

Heat Stress

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**Kinder Morgan Environnemental
Health and Safety**

**Pasadena Citizen's Advisory
Council**

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Heat Stress and Its Risks

- Individuals/workers exposed to extreme heat or hot work environments
- Can result in injury/illness
 - Heat stroke
 - Heat cramps
 - Heat exhaustion
 - Heat rash
 - Sweaty palms, fogged safety glasses, dizziness

Heat Stress Symptoms

HEAT EXHAUSTION

- Rapid Heart Beat
- Chills
- Pale complexion
- Muscle cramps
- Light headedness/fainting
- Extreme Weakness/Fatigue
- Dizziness/nausea
- Irritability
- Fast Shallow Breathing

HEAT STROKE

- Confusion/dizziness/nausea
- High body temp
- Hot, dry skin, or profuse sweating
- Throbbing headache
- Slurred speech/loss of coordination
- Hallucinations
- Seizures/ coma

Heat Index

		Temperature (°F)															
		80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110
Relative Humidity (%)	40	80	81	83	85	88	91	94	97	101	105	109	114	119	124	130	136
	45	80	82	84	87	89	93	96	100	104	109	114	119	124	130	137	
	50	81	83	85	88	91	95	99	103	108	113	118	124	131	137		
	55	81	84	86	89	93	97	101	106	112	117	124	130	137			
	60	82	84	88	91	95	100	105	110	116	123	129	137				
	65	82	85	89	93	98	103	108	114	121	128	136					
	70	83	86	90	95	100	105	112	119	126	134						
	75	84	88	92	97	103	109	116	124	132							
	80	84	89	94	100	106	113	121	129								
	85	85	90	96	102	110	117	126	135								
	90	86	91	98	105	113	122	131									
	95	86	93	100	108	117	127										
100	87	95	103	112	121	132											

Likelihood of Heat Disorders with Prolonged Exposure or Strenuous Activity

 Caution
 Extreme Caution
 Danger
 Extreme Danger

Adjusted Temperature* (calculated)	Light Work	Moderate Work	Heavy Work
90	Normal	Normal	Normal
91	Normal	Normal	Normal
92	Normal	Normal	Normal
93	Normal	Normal	Normal
94	Normal	Normal	Normal
95	Normal	Normal	45/15 ²
96	Normal	Normal	45/15
97	Normal	Normal	40/20
98	Normal	Normal	35/25
99	Normal	Normal	35/25
100	Normal	45/15 ²	30/30
101	Normal	40/20	30/30
102	Normal	35/25	25/35
103	Normal	30/30	20/40
104	Normal	30/30	20/40
105	Normal	25/35	15/45

Am I Hydrated?

1		
2		If your urine matches the colors 1, 2, or 3, you are properly hydrated.
3		Continue to consume fluids at the recommended amounts.
4		If your urine color is below the RED line, you are
5		DEHYDRATED and at risk for cramping and/or a heat illness!!
6		<u>YOU NEED TO DRINK MORE WATER!</u>
7		
8		