

CH-405 INDUSTRIAL SAFETY AND MAINTENANCE MANAGEMENT

Introduction: Accident and loss statistics, public perception of chemical industry, the accident process, some significant disasters as case studies; Toxicology: how toxicants enter and are eliminated from biological organisms, effects of toxicants, dose versus response models, threshold limit values.

Industrial Hygiene: Government regulations, identification and evaluation and control of various exposures in chemical industry. Fires and explosions: fire triangle, flammability characteristics of liquids and vapors. Design to prevent fires and explosions. Hazard identification and risk assessment, Accident investigations and case histories. Forms of maintenance, scheduling of maintenance. Computerized Maintenance. Nondestructive testing techniques. Forms of corrosion, prevention and inhibition,; Preparation for startup and shutdown. Preventive and predictive maintenance.