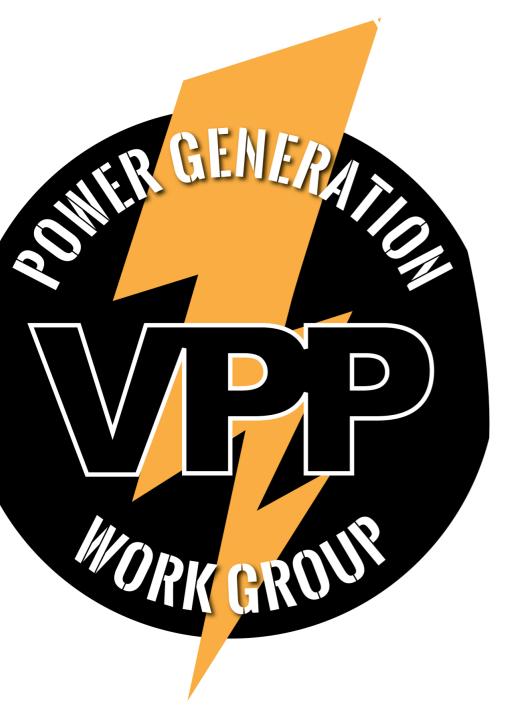
VPP POWER GENERATION WORK GROUP

November 17, 2022

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





2022 4th Quarter Meeting

Your Facilitators:

Alex Miller

Sr. Regional Safety Manager & VPP Coordinator Vistra Corporation

Kelli Heflin Sr. Manager, Safety & ESG Coordinator Onward Energy

Safety Moment

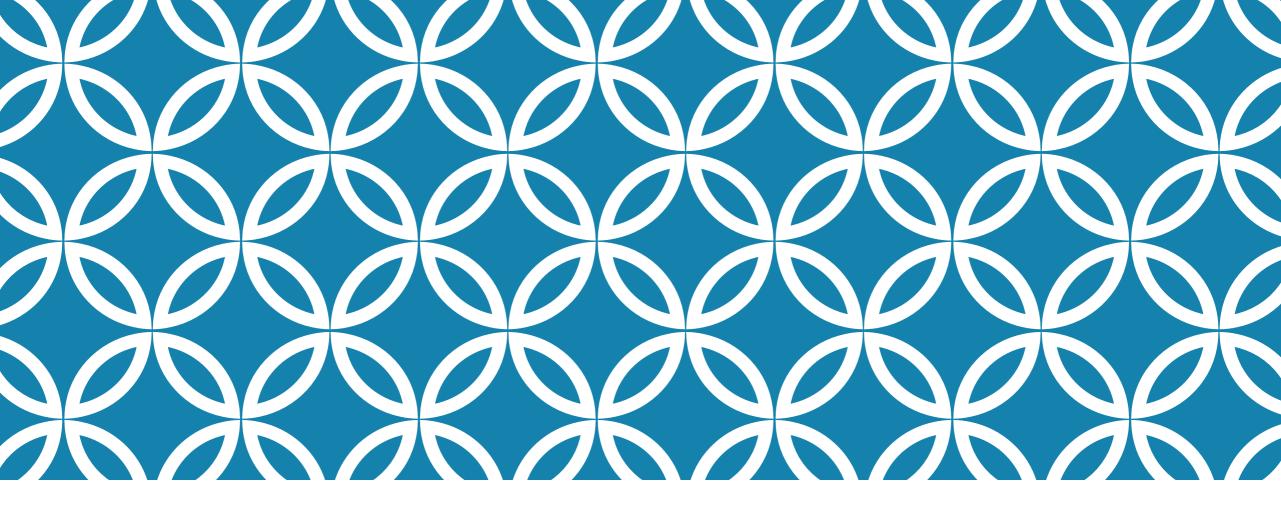
Presented By:

