

VPP  
POWER  
GENERATION  
WORK  
GROUP

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August 17, 2023

Please check in on the chat function  
with your name, title and company.  
Feel free to add email





# 2023 3<sup>rd</sup> Quarter Meeting

Your Facilitators:

Alex Miller  
Sr. Regional Safety Manager & VPP Coordinator  
Vistra Corporation

Kelli Heflin  
Director of Safety  
Onward Energy

# Safety Moment

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Presented By:

Justin Maynard

Safety EHS Specialist

Onward Energy



The background of the slide is a light gray gradient with several realistic water droplets of various sizes scattered across it. The droplets have highlights and shadows, giving them a three-dimensional appearance. The text 'HEAT STRESS' is centered in the middle of the slide.

# HEAT STRESS

# WHAT IS HEAT STRESS

- HEAT STRESS IS THE EFFECT OF HEAT LOAD ON A WORKER'S BODY FROM EXPOSURE TO A COMBINATION OF FACTORS SUCH AS THE ENVIRONMENT, METABOLIC HEAT, AND CLOTHING.
- HEAT STRESS CAUSES THE BODY TO LOSE THE ABILITY TO CONTROL HEAT AND CAN LEAD TO HEAT EXHAUSTION AND HEAT STROKE.

### 3 Sources of Heat Stress



**Environmental  
Factors**



**Metabolic  
Heat**



**Clothing**

*SafetyCulture*

- **Environmental factors** – These are the high-temperature workplaces that can either be indoors or outdoors. Working in indoor areas such as bakeries, foundries, factories, and furnaces or in outdoor sites such as construction, road, mining, and agriculture can make the worker more susceptible to heat stress. Other environmental factors that can cause heat stress are weather or seasonal changes such as summer, as well as places high with humidity such as kitchens and laundries.
- **Metabolic heat** – This is the heat generated by a person's body during physical activity. Metabolic heat is, in simple terms, internal heat. There are 3 ways the body can exchange heat with its surroundings, which are radiation, convection, and evaporation of sweat. Radiation is heat transfer from a source of heat, usually associated with the sun. Convection is the process wherein the body exchanges heat through the surrounding air. Lastly, the body cools itself through sweat evaporation. However, cooling through sweat is limited in areas with high humidity since the air can't easily accept more moisture.
- **Clothing** – Employees should avoid wearing extra layers of clothing and clothing that absorbs heat. Their clothing should be made up of materials that can reflect heat and are appropriate for their workplace and tasks.

# SYMPTOMS OF HEAT STRESS

- PEOPLE THAT HAVE HEAT STRESS WILL COMMONLY EXPERIENCE HEAT RASH, MUSCLE CRAMPS, AND SEVERE THIRST. OTHER SYMPTOMS INCLUDE:
- DIZZINESS
- HEADACHE
- BODY ACHE
- FATIGUE
- RAPID HEARTBEAT
- NAUSEA
- CHEST PAIN
- LABORED BREATHING

- IF HEAT STRESS IS LEFT UNTREATED, IT CAN LEAD TO ILLNESSES SUCH AS HEAT EXHAUSTION OR HEAT STROKE. THE TWO HEAT-RELATED ILLNESSES HAVE DIFFERENT SYMPTOMS, WHICH ARE:

- **HEAT EXHAUSTION**

- LOSS OF BODY WATER AND SALT THROUGH EXCESSIVE SWEATING
- DIZZINESS
- MUDDLED VISION
- FATIGUE
- SEVERE THIRST
- HEADACHE
- NAUSEA AND VOMITING
- DIARRHEA
- MUSCLE CRAMPS
- LABORED BREATHING
- PALPITATIONS
- TINGLING AND NUMBNESS OF HANDS AND FEET



- **HEAT STROKE (SEVERE HEAT ILLNESS)**

- WHEN HEAT EXHAUSTION DEVELOPS INTO HEAT STROKE, CALL FOR MEDICAL HELP AS SOON AS POSSIBLE. WHAT YOU CAN DO: MOVE THE WORKER TO A COOLER PLACE, REMOVE CLOTHING, WET THE PERSON'S SKIN, APPLY COLD PACKS TO NECK, ARM PITS, GROIN AREA, WHERE LARGE BLOOD VESSELS LIE CLOSE TO THE SKIN, WILL HELP QUICKLY COOL DOWN A VICTIM OF HEAT STROKE. THE SYMPTOMS OF HEAT STROKE INCLUDE:

