

DEGREE OF EXPOSURE

DEFINED ON THE BACK OF THE HEALTH HAZARD DATA SHEET:

I NO CONTACT	CHARACTERIZED BY REMOTE OPERATION WITH EQUIPMENT ISOLATED FROM THE WORK AREA. THE PERSONS ENTERING ISOLATED AREAS WILL REQUIRE THE PERSONAL PROTECTION OUTLINED FOR IV BELOW
II MINOR CONTACT	CHARACTERIZED BY CLOSED SYSTEMS WITH EQUIPMENT VENTED OUTSIDE THE WORK AREA. INSTRUMENT CONTROL: MECHANICAL HANDLING OF MATERIALS IN BULK. EXAMPLES ARE: CONTINUOUS REACTORS, STILLS AND FILTERS, ENCLOSED CONVEYORS, VENTILATED PACKAGING.
III OCCASIONAL DAILY CONTACT	CHARACTERIZED BY MANUAL HANDLING OF MATERIALS IN PACKAGES SUCH AS BAGS, DRUMS AND FIBERPAKS. VENTILATION MAY BE PROVIDED FOR SPECIFIC JOBS. MANY BATCH OPERATIONS FALL INTO THIS CATEGORY.
IV GROSS CONTACT LIKELY	CHARACTERIZED BY HAND OPERATION. EXAMPLES ARE: EMERGENCY REPAIRS, CLEANING EQUIPMENT, CLEANING FILTERS, TAKING CARE OF SPILLS, PACKAGING VOLATILE OR DUSTY MATERIALS WITHOUT VENTILATION, WHEELING AND TRAY DRYING.

THE RATING FOR DEGREE OF EXPOSURE SHOULD BE BASED ON NORMAL OPERATING CONDITIONS. A JUDGMENT MUST BE MADE FOR SPECIAL SITUATIONS (LEAKS, SPILLS, VAPOR RELEASE, ETC.) AS TO WHETHER OR NOT THEY OCCUR FREQUENTLY ENOUGH TO BE CONSIDERED A SIGNIFICANT SOURCE OF EXPOSURE. THE EXPOSURE RATINGS SHOULD BE BASED ON REGULAR OBSERVATIONS OF THE OPERATING PROCEDURES AND WORK PRACTICES EMPLOYED BY EACH OF THE OPERATORS IN A JOB CLASSIFICATION. IN SOME CASES, THESE OBSERVATIONS ALONE CAN LEAD TO REVISIONS IN OPERATING PROCEDURES THAT CAN REDUCE THE POTENTIAL FOR EXPOSURE.

SETTING PRIORITIES FOR SURVEILLANCE

A PRIORITY RATING SYSTEM HAS BEEN ESTABLISHED AS A GUIDELINE IN DECIDING WHEN MEASUREMENTS ARE REQUIRED TO EVALUATE A HEALTH HAZARD. THE PRIORITY RATING SYSTEM IS DEFINED AS FOLLOWS.

PRIORITY 1 - CHEMICALS OR PHYSICAL STRESSES THAT HAVE RECEIVED A 1 OR 2 HAZARD RATING BASED ON ABILITY TO CAUSE INJURY AND A RELATIVELY HIGH POSSIBILITY OF EXPOSURE. PROPER WORK PRACTICES, HANDLING AND STORAGE PROCEDURES MUST BE ESTABLISHED BY AN EXPERIENCED PERSON. EXPOSURES SHOULD BE MEASURED AT LEAST ONCE PER YEAR.

PRIORITY 2 - CHEMICALS OR PHYSICAL STRESSES THAT HAVE A RELATIVELY HIGH ABILITY TO CAUSE INJURY BUT BECAUSE OF A LOW DEGREE OF EXPOSURE HAVE A HAZARD RATING OF 3 OR 4. PROPER WORK PRACTICES, HANDLING AND STORAGE PROCEDURES SHOULD BE ESTABLISHED AND REVIEWED PERIODICALLY BY AN EXPERIENCED PERSON.

PRIORITY 3 - CHEMICALS AND PHYSICAL STRESSES THAT ARE CONSIDERED TO BE NUISANCE PROBLEMS AND WOULD CAUSE INJURY ONLY THROUGH GROSS MISHANDLING.

