WELCOME

Monthly Building Coordinator Meeting
Via ZOOM

January 17, 2024
Agenda

FM Cold Weather Protocol:
Julie Sychra - Facilities Management Director, Building Operations & Maintenance

Building Coordinator Meeting Feedback Survey Results:
Stephanie Rourke – Facilities Management Manager, FM@YourService and Building Coordinator Program

ENGIE North America at UI:
John Weyer, ENGIE North America Distribution Plant Manager
Facilities Management

FM Cold Weather Protocol

Updated January 5, 2023

Cold Weather Protocol

Cold Weather Protocol Steering Group Members:
- FM & Your Service Manager
- Senior Manager of Operations and Maintenance
- Director of Operations and Maintenance
- Manager of Controls Engineering
- Manager, Maintenance Planning

Annual Preparation Cycles:
- By late November/early December:
  - Steering team reviews Cold Weather Protocol
  - Building Operations & Maintenance and FM@YS team review of Cold Weather Protocol
  - Update the template of the planned work order project
    - Review of prior year's Cold Weather Event projects to inform creation of the planned work orders for the current year (review/updated to approved projects)
    - Intentional focus on any areas currently impacted by construction or maintenance projects, vulnerable areas, etc.
- December:
  - Cold Weather Protocol presented at Building Coordinator Meeting*
  - Refresher communication for on-call team on Cold Weather Protocol

Preparatory Actions when Trigger Event is forecasted:
- When outside air temperature is forecasted below 0° for longer than 24 hours (Accuweather), a steering group meeting will be scheduled (Director responsibility) to discuss which of the following risk mitigation activities are relevant for the given cold weather situation:
  - Resourcing Considerations:
    - Assign discipline(s), as necessary
    - Addition of a secondary on-call team member into standby status (FM@YS Manager)
    - Hotel rooms secured for primary and secondary on-call members (FM@YS Manager)
    - Manager secure volunteer lists of team members who will be available to take calls as needed. FM@YS Manager compiles this information for the on-call
A Data-Driven Approach:

- Buildings are vulnerable to damage during extended periods of sub-zero temperatures.
- FM leverages a data-based trigger to implement mitigation plans once the forecast shows more than 24 hours below 0 degrees Fahrenheit.
Continuous Improvement:

Initial version of the Cold Weather Protocol was developed after 2018 and has been evolving ever since:

Cold Weather Related Claims for GEF UI Properties*
*Values for 2021 and later are estimates, not actuals

Development of Initial Cold Weather Protocol
Annual Cadence Established:

Late November/early December:
- Steering Team reviews Cold Weather Protocol
- Building Operations & Maintenance and FM@YS team review
- Update planned work orders:
  - Review of last year’s notes
  - Addition of any current building-specific vulnerabilities

December/January:
- Building Coordinator Meeting presentation
- Review with On-Call Team
Mitigation Planning:

Theme 1: Resource Considerations

- Addition of a secondary standby team member
- Secure hotel room(s)
- Compile area resource and controls team lists
- Addition of BAS reviews
Mitigation Planning:

Theme 2: Communication Considerations

• Cadence of daily meetings

• Notification to key partners that FM is entering Cold Weather Protocol Mode:
  – Facilities Management team
  – Building Coordinator Group
  – Risk Management
  – Engie
  – Campus Safety
Mitigation Planning:

Theme 3: Workload Organization Considerations

• Promote Cold Weather Project planned work orders
• Cold weather FDD (fault detection & diagnostic) reviews
• Removal of BAS schedules
• Override report reviews
• Outage/shutdown delays
Your Partnership is Vital!

From: James, Lisa M <lisa.james@uiowa.edu>
Sent: Thursday, December 08, 2022 1:32 PM
To: Rourke, Stephanie S <stephanie-rourke@uiowa.edu>
Subject: RE: Building Operations

Hi Steph- this room has a multiple window issues.

The window on the left is not latched, it must have been opened recently. The windows on the right open- it dropped due to its size. the windows on the right open- it dropped due to its size.

We had everyone try to close the windows, but they will not latch. The windows on the left are secured with tape at this time.

From: Rourke, Stephanie S <stephanie-rourke@uiowa.edu>
Sent: Friday, December 9, 2022 11:35 AM
To: James, Lisa M <lisa.james@uiowa.edu>
Cc: School of Music
Subject: Re: Building Operations

23-754830
MK - Multiple windows on 3rd floor.

- Multiple windows do not latch. This window has shifted down and top/bottom windows will not line up in order to make latch functional. Moved.

