





Alert #: SA 15-23

Date: April 13, 2023

## **Protecting Workers from Heat Stress**

As areas of the southern United States transition from winter to spring, workers will also have to evolve their work habits from working in cooler drier environments to that of hotter more humid environments. With this transition, workers exposed to heat can become seriously ill and suffer from the effects of heat stroke, heat exhaustion, heat cramps and heat rash.

Recognizing the risk factors of heat related illnesses is extremely important in mitigating serious illness. Some risk factors include:

- High temperature and humidity, direct sun exposure, no breeze or wind
- Heavy physical labor
- No recent exposure to hot work places
- Low liquid intake
- Waterproof clothing.

WORK / REST WATER CONSUMPTION TABLE											
HEAT CAT	WBGT INDEX	EAS	Y WORK	MODER	ATE WORK	HARD WORK					
	(Degrees Fahrenheit)	Work / Rest (Min)	Water Intake (QT/HR)	Work / Rest (Min)	Water Intake (QT/HR)	Work / Rest (Min)	Water Intake (QT/HR)				
1	78-81.9	NL	NL 1/2		3/4	40/20	3/4				
2 (green)	82-84.9	NL 1/2		50/10	3/4	30/30	1				
3 (yellow)	85-87.9	NL	3/4	40/20	3/4	30/30	1				
4 (red)	88-89.9	NL	3/4	30/30	3/4	20/40	1				
5 (black)	MORE THAN 90	50/10	1	20/40	1	10/50	1				
The work: Rest times and fluid replacement volumes will sustain performance and hydration for at least 4 hours of work in the specific heat category. Individual water needs will vary plus or minus 1/4 quart per hour.											

Another important factor to working safely in heat involves understanding your body and the signs and symptoms of heat stress which can include: headaches, dizziness, weakness, nausea or vomiting. In more extreme cases this can escalate into fainting or loss of consciousness.

	NWS	He	at Ir	ndex		Temperature (°F)											
		80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110
	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		
ž	55	81	84	86	89	93	97	101	106	112	117	124	130	137			
Humidity	60	82	84	88	91	95	100	105	110	116	123	129	137				
Ę	65	82	85	89	93	98	103	108	114	121	128	136					
	70	83	86	90	95	100	105	112	119	126	134						
ive	75	84	88	92	97	103	109	116	124	132							
Relative	80	84	89	94	100	106	113	121	129								
Re	85	85	90	96	102	110	117	126	135								
	90	86	91	98	105	113	122	131								no	AR
	95	86	93	100	108	117	127										- J
	100	87	95	103	112	121	132									1	MCX C
			Like	lihood	l of He	at Dis	order	s with	Prolo	nged E	xposi	ure or	Strenu	ious A	ctivity	,	
	Caution						Extreme Caution					Danger Extreme Danger					er

Lastly, prevention is key to a successful day at work in the heat. Worker's can protect themselves by:

- Knowing the signs and symptoms of heat illness, including using a buddy system
- Drinking plenty of fluids drinking BEFOE you are thirsty.
- Avoiding beverages containing alcohol or caffeine.
- Wearing lightweight, light colored, loose fitting clothing.

## Report all incidents immediately to the GIS Hotline 1-855-543-5163

Following your initial phone call, an incident report **must** be completed and e-mailed to: <u>incident@gisy.com</u>