



stallations, while the exposure limits to noise now being enforced by OSHA of a time-weighted average of 90 dBA for an eight hour work day would be retained.)

Controlling noise at the source, says Van Atta, generally involves either modification of existing equipment and structures or a specification of maximum permissible noise levels of new equipment and structures at the design stage.

However, he points out, it is not enough to specify that the sound pressure level of the operators' station shall be 90 dBA or less. If another identical machine is placed nearby, the level produced by the two is apt to be 93 dBA at the operators' stations.

Among other related points, Van Atta observes:

- Where noises can be controlled by total enclosure of the equipment or by covering it with a layer of sound insulating material under a sound reflective outer shell, usually some account must be taken of the fact that sound insulators are generally good thermal insulators and there may be a problem of dissipating the heat in the enclosure.

- Noise sources in solid systems are commonly small and not good radiators to air. The main problem in controlling them is usually finding a means to uncouple them mechanically from the radiators with which they are associated.

- Noise from gas jets is produced by the turbulence at the boundary between the jet stream and the still air. It can be reduced by reducing the velocity of the jet stream or by spreading out the boundary layer.

There are other ways of dealing with noise in addition to reducing it at the source. Many operations, says Van Atta, permit the exposure of people to noise to be controlled administratively without modifying the noise. This can involve changing production schedules or rotating jobs so that exposure times are within safe limits. This approach, according to the OSHA official, is worth investigating since we do see instances where job rotation has avoided the use of personal protective devices and has the additional virtues of improving production and reducing employee dissatisfaction and complaints.

Pending better arrangements, employee exposure can be controlled by the mandatory use of ear protective devices. They should be issued only by a person who has been properly trained to measure the ear canal and to recognize the contra-indications, states Van Atta. The person who

Help from Hudson on any spraying job

You name the spraying job—small, medium or large. A Hudson power sprayer can tackle it.

Take our 12½-gallon Suburban™ Trail-N-Spray™. Hitch to any compact tractor. Dependable positive piston pump—2½ gpm.

Or step up to our Matador® sprayers. Choice of 3 or 5 gpm positive piston pump. Four tank sizes: 15, 30, 50, 100 gallons.

For really big jobs, choose from our Peerless™ line on wheels or skids—with tanks sizes up to 300 gallons. Can

cover turf at 10 acres an hour with 20-ft boom. Or reach up high with telescopic gun mast. Models available with rugged Ten-O-Matic® 10-gpm pump, stainless steel tank for trouble-free service.

Write for details. H. D. Hudson Manufacturing Company, 154 E. Erie St., Chicago, Illinois 60611.

SIGN OF THE BEST BUY



HUDSON
POWER SPRAYERS

© MCMLXIX H.D.H. Mfg. Co.
For More Details Circle (129) on Reply Card

OSHA Official Describes Noise Solution

The most desirable method of controlling a noise problem is to eliminate the noise at the source, says F. A. Van Atta, special assistant to the director of compliance, Occupational Safety and Health Administration.

"The simplest rule of thumb," according to the OSH Administration official, "is that if you must raise your voice to talk to someone stand-

ing beside you there is probably a hazard to hearing, and a sound meter survey should be made to determine the hazard."

(The National Institute for Occupational Safety and Health recently recommended to the Occupational Safety and Health Administration the adoption of a noise limit of 85 dBA for all places of employment after an effective date to be determined by the Administration in consultation with NIOSH. The limit would apply immediately to new in-

issues the ear plugs, he adds, must be under medical supervision. They should never be issued from a tool crib without supervision.

Conclusions, however, about the general environment should not be drawn from changes in the hearing of any individual because of the wide variations in individual susceptibility to noise. Conclusions can be drawn from the average changes, or lack of them, of a group of people, exposed to the same environment, says Van Atta.

The final step in a noise program, he points out, is repeated noise surveys to locate changes in the environment and to assess the effects to engineering and process changes.

Copper Algaecides Patent Gravited Applied Biochemists

A patent covering a new formulation for copper algaecides has been granted by U.S. Patent Office to Applied Biochemists, Inc.

Specifically, Patent No. 3716351, issued February 13, covers a method of preparing copper and triethanolamine which results in increased shelf life and substantially improved effectiveness of the copper-triethanolamine complex as an algaecide.

The newly-patented process is not new to Applied Biochemists. It has been used the past two years in manufacturing the algaecides CUTRINE and CUTRINE Granular (for potable water, lakes, ponds, etc.)

The previous copper-triethanolamine patent, which expired in February, was purchased from the inventor when Applied was formed as a marketing entity in 1969. Instability of the complex was a drawback at that time, leading to development and subsequent patent application for the improved method.

Trees Pick Up Lead From Polluted Air

Trees help to get the lead out of the air downwind from incinerators where sewage sludge is burned, Connecticut investigators report.

George Stephens and Lester Hankin, of The Connecticut Agricultural Experiment Station, and William Glover, Jr. then of the State Department of Health, examined tree foliage near two Connecticut sewage treatment plants, both serving industrial as well as residential areas.

NEW FOR SUPERINTENDENTS

CLEARY'S 3336™ SYSTEMIC TURF FUNGICIDE

Use 3336 for 6 major turf diseases that attack tees, fairways and greens. Prevent recurrence for up to 4 weeks. . .3336 controls and prevents such diseases as Fusarium Roseum, Dollar Spot (all types), Red Thread, Copper Spot, Helminthosporium (leaf spot), and Brown Patch. There's no longer a need to wait for the first signs of a disease to appear. Plan your program and prevent diseases by spraying early in the Spring on a systematic schedule.



PREVENTION + CONTROL
= 3336™ TURF FUNGICIDE

Best results have been obtained with CLEARY'S 3336 when it has been applied as a fungistat - before disease occurs. Weekly sprays on greens through the disease incidence season has resulted in disease-free greens with superior color. Many golf course superintendents have reported excellent disease control on fairways with applications at 3 to 4 week intervals with as little as one ounce per 1,000 sq. feet.

Check with your distributor or write for the nearest available source from W. A. CLEARY CORPORATION, 1049 Somerset St., P.O. Box 10, Somerset, New Jersey 08873 or Telephone 201-247-8000.

Cleary's 3336 turf fungicide is a non-toxic, non-mercurial product. Note: Used in New York State for experimental purposes only.

W.A. CLEARY CORPORATION
"The Company that's going places"
SOMERSET, NEW JERSEY

For More Details Circle (165) on Reply Card

At one of the plants, they determined that about three-quarters of a pound of lead a day goes up the incinerator stack and into the air, and at the other, about a quarter of a pound.

Samples of foliage taken near the first plant showed an average of about 50 parts per million of lead, at the second, about 15 parts per million. This compares with 6 parts per million on trees in northwestern Connecticut, far from major high-

ways, industrial plants, and incinerators.

The investigators determined however, that automobile exhausts apparently were responsible for about 60 percent of the lead they detected near the first treatment plant. The incineration of sewage sludge was responsible for the other 40 per cent. Traffic in the immediate vicinity of the second treatment plant was so light that it probably contributed little lead to the foliage examined, the investigators report.