Rob Coit

EHS Manager

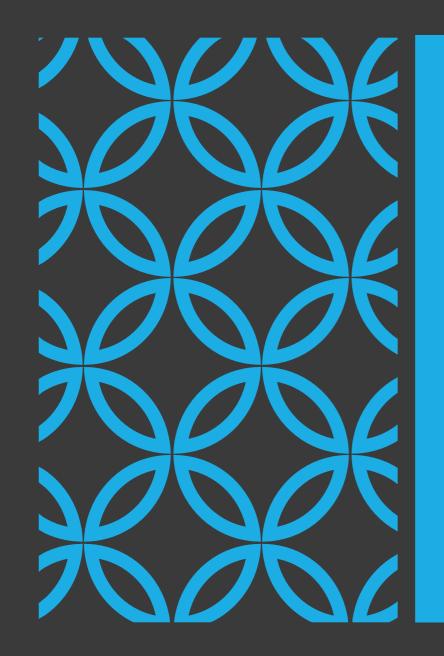
Ontelaunee Power Plant





'TWAS THE WEEK AFTER OUTAGE

Adapted by Rob Coit from "A Visit from St. Nicholas" Or 'Twas the Night Before Christmas By Clement Clarke Moore



⁴Twas the week after Outage, when all through the plant The contractors were gone, and rentals were scant The dumpsters were full, and ready to go Waiting for Waste Management as you might know

The control room was calm, the outage was done Turbines were spinning and generators on run Plant manager in his office and I in my own We had just relaxed to talk on the phone



When out in the yard, we heard such a noise We jumped from our desks to check on employees Away to the control room, quickly we strode To look at the cameras to see what they showed

> The alarms on the DCS were all very quiet And the CEMS let us know that we were compliant When a fine gentleman in the shop was espied Holding a jug of something, not clearly identified

"What is this?" He yelled "Can you guess?" I knew right away that it was Sir GHS With diamond labels, all neatly on a roll To identify contents, that was his goal

Carcinogens, Flammables, Irritants and Explosives Gas Under Pressure, Toxins, Oxidizers, and Corrosives All must be labeled, so we know what we've got All very simple or so we've been taught



The labels are diamonds, red outline with picture within Very simplistic, no two are akin

From the top of the stacks to the cable vaults he went Labeling all containers of hazards we had to present

> Sir GHS explained his neat system to us all "Label your containers, no matter how small The GHS system has been smartly devised With pictograms all globally recognized"

"Carcinogens or health hazards, they are the first The symbol is a torso with a central starburst Flammables are easy, a fire it does show Oxidizers are similar, but flames burn a big O"

"For compressed gasses, a bottle is the container So that is the symbol for them, nothing is plainer Explosives show us a neat little explosion" Sir GHS explained to us, staying in motion





"Corrosives cause harm to your skin and metals to fail Test tubes dripping acid, shown to us in detail Environmental hazards show a dead fish and sick tree Make sense to you? It sure does to me."

