**OSHA targets ergonomics controls on industry**

**By MARK LESLIE**

WASHINGTON, D.C. — Arguing that ergonomics is the solution, not the problem, the Occupational Safety and Health Administration (OSHA) ergonomics coordinator defended the agency's work to define guidelines for the workplace.

"Our Congressional mandate is to prevent injury and illness in the workplace," said Nancy Adams. "The way the debate gets framed, ergonomics is the problem. But it's not. It's an intervention strategy to prevent the injury from happening, by good engineering, good process design, fitting the job to the worker and not the worker to the job. You can't do that as one-size-fits-all."

OSHA's push into the realm of ergonomics is not new. The first ergonomist joined the agency in 1979, and talks with labor, trade associations and professional organizations began in the early 1980s. But the business and industry communities got concerned when, in 1992, an "Advance Notice of Proposed Rulemaking" targeted such items as:

- Lifting or carrying anything weighing 25 pounds without assistance more than once during a workshift.
- Using vibrating tools, which would include weed-eaters, for more than two hours.
- Working in awkward positions (such as kneeling, stooping or squatting) for more than two hours.
- Performing the same motions every few seconds.

"That's called labor," quipped one superintendent regarding the 25-pound limit. "The standard weight [for bags for various products] is 50 and 80 pounds."

Various other chores on a golf course maintenance crew...
A blower helps a crew keep smoke to a minimum, after clearing brush on a golf course.

By TERRY BUCHEN

DUBLIN, Ohio — There are blowers, and then there are blowers. Just ask superintendent Ted Hunker, who, thanks to Ranger Construction Co., has seen the future when it comes to burning brush.

The scene: Tartan Fields Golf Club, a mile from Muirfield Village Golf Club. The cast: Hunker, Ranger Construction and Arnold Palmer’s design team of Harrison Minchew and Joe Veal.

The star: a huge blower, powered by a V-8 diesel engine, that flames a fire so hot that wood burns quickly and virtually smoke-free.

“After the clearing process on our wooded holes,” said Hunker, “we obtained burn permits from our township fire department and burned all of our trees in very large pits that were dug in far out-of-play areas and near high-tension power lines.”

To speed up the burning and eliminate smoke, Ranger brought in the out-of-this-world blower.

“The fire department extended our burn permit indefinitely because of the great quality burning that is being done and we are being a good neighbor in the process without one single complaint,” said Hunker. “It has made a big difference of what the neighbors will let us do.”

Contractors have used between 12 and 15 pits thus far. The blower is portable and has needed very little maintenance. It is homemade and can be towed easily with a pickup or tractor, Hunker said.

Minchew, of Palmer Course Design Co., uses this type of blower on other jobs “because of the great air quality, which virtually eliminates the smoke,” he said.

Dicamba Study

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they are not of any health concern at the concentrations we observed.”

Both of the phenoxy acid-type herbicides are widely used to control weeds in turfgrasses and general agriculture. They have been found frequently in surveys of pesticides and surface waters — and less commonly in ground water — and have therefore raised public concern. Although they have been studied frequently in agricultural settings, little research has been done on their persistence and mobility when applied to turfgrasses, especially high-sand-content USGA greens.

Snyder and Cisar reported that the average concentration of 2,4-D in percolate water over a two-month period following August 1993 and April 1994 applications was 2.6 and 1.2 parts per billion (ppb). The MCL for 2,4-D is 70 ppb.

The more mobile dicamba, they said, was discovered at concentrations of 2.5 ppb in 1994 and 1.7 in 1993. There are no MCL levels for dicamba, although 70 ppb is the most limiting of several legal standards for it as well.

The researchers also studied residue of the herbicides in grass clippings and thatch and found little about which to be concerned. “Considerably more dicamba, and especially 2,4-D, was recovered in clippings following the application in 1993 than was recovered in the 1994 study,” they reported. “Nevertheless, in both studies no more than 0.25 percent of the herbicide applied was recovered in the clippings, indicating that clippings are not a major pathway for the removal of these herbicides from treated turfgrass areas.”

In both years, peaks for concentrations of dicamba, and especially for 2,4-D, in soil and thatch were “clearly observable shortly after each of the two applications,” the scientists said. “However, concentrations rapidly declined during the two weeks following each application, but still persisted at detectable levels for approximately two months.”