



| REF DESIG | DEVICE                   | FUNCTION | SWITCH | INDICATOR LAMPS<br>RED GREEN OTHER | LOCATION<br>RTG LOC SH |
|-----------|--------------------------|----------|--------|------------------------------------|------------------------|
| G36-F020  | CONDENSATE CONTROL VALVE | 524      | X      | X                                  | G36-P002 7             |
| G36-F021  | PRECOCAT CONTROL VALVE   | 525      | X      | X                                  | G36-P002 8             |
| G36-F022  | PRECOCAT AGITATOR START  | 582      | ---    | ---                                | LOCAL 7                |
| G36-F023  | RESIN CONTROL VALVE      | 527      | X      | X                                  | G36-P002 8             |
| G36-F024  | CONDENSATE CONTROL VALVE | 529      | X      | X                                  | G36-P002 8             |
| G36-F052  | PRECOCAT AGITATOR START  | 580      | ---    | ---                                | LOCAL 7                |
| G36-F053  | RESIN AGITATOR STOP      | 581      | ---    | ---                                | LOCAL 7                |
| G36-F054  | PRECOCAT AGITATOR STOP   | 583      | ---    | ---                                | LOCAL 7                |
| G36-F055  | PRECOCAT AGITATOR STOP   | 584      | ---    | ---                                | LOCAL 7                |
| G36-F056  | PRECOCAT AGITATOR STOP   | 585      | ---    | ---                                | LOCAL 7                |
| G36-F057  | PRECOCAT AGITATOR STOP   | 586      | ---    | ---                                | LOCAL 7                |
| G36-F058  | PRECOCAT AGITATOR STOP   | 587      | ---    | ---                                | LOCAL 7                |
| G36-F059  | PRECOCAT AGITATOR STOP   | 588      | ---    | ---                                | LOCAL 7                |
| G36-F060  | PRECOCAT AGITATOR STOP   | 589      | ---    | ---                                | LOCAL 7                |
| G36-F061  | PRECOCAT AGITATOR STOP   | 590      | ---    | ---                                | LOCAL 7                |
| G36-F062  | PRECOCAT AGITATOR STOP   | 591      | ---    | ---                                | LOCAL 7                |
| G36-F063  | PRECOCAT AGITATOR STOP   | 592      | ---    | ---                                | LOCAL 7                |
| G36-F064  | PRECOCAT AGITATOR STOP   | 593      | ---    | ---                                | LOCAL 7                |
| G36-F065  | PRECOCAT AGITATOR STOP   | 594      | ---    | ---                                | LOCAL 7                |
| G36-F066  | PRECOCAT AGITATOR STOP   | 595      | ---    | ---                                | LOCAL 7                |
| G36-F067  | PRECOCAT AGITATOR STOP   | 596      | ---    | ---                                | LOCAL 7                |
| G36-F068  | PRECOCAT AGITATOR STOP   | 597      | ---    | ---                                | LOCAL 7                |
| G36-F069  | PRECOCAT AGITATOR STOP   | 598      | ---    | ---                                | LOCAL 7                |
| G36-F070  | PRECOCAT AGITATOR STOP   | 599      | ---    | ---                                | LOCAL 7                |
| G36-F071  | PRECOCAT AGITATOR STOP   | 600      | ---    | ---                                | LOCAL 7                |