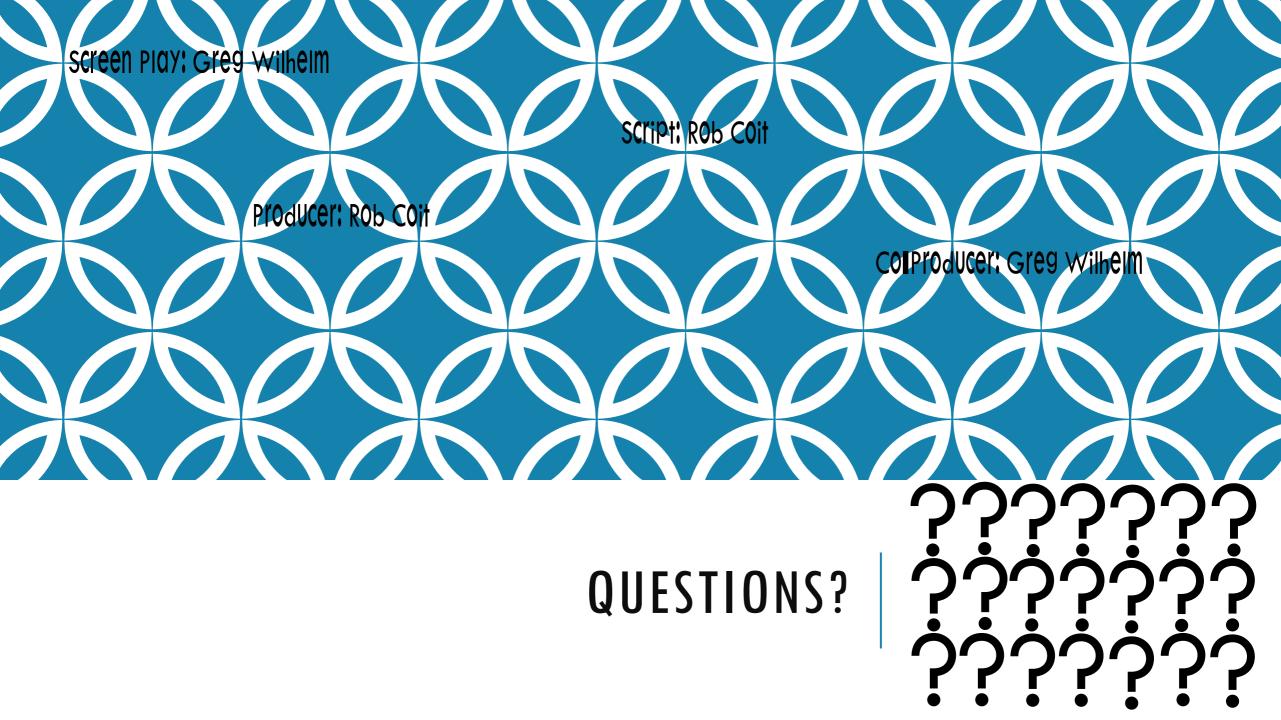
"Fatal or acutely toxic have the skull and cross bones That is a symbol familiar in all time zones Wear the appropriate PPE while working with this Finding someone not doing so, something's amiss"

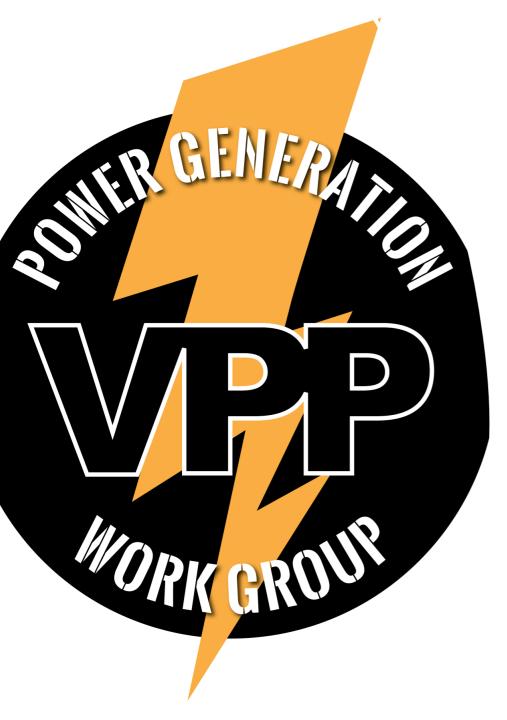


"The exclamation mark is the final pictogram" Sir GHS proclaimed as happy as a clam "Covers your irritants your sensitizers, It advises everyone, even supervisors"

Sir GHS, his job here now completed Left for more locations yet to be treated As he left, he called out, "Y'all do me a favor, Label your containers and you will be much safer"







VPP Updates

Since last meeting:

