

# ASSEMBLY REQUIRED

May 2024



## THE WATER COOLER

This month, The PEPM Group started engineering work for a food processing company in Texas. We are providing mechanical, electrical, and structural engineering services to ensure the successful expansion and startup of multiple new food processing lines. The PEPM Group is working with the customer to upgrade the electrical service, design new mechanical utility support equipment, and design structures and buildings for these new pieces of equipment.

The PEPM Group is working on a project in Alaska, providing structural analysis in STAAD and design for nine large cooling tower units. The team will model units, check extreme weather loads, ensure transport integrity, design lifting lugs, validate low-temperature material suitability and provide PE-stamped drawings and calculations.

The PEPM Group welcomes Jeff Cartwright, P.E., our new senior electrical engineer. Jeff is a Professional Engineer (P.E.) and master electrician with over 10 years of experience in electrical engineering design for food processing, industrial facilities, and commercial buildings. He holds a BS in Electrical Engineering from Arkansas Tech University.

The PEPM Group is excited to welcome Stefano de Rosmini, a talented Chemical Engineering graduate from the University of Arkansas to the team. Stefano brings valuable experience designing food processing facilities, commercial buildings, and MEP. Please join us in welcoming Stefano to the PEPM family!

The PEPM Group is thrilled to announce our Lead Mechanical Engineer, Jay Pascual, P.E., has been inducted into the prestigious Arkansas Academy of Mechanical Engineering for his exceptional expertise, leadership, and dedication to mechanical engineering.

*For your structural, mechanical, electrical engineering, 3D modeling, and drafting needs, contact [jpascual@pepmgroup.com](mailto:jpascual@pepmgroup.com), [yzhang@pepmgroup.com](mailto:yzhang@pepmgroup.com), and [admin@pepmgroup.com](mailto:admin@pepmgroup.com). The PEPM Group is a leading company for plantwide ventilation and air studies and has provided more than 25 ventilation and air study evaluation projects for multiple customers throughout the country.*

### ENGINEERING INSIGHT

#### Food Processing Plant Ventilation 7:

##### Battery Storage Ventilation

###### General Information:

- Lead battery releases hydrogen and oxygen through the electrolysis of sulfuric acid
- $0.0174\text{ft}^3/\text{cell}/\text{hr}$
- hydrogen-in-air mixture of 4%
- Hydrogen gas is colorless and odorless
- Lightest gas

###### Storage Room Design:

- Enclosed room or outside
  - Volume
  - Structural envelope
- Battery type and amount
  - cells/battery
  - 4 out of 8 hr. release H<sub>2</sub>
- Concentration Limits
  - Engineering – 1%
- Detection System
  - High points
- Naked flames?
- Floors should be dry
- Floor surface should be electrolyte resistant unless in proper trays



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# WE ARE HIRING!

For a long-term fulfilling career, a caring, encouraging, and respectful working place, contact PEPM. Apply today at [www.pepmgroup.com/careers](http://www.pepmgroup.com/careers)

- Lead or Senior Structural Engineer (Tulsa, OK or Fayetteville, AR) - 5+ years of experience. PE required.



## IN THE KNOW...

The word May wasn't used until the Middle Ages were on their way out, around the 15th Century AD. Up until then, the Roman word Maius was still used.

**1967** Columbia Pictures released "Good Times," a musical comedy western starring Sonny & Cher and George Sanders; Cher's first starring role was also the feature debut of director William Friedkin.

**1960** The Anne Frank House opened in Amsterdam, The Netherlands.

**1922** The International Astronomical Union formally adopted Annie Jump Cannon's stellar classification system, which with only minor changes, is still used today.

**1910** Montana's Glacier National Park was formed on May 10th.

**1906** The Archaeological Institute of America was formed on May 26th.

**1904** Charles Rolls met Henry Royce at the Midland Hotel in Manchester, England; they went on to form the car manufacturer Rolls-Royce.



## CELEBRATE SMALL BUSINESS MONTH WITH US!

May is National Small Business Month, and we want to take this opportunity to celebrate all of the hardworking small business owners in our community. As a small business ourselves, we understand the blood, sweat, and tears that go into building a successful company from the ground up.

Small businesses are the backbone of our local economy, creating jobs and economic growth. They showcase the entrepreneurial spirit and bring unique products, services, and experiences to our neighborhoods. From the local coffee shop that brightens your morning to the boutique store with one-of-a-kind gifts, small businesses add vibrancy and character.

This month, we encourage everyone to show some extra love and support for small businesses.

We're proud to be a small business and thank our customers for supporting us. Here's to the local entrepreneurs pursuing their dreams!

# The HOT SPOT

## Why Can't Robots Outrun Animals?

Robotics engineers have worked for decades and invested many millions of research dollars in attempts to create a robot that can walk or run as well as an animal...

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## HVAC Industry Gears Up for Challenges in 2024

As the HVAC (Heating, Ventilation, and Air Conditioning) industry approaches a critical juncture in 2024, Eco Friendly Air...

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## Processed Meat - United States

Revenue in the Processed Meat market amounts to US\$42.07bn in 2024. The market is expected to grow annually by 3.41%...

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## OSHA head calls on industry to embed safety in culture

At a Wednesday event, Assistant Labor Secretary Doug Parker charged industry leaders with creating an environment that expects workers to speak...

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## Successful contractors don't fight change. They embrace it.

Know when it's time to look beyond a "that's how things have always been done" mentality, writes consultant...

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## WE WANT YOUR FEEDBACK!

### 피드백 (Korean for feedback)

To ensure a great newsletter, let us know what you think! Your ideas and stories can make this newsletter a truly engaging experience. Send your suggestions to [yzhang@pepmgroup.com](mailto:yzhang@pepmgroup.com). Your feedback is greatly appreciated and valued!

## GET PROPOSAL



Have questions about MEP, CSA, industrial refrigeration, process design, architectural, or project management? Contact PEPM Group at [yzhang@pepmgroup.com](mailto:yzhang@pepmgroup.com), [admin@pepmgroup.com](mailto:admin@pepmgroup.com), call (918) 895-6766, or visit [www.pepmgroup.com](http://www.pepmgroup.com).

MAY

# AWARENESS DAYS

- MAY 1** Chocolate Parfait Day
- MAY 2** Brothers and Sisters Day
- MAY 3** Space Day
- MAY 4** Bird Day
- MAY 5** Cinco de Mayo
- MAY 6** Scrapbooking Day
- MAY 7** Tourism Day
- MAY 8** Receptionist Day
- MAY 9** Make a Book Day
- MAY 10** Golf Day
- MAY 11** Mini Golf Day
- MAY 12** Mother's Day
- MAY 13** Apple Pie Day
- MAY 14** Dog Bonding Day
- MAY 15** Straw Hat Day
- MAY 16** Barbecue Day
- MAY 17** NASCAR Day
- MAY 18** Learn to Swim Day
- MAY 19** Plant Something Day
- MAY 20** Rescue Dog Day
- MAY 21** Meditation Day
- MAY 22** Vanilla Pudding Day
- MAY 23** Taffy Day
- MAY 24** Brother's Day
- MAY 25** Tap Dance Day
- MAY 26** Family Fun Day
- MAY 27** Memorial Day
- MAY 28** Hamburger Day
- MAY 29** Mount Everest Day
- MAY 30** Hug your Cat Day
- MAY 31** Smile Day