Incident: 123-202-00104

PHORESOW
PATERK HORESOWSKY
CLOSEOUT
SECURED ALL WINDOWS ON 1ST. LH

4203- 2nd window
4201- both
4194- left window
4193- desk in back, right window
4218- left window
4188
4184- right bank of windows
4165- right bank of windows
4164- bush
3192 and 3194- have plastic covering, not checked
3194
3203- right and left
3185- right window
3183
3159- 1 window back left; right window in bank
3165A
Front desk- left back cubic. right window
The Process Works!

2019 Polar Vortex:

- **Wind Chill Warning:** Tue, PM-Thur AM
- **Lowest wind chills:** -40 to -60°F
- **Actual forecast highs Wednesday:** 10 to 15 below – Record Cold!

**Impacts**
- Frostbite may occur on exposed skin in 5 minutes or less
- Hypothermia

**Safety Tips**
- Limit Time Spent Out In The Cold
- Cover Exposed Skin
- Bring Pets Inside
- Keep Space Heaters in the Open
- Prepare an Emergency Kit For Car
- Check on Loved Ones

---

February 2021 Extreme Duration & New Records:

- December 2022 “Once in a Generation” storm:

---

** Significant Winter Storm This Week**

- **Key Messages**
  - Significant winter storm expected to continue through Saturday morning.
  - Blowing snow will begin today afternoon before strong winds begin. This could give the false sense of improving conditions.
  - Northwest winds will quickly increase Thursday night, leading to blizzard conditions (whiteout) through Saturday morning with gusts of 40-50 MPH.
  - Travel, especially in rural areas will become difficult. If not impossible. Thursday night and Friday.
  - Temperatures will drop rapidly after the snow ends with dangerous wind chills of 20 to 40 below zero Thursday afternoon through Saturday morning.
  - We are monitoring the need to start the Blizzard warning sooner. Blizzard conditions could be seen the afternoon.

- **What Has Changed**
  - Winds (20 to 40 MPH gusts) now expected as the snow ends. Those gusting 40-60 MPH expected wind chills of 15 to 30 below zero. Cover all exposed skin and bundle up.

- **Next Scheduled Briefing**
  - No new weather information. Briefing packets will continue.
January 2024

- **Noteworthy Items:**
  - One fan coil freeze-up with impact to 4 rooms (VAN)
  - Two fire impairments, caught early enough to avoid building damage (MERF, BB)
  - Intermittent power issues, great team work with P&T to secure generator fuel (BB)

- **Mitigation Plans Remain in Place All Week:**
  - Cold weather inspection work orders
  - Building schedules removed
  - Planned air handling unit shut-downs rescheduled

- **Looking Ahead to Next Week:**
  - Thaw Protocol
Thank You!
Building Coordinator Survey Results Summary

And the survey said..

Stephanie Rourke - Manager - Facilities Management FM@YourService and Building Coordinator Program

January 17, 2024
Overview

- BC Experience Survey (one time) October/November 2023

- How can we support Building Coordinators better?

- We wanted feedback on:
  1. Covered content
  2. Communication format
  3. Resources that add value to the BC role
  4. New ideas for presentation content

- Thank you for your participation! **43.8% (79/180)** response rate
Summary of Feedback

→ Seven total questions
→ All questions received a 75%+ positive or satisfactory response rate

→ 89% found Building Coordinator meeting presentations are helpful
→ 97% indicated that the virtual format is effective
→ 87% indicated that the time, duration, and frequency works
→ 78% find the BC webpage to be a resource to their roles
Topics Building Coordinators find helpful

1. Reporting and Service Priorities – FM@YourService (58 votes)
2. Custodial Services – Custodial (46 votes)
3. Project Review – Design and Construction (44 votes)
Topics Building Coordinators indicated wanting to see more of

Campus project updates and event notices

Campus planning

Custodial
Final Survey Comments

- Most respondents indicated contentment with the program as-is.
- There was an overall desire for the following in the end-of-survey comments:
  - More learning opportunities to increase building knowledge.
  - Support with questions to help BC’s thrive in their roles.
Questions?

THANK YOU!

Feedback welcome by emailing stephanie-rourke@uiowa.edu
ENGIE North America at UI

Building Coordinator’s Meeting, January 17, 2024

John Weyer, BSEE, MBA
Distribution Plant Manager
ENGIE North America at The University of Iowa
john.weyer@engie.com
M: 319 560 4133
Who is ENGIE at UI?