New VPP Applications Submitted or Accepted

Initial VPP Approvals

VPP Reapprovals

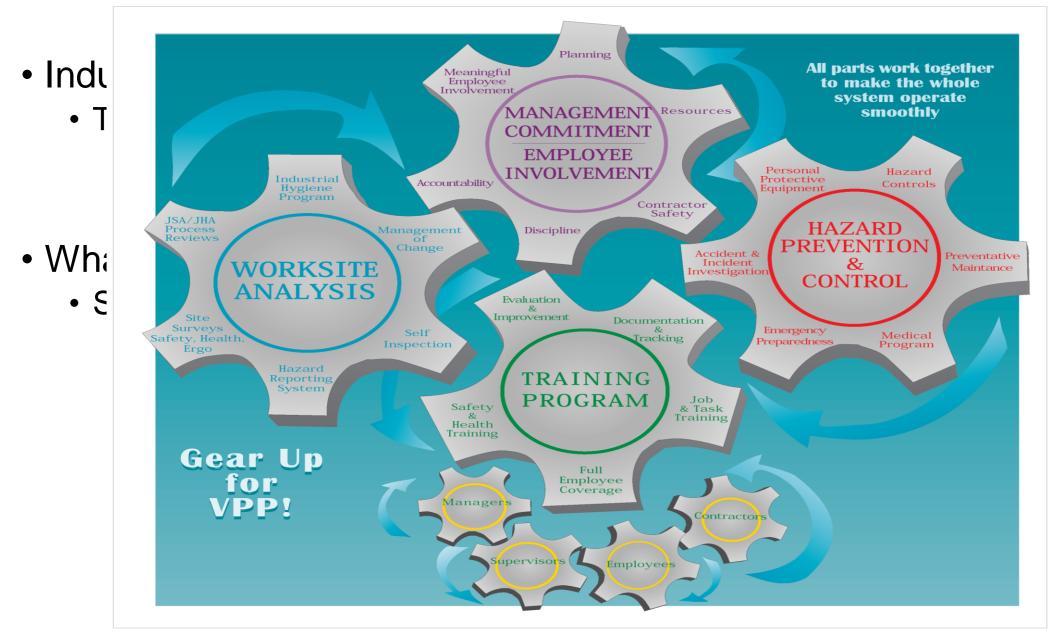
VPP Element

Power Generation Industrial Hygiene Chris Magnuson NorthWestern Energy

Power Generation Industrial Hygiene - Element 2.h

November 2022

Name your favorite VPP Element Sub-Element



The Challenge

- Raise of (digital) hands
 - Any group been taken off guard?
- Looks simple on paper, but it is a very extensive program
- Does it have to be difficult?



VPP IH program expectation

- Starting line Baseline worksite analysis
 - Anticipating & Recognizing
- Treat this like an audit
- BP for us:
 - At least initially do not combine worksite analysis
 - Focus on IH hazards

VPP IH program expectation

- The program
 - Surveys
 - Sampling Strategy
 - Results
 - Expertise
 - Evaluating



- This needs to be a written program
 - Ours includes direction for all the above expectations

The key component

- What's next??
 - After program is established and baselines are complete
- Continued monitoring, analysis
 - (Make a plan) ... and
- Controlling the hazards!

