**Cathodic System Evaluation**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Date: | | 8-1-06 | | | | Z  o  n  e  # | | | | Section A | | | | | | | | | | | Section B | | | | |
| Name: | | John Rust | | | | Rectifier Settings | | | | | | | Ref. Cell | | | | Depolarization Readings | | | | |
| Bridge No. | | A1527 | | | | Input  Voltage | | Input  Current | | | Input  Current  Density | | On  Potential  (millivolt) | | Instant  Off Potential | | 4 Hr. Off Potential (millivolt) | | Shift in  Potential  (millivolts) | Revised Current  (amps) | |
| Direction: | | E&W | | | |
| Route: | | I-222 | | | | 1 | | | | 6.8 | | 2.25 | | | 1.50 | | -550 | | -510 | | -400 | | -110 | 2.3 | |
| District: | |  | | | | 2 | | | | 9.0 | | 3.00 | | | 2.00 | | -492 | | -460 | | -285 | | -175 | 2.5 | |
| County: | | Royals | | | | 3 | | | | 6.9 | | 2.30 | | | 1.53 | | -605 | | -585 | | -470 | | -115 | 2.3 | |
| Location: | | Over Blue River | | | | 4 | | | | 5.4 | | 1.80 | | | 1.20 | | -511 | | -488 | | -380 | | -108 | 1.8 | |
| Date Let: | | 5/27/1987 | | | | 5 | | | | 4.2 | | 1.40 | | | 0.93 | | -488 | | -470 | | -380 | | -90 | 1.6 | |
| Rectifier Serial No.: | | | XJ5-4172 | | | 6 | | | | 6.8 | | 2.25 | | | 1.80 | | -215 | | -9 | | -40 | | -155 | 1.7 | |
| Rectifier Brand: | | | PowerPlus | | | 7 | | | | 25 | | 0.50 | | | 0.40 | | -390 | | -370 | | -340 | | -30 | 1.7 | |
| Air Temp.: | | | 83 | | | 8 | | | | 6 | | 2.00 | | | 1.60 | | -355 | | -330 | | -210 | | -120 | 2.0 | |
| Deck Condition: | | | W | | | 9 | | | | 5.1 | | 1.70 | | | 1.36 | | -400 | | -385 | | -290 | | -95 | 1.8 | |
| Type Anode: | | | Platinum | | | 10 | | | | 7.2 | | 2.40 | | | 1.92 | | -388 | | -375 | | -200 | | -175 | 1.4 | |
|  | | | | | | | | | | |  | | | | | | | | | | | | | | |
| **Cathodic System** | | | | | YES | | | NO | | | Zone | | Comments: | | | Rectifier cabinet rusty. Mowers have broken conduit at cabinet.  Zone 7 appears to have major problems. | | | | | | | | | |
| Broken Lead: | | | | | ☐ | | | ☒ | | |  | |
| Exposed Lead: | | | | | ☐ | | | ☒ | | |  | |
| Corroded Lead: | | | | | ☒ | | | ☐ | | |  | |
| Meters Not Functioning: | | | | | ☒ | | | ☐ | | |  | |
| Fuses Blown: | | | | | ☐ | | | ☒ | | |  | |
| Corroded Circuit Board: | | | | | ☒ | | | ☐ | | |  | |
| Lightening Arrestors Blown: | | | | | ☐ | | | ☒ | | |  | |
| Power Off: | | | | | ☐ | | | ☒ | | |  | |
| Lost ID Tags: | | | | | ☐ | | | ☒ | | |  | |
| All zones on constant current: | | | | | ☒ | | | ☐ | | |  | | If not, list zones on constant voltage | | | | | | | | | 7 | | | |
| **Meter Type** | | | | | YES | | NO | | | | Comments: | | | | | *Engineer’s comments from main database on Section C, changes in original set up of system, or changes made in operating parameters when new input currents set.* | | | | | | | | | |
| External Meter: | | | | | ☒ | | | ☐ | | |
| Built In Meter: | | | | | ☐ | | | ☒ | | |
| Z  o  n  e  # | Section C | | | | | | | | | | | | | | | | | | | | | | | | |
| Original Settings | | | | | | | | | | | | | | | | | Fixed Design Parameters | | | | | | | |
| Original On Potential | | | Original Input Current | | | | | Zone Size  (Sq. Ft.) | | | | | Input Current  Density  (milliAmps/sf) | | | | Current Parameters | | | | | Potential Parameters | | |
| Lower | | Upper | | | Lower | | Upper |
| 1 | -490 | | | 2.25 | | | | | 1500 | | | | | 1.50 | | | | 0.75 | | 3.00 | | | -294 | | -686 |
| 2 | -472 | | | 3.00 | | | | | 1500 | | | | | 2.00 | | | | 0.75 | | 3.00 | | | -283 | | -661 |
| 3 | -550 | | | 2.30 | | | | | 1500 | | | | | 1.53 | | | | 0.75 | | 3.00 | | | -330 | | -770 |
| 4 | -458 | | | 1.80 | | | | | 1500 | | | | | 1.20 | | | | 0.75 | | 3.00 | | | -275 | | -643 |
| 5 | -498 | | | 1.40 | | | | | 1500 | | | | | 0.93 | | | | 0.75 | | 3.00 | | | -299 | | -697 |
| 6 | -307 | | | 2.25 | | | | | 1250 | | | | | 1.80 | | | | 0.63 | | 2.50 | | | -184 | | -430 |
| 7 | -460 | | | 0.50 | | | | | 1250 | | | | | 0.40 | | | | 0.63 | | 2.50 | | | -276 | | -644 |
| 8 | -355 | | | 2.00 | | | | | 1250 | | | | | 1.60 | | | | 0.63 | | 2.50 | | | -193 | | -451 |
| 9 | -510 | | | 1.70 | | | | | 1250 | | | | | 1.36 | | | | 0.63 | | 2.50 | | | -306 | | -714 |
| 10 | -412 | | | 2.40 | | | | | 1250 | | | | | 1.92 | | | | 0.63 | | 2.50 | | | -247 | | -575 |