- BODY TEMPERATURE GREATER THAN 40°C ( 104 F)
- COMPLETE OR PARTIAL UNCONSCIOUSNESS
- CONFUSION
- HOT, DRY, OR HEAVY SWEATING, LACK OF SWEATING
- SEIZURES

# HEAT STRESS PREVENTION

## How to Prevent Heat Stress?



Provide water or other beverages



Provide a shaded area



Discourage drinking caffeinated or alcoholic beverages



Provide clothing fit for the weather (e.g., cooling vests)



Schedule periodic breaks



Allow employees to acclimate by gradually increasing workload



- Provide water or other beverages (preferably cold drinks).
- Provide a shaded area or a place that is cooler in temperature.
- Discourage workers from drinking caffeinated or alcoholic beverages during work hours.
- Prepare clothing fit for the weather and the type of work such as providing a hat or cooling gear.
- Schedule periodic breaks.
- Allow employees to acclimate by gradually increasing workload (metabolic heat) and heat exposure.



# VPP Updates

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Since last meeting:

New VPP Applications Submitted or Accepted

Initial VPP Approvals

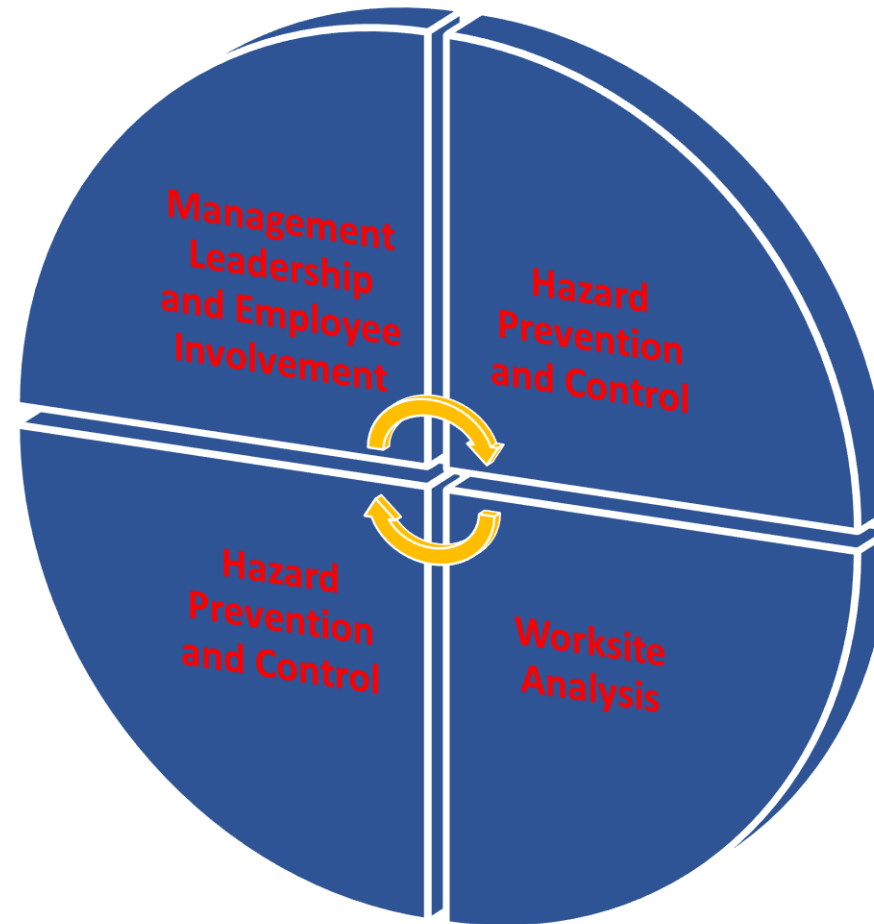
VPP Reapprovals



# VPP Element

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Employee Involvement  
Bradley Kelley  
Lamar Power Plant



# VPP Element

## Employee Involvement



Bradley Kelley  
Lamar Power Plant  
Paris, Texas



# What is Employee Involvement?

1. Employees taking safety courses.
2. Employees leading programs.
3. Employees helping with suggestions on safety improvements.
4. Employees performing Pro-active safety engagements.



