Brief report

Investigation of an incident of acute poisoning caused by contaminated indoor air in a garments factory in Ekala Jaela.

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A telephone notification was made to the MOH, Ja-ela from the North Colombo Teaching Hospital regarding a number of admissions of workers of Politex garment factory in Ekala, Jaela on the 20th June 2003. The hospitalized workers complained of faintness, nausea, vomiting, epigastric discomfort and dizziness following entry to the factory building which had been fumigated on the previous day.

Acting on the notification the AMOH and the range PHI visited the garments factory around 10.30 pm on the same day (20th). The workers had been given leave on the day of the visit because of the incident.

The following observations were made: The factory consisted of two large halls, each was about 60000 sq feet accommodating around 1000 workers and machines. The height of the hall was 7ft and 9 inches. Both halls were air-conditioned hence the natural ventilation was very poor.

These two halls were fumigated on the 18th Wednesday at 7.30 pm by Ceylon Pest Control pvt. Ltd using Resigen RTU (fog) which contained S bioallethrine 0.032%, permethrin 2.0%, piperonyl butoxide 2.3%, odorless kerosene 70.0% expelcents 100%. The buildings were closed after fumigation and the premises were opened on the following morning for the workers to enter. The workers had not entered the premises because of the irritant smell noted and were in the canteen which is about 10ft away from the fumigated halls. On the 19th around 11 am about 30 employees experienced faintness, nausea, vomiting and they were treated by 2 GPs and in a private hospital and were not notified. According to the General Manager, all the doors and windows were kept open on the 19th. On the following morning (20th) workers reported back to work and about 125 fell sick with the same symptoms and were admitted to the Teaching Hospital Ragama and General Hospital Gampaha. Condition was not serious in most of the workers admitted and were discharged on the same day.

Observations and comments

1. Two poorly ventilated halls were fumigated on a weekday.
2. The halls were kept closed and the chemical would have accumulated inside the hall.
3. Even though the hall was opened there was no free circulation of fresh air for the chemical to dilute. Air conditioning system would have absorbed the air containing the chemical and re-circulated.
4. The product contained more than 70% kerosene. Symptoms could be due to inhalation of kerosene fumes.
5. The product used for fumigation has been registered in the Registry of Pesticides for outdoor use.

Recommendations given
1. To keep the door and all the windows of the factory opened for 24 hours.
2. To get the advice from the engineers about cleaning the AC system.
3. To mop all the walls and machines with water.
4. To get indoor air analyzed.

Air analysis was done on the 23rd of June. Report indicated presence of permethrin less than 0.2% and s-bioallethrin less than 0.1%.

Garment factory was reopened on the 25th of June and there were no complaint reported since then.