altered to better fit the operators’ hands. After several trials, putty guns were purchased that fit the hands better and have adjustable triggers to accommodate different sized hands, which reduces the force required to operate the guns.

The hoses feeding the putty guns were replaced with smaller, 1/4-inch hoses, which travel easier and require less effort to pull along the work station. The overhead trollies that the hoses run on were replaced and realigned, which has also lowered the effort to pull the hoses. The work platforms were leveled and covered with 3/4-inch plywood and anti-fatigue mats, to provide an even standing surface and reduce fatigue from standing. Photo eyes were installed to stop the line in case of misaligned panels. This replaced a wire-stop system which was hard on the operators’ knees.

Interviews with the putty patch operators indicate that they all feel these changes have improved their work station.

Contact

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