



Iowa Department of  
Administrative Services

General Services Enterprise

Chester J. Culver, Governor  
Patty Judge, Lt. Governor

Mollie K. Anderson, Director  
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September 4, 2008

Hansen Company  
Attn: Troy Hansen  
5665 Greendale Road Suite A  
Johnston, IA 50131

Western Surety Company  
P.O. Box 5077,  
Sioux Falls, South Dakota 57117

Dear Sirs

I am writing this letter to notify you that there are serious performance issues with the HVAC equipment your company installed at the State of Iowa's new Public Safety Building located at East 7<sup>th</sup> and Court Avenue, Des Moines Iowa. We have had numerous meetings with the architect Bob Ridgeway and the mechanical engineer Dave Brown with all kinds of different measures being tried to no avail and actually making the situation worse, here are the problems that are actual excerpts from the last meeting with the design engineer and architect:

*1. 1. CFM / AHU Design*

- *Air flow within the building is not operating to the 93,000 cfm as designed. From the latest balance report, the building is running at 79,486 cfm, still under the minimum acceptable tolerance of 83,700 cfm.*
  - i. Dave indicated the only solution left other than replacing the York AHU itself is to tweak the chilled water temperature as previously suggested.*
  - ii. Dave indicated the replacement of the York AHU would more than likely involve a legal battle. He indicated this scenario has only happened once before in his career and the Owner ended up paying for the AHU replacement after it went to court.*
  - iii. The return fans were boosted thru the State's balancing contract. Dave notified the balancer to let him know he would like to monitor the adjustments made, but Dave was not notified prior to the work being performed.*
  - iv. Dave noted the units were sized as large as possible for the space allowed within the penthouse. The design calc's were o.k., but minuet differences in the system create the lack of performance. A Trane AHU was the bases of design and York was accepted as a value engineering item. York is not quite equivalent to Trane.*
- *Ken indicated his main concern is the extreme measures that are taking place to try to make the unit perform. The system works but the State did not get what they paid for and York owes the Owner something for this.*
- *Currently the State backs down VFD's to keep them from over amping. Dave noted when the sheaves were installed the VFD's were suppose to run at 100% max. Ken noted they cannot run on by-pass the way it is currently set-up. Dave indicated the sheaves may*

possibly be the wrong size. Accurate/Corn States were to contact Dave prior to the sheaves being installed, but did not.

- Ken went on record as indicating the York AHU is not acceptable. The factory rep from York will be contacted through the proper channels; Ken will write a letter to the Hansen Company, who can contact Accurate Mechanical who can contact the York representative.
- Ken will notify the Hansen Company with their exception to the bond, regarding the air handler. Bob is to provide Ken with the bonding company's name.

**It is the States position that the air handlers that were substituted from the design are not equivalent to the ones specified and they obviously do not perform to the design specification. The other problem with these air handlers is pockets of low air flows trip the units out in the winter and we have had to compensate by stuffing cardboard around the coils. This is totally unacceptable and these air handlers are rejected by the State.**

## 2. Chiller - Carrier

- Ray noted the chiller has had more starts than run hours to date; up to 5800. Accurate was called a number of times by both Ken and Dave to address this issue but did not respond. Ken contacted Carrier himself and a factory rep adjusted the chiller; the chiller was not initially set-up correctly. Since this adjustment made on the 25<sup>th</sup> of June, the chiller has restarted (3) times and all the restarts were legitimate.
- The State paid the invoice of \$1102.00 for the readjustment and would like Accurate to reimburse this cost. It was questioned whether there should also be compensation to have the starter replaced. Dave indicated this is hard to quantify and that the starter uses soft starts. Ken indicated he would consider the chiller issue settled if Accurate paid for the readjustment.

**The States position is that the Contractor should pay for the service call.**

## 3. Balancing Issues

- The issue with the State Patrol Office area on 2<sup>nd</sup> floor being cold during the winter was readdressed. Dave sent Ray sequencing changes for the rooms to address this issue, but the changes have not been made to date. It was noted this is a Siemens control issue under contract with the State and not a balancing issue. Dave indicated this should be a simple programming change on the control box. Dave provided recommendations to Siemens that the controls should be set so they have dual maximum heating and cooling; the recommendation was not performed by Siemens.
- Ken indicated he will have Siemens change the control boxes to ramp up and down as suggested.
- Ray noted additional offices are cold and doors have to be kept open to heat the rooms. Dave noted the heating control valves may need to be opened. Dave will review and provide recommendations. Ken will have Siemens open the valves and coordinate rebalancing.

**Siemens has fulfilled their obligation to remedy this condition**

## 4. Noisy Ductwork – 5<sup>th</sup> Floor

- Room 575 has air flow issues with noise. Roy noted the air has been throttled back to a minimum. MEG previously provided information on an in line muffling system to aide in reducing the noise. After discussion it was determined Dave would forward the drawing to Corn States and MEG would pay for the work to correct the noise issue.

**Completed**

5. *Condensation Issues – 5<sup>th</sup> Floor*

**This issue went away after Carrier repaired the chiller at the State's expense**

- *The condensation issue is believed to be resolved. Condensation has not occurred on 5<sup>th</sup> floor to date. It is believed that fixing the chiller start-up issue reduced the amount of humidity in the air and resolved the condensation issue.*

6. *Thermostat Location – 2<sup>nd</sup> Floor*

- *Thermostat on 2<sup>nd</sup> floor (room 256) is located within an office space and needs to be moved to the open office area where the VAV is providing conditioned air. The State will contact Siemens to perform this work and will pay for the relocation.*

These issues have been ongoing for over a year. The State has spent an exceptional amount of time and money on these issues. Clearly the State did not get what it paid for and therefore we must seek relief.

Sincerely

Ken O. Thornton

Administrator  
Operations and Design Services  
Capitol Complex  
State of Iowa

Cc: Ray Walton  
Pat Lantz  
Tony Schmitz