This information is a compilation of discussions and best practices shared within the ASSP Utilities Practice Specialty Community for management of the COVID-19 situation within the Utility Critical Infrastructure Community. **Always consult your internal sources for guidance.**
Resources

Coronavirus, ASSP  https://www.assp.org/coronavirus

Resources for Businesses and Employers, Center for Disease Control  

COVID 19, OSHA  https://www.osha.gov/SLTC/covid-19/


Coronavirus Outbreak Resource Center (Includes a link to “Role of the IH in a Pandemic), AIHA  https://www.aiha.org/public-resources/consumer-resources/coronavirus_outbreak_resources

COVID-19 Updates and Resources, ACOEM  http://acoem.org/statement-on-coronavirus#Resources

Spreadsheet with essential personnel, essential skills, and who can pinch-hit in their absence.

- Identify any cross-training needed
- Identify any other sources of labor in case personnel absences become an issue (temp agencies, mutual aid programs, etc.)

<table>
<thead>
<tr>
<th>Major Business Processes</th>
<th>Key Person(s) &amp; Emergency Alternate(s) for Organizational Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Generation</td>
<td>CRO, Outside Operator, Plant Manager</td>
</tr>
<tr>
<td>Operations</td>
<td>CRO, Outside Operator</td>
</tr>
<tr>
<td>Maintenance</td>
<td>IC&amp;E Tech, Outside Operator</td>
</tr>
<tr>
<td>Administration/Warehouse</td>
<td>Business Manager, EHS Manager</td>
</tr>
<tr>
<td>Compliance/EHS</td>
<td>Corporate</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>List of Employee Names</th>
<th>Critical Skill Sets</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CRO</td>
</tr>
<tr>
<td>Jane Doe</td>
<td></td>
</tr>
<tr>
<td>John Smith</td>
<td>X</td>
</tr>
<tr>
<td>Fred Jones</td>
<td></td>
</tr>
<tr>
<td>Joe Menn</td>
<td>X</td>
</tr>
<tr>
<td>Sheila Miller</td>
<td>X</td>
</tr>
<tr>
<td>Equipment &amp; Materials</td>
<td>Intended Users</td>
</tr>
<tr>
<td>-----------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>Natural Gas</td>
<td>Operations</td>
</tr>
<tr>
<td>Low Sulfur Diesel Fuel</td>
<td>Operations</td>
</tr>
<tr>
<td>City Water</td>
<td>Operations</td>
</tr>
<tr>
<td>Hydrogen</td>
<td>Operations</td>
</tr>
<tr>
<td>Gasoline</td>
<td>Operations</td>
</tr>
<tr>
<td>Janitorial Supplies</td>
<td>Operations</td>
</tr>
<tr>
<td>PPE</td>
<td>Operations</td>
</tr>
</tbody>
</table>

**COMMENTS:**
## Vital Records Access and Storage

<table>
<thead>
<tr>
<th>Key Business Process</th>
<th>Associated Vital Records Required for Process</th>
<th>Media Type (E/P/M)</th>
<th>Vital Record Storage Locations and Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operations</td>
<td>Purchase Power Agreement</td>
<td>P</td>
<td>Control Rom</td>
</tr>
<tr>
<td>Operations</td>
<td>Title V Air Permit</td>
<td>E, P</td>
<td>Control Room</td>
</tr>
<tr>
<td>Compliance/Operations</td>
<td>NERC Procedures</td>
<td>E, P</td>
<td>BREC Control Room, Server</td>
</tr>
<tr>
<td>OSI Pi Server</td>
<td>Historian</td>
<td>E</td>
<td>Server Room</td>
</tr>
<tr>
<td>Purchasing</td>
<td>Contracts, Purchase Orders, Invoices</td>
<td>E, P</td>
<td>Administrative Building</td>
</tr>
</tbody>
</table>
# Plant Procedural Manuals/Instructions