# How do you get us involved?

1. Educate us.
2. Empower us
3. Make requirements for us and set expectations.



# Engagement

- Management can make requirements and set expectations to encourage engagement.
1. Require a certain amount of Behavior based safety observation per month.
  2. Require Safety Work orders to be wrote or closed per year
  3. Require 1 safety topic presentation per year during turnover
  4. Require attendance at a safety conference
  5. Require Loto/Confined space audits
  6. Require Safety team participation
  7. Require Safety Procedure reviews.
  8. The most important part is for these expectations to be measurable and attainable.





# Currency

- What is our currency?
  1. Recognition.
  2. Is it a simple thankyou?
  3. Is it an extra day of vacation?
  4. Is it a new Jacket or shirt?
  5. Is it 100% come bonus time?
  6. Is it having lunch catered to the plant because you met certain safety goals? (Up stream goals of course.)



# Recognition how to keep us involved.

## Statistics

29% of employees haven't received recognition for good work in over a year, if at all.

80% of employees would work harder if they felt better appreciated.

Strong employee recognition programs reduce turnover rates by 31%.

Employees who are recognized are almost six times more likely to stay at their jobs than those who aren't.

37% of employees report that the best way to improve their engagement is for their superiors to give them recognition.

92% of employees are likely to repeat a specific action if given recognition for it.

# QUESTIONS

# Committee Updates

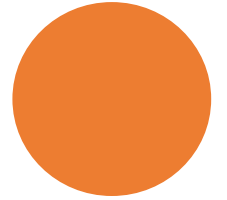
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# Newsletter Team – Michael Circle

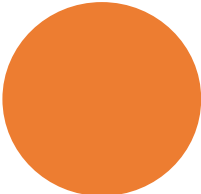
- Q3, 2023 Delivered
- Newsletter Contributions
  - Send ideas, proactive topics, presentations, etc. by October 31<sup>st</sup>.
- Contact:
  - Michael Circle

[Michael.Circle@OnwardEnergy.com](mailto:Michael.Circle@OnwardEnergy.com)



# QEW Team Update

## Alex Miller



**WARNING**  
Qualified Persons Only

**Arc Flash and Shock Hazards**  
Appropriate PPE Required

REVIEW SAFE WORK PRACTICES PRIOR TO WORK

12 inch Arc Flash Boundary

0.62 cal/cm<sup>2</sup> AF Incident Energy @ Working Distance: 18 inch

Recommended (minimum) PPE:  
Untreated Cotton Long-sleeve Shirt & Long Pant, Safety Glasses, Hearing Protection, Voltage-Rated Electrical Gloves w/Leather protector.