DEGREE OF EXPOSURE

DEFINED ON THE BACK OF THE HEALTH HAZARD DATA SHEET:

I NO CONTACT	CHARACTERIZED BY REMOTE OPERATION WITH EQUIPMENT ISOLATED FROM THE WORK AREA. THE PERSONS ENTERING ISOLATED AREAS WILL REQUIRE THE PERSONAL PROTECTION OUTLINED FOR IV BELOW.
II MINOR CONTACT	CHARACTERIZED BY CLOSED SYSTEMS WITH EQUIPMENT VENTED OUTSIDE THE WORK AREA. INSTRUMENT CONTROL; MECHANICAL HANDLING OF MATERIALS IN BULK. EXAMPLES ARE, CONTINUOUS REACTORS, STILLS AND FILTERS; ENCLOSED CONVEYORS; VENTILATED PACKAGING.
III OCCASIONAL DAILY CONTACT	CHARACTERIZED BY MANUAL HANDLING OF MATERIALS IN PACKAGES SUCH AS BAGS, DRUMS AND FIBERPAKS. VENTILATION MAY BE PROVIDED FOR SPECIFIC JOBS. MANY BATCH OPERATIONS FALL INTO THIS CATEGORY.
IV GROSS CONTACT LIKELY	CHARACTERIZED BY HAND OPERATION. EXAMPLES ARE, EMERGENCY REPAIRS, CLEANING EQUIPMENT, CLEANING FILTERS, TAKING CARE OF SPILLS, PACKAGING VOLATILE OR DUSTY MATERIALS WITHOUT VENTILATION, WHEELING AND TRAY DRYING.

THE RATING FOR DEGREE OF EXPOSURE SHOULD BE BASED ON NORMAL OPERATING CONDITIONS. A JUDGMENT MUST BE MADE FOR SPECIAL SITUATIONS (LEAKS, SPILLS, VAPOR RELEASE, ETC.) AS TO WHETHER OR NOT THEY OCCUR FREQUENTLY ENOUGH TO BE CONSIDERED A SIGNIFICANT SOURCE OF EXPOSURE. THE EXPOSURE RATINGS SHOULD BE BASED ON REGULAR OBSERVATIONS OF THE OPERATING PROCEDURES AND WORK PRACTICES EMPLOYED BY EACH OF THE OPERATORS IN A JOB CLASSIFICATION. IN SOME CASES, THESE OBSERVATIONS ALONE CAN LEAD TO REVISIONS IN OPERATING PROCEDURES THAT CAN REDUCE THE POTENTIAL FOR EXPOSURE.

HAZARD RATING

8100

THE HAZARD RATING IS DEFINED AS FOLLOWS:

A NUMERICAL RATING RANGING FROM 1 (HIGH) THROUGH 5 (LOW) WHICH ESTIMATES THE PROBABILITY THAT AN INJURY OR OVEREXPOSURE WILL OCCUR IN A GIVEN SITUATION OR ENVIRONMENT. IT IS BASED ON THE DEGREE OF EXPOSURE AND THE PHYSICAL AND TOXIC PROPERTIES OF THE CHEMICAL. THE DEGREE OF EXPOSURE IS INFLUENCED BY THE TYPE OF PROCESS (OPEN VS CLOSED SYSTEM) AND THE TYPE OF OPERATION REQUIRED (MANUAL VS AUTOMATIC).

THE INDUSTRIAL HYGIENIST HAS THE RESPONSIBILITY FOR SETTING THE HAZARD RATINGS BASED ON HIS OBSERVATIONS OF THE PLANT, THE DEGREE OF EXPOSURE AND THE ABILITY OF THE MATERIAL (OR PHYSICAL STRESS) TO CAUSE INJURY. THE HAZARD RATING WILL BE UNIQUE FOR THE JOB CLASSIFICATIONS IN THAT PARTICULAR PLANT. WITHIN A GIVEN PLANT, THE HAZARD RATING FOR A CHEMICAL MAY BE DIFFERENT FOR THE VARIOUS JOB CLASSIFICATIONS BECAUSE OF A VARYING DEGREE OF EXPOSURE.

APR 18 1966

DEGREE OF EXPOSURE

Defined on the back of the Industrial Hygiene Data Sheet:

- I. NO CONTACT: Characterized by remote operation with equipment isolated from the work area. The persons entering isolated areas will require the personal protection outlined for IV below.
- II. MINOR CONTACT: Characterized by closed systems with equipment vented outside the work area; instrument control; mechanical handling of materials in bulk. Examples are: continuous reactors, stills and filters; enclosed conveyors; ventilated packaging.
- III. OCCASIONAL DAILY CONTACT: Characterized by manual handling of materials in packages such as bags, drums and fiberpaks. Ventilation may be provided for specific jobs. Many batch operations fall into this category.
- IV. GROSS CONTACT LIKELY: Characterized by hand operations. Examples are: emergency repairs, cleaning equipment, cleaning filters, taking care of spills, packaging volatile or dusty materials without ventilation, wheeling and tray drying.

The degree of exposure should be based on normal operating conditions. A judgment must be made for special situations (leaks, spills, vapor release, etc.) as to whether or not they occur frequently enough to be considered a significant source of exposure. The degree of exposure should be based on regular observations of the operating procedures and work practices employed by the operators in a job classification. In some cases, these observations alone can lead to revisions in operating procedures that can reduce the potential for exposures.

DO 090338
CONFIDENTIAL