<table>
<thead>
<tr>
<th>Title of Manual or Procedure</th>
<th>Description</th>
<th>Storage Location</th>
<th>Media Type (E/P/M)</th>
<th>Quantity Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAES Safety Manual Procedures (SMPs)</td>
<td>Safety Manual</td>
<td>Library Server A-1</td>
<td>3-ring Binders (P) SMP .doc files (E)</td>
<td>4 copies</td>
</tr>
<tr>
<td>Broad River Environmental Procedures</td>
<td>SWPPP, FRP, SPCC, Air Permit, PPA</td>
<td>Control Room</td>
<td>3-ring Binders (P) BREC Server (E)</td>
<td>1 copy</td>
</tr>
<tr>
<td>Broad River NERC Procedures</td>
<td>NERC</td>
<td>Server, Control Room</td>
<td>Word Doc (E) 3-Ring Binders (P)</td>
<td>1 copy</td>
</tr>
<tr>
<td>GE/Plant Tech Manuals</td>
<td>Tech Manuals</td>
<td>Library in Warehouse</td>
<td>Binders (P)</td>
<td>2 copies</td>
</tr>
<tr>
<td>Site Specific Manuals, Standing Orders</td>
<td>Start Up, Operations, Standing Orders</td>
<td>Control Room</td>
<td>3-Ring Binders (P)</td>
<td>1 copy</td>
</tr>
</tbody>
</table>
What’s in YOUR Wallet?

- Mission essential wallet cards & glove box letters
- Contractors
- State lists
- State registries

SITE LOCATION

EMPLOYEE NAME is designated an Essential Employee at the SITE LOCATION in CITY, STATE, for all necessary travel purposes during Level 1-3 Snow and all other Emergencies.

PLANT MANAGER NAME
Plant Manager

CONTACT NUMBER

PLANT NAME
PLANT ADDRESS
CITY, STATE, ZIP

DATE

To Whom it may concern:

EMPLOYEE NAME is a contract employee who works for CONTRACTOR NAME. CONTRACTOR NAME is currently performing work at the SITE FACILITY NAME at STREET ADDRESS in CITY, STATE. This contractor is essential for the safe operation of this facility. His current job functions require travel to and from the facility at different times and on different days. If you should have any questions, please call me at XXX-XXX-XXXX.

Thank you,

Company Representative
Family Preparedness

- Resources for family preparedness:

- Resources for caring for a loved one with COVID-19
Transportation

- Fuel source availability
- Availability of car repair services/parts
- Loaner vehicles
- Carpooling
- Site transporting workers
- Public transportation
Workers live at site for extended periods when worker pool is diminished due to illness/family matters

Don’t wait—needed items are disappearing

Stage necessary equipment, personal items and supplies before a lock-in is established

Share best practices with sites already experiencing lock-ins (Utilities Practice Specialty discussion board)

Note: When installing a dryer do so safely complying with any fire or building codes – for details see https://www.hunker.com/13410484/what-is-the-danger-of-running-a-dryer-not-vented-outside
Keep Your Sense of Humor
Keep Your Sense of Humor

This Friday's question is:
What is the strangest thing you've ever ate? ______________
Cleaning and Decontamination

- EPA Approved COVID 19 Disinfectants
  https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2

- Cleaning Offices
  Advice from CDC: https://smallbusiness.com/covid-19/how-to-deep-clean-a-small-business-or-office-infected-with-covid-19/

- Decontaminating shared vehicles and heavy equipment
Working From Home (WFH)

- If not already working from home but eligible, take computers and essential items home each night so you do not have to return to the office to collect items when WFH is initiated.
Sharing of Arc Flash Suits/COVID 19

- [https://static.smallworldlabs.com/assp/user_content/forums/topics/files/2382/61b0984bf4fe5e81578180b4e15516dc-oberon-arc-flash-ppe-sharing.pdf](https://static.smallworldlabs.com/assp/user_content/forums/topics/files/2382/61b0984bf4fe5e81578180b4e15516dc-oberon-arc-flash-ppe-sharing.pdf)
Wastewater and Sewerage Workers

  - Respiratory illnesses can be spread by contact with aerosols and by hand-to-mouth transmission. Therefore, it is recommended that wastewater treatment operators and sludge handlers use barriers such as face masks and disposable gloves to prevent exposure to aerosols. Further, strict sanitation practices should be implemented to encourage frequent handwashing, the separation of eating areas from work areas, and minimization of contact between hands and face. Communications should be sent to plant operators and staff to inform them of best sanitation practices.