0

480 VAC	Shock Hazard
00	Glove Class
42 inch	Limited Approach
12 inch	Restricted Approach

**HERZIG ENGINEERING**  
ARC FLASH CONSULTANTS  
Job# HE-2014-07-08-03  
Prepared: 11/13/14

PNL: 11BPA10GS001 Prot: 11BFA MCC CB 3B

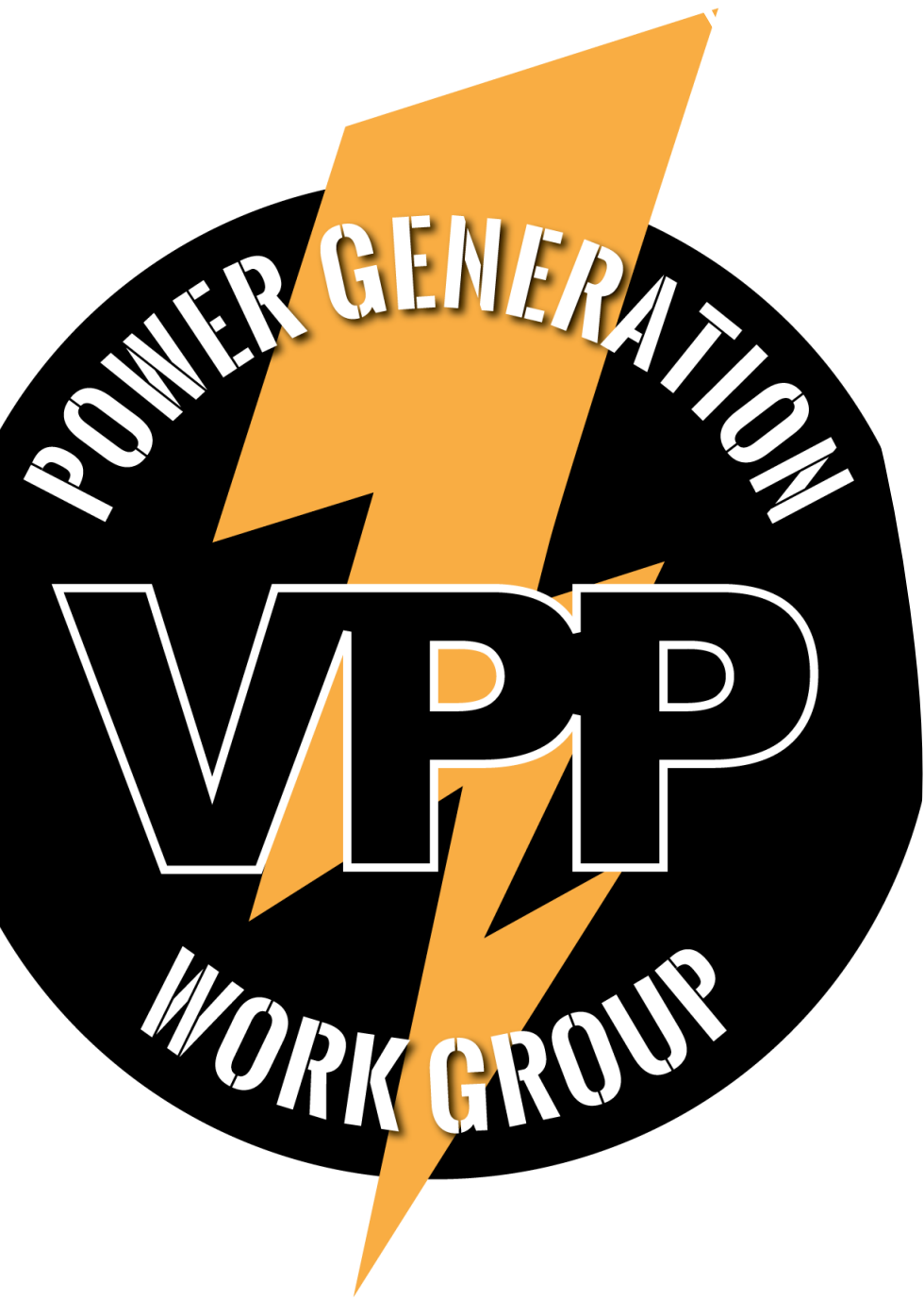
PNL: 11BPA10GS001 Prot: 11BFA MCC CB 3B



# Benchmarking

- 2023 Goal: Develop benchmarking questionnaire for deployment in Q1 2024
  - Auditing
  - Training Practices
- Team member volunteers? If not, we will selectively ask!
- Contact Kelli Heflin  
[Kelli.Heflin@OnwardEnergy.com](mailto:Kelli.Heflin@OnwardEnergy.com)





# Open Discussion

**Questions?**

**Suggestions?**

**Discussion points?**







# 2023 VPPPA Conference Schedule

Region 1 - August 22 – 24, 2023. Southbridge, MA

~~Region 2 – In conjunction with Region 3~~

~~Region 3 – April 24 – 27, 2023. Kalahari Resort, PA~~

Region 4 – In conjunction with VPPPPA Safety+

~~Region 5 – June 14-15, 2023. South Bend, IN~~

~~Region 6 – May 22 – 25, 2023. Corpus Christi, TX~~

~~Region 7 – June 19-21, 2023. Branson, MO~~

Region 8 - In conjunction with VPPPPA Safety+

~~Region 8 Networking Day – June 8 (registration closes  
May 23)~~

Region 9 – In conjunction with VPPPPA Safety+

~~Region 10 – May 16-18, 2023. Kennewick, WA~~

VPPPA Safety+ - September 18 – 20, 2023. Orlando, FL





# Next Call: November 16<sup>th</sup> 2023

## Q4 Meeting

If you have not already done so, please enter your attendee names, site name and company name into the chat function on the Zoom meeting.

Send Suggestions or offers to volunteer to:

Alex Miller – [alexander.miller@vistracorp.com](mailto:alexander.miller@vistracorp.com)

Or

Kelli Heflin – [Kelli.Heflin@OnwardEnergy.com](mailto:Kelli.Heflin@OnwardEnergy.com)

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# 2023 Meeting Schedule

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~~February 16<sup>th</sup>~~

~~May 18<sup>th</sup>~~

~~August 17<sup>th</sup>~~

**November 16<sup>th</sup>**

Meetings are scheduled from 1430 – 1600ET (1230 – 1400MT)

