

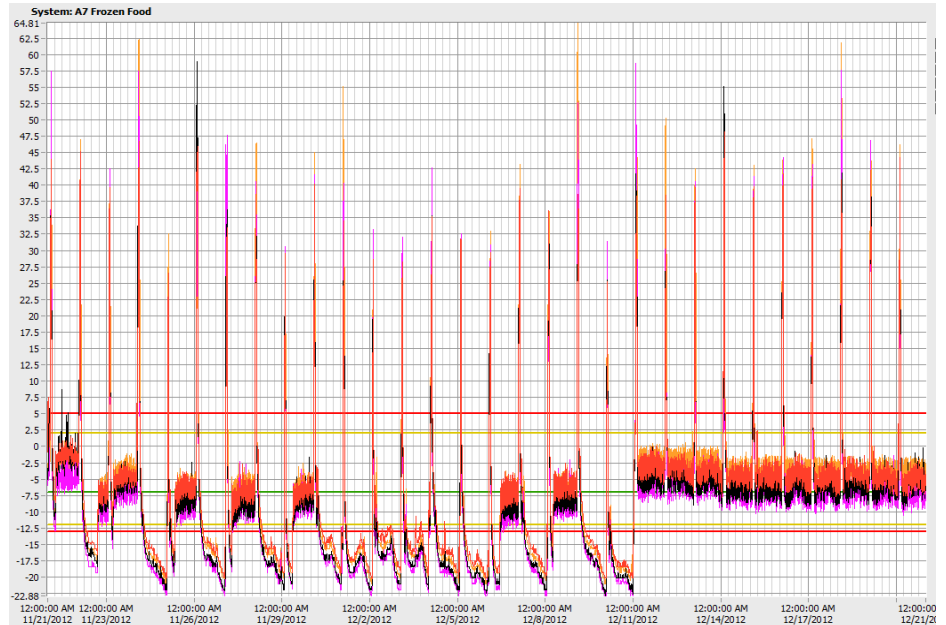
CASE STUDY

Tuning of a refrigeration system



These two refrigeration systems are serving Frozen Food cases. In both examples operations needs to be tuned. On the left hand side of each graph is the operation as it had been for a long time. On the right hand side of each graph is the operation after it had been tuned by a refrigeration expert using VDVRM as the tuning aid.

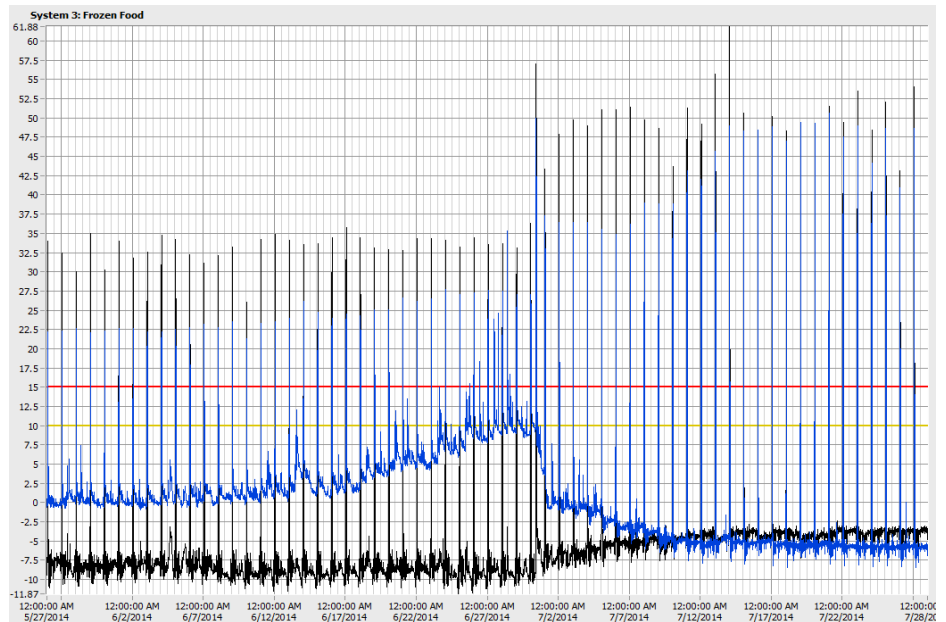
Example 1: These four Frozen Food cases operated too cold 50% of the time as result of badly adjusted control system. After tuning the temperatures were at setpoint of -7°F, with corresponding energy savings and better conditions of the frozen food.



Picture 1: Refridgeration system example 1.

Example 2: These two frozen food cases had drifting temperatures, one was far too high which did damage the frozen food and the other was too cold with corresponding high energy consumption. After tuning both cases of temperatures settled to the setpoint of -4°F.

This VDVRM case study is from a serie of real-world examples from refrigeration systems monitored by VDV Refrigeration Monitoring system. The purpose of this serie is to bring forward actual problems, its effect on refrigeration temperatures, how the problem was detected and how the refrigeration system recovered.



Picture 2: Refridgeration system example 2.