  - No additional COVID-19–specific protections are recommended for employees involved in wastewater management operations, including those at wastewater treatment facilities.
Communication

- While many companies naturally direct their energies outward during such situations, more HR professionals and executives are coming to realize that communicating quickly, often and well with internal stakeholders is equally important, if not more so (SHRM)

- A 2014 survey from About.com found the top three reasons why people do not like their jobs — accounting for 62 percent of responses — were communication related. The biggest issue, a lack of direction from management, was followed by poor communication overall, and constant change that is not well communicated.
Utilities Practice Specialty Discussion Platform

- Engage with others on the Utilities Practice Specialty Discussion Platform
Track Worker Status Organization-Wide

- You can use a tool such as SmartSheet™ or similar method to have every person in your organization report their status each morning so you can have centralized, important, real-time information.
Stay at Home Policy

- Establish a clear policy on when workers must stay home and for how long with symptoms of possible COVID 19, confirmed COVID 19, contact with family members or others with known case of COVID 19, travel to certain areas, etc.; and how they will be compensated during that time (must take personal time off or other).

- Example: “Employees who have any symptoms of acute respiratory illness are to stay home and not come to work until they are free of fever (100.4 F) or greater using an oral thermometer, signs of fever, and any other symptoms for at least 48 hours, without the use of fever-reducing or symptom-altering medicines (e.g. cough suppressants). Temperature should be taken and recorded twice a day.”
Visitor/Contractor Pre-Screening

Visitor Pre-Screening Checklist.

In response to government precautions concerning COVID-19, we have instituted the following Visitor Restriction Policy, effective immediately and until further notice:

Visitors will be restricted from entering our facilities if they have returned from “Level 3, Avoid Nonessential Travel” or “Level 2, Practice Enhanced Precautions” regions as determined by the United States Centers for Disease Control and Prevention (CDC) within the past 21 days.

Have you traveled to any of these regions in the past 21 days? Including the following:
- China (Level 3 Travel Health Notice)
- Iran (Level 3 Travel Health Notice)
- South Korea (Level 3 Travel Health Notice)
- Europe (Level 3 Travel Health Notice)
- Japan (Level 2 Travel Health Notice)
- Portugal (Level 3 Travel Health Notice)
- United Kingdom and Ireland (Level 3 Travel Health Notice)

This list is not exclusive should the CDC update the traveler’s warning.


In accordance with this Policy, please complete the below questionnaire.

- Have you returned from China, Iran, South Korea, Europe or Japan or taken a cruise within the past 21 days? Yes ___ No ___

- Have you been designated by public health authorities as someone at risk of COVID-19 (coronavirus) due to potential exposure or been in close contact with someone known to have COVID-19? Yes ___ No ___

- Do you currently live with or have come in close contact with someone experiencing flu-like symptoms such as fever, with cough, or difficulty breathing or shortness of breath? Yes ___ No ___

- Are you experiencing flu-like symptoms such as fever, with cough, or difficulty breathing or shortness of breath? Yes ___ No ___

By signing below, you affirm that you have completely read and fully understand the COVID-19 Visitor Restriction Policy and have answered “No” to all the above questions.

If you have answered “Yes” to any of the questions, you will be asked to reschedule and not be granted access today.

