

June 25, 2007

**UTAH PUBLIC  
SERVICE COMMISSION**

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Utah Public Service Commission  
Heber M. Wells Building  
160 East 300 South, Suite 400  
Salt Lake City, Utah 84111

**RECEIVED**

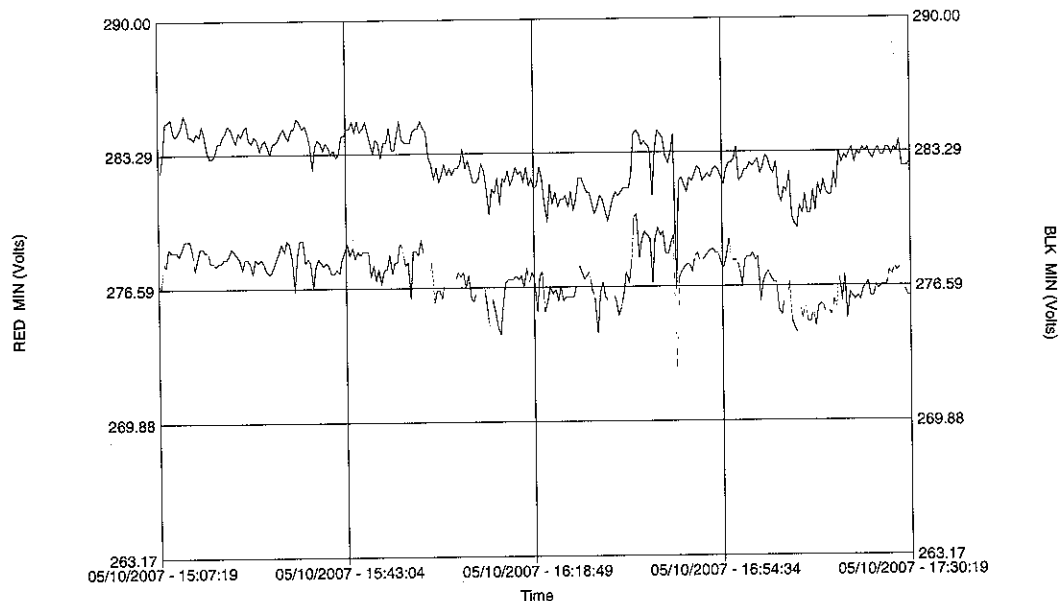
Attention: Steven F. Goodwill  
Administrative Law Judge

Re: Utah Docket No. 06-035-148  
Formal Complaint of Tim Vetere

This letter is provided to respond to questions received from the Commission with regard to the above docket, including the results of ongoing testing at the Complainant's site, and to provide an update to the parties with regard to HAL Engineering's review of the Complainant's operations.

Provided below are recorded voltage measurement results for Complainant's "upper" 50 HP pump.

**May 10, 2007** – At the technical conference held in Green River on May 11<sup>th</sup>, Mr. Vetere reported that he experienced voltage problems at his pump at approximately 4:00pm on May 10, 2007. The chart below shows the voltmeter test results, between 3:07 pm and 5:30 pm on May 10. The data shows a 1.2% voltage fluctuation and less than 2% unbalance (ANSI method) between phases during this time period which is well within Rocky Mountain Power's voltage limits. This minimal fluctuation, by itself, would not have caused the Complainant's pumps to shut down at approximately 4:00 p.m. on May 10.



The following are additional spot voltage measurements manually taken by the local agent thus far during the month of June 2007:

**June 7, 2007 @ 11:38am** – Voltage test results: 483.6, 483.5, 485.3 (all within limits)

**June 15, 2007 @ 4:45pm** – Voltage test results: 473, 472, 474 (all within limits)

**June 16, 2007 @ 9:10am** – Voltage test results: 476.2, 476.3, 476.3 (all within limits)

**June 19, 2007 @ 8:25am** – Voltage test results: 476.3, 477.6, 475.5 (all within limits)

**June 19, 2007 @ 4:27pm** – Voltage test results: 473.9, 475.7, 475 (all within limits)

**June 19, 2007 @ 7:00pm** – Voltage test results: 480.3, 481.4, 484.5 (all within limits)

**June 20, 2007 @ 2:25pm** – Voltage test results: 481.6, 482.1, 486.3 (all within limits)

**June 23, 2007 @ 7:30pm** – Voltage test results: 474, 477, 475 (all within limits)

In addition to the voltage tests that were conducted on the upper pump on June 23, 2007 as shown above, voltage tests were also conducted on the lower pump this same date. Test results were 499, 502, 501 with the pump running and 479, 475, 474 with the pump not running. All of these voltage test results are within normal limits, similar to the test results for the upper pump.

In addition to the above, Dennis Hansen, Rocky Mountain Power Principal Engineer, has examined recording data for Complainant's pump for the period June 13 through June 20, 2007, and finds that the rms average voltages and balance were within acceptable limits for proper motor operation during this entire period.

Mr. Hansen also notes that the rms average current being drawn by Complainant's 50 HP motor during this same time period was often in the 62-65 Ampere range. Complainant's motor is only rated for 60 Amperes. This is an indicator that the motor is working too hard, likely due to being undersized for this pumping application. Extended operation at these higher levels often results in accelerated degradation of pump motor insulation and ultimately motor failure. It can also cause the motor to trip off on thermal overload at unexpected times.

In addition to voltage testing discussed above, a harmonic analyzer was used to make a harmonic measurement on the meter for the 50 HP pump motor. The local agent that conducted the test found that distortion was low at about 2% with the motor not running. This indicates that there are no distortion problems. Voltage magnitude was at 284 volts (2.3% above nominal) when the harmonic measurements were made.

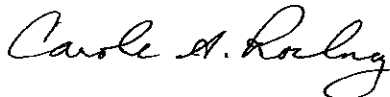
At this time, Rocky Mountain Power is continually monitoring the 50 HP upper pump with the two monitoring devices that are available. One monitor is located at the meter base and one monitor is located at the motor controller. The lower pump is not being regularly monitored, aside from the specific test taken on June 23, 2007 (results shown above). However, both pumps are fed from the

same distribution circuit, main feeder and main tap. The lower pump is fed from a short tap from that "main tap."

In response to Complainant's statement that John Cordova did not respond to him on June 20, 2007, Mr. Cordova received a voice mail message from the Complainant stating that his "pivot" was not working. Mr. Cordova dispatched the local site agent to investigate. The site agent arrived at Complainant's site at 2:25 p.m. on June 20, 2007 and tested Complainant's voltage. The site agent informed Complainant of the test results which demonstrated voltages were within normal limits (refer to June 20, 2007 voltage test results above).

As stated in the letter to the Commission dated May 24, 2007, Rocky Mountain Power has contracted with HAL Engineering to help evaluate the pumping operation at Complainant's site. Ben Grimes of HAL Engineering visited Complainant's site on June 18, 2007 and met with Complainant's brother regarding testing. Mr. Grimes took measurements and photos in order to properly size the test equipment. As soon as Rocky Mountain Power receives the results of the flow/pressure testing that will be done by HAL Engineering, this information will be provided to all parties.

Sincerely,



Carole Rockney, Director  
Customer & Regulatory Liaison

cc: Ms. Rea Petersen, Division of Public Utilities  
Mr. Dennis Miller, Division of Public Utilities  
Mr. Tim Vetere