

No Acceptable Level of Accidents

Maggie Jones

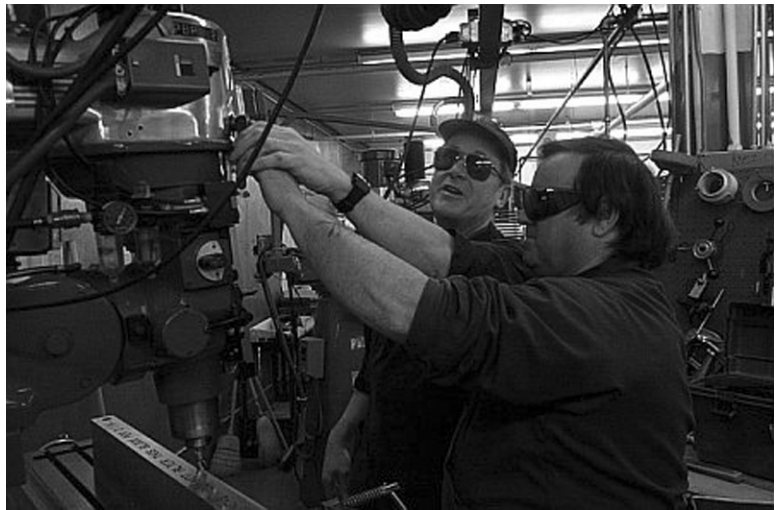
For more than 35 years, Jim Smith has operated a large drill press in the machine shop at the Seattle Lighthouse for the Blind. Jim is blind. He sets up the machine by feel and runs it with the aid of a computer with screen-reading capabilities and programs written specifically for each work order. The computer verbally reports the three dimensional location of the drill bit. Jim notes that his drilling accuracy is within 0.0005 of an inch. The pieces manufactured by Jim and the other employees in this shop are for the Boeing Company; the airplane parts built by the Lighthouse have a 99.9 percent acceptance rate.

When the Seattle Lighthouse (www.seattlelighthouse.org) was incorporated in 1918 to offer employment opportunities to people who are blind, blind people were limited to creating such things as jigsaw puzzles and brooms. Today, there's wider recognition that blind people are capable of doing almost any job (except driving a vehicle and freehand drawing). Yet, seven out of ten blind adults do not work. This shocking unemployment figure suggests that many barriers, from discrimination to the cost of assistive technology, still need to be overcome before people with visual disabilities have a wider range of employment opportunities. A key barrier, however, is the challenge of ensuring the safety of blind workers.

What is the Lighthouse?

The mission of the Lighthouse for the Blind is to create opportunities for the independence and self-sufficiency of people with visual disabilities. Their vision is for blind people to have the same opportunities as sighted people.

About 170 (61 percent) of the 280 employees at the Lighthouse are blind, deaf-blind, or blind with other disabilities; more than 75 percent of the direct labor producing items for the federal government is performed by people who are blind, deaf-blind, or blind with other disabilities. Employees with visual disabilities hold positions as machinists, production workers, computer



Machinist Dan Staub trains Kevin Jones on a Bridgeport milling machine as part of the Seattle Lighthouse peer training program.

The Lighthouse for the Blind

instructors, information technology specialists, Web programmers, receptionists, customer service representatives, administrative assistants, and managers. The Lighthouse pays a competitive wage based on pay rates for similar jobs in the Puget Sound region, and employees also receive a full benefits package including medical and dental coverage, life insurance, paid sick and vacation leave, and a pension plan.

The Lighthouse, housed in two multistory buildings in southeast Seattle, produces about \$30 million in annual sales. Its two biggest contracts are with the Boeing Company and the federal government. The shop is self-supporting, with operation costs funded through sales revenue. However, the Lighthouse has costs that other manufacturers do not, such as in-house sign language interpreters, mobility instructors, and Braille computer equipment and other assistive technologies. These costs as well as the training and support services provided to its employees are funded through grants and charitable donations.

Building safety into production

On first glance, the manufacturing floor at the Lighthouse looks like any other manufacturing operation. However, on a second look, you would notice the remarkably clean and uncluttered work areas. "Housekeeping," Pat O'Hara, general manager of operations, explained, "is the main thing that distinguishes the Lighthouse from other manufacturing settings." The maintenance department is an important part of the safety efforts. A clean shop floor is a safety necessity. The Lighthouse's employees have to know where things should be. Misplaced equipment is hard to find, and something left lying in an unexpected place, for example a pallet left in aisle, becomes an accident waiting to happen.