Visitor Signature

Visitor Printed Name ____________________________ Date ____________________________
Pool Your Purchasing Power

- Experience better results purchasing essentials when combining purchasing power
  - Multiple sites within the organization
  - Different business units under the same banner
  - Different organizations may also choose to band together
- Some stores such as Lowe’s are permitting essential businesses to register and get first dibs on critical supplies as they are received by the store.
# FDA N95 Mask Approvals

Table 1: FDA approved foreign N95 mask equivalents as of 3/24/20:

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Performance Standard</th>
<th>Acceptable product classifications</th>
<th>Standards/ Guidance Documents</th>
<th>Protection Factor ≥ 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>ABNT/NBR 13698:2011</td>
<td>PFF3, PFF2</td>
<td>Fundacentro CDU 614.894</td>
<td>YES</td>
</tr>
<tr>
<td>Europe</td>
<td>EN 149:2001</td>
<td>FFP3, FFP2</td>
<td>EN 529:2005</td>
<td>YES</td>
</tr>
<tr>
<td>Japan</td>
<td>JMHILW-2000</td>
<td>DS/DL3, DL2</td>
<td>JIS T8150: 2006</td>
<td>YES</td>
</tr>
<tr>
<td>Korea</td>
<td>KMOEL-2017-64</td>
<td>Special 1st</td>
<td>KOSHA GUIDE H-82-2015</td>
<td>YES</td>
</tr>
<tr>
<td>Mexico</td>
<td>NOM-116-2009</td>
<td>N100, P100, R100, N99, P99, R99, N95, P95, R95</td>
<td>NOM-116</td>
<td>YES</td>
</tr>
</tbody>
</table>

1 No other criteria of issuance have been prescribed by regulation under Section 564(c)(4) of the Act.
2 There are not sufficient quantities of PPRs that are both NIOSH-approved and meet FDA regulatory requirements to meet the needs of the U.S. healthcare system. These disposable respirators are an integral part of routine patient care. Providing HCPs who are on the forefront of the COVID-19 response with PPRs consistent with the CDC’s guidance and recommendations is necessary in order to reduce the risk of illness in HCPs and increase their ability to provide care to affected patients or those suspected of having COVID-19.
3 Canada is not listed because it allows self-declaration to NIOSH or equivalent standards.
Save Clean, Spent N95 Masks

Boston hospitals getting ‘game changer’ machine that sterilizes 80,000 protective masks a day

The move could potentially serve all hospitals within the state and address a crisis issue

By Rebecca Ostriker Globe Staff, Updated April 2, 2020, 12:29 p.m.
Face Coverings (Not Respirators)

- At a minimum, if possible, a face covering (cloth or surgical style face masks) should be worn by all to contain any expelled respiratory droplets. These coverings are not covered by the OSHA Respiratory Protection Standard. These coverings are intended to reduce the spread of the virus through droplets and expired breath of any infected but asymptomatic persons. Note that these coverings do not provide respiratory protection against airborne diseases.

Bret Baier: Mask recommendation coming as soon they're ready
Apr. 01, 2020 - 1:53 - Bret Baier weighs in on the coronavirus face mask debate where the CDC is reviewing whether to recommend widespread use to decrease virus spread
Half-face and full-face respirators with P100 cartridges
On March 14, 2020, the Occupational Safety and Health Administration (OSHA) released new temporary guidance concerning OSHA’s Respiratory Protection standard. With regards to compliance with this new guidance, OSHA field offices have the discretion to **not cite an employer for violations of the annual fit testing requirement** if employers:

- Make a good faith effort to comply with the respiratory protection standard;
- Use only NIOSH-certified respirators;
- Implement strategies recommended by OSHA and Centers for Disease Control and Prevention for optimizing and prioritizing N95 respirators;
- **Perform initial fit tests for each employee with the same model, style, and size respirator that the employee will be required to wear for protection from coronavirus**;
- Tell employees that the employer is suspending the annual fit testing of N95 respirators to preserve the supply for use in situations where they are required to be worn;
- Explain to employees the importance of conducting a fit check after putting on the respirator to make sure they are getting an adequate seal;
- Conduct a fit test if they observe visual changes in an employee’s physical condition that could affect respirator fit; and
- Remind employees to notify management if the integrity or fit of their N95 respirator is compromised.

