Horry County Schools

Facilities

HVAC Systems: Filter Maintenance Information

March 19, 2018

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Existing HVAC Systems for HCS:

- 6,000 + units to maintain
- Nearly $300,000,000 in current replacement value
- Largest single system in any facility
- Important for comfort and air quality

HVAC/R Work Orders – (Averages):

- HVAC = #1 work order (WO) request
- 3,800 – 4,000 total WO / year
- 365 WO / technician / year
- 3.11 hours / WO to resolve
- WO remains open 17.2 days
- Overwhelming work load for technicians

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Benefits of Filter Maintenance:

- Maximizes the life span of our equipment
- Reduces equipment damage / work orders
- Enhances indoor air quality
- Reduces energy consumption lowering utility costs

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Filter Maintenance Volume:

- For filters to be changed every 60 days:
  - 13,000+ filters district-wide, or
  - 78,000+ filter changes required / year
  - 1,625 filters / week
  - **325 / day**

- At every 60 days / 58 facilities (excluding 5 new)
  Equates to nearly 1 complete facility change,
  every calendar day, including weekends/holidays

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Filter Maintenance Approaches:

- Various approaches to filter maintenance have been implemented in recent years:
  - Evening crews of various Maintenance Technicians
  - Building Services staff
  - HVAC Technicians

- Although each were a great effort, all have proven to be challenging & insufficient

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Challenges of Filter Maintenance:

- Overwhelming filter volume
- Time / effort required
- After-hours work required / O.T.
- Desire for efficient use of HCS resources and talent (Technicians focus on repairs)
- Storage of filters / lack of warehouse space or space at schools
- Filter deliveries received but varying ability to install in a timely fashion
- Waste disposal of filters: construction / demolition waste due to volume = landfill
- Degradation / damage to system / increased WO

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Viable Options for Maximizing Filter Change Efficiencies:

A. Perform work in-house, which will require additional staff, vehicles, and storage space

B. Utilize a vendor to perform these services

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What are Other School Districts Doing?

Because of the same challenges of insufficient staff, overwhelming volume, and a requirement to perform most work after school hours, other districts have moved to outside vendors.

Charleston County Schools:

- Switched to outside vendor in 2014
- Handles all filter management and coil cleaning
- 65,000 filters / year
- Work performed 2:00pm – midnight
- Schedules provided in advance to principals
- Extremely positive experience

- **Clarendon County Schools**
- **The Citadel**

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RFP Issued to Obtain Information for Consideration of Utilizing Vendor for Filter Change and Coil Cleaning:

- No award or commitment made
- Not permitted to discuss bid results or vendor names at this time
- Bids are good for 90 days from 3/6/18 (6/4/18)
- Request consideration as a new budget item for 2018-2019 budget year

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Questions?