| REF DESIG | DEVICE                                | FUNCTION | SWITCH | INDICATOR LAMPS<br>RED GREEN OTHER | LOCATION<br>RTG LOC SH |
|-----------|---------------------------------------|----------|--------|------------------------------------|------------------------|
| -----     | BACKWASH 'A' INITIATE                 | 511      | X      | ---                                | G36-P002 5             |
| -----     | BACKWASH 'B' INITIATE                 | 518      | X      | ---                                | G36-P002 10            |
| -----     | PRECOCAT INITIATE                     | 52       | ---    | ---                                | G36-P002 7             |
| -----     | FILTER / HOLD 'A'                     | 55A      | X      | X                                  | G36-P002 4             |
| -----     | FILTER / HOLD 'B'                     | 55B      | X      | X                                  | G36-P002 9             |
| -----     | SOLKA FLOCK RESIN / SOLKA FLOCK ONLY  | 54       | X      | X                                  | G36-P002 8             |
| -----     | FRESH STRAINER 'C'                    | 56A      | XX     | ---                                | G36-P002 5             |
| -----     | FRESH STRAINER 'D'                    | 56B      | XX     | ---                                | G36-P002 10            |
| -----     | SYSTEM 'A' OR 'B' FUNCTIONS INTERLOCK | 57       | X      | ---                                | G36-P002 7, 12         |
| G36-F001A | FILTER-MODE VALVE (INLET)             | 58A      | X      | X                                  | G36-P002 4             |
| G36-F001B | FILTER-MODE VALVE (INLET)             | 58B      | X      | X                                  | G36-P002 9             |
| G36-F002A | FILTER-MODE VALVE (INLET)             | 54A      | X      | X                                  | G36-P002 4             |
| G36-F002B | FILTER-MODE VALVE (INLET)             | 59A      | X      | X                                  | G36-P002 9             |
| G36-F003A | FILTER-MODE VALVE (OUTLET)            | 510A     | X      | X                                  | G36-P002 4             |
| G36-F003B | FILTER-MODE VALVE (OUTLET)            | 510B     | X      | X                                  | G36-P002 9             |
| G36-F004A | FILTER-MODE VALVE (OUTLET)            | 511A     | X      | X                                  | G36-P002 4             |
| G36-F004B | FILTER-MODE VALVE (OUTLET)            | 511B     | X      | X                                  | G36-P002 9             |
| G36-F005A | MAKE-READY VALVE (INBOARD)            | 512A     | X      | X                                  | G36-P002 6             |
| G36-F005B | MAKE-READY VALVE (INBOARD)            | 512B     | X      | X                                  | G36-P002 11            |
| G36-F006A | MAKE-READY VALVE (OUTBOARD)           | 513A     | X      | X                                  | G36-P002 7             |
| G36-F006B | MAKE-READY VALVE (OUTBOARD)           | 513B     | X      | X                                  | G36-P002 12            |
| G36-F007A | MAKE-READY VALVE (INBOARD)            | 514A     | X      | X                                  | G36-P002 6             |
| G36-F007B | MAKE-READY VALVE (INBOARD)            | 514B     | X      | X                                  | G36-P002 11            |
| G36-F008A | MAKE-READY VALVE (OUTBOARD)           | 515A     | X      | X                                  | G36-P002 6             |
| G36-F008B | MAKE-READY VALVE (OUTBOARD)           | 515B     | X      | X                                  | G36-P002 11            |
| G36-F009A | MAKE-READY VALVE (INBOARD)            | 516A     | X      | X                                  | G36-P002 6             |
| G36-F009B | MAKE-READY VALVE (INBOARD)            | 516B     | X      | X                                  | G36-P002 11            |
| G36-F010A | MAKE-READY VALVE (OUTBOARD)           | 517A     | X      | X                                  | G36-P002 6             |
| G36-F010B | MAKE-READY VALVE (OUTBOARD)           | 517B     | X      | X                                  | G36-P002 11            |
| G36-F011A | MAKE-READY VALVE (INBOARD)            | 518A     | X      | X                                  | G36-P002 5             |
| G36-F011B | MAKE-READY VALVE (INBOARD)            | 518B     | X      | X                                  | G36-P002 10            |
| G36-F012A | DOSE DRAIN VALVE OUTBOARD             | 519A     | X      | X                                  | G36-P002 6             |
| G36-F012B | DOSE DRAIN VALVE OUTBOARD             | 519B     | X      | X                                  | G36-P002 11            |
| G36-F013A | MAKE-READY VALVE                      | 520A     | X      | X                                  | G36-P002 5             |
| G36-F013B | MAKE-READY VALVE                      | 520B     | X      | X                                  | G36-P002 10            |
| G36-F014A | SERVICE AIR CONTROL VALVE             | 521A     | X      | X                                  | G36-P002 6             |
| G36-F014B | SERVICE AIR CONTROL VALVE             | 521B     | X      | X                                  | G36-P002 11            |
| G36-F015A | DOSE VENT CONTROL VALVE               | 522A     | X      | X                                  | G36-P002 6             |
| G36-F015B | DOSE VENT CONTROL VALVE               | 522B     | X      | X                                  | G36-P002 11            |
| G36-F016A | HOLD-MODE VALVE                       | 523A     | X      | X                                  | G36-P002 4             |
| G36-F016B | HOLD-MODE VALVE                       | 523B     | X      | X                                  | G36-P002 9             |

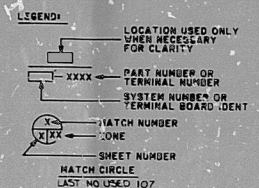
| REF DESIG | DEVICE | FUNCTION | SWITCH | INDICATOR LAMPS<br>RED GREEN OTHER | LOCATION<br>RTG LOC SH |
|-----------|--------|----------|--------|------------------------------------|------------------------|
| K1 SH 3   | SP     | SP       | SP     | SP                                 | SP                     |
| K2 SH 3   | SP     | SP       | SP     | SP                                 | SP                     |
| K3 SH 3   | SP     | SP       | SP     | SP                                 | SP                     |
| K4 SH 5   | SP     | SP       | SP     | SP                                 | SP                     |
| K5 SH 5   | SP     | SP       | SP     | SP                                 | SP                     |
| K6 SH 5   | SP     | SP       | SP     | SP                                 | SP                     |
| K7 SH 5   | SP     | SP       | SP     | SP                                 | SP                     |
| K8 SH 5   | SP     | SP       | SP     | SP                                 | SP                     |
| K9 SH 5   | SP     | SP       | SP     | SP                                 | SP                     |
| K10 SH 5  | SP     | SP       | SP     | SP                                 | SP                     |
| K11 SH 7  | SP     | SP       | SP     | SP                                 | SP                     |
| K12 SH 7  | SP     | SP       | SP     | SP                                 | SP                     |

| REF DESIG | DEVICE | FUNCTION | SWITCH | INDICATOR LAMPS<br>RED GREEN OTHER | LOCATION<br>RTG LOC SH |
|-----------|--------|----------|--------|------------------------------------|------------------------|
| L1 SH 2   | SP     | SP       | SP     | SP                                 | SP                     |
| L2 SH 3   | SP     | SP       | SP     | SP                                 | SP                     |