→ Former UI Utilities department of UI Facilities Management,
  • Operating UI’s utility production and distribution systems on the main campus and Oakdale:
    • Steam
    • Chilled Water
    • Electricity
    • Water
    • High Quality Water

Concession Agreement

$1.165B up-front payment

Coal-free by 2025

Deliver reliable electricity, water, heating, and cooling services to the UI campus community.
  • Enforced thru Key Performance Indicators (KPIs)

Invest in the University’s core missions of teaching, research, and scholarship

Prepare students to live and work in the 21st century through direct engagement and education in sustainable energy technologies and processes

Facilitate knowledge exchange among the campus community and the State of Iowa, Nation and World
ENGIE NA

ENGIE North America
- 4,500 employees
- Headquartered Houston TX
- Providing energy services to:
  - K-12 and Community College Education
  - Higher Education
  - State and Local Government
  - Federal Government
  - Hospitals and Medical Research

- Renewable grid wind, solar and storage projects
- Electric and gas energy supply retailer
ENGIE North America

Energy Solutions fleet operates district energy or combined heat & power (CHP) systems at:

- The University of Iowa
- The Ohio State University, Columbus
- Harvard Medical School and five affiliated hospitals and research institutions, Boston
- University of Maryland, College Park
- Nassau District Energy, Nassau County, Long Island, NY
- Coors, Golden CO
- United Launch Alliance, Decatur AL
- Georgetown University, Washington DC
- Howard University, Washington DC
ENGIE Globally

ENGIE Global

- 96,000 employees
- Headquartered in Paris, France. Key player in European energy.
- Operates in dozens of countries worldwide, on 5 of 7 continents.
- Solar, wind, natural gas and electricity networks, district energy, thermal production.
- Committed to accelerate the transition towards a carbon-neutral world.
  - Target of Net Zero Carbon by 2045, for us and for our clients
ENGIE at UI

Demographics:

- Approximately 130 employees total, including student interns. About 110 in Operations. Balance in administration, purchasing & accounting, IT, data management, environmental, safety, capital projects.
- In March 2020, ~80% of UI Utilities employees transitioned to ENGIE. We continue to have a strong core of employees from UI.
- ~10 full-time positions currently open.
- ~15 part-time students currently employed.
- Staff at Main Power Plant, Oakdale Power Plant, Water Plant, West Campus Chilled Water Plant, Madison Street Services Building and University Services Building.
Who to call?

No answer or not satisfied?
- Senior leadership, 24/7

Business hours (0700-1530)
- ENGIE managers
- FM@YourService

Operations after-hours
- On-call staff

Business / administrative related

ENegie Operations Roles and Emergency Contact Numbers (December 18, 2023)

- Power Plant Manager
  - John Bergerud
  - 319-394-1713
- Oakdale Operations Manager
  - Brad Swezengen
  - 319-530-7489
- Chilled Water Plant Manager
  - Tom Andreiski
  - 734-309-5142
- Maintenance Manager
  - Landon Geronzi
  - 224-381-0104

- Water Treatment Services Manager
  - Jim Zaruba
  - 319-310-9819
- Operations Supervisor, Water Plant
  - Jared Barthelmie
  - 319-330-5783
- Operations Supervisor, High Quality Water Vacant

- Operations Supervisor, Maintenance
  - Ray Forman
  - 319-330-5783
- Operations Supervisor, On-Call
  - Will Kohor
  - 319-331-0970
- Electric Distribution Manager
  - Chris Roberts
  - 319-631-1224
- Mechanical Distribution Manager
  - Gary Hayes
  - 319-541-6503

- Director Energy Delivery
  - Garry Patricio
  - 864-534-4287
- Distribution Plant Manager
  - John Weyer
  - 319-560-4133

- 24/7 Contact Main Power Plant Control Room
  - Primary: 319-335-5137
  - Secondary: 319-335-5135
- Chilled Water 24/7 Control Room
  - 319-335-8580
- High Quality Water Services On-Call
  - #1: 319-359-0537
  - #2: 319-359-0900
- Water Plant 24/7 Water Lab
  - 319-335-5163
- Environmental Compliance
  - Mark Maxwell
  - 319-631-1650
  - Melissa Gillmar
  - 641-485-6116
- Manager, Energy Data Center
  - George Paterson
  - 319-330-4978
- Site Administrator
  - Sherry Rose
  - 319-248-6440
- Safety Coordinator
  - Chad Stonebraker
  - 608-777-9385
- IT-Business Network
  - Michael Lindholm
  - 319-471-2115
- Financial Analyst
  - Tyler Cherry
  - 319-721-0430
- Utilities Locator
  - Lee Polak
  - 319-560-7157
- Meters & Controls On-Call
  - #1: 319-631-3710
  - #2: 319-631-3607
- Mechanical Distribution On-Call
  - #1: 319-631-0512
  - #2: 319-331-0511
Campus Portfolio

→ Main Power Plant
  • 7 boilers
  • 2 satellite boilers
  • 760 kpph capacity
  • 3 steam turbine generators
  • 4 natural gas engines
  • 39.6 MW capacity
Natural Gas Engine Generators

