

bicycle clamps at bottom of trousers), dust-tight spectacles, respirators covering mouth and nose, rubber or cotton gloves or leather mittens, and rubber boots. The exposed parts of the skin as well as the unexposed and tender portions (armpits, region of groins, scrotum) should be covered with a protective ointment. Workers should be advised of the necessity of using the greatest personal cleanliness, giving special attention to the haired parts, the scrotum, groins and axillary pits, as dust and fumes are apt to filter through beneath the clothes in spite of every precaution. The arsenical dust tends to cause a dermatitis in regions where the skin is easily macerated by the sweat. Milk should be consumed freely. Bowel movements should be regulated by laxatives, if normally insufficient. Individuals with liver diseases, gastro-intestinal disorders, especially marked constipation, defective renal function, and abnormal cutaneous sensitivity to arsenic should be excluded from any employment in arsenic plants. Thorough periodical medical examinations of the workers should be made in yearly intervals for the determination of signs of acute or chronic arsenicism. These examinations should include quantitative tests for arsenic in the feces, urine, hairs, and nails, to obtain information regarding the elimination and retention of arsenic in the individual workers and to exclude those, which show excessive amounts of arsenic in these products, from further contact with the offending agent. The same steps should be taken if evidence of liver injury and chronic hyperplastic arsenico-dermia is apparent. The diet should contain adequate quantities of sulfur-containing compounds used in the metabolic detoxication of arsenicals.

b) Technical Measures: The technical measures to be taken for reducing the arsenic hazard must be directed toward eliminating the production of dust and fumes. The air in workrooms should be kept humid. The walls and floors of plants should be washed at frequent intervals. The handling of arsenicals should be done, as far as possible, automatically in closed systems. Wherever the production of dust and fumes cannot be avoided, efficient exhaust ventilation systems should be installed. Locker rooms remote from workrooms and adequate facilities for hot showers should be provided for workers. No food should be permitted to be brought into workrooms. Workers should be obliged to wash hands and face, before eating their food in clean and sanitary rooms reserved for this purpose.

XV. PUBLIC HEALTH ASPECTS

The data presented cannot leave any doubt that the occupational as well as environmental exposure to arsenic represents a serious and almost universal health hazard in many civilized countries, deserving the earnest attention of all public health authorities and legislative bodies. Under the circumstances that prevail in most countries, it seems advisable to regulate by legislative measures the introduction and rigid enforcement of the necessary technical and medical procedures as well as the installation of adequate equipment to