Annual Industrial Hygiene Plan Check			
Hydro: IH Plan for 2022 includes a combination of phys the work environment.	sical, biological, and chemical co	ontaminants in	Hud
ne work environment.			Hydro IH Monitori
Industrial Hygiene Task list	Owner	Completion	Hydro IH Monitoring Sched
	owner	Date	Com ar basis or as upgrades permit: 2017, 2020
1) Personal noise monitoring			apgrades permit: 2012
1.1) Holter	Manguson	July, 2022	-017, 2020
1.2) Mystic	Magnuson		
1.3) GF Upriver	Magnuson	July, 2022	
1.4) GF Downriver	Magnuson	June. 2022	
1.5) GF Maintanence	Magnuson	June. 2022	
1.6) GF Electric	Magnuson	June. 2022	
1.7) Madison	Magnuson	June. 2022	
2.) Area Noise Map Updates - rollover			
2.1) Black Eagle	Magnuson	June. 2022	
2.2) Cochrane	Magnuson	June. 2022	
2.3) Hauser	Magnuson	July, 2022	planned at each facility that year.
2.4) Holter	Magnuson	April, 2021	IV weld on galvania
2.5) Madison / Hebgen	Magnuson	June. 2022	ty weld on galvanizedsteel any more. Th
2.6) Morony	Magnuson	June. 2022	- Th
2.7) Mystic	Management	August,	
	Magnuson	2022	
2.8) Rainbow	Magnuson	June. 2022	
2.9) Rainbow Shop	Magnuson	June. 2022	
2.10) Ryan	Magnuson	June. 2022	
2.11) Thompson Falls	Magnuson	July, 2022	
3.) Welding: Personal sampling during welding to include heavy metals (Opportunistic)			ned at each facility that year and is direct
3.1) Rainbow Shop:	Magnucon		that year and is at
· · · ·	Magnuson		- is direct
3.2) Thompson Falls	Magnuson		
Hexavalent Chromium: Personal/area moni	itoring (Opportunistic)		
4.1) Rainbow #9	Magnuson	July, 2022	
5) Dust/Silica: (Oppurtunistic)	inagitabeti	50177 2022	Opportunistic
		1 1	
5.1) Holter	Magnuson		
5.2) Madison	Magnuson		H Oust) and with same
5.3) RBO Shop	Magnuson		e Dust) and with same welding
5.4) Thompson Falls 6) Heavy Metal Dust: Potential from new syst	Magnuson		
b) neavy metal Dust: Potential from new syst	em generator brakes		
6.1) Cochrane - rollover	Magnuson		
6.2) Rvan	Magnuson	spresent abateme	

ty of welding/fa

ees are not qualified to work on asbestos



Specific hazards

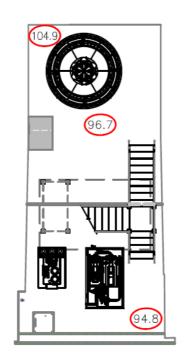


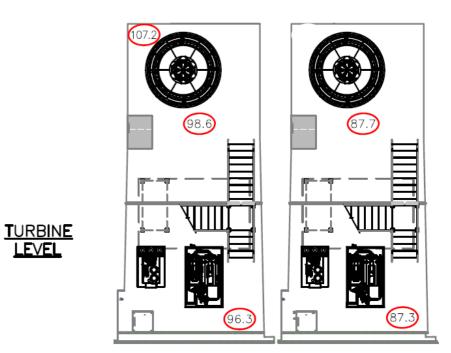
- Air contaminants
 - Dust, fumes, mists, aerosol, fibers
- Physical hazards
 - Noise, illumination, temperatures, radiation
- Chemicals
- Biological
 - Virus, fungi, bacteria
- Ergonomics





- Very common hazard
 - If there are generators there is noise
- One of the most demanding of hazards
 - Monitor / reevaluate constantly





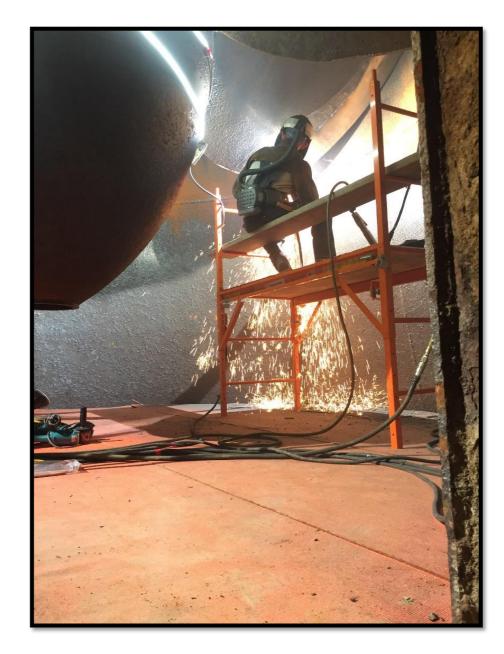
Noise - control

- Hearing Protection Program
- Area noise control
 - Control / isolate the source
 - Improve absorption Tectum
 - Provide area's of controlled noise level
- Employee monitoring
- Educate





- Also a common process to be analyzed
 - What type of welding is performed
 - What are we welding on
 - What are we welding with
 - Where are we welding
 - How often, for how long



Welding - controls

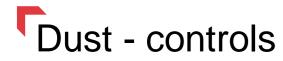
- Is there a better way?
- Substitution better safer products
 - Composites, epoxy's, etc...
 - (these will need to be evaluated as well)
- Ventilate / capture
- Educate





- It's everywhere!
 - From nuisance to potential silica containing
 - Possible toxic dust due to processes??
- Targeted monitoring





- Wet method
- HEPA attachment
- Respiratory protection
- What about substitution???





