



PERSONNEL EXPOSURE ACCESS LIMITATION RECOMMENDATION FOR VARIOUS LEVELS OF THERMAL RADIATION						
Pedestrian Escape conditions used in this grid						
G = General public /visitors = 3 fps P = Plant personnel = 8 fps M = Maintenance / operators = 12 fps						
	DRESS CODE					
	Bare Skin	Light	Heavy	Multi-layer	Estimated subjective stimulus level includes all sources. For recommendations on SOLAR inclusion in design limits, see separate table on "Effects of SOLAR radiation"	
Thermal mass of clothing = K - Btu/degF_ft ²	0	0.3	0.84	2.5		
Total thermal Dosage to threshold - Btu/ft ²	varies	15	42	125		
RADIANT INTENSITY	EXPOSURE					
Btu/ft ² _h	duration prior to pain / max distance to nearest shelter, by group					
300	65 sec *	unlimited	unlimited	unlimited	heated	
400	42 sec *	2.25 min * G = 405 ft P = 1100 ft M = unlimited	unlimited	unlimited	discomfort	
500	30 sec *	1.8 min * G = 325 ft P = 865 ft M = unlimited	5 min G = 1000 ft P = unlimited M = unlimited	15 min † unlimited	discomfort with desire to remove from area	
750	17 sec *	1.2 min * G = 215 ft P = 575 ft M = 865 ft	3.4 min G = 615 ft P = unlimited M = unlimited	10 min † unlimited	discomfort strong desire to remove from area	
1000	avoid	54 sec G = avoid P = 430 ft M = 650 ft	2.5 min G = avoid P = unlimited M = unlimited	7.5 min G = avoid P = unlimited M = unlimited	obvious need to remove from area	
1500	avoid	36 sec G = avoid P = 290 ft M = 430 ft	1.68 min G = avoid P = 800 ft M = unlimited	5 min G = avoid P = unlimited M = unlimited	desire to escape	
2000	avoid	27 sec G = avoid P = avoid M = 325 ft	1.25 min G = avoid P = 600 ft M = 900 ft	3.75 min G = avoid P = unlimited M = unlimited	obvious need for rapid escape	
3000	avoid	18 sec G = avoid P = avoid M = 215 ft	50 sec G = avoid P = 400 ft M = 600 ft	2.5 min G = avoid P = unlimited M = unlimited	obvious need for urgent escape	
	Bare Skin	Light	Heavy	Multi-layer		
Recommendation are based on total dosage with prior exposure to 70°F ambient. Higher ambient temperatures reduce available dosage and suggested distance to shelter for clothed personnel. Dosage to pain - bare skin = 83.89 / (I ^{0.4815}) - clothed = K * (120 - T _{amb}) * Times with asterisk may be lengthened by physical activity / † Times marked with dagger may be reduced by general discomfort						
ACCESS LIMITATIONS - KEY						
UNLIMITED	UNLIMITED SOME SHELTER	PLANT ONLY UNLIMITED	PLANT ONLY WITH SHELTER	ESSENTIAL ONLY	PLANT ONLY ESSENTIAL WITH SHELTER	PROHIBITED