

## SAFETY PROCEDURES IN MOSQUITO CONTROL OPERATIONS

### A CONTRIBUTION TO THE SYMPOSIUM ON MOSQUITO CONTROL OPERATIONS

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Routine practice in nearly all district shops and garages requires observance of standard safety measures such as fire extinguishers, fire walls and doors, no smoking, goggles, first aid kits, etc.

In mixing insecticides, degree of precaution varies with degree of toxicity of material being used. In our district only DDT is in use. The degree of precautionary methods used is determined by toxicity of material. Goggles, respirators and rubber gloves are a must, but the proper types must be used to give maximum protection against material being handled. Likewise, these pieces of equipment should meet approval of the Board of Underwriters and insurance companies.

Recommendations of the U. S. Bureau of Entomology and Plant Quarantine have been published in *Entoma*; similar recommendations are made in other publications such as the California Mosquito Control bulletin, *Pest Control Magazine*, CDC training guide on insecticides, and National Agricultural Chemicals Association.

Other mixing room precautions should include keeping insecticides under lock and key, properly labeled, use of fans or blowers, no smoking, frequent change of clothing, washing thoroughly after contact, posting of antidotes for insecticide poisoning, doctors' names and phone numbers, and phone number of nearest Poison Control Center.

Recommendations have been made that all personnel be given a minimum of two pre-exposure cholinesterase tests prior to each season's spraying program where phosphates are in use.

Possibly the biggest question in regard to safety requirements is, "How well are they observed and what measures are employed for enforcement?" Do districts know or realize potential and actual dan-

gers? Do they take all recommended precautions or just trust to luck?

It is general practice to require a doctor's certificate before an employee can return to work after an illness of three or more days. This affords protection to both the employer and employee if any question as to physical fitness arises. In case of exposure to chemicals, presumably such exposure is or should be taken into consideration by the physician.

In our district accurate records are kept of each batch of insecticide mixed, kinds and amounts of oils, chemicals, emulsifiers used, and rate to be applied. Such certificates can be signed only by the general foreman or technical director and mixing can be done only in their presence.

Our most serious safety problem in field operations is in night adult control where thermal fog generators are used.

Only nine of the 250,000 plus tax payers are on record as objecting to fogging on theory that it affects their health. We don't question this, but turn off machine while passing their homes, or notify them so that they can leave home while fogging is under way.

Another nine or ten object on grounds that it harms the birds and bees, fish, etc. or contaminates their vegetable gardens; and two just don't like the idea. Some rush to open their windows; others to shut theirs.

Toxic effects to our personnel are practically non-existent as they are rarely in the fog themselves if full advantage is taken of the wind direction. The same thing is true probably of children running in fog as their actual contact with fog is usually a matter of only a few seconds.

Safety precautionary measures our district has adopted include headlights, tail lights, and rotating red light on top of cab

lit at all times. Red reflectors are used on some trucks and all have rear bumpers painted with black and white stripes. Some districts have used large warning signs with luminous paint.

We would like to drive the wrong way on one-way streets or barricade streets being fogged but have been advised by local police that this is illegal without ordinance by local governing board.

Drivers of fogging units are expected to keep on right side or middle of street, never on left hand side or left shoulder, even if permitted. It would be interesting to know the viewpoint of insurance companies in this or in driving wrong way on one-way street.

The police are notified each night in each village to be fogged and articles in local papers warn the public to avoid getting in fog with resultant danger of traffic accidents. In exceptional cases we have asked for and received police escorts.

No streets with heavy traffic are fogged before midnight and then only if fog is blown off of street immediately. In general, we have found it preferable to do such streets in day time with a mist-blower.

The ever present danger of fire requires

that the driver must have fire extinguisher on seat beside him—every second counts—and tail gates are tilted sufficiently to prevent pools of oil gathering on tail gate. We know of a fire that resulted from this pooling of oil.

Any machine that develops gasoline leaks is sent back to garage and remains inoperative until leak is fixed regardless of how much it is needed in the field.

Tachographs are installed on all trucks. These indicate if truck is moving, speed and distance travelled, and serve both as a check on the driver and protection to the driver from mistaken critics. Likewise, a mobile phone is installed in the foreman's truck, enabling any driver to contact him immediately in case of an accident or any other problem that may arise.

Problems that still defy satisfactory solution include children running in fog, inviting danger of being struck by careless motorists. The most irritating thing is to see the children doing this and parents standing on the porch making no effort to cooperate. Cars collide under the same conditions. A police car was guilty of this in one village and a child injured in another case. Other districts have had similar mishaps, some of them very serious.