

RESPIRATOR PROTECTION FACTORS

NOTE: THE FOLLOWING IS THE INFORMATION AND METHOD THAT IS USED TO DETERMINE THE LEVEL OF RESPIRATORY PROTECTION NEEDED FOR EXPOSURE TO VARIOUS CHEMICALS IN THE PLANT. THIS IS NOT A PROCEDURE TO BE USED BY INDIVIDUALS TO DETERMINE FOR THEMSELVES THE LEVEL OF PROTECTION REQUIRED. ALWAYS SEE SUPERVISION FOR PROPER TYPE RESPIRATORY PROTECTION REQUIRED AND NEVER ATTEMPT A VESSEL ENTRY WITHOUT SUPERVISORY INSTRUCTION.

RESPIRATOR PROTECTION FACTORS FOR INFORMATIONAL TRAINING PURPOSES ONLY

RESPIRATOR PROTECTION FACTOR CONCENTRATION

CHEMICAL	TLV PPM	SCOTT-D-VISTA AND CONFO II	SCOTT-D-RAMIC CANISTER MASK	BREATHING AIR LINE	SCBA
PROT FACTOR -		10 X	50 X	2000 X	10000 X
B-TRI	10	100 PPM	500 PPM	20000 PPM	100000 PPM
EDC	1	10 PPM	50 PPM	2000 PPM	10000 PPM
BT	2	20 PPM	100 PPM	4000 PPM	20000 PPM
REF	25	250 PPM	1250 PPM	50000 PPM	250000 PPM
HCE	1	10 PPM	50 PPM	2000 PPM	10000 PPM
HODD	10	2 PPM	1 PPM	40 PPM	200 PPM
HODV	1	10 PPM	50 PPM	2000 PPM	10000 PPM
SYM TET	10	10 PPM	50 PPM	2000 PPM	10000 PPM
CLC	5	5 PPM	25 PPM	1000 PPM	5000 PPM
HOL	5	50 PPM	250 PPM	10000 PPM	50000 PPM
EDC	75	750 PPM	3750 PPM	150000 PPM	750000 PPM

THE INFORMATION IN THE ABOVE CHART IS USED TO DETERMINE THE PROPER RESPIRATORY PROTECTION NEEDED. A DRAGER TUBE OR AN AIR SAMPLE (INJECTED ON THE TLV METHOD) IS USED TO DETERMINE THE CONCENTRATION OF A CHEMICAL IN AIR. ONCE THE CONCENTRATION IS KNOWN, A SELECTION CAN BE MADE AS TO WHAT RESPIRATORY PROTECTION TO WEAR. THE RESPIRATOR PROTECTION FACTOR MULTIPLIED TIMES THE ALLOWABLE CONCENTRATION INDICATES ADEQUATE LEVEL OF PROTECTION AFFORDED FOR EACH TYPE OF RESPIRATOR.

FOR EXAMPLE: I WANT TO ENTER AN AREA WITH A CONCENTRATION OF 150 PPM EDC. IS CONFO II ADEQUATE PROTECTION? NO

CONFO II

PROTECTION FACTOR

TLV FOR EDC EXPOSURE

CONFO II GOOD UP TO 1

100

10 PPM EDC EXPOSURE

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EXAMPLE I WANT TO ENTER AN AREA WITH A CONCENTRATION OF
210 PPM PER - IS A COMFO II ADEQUATE PROTECTION? YES!

COMFO II
PROTECTION FACTOR TLV FOR PER EXPOSURE COMFO II GOOD UP TO A
"10" X "25" = 250 PPM PER EXPOSURE

REMEMBER - IT IS BETTER TO BE OVER-PROTECTED THAN UNDER-PROTECTED, SO
WHEN THERE IS ANY DOUBT, WE USE EITHER BREATHING AIR OR THE SCBA.

NOTE : IT MAY BE A LITTLE CONFUSING AS TO WHY THE BREATHING AIR LINE
RESPIRATORY PROTECTION FACTOR IS 2000 X AND SCBA IS 10000 X WHEN
THEY PROVIDE ESSENTIALLY THE SAME PROTECTION. THE REASONING IS
SIMPLY THAT BREATHING AIR LINE DEVICES ARE NOT CONSIDERED AS AN
"EMERGENCY" DEVICE (YOU CAN ONLY GO AS FAR AS YOUR HOSE) AND THE
SCBA IS CONSIDERED AS ONE.

*** FOR HCBZ - THE ASTERISK SYMBOL IS USED IN THE CHART TO DENOTE
THE FOLLOWING

- NO AIRBORNE TLV
- *- RECOMMENDED TO ALWAYS USE BREATHING AIR OR SCBA FOR HCBZ

REPEATING, THIS DISPLAY IS NOT A PROCEDURE BUT IS INTENDED AS A TRAINING
GUIDE MERELY TO INFORM EVERYONE OF THE WAY THAT RESPIRATORY PROTECTION
REQUIREMENTS ARE DETERMINED.

SUPPLIED AIR OR SCOTT AIR PACKS ARE REQUIRED WHENEVER ENTERING A VESSEL
WHERE THE TLV IS ABOVE THE EXPOSURE LIMIT FOR A GIVEN CHEMICAL, AND
MAJOR MANAGER APPROVAL IS ALSO REQUIRED

REV 02/14/90 MT