The temporary enforcement guidance is in effect beginning March 14, 2020 and will remain in effect until further notice. If you decide to switch to the use of a new, higher protection respirator, please note that this will require an initial fit test. Before the fit test, employees will need to be educated on the use and care of their new respirator.
Be sure you communicate a policy of who may travel, for what purposes, and what approvals are required.

### Travel Ban

<table>
<thead>
<tr>
<th>Travel Type</th>
<th>Reason</th>
<th>Applicable to</th>
<th>Urgent/Essential</th>
<th>Non-urgent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Travel to China, Hong Kong, South Korea, Italy, Iran</td>
<td>Business</td>
<td>NAES Employees Subsidiaries</td>
<td>Prohibited</td>
<td></td>
</tr>
<tr>
<td>Personal</td>
<td>Business</td>
<td>NAES Employees Subsidiaries</td>
<td>Consider cancelling or postponing; otherwise report to Corporate HR. If a member of your household has travelled or will be travelling China, Hong Kong or South Korea, it must also be reported.</td>
<td></td>
</tr>
<tr>
<td>International Travel (Other than China, Hong Kong, South Korea, Italy, or Iran) Excludes travel to Canada or Mexico from the US</td>
<td>Business</td>
<td>NAES Employees Subsidiaries</td>
<td>Approval from Corp HR VP and Business Unit Leader. Travel must be deemed critical.</td>
<td>Consider postponing or cancelling; use video/teleconference</td>
</tr>
<tr>
<td>Personal</td>
<td>Business</td>
<td>NAES Employees Subsidiaries</td>
<td>Consider postponing or cancelling; otherwise report to Corp VP of HR. Employee may be asked to work remote for 2 weeks after travel.</td>
<td></td>
</tr>
<tr>
<td>Domestic Travel (Within U.S., Canada, Mexico)</td>
<td>Business</td>
<td>NAES Employees Subsidiaries</td>
<td>Approval by Business Unit Leader</td>
<td>Consider postponing or cancelling; use video/teleconference</td>
</tr>
<tr>
<td>Personal</td>
<td>Business</td>
<td>NAES Employees Subsidiaries</td>
<td>Exercise caution; consider health and safety of yourself and others that you come in contact with. Review reports from World Health Org.</td>
<td></td>
</tr>
<tr>
<td>Events/Other (Includes conferences, business meals, external seminars, trade shows, networking/social events, sporting events, any situation with many people in confined space)</td>
<td>Business</td>
<td>NAES Employees Subsidiaries</td>
<td>Consider cancelling or postponing; otherwise must be approved by Business Unit Leader</td>
<td>Cancel or postpone</td>
</tr>
<tr>
<td>Personal</td>
<td>Business</td>
<td>NAES Employees Subsidiaries</td>
<td>Pay particular attention to events with travelers from China, Hong Kong, and South Korea</td>
<td></td>
</tr>
<tr>
<td>Personal</td>
<td>NAES Employees Subsidiaries</td>
<td>Exercise caution; consider health and safety of yourself and others that you come in contact with</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Documentation

- Be sure you are documenting new procedures, best practices, what works, what doesn’t etc.
- At the conclusion of the COVID-19 crisis, organizations will benefit from holding a “hot wash” (after action review) and incorporating all lessons learned into their Pandemic Plan.
Wisdom From Jokko Willink, Retired Navy Seal

MIND CONTROL
You have to decide that you are going to be in control, that you are going to do what YOU want to do. Weakness doesn’t get a vote. Laziness doesn’t get a vote. Sadness doesn’t get a vote. Frustration doesn’t get a vote. NEGATIVITY doesn’t get a vote.

STAYING MOTIVATED
Don’t expect to be motivated every day to get out there and make things happen. You won’t be. Don’t count on motivation. Count on discipline. You know what you have to do. So: MAKE YOURSELF DO IT. You do that with discipline.
You are not alone; the Utilities Practice Specialty is here to assist you. Feel free to contact any Utilities Practice Specialty executive committee member; contact information is listed on the website.

https://community.assp.org/PS/utilities
Thank You

Connie.Muncy@naes.com