New employees work with a mobility instructor to learn how to safely move around the Lighthouse's facilities. Traffic rules for the aisles require everyone

to stay on the right as they walk in order to prevent collisions. The aisles in the manufacturing areas are clearly marked on each side with raised or textured yellow lines so that blind workers are easily able to navigate. Additional safety barriers—waist-high retractable yellow webbing—mark off areas around machinery that is in use.

As forklifts move around on the manufacturing floor, they always have a spotter on each side to ensure that nobody walks in front of the forklift, since the standard audio beeping that signals a moving forklift isn't effective for the Lighthouse's deaf employees.

The engineering department develops adaptations to standard machinery to make the machines usable, accessible, and safe for all of their blind and deaf-blind employees. For example, some of the machines in the assembly area have two start buttons, one on either side of the machine, requiring both hands to turn the machine on. This adaptation prevents a hand accidentally being caught in a dangerous spot on the machine. Some other common adaptations include screen-reading software, voicing technology for measuring tools, Braille screen displays, Braille and large print work orders, closed circuit televisions, and specialized lighting and wall colors. The Lighthouse provides extensive machine-specific training to ensure that employees are able to comfortably and competently use the machinery. Employees often provide feedback on the usability of a machine and suggest adaptations to the engineering staff.

Another aspect of the Lighthouse's safety efforts is a required annual evacuation drill. Kirk Adams, general manager of administration, stated that the "most important risk management tool is to make sure you have a good evacuation plan." Announcements and flashing lights alert employees of an evacuation. Deaf-blind employees carry pagers and are notified of an evacuation by a specific pager vibration. Other employees also help notify their deaf-blind colleagues by drawing an X with their finger on their colleague's back, which means they need to exit. In addition sweepers are assigned to ensure that all employees have left the area. In the summer 2006 drill, they successfully evacuated both buildings in 3.5 minutes.

Building safety into administration

Safety at the Lighthouse is not just a formality. It is a critical piece of the organization's structure. The Lighthouse's 15-member safety committee meets monthly. Each department appoints one representative to sit on the committee. When needed, sign language interpreters are available to attend the safety committee meetings. All safety committee manuals are provided to employees in Braille and large print versions (as is every written correspondence at the Lighthouse). The safety committee monitors any incidents that

occur and makes requests to management about improvements that need to be made.

After every safety committee meeting, a management team meets to review the minutes from the meeting and provide a management response—indicating what they will act on and when. This small management team then reports on safety initiatives at every strategic planning meeting. "An effective safety committee," Adams stated, "is vital for any workplace. If you get the right people sitting on the committee and if their feedback flows back to a responsive management—you will have a safer workplace."

A crucial part of responding to the changes requested by the safety committee is informing all employees of the change. At the Lighthouse, policy change is time consuming because of the need for face-to-face meetings. Adams explained, "I've worked at places where sending an e-mail is viewed as sufficient notice of a new policy or update. At the Lighthouse, that wouldn't work because not everybody has e-mail or the computer skills necessary to access it. Communication at the Lighthouse requires face-to-face meetings with interpreters available. Everyone's communication needs have to be met so that they can all receive the same information. Sometimes that means we have a Vietnamese language interpreter, a tactile interpreter for a deaf-blind employee, and a sign language interpreter all interpreting at the same meeting. The communication barriers can be frustrating when you just want to get something done, but in the end we have decided if we are going to communicate effectively with everyone, we need to make sure it's done right."

The Lighthouse views the safety of their employees as a priority. Their dedication results in very few accidents and injuries in the manufacturing areas. Most of their safety incidents, according to O'Hara, are collisions while entering or leaving elevators or in hallways. "But," he adds, "at the Lighthouse there is no acceptable level of accidents."

Although the Lighthouse faces additional safety challenges as a result of employing people with visual and hearing impairments, many of their safety initiatives are relevant to any workplace. By meeting the communication needs of all of their employees, they are able to ensure that all employees have equal access to information and are informed of policy changes. The Lighthouse also places a great deal of emphasis on housekeeping and on creating an effective, inclusive safety committee. Such efforts would improve safety conditions for all workers. ■

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