DATE: 4/30/15
Operator: Stephen Mazich

      The equipment used for this test was the Motor Control System(MCS) and a HP multimeter. The goal of the test was to measure the accuracy of voltage and the RPM at various loads. The VSCADA software was used for this test. The corresponding calibration factors can be found in their respective documents.

Motor Velocity Test in RPM

| Percent Throttle | MC | Encoder | Handheld |
|---|---|---|---|
| 10 | 443 | 200 | 445.4 |
| 20 | 1070 | 1150 | 1079 |
| 30 | 1863 | 1889 | 1869 |
| 40 | | | |
| 50 | | | |
| 60 | | | |
| 70 | | | |
| 80 | | | |
| 90 | | | |

Motor Current
Controller Input Voltage

| | | Voltage | | | Current | | |
|---|---|---|---|---|---|---|---|
| | | Low Load (50) | Med Load (25) | High Load (10) | Low Load (50) | Med Load (25) | High Load (10) |
| Power Supply | 10% | 89.6 | 89.6 | 89.6 | 3.4 | 3.3 | 2.1 |
| HP | 10% | 89.49 | 89.48 | 89.49 | | | |
| Curtis | 10% | 89.8 | 89.7 | 89.7 | | | |
| Power Supply | 20% | 89.6 | 89.6 | 89.6 | 17.0 | 11.1 | 6.9 |
| HP | 20% | 89.41 | 89.44 | 89.47 | | | |
| Curtis | 20% | 89.7 | 89.7 | 89.7 | | | |
| Power Supply | 30% | 89.6 | 89.6 | 89.6 | 74.6 | 22.8 | 13.7 |
| HP | 30% | 89.17 | 89.38 | 89.44 | | | |
| Curtis | 30% | 89.2 | 89.7 | 89.7 | | | |
| Power Supply | 40% | | | | | | |
| HP | 40% | | | | | | |
| Curtis | 40% | | | | | | |
| Power | 50% | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Supply | | | | | | | |
| HP | 50% | | | | | | |
| Curtis | 50% | | | | | | |

Load Variance