- Depending on the age of your facility this one may not be as big of an issue
 - Can any one tell me what year LBP was banned?
- Babbitt anyone?
- How do you control LBP???



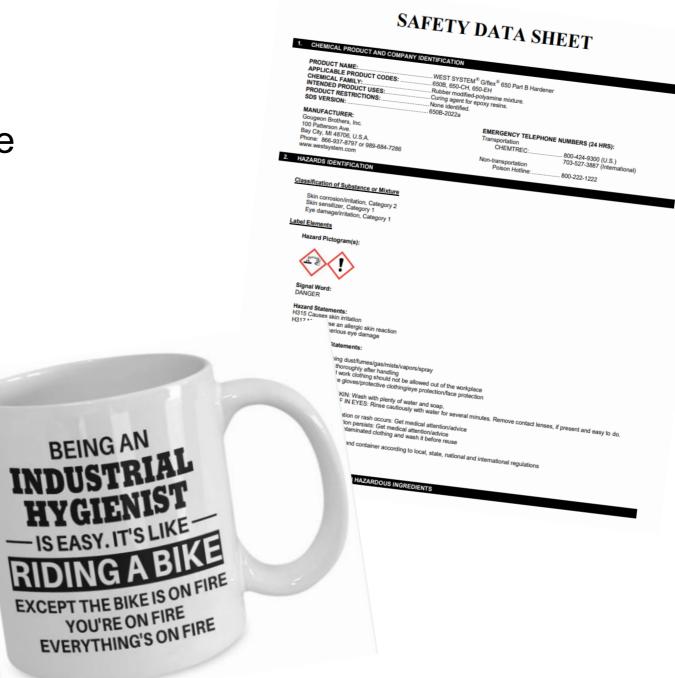


- Again may not be an issue for some facilities...but beware in older facilities
 - Transite panels
 - Wall materials
 - Insulation
 - Old tile





- What is an IH's second favorite game?
 - What's in that?
 - Use of solvents or other VOC producing chemicals
 - Oils ... PCB's???
 - Epoxy
 - Paints
 - ... Everything ...
- Controls?





- What is an IH's favorite game?
 - What the heck is that !?
- Some fun ones:
 - UWGS
 - Fungi / mold
 - What about pests?
 - Droppings
 - Nests
 - Etc...
- Controls?





- What are some less recognized potential exposures that you have discovered at your site(s)?
- What are some of your major IH hazards?
- Any control measures taken worth sharing?





- Don't overlook your IH
 - It is easy to grow complacent
- It doesn't have to be difficult
- Outside resources are a great tool!
 - Use appropriately
- Feel free to contact me for more information on our program



Questions?