914E108  
 FILTER DEMINERALIZATION CONTROL SYSTEM  
 CLINTON POWER STATION UNIT 1  
 ILLINOIS POWER COMPANY  
 CLINTON, ILLINOIS

MPL NO. 636-1050

| SH | CONTENT                                |
|----|----------------------------------------|
| 1  | NOTES, REF. VALVE COMP TAB - RELAY TAB |
| 2  | SWITCH LOG                             |
| 3  | POWER DISTRIBUTION CKT.                |
| 4  | PC A                                   |
| 5  | PC A                                   |
| 6  | PC A                                   |
| 7  | PC A                                   |
| 8  | PC A                                   |
| 9  | PC B                                   |
| 10 | PC B                                   |
| 11 | PC B                                   |
| 12 | PC B                                   |
| 13 | INSTRUMENT LOOP 'A'                    |
| 14 | INSTRUMENT LOOP 'B'                    |
| 15 | INPUT & OUTPUT CARDS                   |



- NOTES:
- UNLESS OTHERWISE INDICATED, THE FOLLOWING REFERENCE DESIGNATIONS SHOWN ON THIS DIAGRAM ARE PREFIXED WITH G36A:
    - F-----FUSE
    - S-----SWITCH
    - R-----RELAY
    - DI-----DIODE
    - LD-----LOGIC DEVICE, UNIT
    - SI-----SIGNAL
    - CPU-----LOGIC CONTROLLER
  - FOR POWER DISTRIBUTION SEE SH. 3.
  - IN LIEU OF FCO SEE REFERENCE 4 FOR LOGIC DIAGRAM.
  - ALL PUSHBUTTONS USED FOR VALVES AND PUMPS HAVE "PUSH TO TEST" FEATURE.
  - FURNISHED WITH VESSELS
  - FURNISHED WITH TANK G36-A002
  - FURNISHED WITH TANK G36-A001
  - FOR VALVE LIMIT SWITCH SCHEMATIC REFER TO VALVE PURCHASE PART DRAWING AND SYSTEM M.P.L.
  - ALL MODE INDICATING LIGHTS TO BE G.E. ET-16 120V A.C.
  - BYPASS LOCAL CONTROL PUMP START STOP SWITCH. PUMP TO BE CONTROLLED THROUGH LOGIC CONTROLLER ONLY.
  - ALL SOLENOID VALVES ARE ENERGIZED TO OPEN UNLESS OTHERWISE NOTED.
  - K24 AND K25 TO BE INSTALLED ON OR NEAR THE DUST COLLECTION TANK AND RESIN PUMP RESPECTIVELY.
  - REVISION CIRCLES WITHOUT ALPHA CHARACTERS OR WITH ALPHA NUMERIC CHARACTERS INDICATE REVISIONS INITIATED BY G.E. REVISION CIRCLES WITHOUT ALPHA CHARACTERS INDICATE REVISIONS INITIATED BY S.E.L.

| MPL NO     | REFERENCE DOCUMENTS                         |
|------------|---------------------------------------------|
| 1.636-1010 | -----FILTER DEMIN SYS INCH--1051D           |
| 2.636-1020 | -----CLEAN-UP FILTER/DEMIN SYS PROCESS DIAG |
| 3.636-1030 | -----REACTOR WATER CLEANUP (EPL D15) (G13A) |
| 4.636-4020 | -----FILTER DEMIN CONTROL DESIGN SPEC       |

38195  
 PRO APERTURE CARD

| REV | DATE    | RELD | PREP | REVIEWED | APPROVED | PURPOSE | FILM | REV | DATE    | RELD | PREP | REVIEWED | APPROVED | PURPOSE | FILM |
|-----|---------|------|------|----------|----------|---------|------|-----|---------|------|------|----------|----------|---------|------|
| A   | 2-28-80 |      |      |          |          |         |      | B   | 2-28-80 |      |      |          |          |         |      |
| B   | 2-28-80 |      |      |          |          |         |      | C   | 2-28-80 |      |      |          |          |         |      |

SCALE: PROJECT NUMBER 4536  
 SARGENT & LUNDY  
 CLINTON POWER STATION UNIT 1  
 ILLINOIS POWER COMPANY  
 CLINTON, ILLINOIS

RIDS

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