TG6

CCW System

Boiler 10

Ro Train

Building Coordinator’s Meeting, January 17, 2024
NEW TURBINE GENERATORS 7 and 8
Campus Portfolio

Water Plant

- Source of Potable Water for the Campus.
  - Research facility for advanced studies in Environmental Engineering
- Production Capacity
  - Average Daily Production: 2.4 MG
  - Max Day Production: 5.2 MG
Intake Structure
Flocculation Mixing Basins
Sedimentation Basin
RO Trains
High Service Pump
Water Tower

Building Coordinator’s Meeting, January 17, 2024
Campus Portfolio

→ Chilled Water Plants
  • Chiller Plant 1 & Chiller Plant 2
  • Northwest Chiller Plant
  • North Campus Chiller Plant
  • 14 chillers total
    • ~60% electric
    • ~40% steam
    • 43,300 tons cooling capacity
1B Plant Cooling Towers

UIHC CW Control Valve

NW Plant Cooling Towers

CH-7 (4,000 Ton Steam Unit)

Heat Exchanger (UIHC for MRI cooling)

CW Distribution Pump

CH-3A & CH-3B (2,400 Ton Electric Units)
Campus Portfolio

→ Electrical Distribution

- Peak load of 68 MW
- Over 45 miles of 13.8kV underground cable, via concrete-encased duct banks and approximately 300 vaults
- Over 250 building substation transformers & associated switchgear

- Connected to MidAmerican Energy grid at two substations shared with MidAmerican Energy, one at 161kV, one at 69kV. System contains an Across Campus Tie (ACT) to connect the two substations in the event of an emergency.

- Maintains ~2,700 outdoor lights-- streetlights, parking lot, and walkway lights.
HV Electric Vault
HV M Loop SG
Building 480v SG
HV SG at PBSB
HV Transformer
SUB U
Campus Portfolio

Mechanical Distribution

- Tunnels, vaults, and direct-buried piping for steam and condensate, chilled water and domestic water piping and hydrants, compressed air, as well as storm and sanitary sewer collection systems.
- ~14,500 ft of steam distribution tunnels (roughly 2.75 miles). Most all new piping now direct buried.
- 89 steam distribution vaults.
- 4 hot water distribution vaults.

Piping:
- Steam, 78,000 feet of 1” to 30” pipe, 20 and 150 psig distribution systems
- Chilled Water, 48,000 feet of up to 36” pipe
- Domestic Water, 186,000 feet of up to 20” pipe.
- Storm and Sanitary, 300,000 feet of up to 36” pipe.
- Hot Water, 1,628 feet of pipe.
- Compressed Air, 23,533 feet of pipe.

- Underground Locator as part of Iowa One Call system. 1,000 locate tickets annually
Campus Portfolio

Meters & Controls

- Maintains Utility Controls Network
  - Platform upon which Power Plant, Chilled Water, Water Plant, substation and Oakdale control systems reside.
  - Transmits meter data for revenue billing and utilities operations data for historical collection and analysis.

- Maintains 65 miles of fiber optic cable (separate from ENGIE and UI IT systems) with numerous servers, workstations, network switches, routers. Compliant with industry cybersecurity standards.

- ~425 electric meters, ~100 chilled water interfaces with 118 chilled water meters, 163 steam meters, 76 CW metering PLCs, and bringing ~100 water meters onto the network.
Building Coordinator’s Meeting, January 17, 2024
Campus Portfolio

→ Oakdale Power Plant
  • 4 gas boilers, 57 kpph capacity
  • 2 gas generators, 2.85 MW capacity
  • 5 chillers, 2,240 tons capacity
Building Coordinator’s Meeting, January 17, 2024
Campus Portfolio

→ High Quality Water Services
  - Chemical treatment to 90 closed loops for building air conditioning systems.
  - Campus pools and therapy spas at CRWC, FH, Sports Medicine, UIHC; hydraulics modeling wave basins main and Oakdale campuses.
  - High Quality Water Systems in ~45 buildings consisting of RO, DI and softening systems for heating & cooling systems, humidification, labs, and processing of medical equipment.
  - Disinfection and sampling of new/remodeled/repaired piping systems, chlorination/dechlorination, main break sampling.
  - Oakdale Campus Water System
  - State and federal permit-required bacteria and lead/copper sampling.
  - ~300 water meters for monthly billing.
  - Sampling and analysis for regulated storm water outfall discharges and environmental regulatory reporting.
Building Coordinator’s Meeting, January 17, 2024
Building Coordinator

Next meeting:
February 21, 2024, via zoom 11 AM to 12 PM

Proposed Agenda:

- FM 2027 Goals
- Facilities Information Systems
Thank you!