Chris Magnuson | CSP

Safety and Health Professional O: (406) 268-2357

C: (406) 437-2272 Chris.Magnuson@northwestern.com



Committee Updates

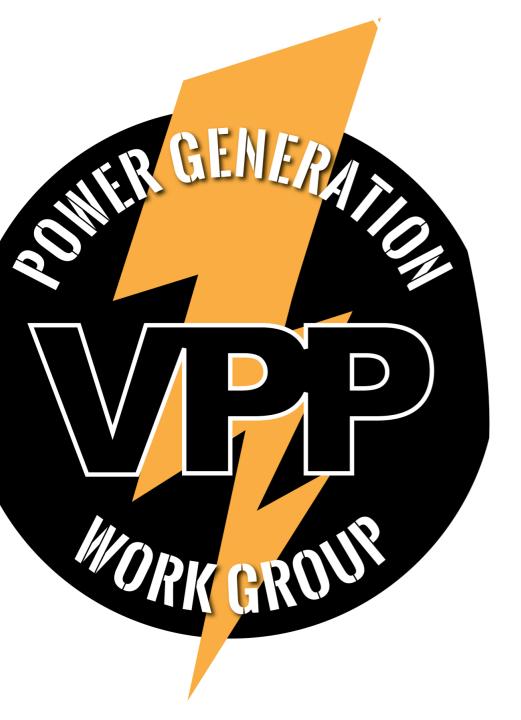




- Newsletter Committee
 - Newsletter scheduled for Q4 -November
- Newsletter Contributions
 - What does the group want to see?
 - Send ideas, proactive topics, presentations, etc. by October 15th.
 - Reminder email to be sent to the group on September 15th.
- Contact Courtney Robinson
 <u>Courtney.Robinson@Luminant.com</u>







Open Discussion

Questions?

Suggestions?

Discussion points?



2023 VPPPA Conference Schedule

Region 1 - TBD

Region 2 – Combined 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 – TBD

Region 8 - In conjunction with VPPPA Safety+

Region 9 – In conjunction with VPPPPA Safety+

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

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



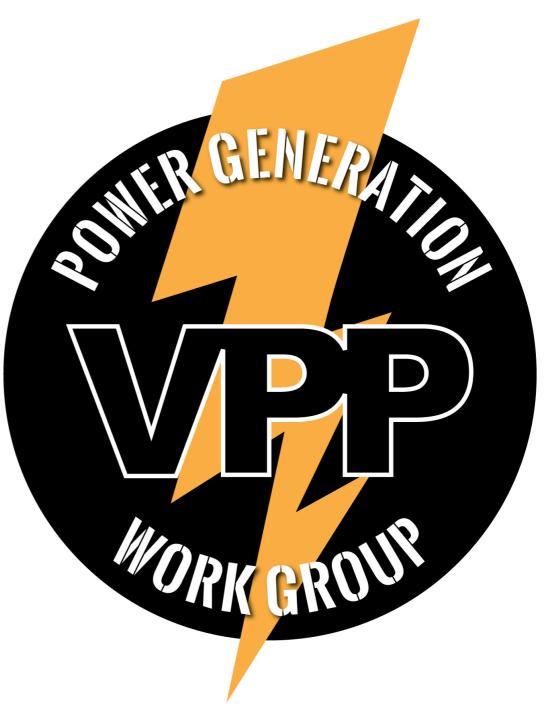
2022 Meeting Schedule

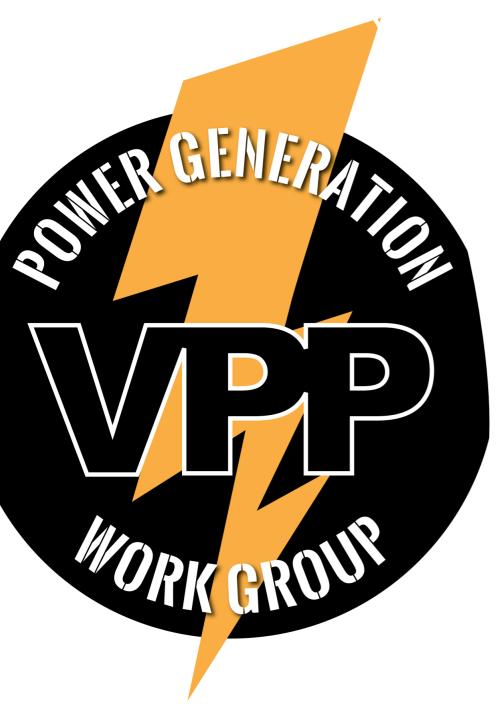
February 17th

May 19th

August 18th November 17th

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





Next Call: December 8th 2022 Planning 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 – <u>alexander.miller@vistracorp.com</u>

Or Kelli Heflin – <u>Kelli.Heflin@OnwardEnergy.com</u>