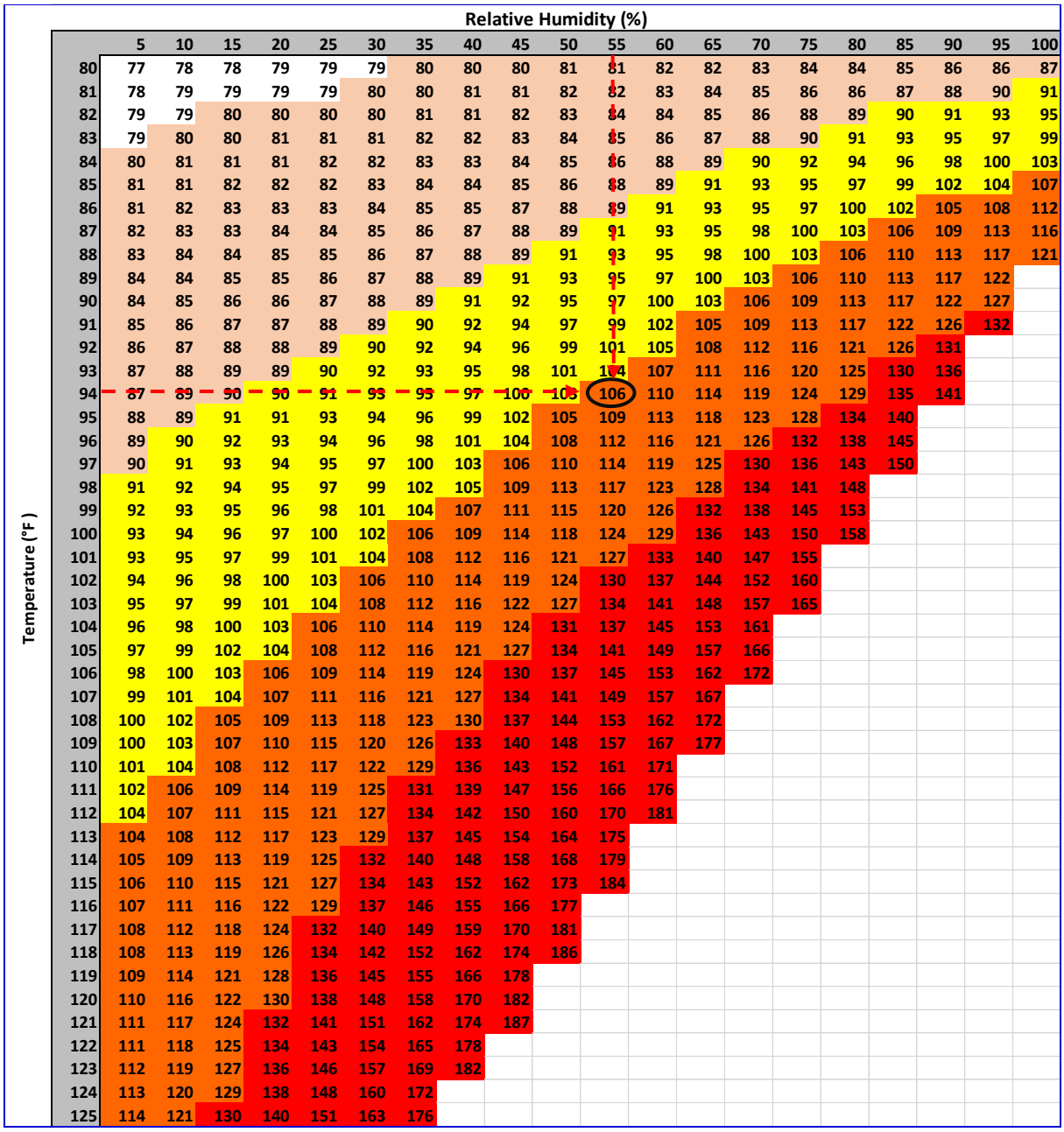
Handout II - Heat Index

- If the air temperature is 94°F and the relative humidity is 55%, the heat index will be 106°F.



