

Wood Furniture Manufacturing, Repair, and Finishing Technical Assistance Campaign

Executive Summary

April 2004

Furniture manufacturing, repair, and finishing operations employ many different processes to create new products, repair existing goods, and finish new and existing pieces.

Depending on the processes used, these businesses are often regulated by air quality agencies in addition to local public health departments. On a regional and national scale, past outreach and assistance has benefited not only local public health and air quality, but also has driven changes in industry practices and processes, ultimately leading to improvements in efficiency of production or finishing operations. This mutual benefit represents the ideal outcome for a technical assistance outreach campaign.



In the fall of 2003, the Thurston County Business Pollution Prevention Program invited furniture manufacturing, repair, and finishing businesses to participate in a voluntary technical assistance campaign. During the site visit, County staff ensured that each business understands its responsibilities under the Thurston County Nonpoint Source Pollution Ordinance. This ordinance requires businesses to provide adequate secondary containment for all hazardous materials and to dispose of or recycle hazardous wastes in a legal manner. During the visit, staff also presented general pollution-prevention and industry-specific best management practices and established a regulatory contact for future questions or concerns. County staff also informed businesses about new Washington Department of Ecology regulatory requirements for recycling or disposing of fluorescent light bulbs, which have been designated as universal wastes. Options for recycling or disposing of computer monitors and televisions, which are in an interim status being considered as universal wastes by Ecology, were also discussed.

Local businesses in this industry were primarily located through registration with the Olympic Region Clean Air Agency (ORCAA). Businesses emitting chemicals into the air through finishing, spraying, or other processes are required to register with ORCAA. Fourteen businesses were invited to participate in this voluntary campaign. During site visits, one business was discovered to not be operating.

Businesses participating in this campaign took many shapes and sizes. Four of the thirteen were engaged in relatively large-scale production; the rest were small, with some operating intermittently and from residential areas. These businesses also represented a spectrum of activities within the general industry, including production of school and

business furniture; custom cabinet construction and finishing; reclining chair repair; and antique refinishing.

Eleven best management practices (BMPs) were recommended during this campaign, including general pollution prevention practices, as well as some specialized practices developed by other agencies and industry associations. Applicability of several of these BMPs depended on the nature of the operation and did not always reflect the entire set of businesses. These eleven BMPs addressed issues such as spill response, hazardous wastes disposal and recycling, product selection, and finishing equipment maintenance. Initial visits show all eleven BMPs were currently in place in two-thirds of the thirteen businesses, with five of the eleven BMPs practiced in all thirteen businesses.

One management practice highlighted by county staff dealt with the use of waterborne adhesives, coatings, and finishes. Waterborne products pose less threat to both public and environmental health, and can significantly reduce the amount of hazardous wastes generated by a business, potentially reducing disposal costs for the facility. Rags used with waterborne finishes can be washed and reused on-site, as opposed to contracting with a cleaning vendor. Spray-painting with waterborne paints also requires less day-to-day maintenance on spraying equipment than if solvent-based products were used.

However, there are barriers to acceptance of waterborne coatings by businesses. This industry is based on producing well-made and flaw-free products to attract new customers. Many business owners find that waterborne products produce a lower quality product than solvent-based products or that additional time and expense is required to produce a high quality finish. Research and experimentation by industry associations and individual businesses might identify process modifications or unique application specifications for waterborne products that produce comparable quality with solvent-based products.

At the time of the initial visits, eleven of the thirteen businesses were found to be operating in compliance with the Thurston County Nonpoint Source Pollution Ordinance. The two remaining businesses had minor waste management issues to improve. Follow-up inspections at these two non-compliant businesses verified proper disposal practices, and notices of compliance were issued.

As this was the first time Thurston County worked with the furniture business, this campaign provides a baseline for the number of businesses working locally, and the major challenges that they face in trying to incorporate less hazardous materials or processes into their operations. County staff may revisit this campaign in the future to see if this business sector has grown, identify any new practices that prevent pollution, or examine issues that increase public health risks.

For more information about the furniture manufacturing, repair, and finishing campaign, please contact Dave Tipton at (360) 754-4111 ext. 6496.