Temperature (°F) \ Relative Humidity (%)	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
80	77	78	78	79	79	79	80	80	80	81	81	82	82	83	84	84	85	86	86	87
81	78	79	79	79	79	80	80	81	81	82	82	83	84	85	86	86	87	88	90	91
82	79	79	80	80	80	80	81	81	82	83	84	84	85	86	88	89	90	91	93	95
83	79	80	80	81	81	81	82	82	83	84	85	86	87	88	90	91	93	95	97	99
84	80	81	81	81	82	82	83	83	84	85	86	88	89	90	92	94	96	98	100	103
85	81	81	82	82	82	83	84	84	85	86	88	89	91	93	95	97	99	102	104	107
86	81	82	83	83	83	84	85	85	87	88	89	91	93	95	97	100	102	105	108	112
87	82	83	83	84	84	85	86	87	88	89	91	93	95	98	100	103	106	109	113	116
88	83	84	84	85	85	86	87	88	89	91	93	95	98	100	103	106	110	113	117	121
89	84	84	85	85	86	87	88	89	91	93	95	97	100	103	106	110	113	117	122	
90	84	85	86	86	87	88	89	91	92	95	97	100	103	106	109	113	117	122	127	
91	85	86	87	87	88	89	90	92	94	97	99	102	105	109	113	117	122	126	132	
92	86	87	88	88	89	90	92	94	96	99	101	105	108	112	116	121	126	131		
93	87	88	89	89	90	92	93	95	98	101	104	107	111	116	120	125	130	136		
94	87	89	90	90	91	93	95	97	100	103	106	110	114	119	124	129	135	141		
95	88	89	91	91	93	94	96	99	102	105	109	113	118	123	128	134	140			
96	89	90	92	93	94	96	98	101	104	108	112	116	121	126	132	138	145			
97	90	91	93	94	95	97	100	103	106	110	114	119	125	130	136	143	150			
98	91	92	94	95	97	99	102	105	109	113	117	123	128	134	141	148				
99	92	93	95	96	98	101	104	107	111	115	120	126	132	138	145	153				
100	93	94	96	97	100	102	106	109	114	118	124	129	136	143	150	158				
101	93	95	97	99	101	104	108	112	116	121	127	133	140	147	155					
102	94	96	98	100	103	106	110	114	119	124	130	137	144	152	160					
103	95	97	99	101	104	108	112	116	122	127	134	141	148	157	165					
104	96	98	100	103	106	110	114	119	124	131	137	145	153	161						
105	97	99	102	104	108	112	116	121	127	134	141	149	157	166						
106	98	100	103	106	109	114	119	124	130	137	145	153	162	172						
107	99	101	104	107	111	116	121	127	134	141	149	157	167							
108	100	102	105	109	113	118	123	130	137	144	153	162	172							
109	100	103	107	110	115	120	126	133	140	148	157	167	177							
110	101	104	108	112	117	122	129	136	143	152	161	171								
111	102	106	109	114	119	125	131	139	147	156	166	176								
112	104	107	111	115	121	127	134	142	150	160	170	181								
113	104	108	112	117	123	129	137	145	154	164	175									
114	105	109	113	119	125	132	140	148	158	168	179									
115	106	110	115	121	127	134	143	152	162	173	184									
116	107	111	116	122	129	137	146	155	166	177										
117	108	112	118	124	132	140	149	159	170	181										
118	108	113	119	126	134	142	152	162	174	186										
119	109	114	121	128	136	145	155	166	178											
120	110	116	122	130	138	148	158	170	182											
121	111	117	124	132	141	151	162	174	187											
122	111	118	125	134	143	154	165	178												
123	112	119	127	136	146	157	169	182												
124	113	120	129	138	148	160	172													
125	114	121	130	140	151	163	176													

Heat Index Classification:

Classification	Heat Index	Effect on the body	Protective measures
Caution	80°F - 90°F	Fatigue possible with prolonged exposure and/or physical activity	Basic heat safety and planing
Extreme Caution	90° F - 103°F	Heat stroke, heat cramps, or heat exhaustion possible with prolonged exposure and/or physical activity	Implement precautions and heighten awareness
Danger	103°F - 115°F	Heat cramps or heat exhaustion likely, and heat stroke possible with prolonged exposure and/or physical activity	Additional precautions to protect
Extreme Danger	115°F or higher	Heat stroke highly likely	Triggers even more aggressive protective measures

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Recommendations

Lower Risk Heat Index <90°F	Moderate Risk 90°F<Heat Index<103°F
• Provide drinking water • Ensure that adequate medical services are available • Plan ahead for times when heat index is higher, including worker heat safety training ***!!!*** *If workers must wear heavy protective clothing, perform strenuous activity or work in the direct sun, additional precautions are recommended to protect workers from heat-related illness.*	• Remind to drink water often (about 4 cups/hour) • Review heat-related illness topics: how to recognize heat-related illness, how to prevent it, and what to do if someone gets sick • Schedule frequent breaks in a cool, shaded area • Acclimatize worker • Set up body system/instruct supervisors to watch workers for signs of heat-related illness ***!!!*** *If workers must wear heavy protective clothing, perform strenuous activity or work in the direct sun, additional precautions are recommended to protect workers from heat-related illness.*
High Risk **103°F<Heat Index<115°F**	**Very High risk** **Heat Index>115°F**
• Alert of high risk conditions • Drink plenty of water (about 4 cups/hour) • Limit physical exertion (e.g. use mechanical lifts) • Have a knowledgeable person at the worksite who is well-informed about heat-related illness and able to determine appropriate work-rest schedule • Establish and enforce work-rest schedules • Adjust work activities • Use cooling techniques • Watch/communicate with workers at all time ***!!!*** *When possible, reschedule activities to a time when heat index is lower*	• Reschedule non-essential activity for days with a reduced heat index or to a time when the heat index is lower ***!!!*** *• Move essential work tasks to the coolest part of the work shift* *• Consider earlier start times, split shifts, or evening and night shifts* *• Strenuous work tasks and those requiring the use of heavy or non-breathable clothing or impermeable chemical protective clothing should not be conducted when the heat index is at or above 115°F*

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