

Brookhaven National Laboratory
Plant Engineering - E&CS Division
Engineering Change Notice Form

PROJECT: CCWF II

JOB No. 11705

ECN Title: Grounding in Operating Floor Slab

ECN No. 23

Affected Documents: E-100

Requested Change (Attach sketch if applicable): Conduit for future grounding cannot be run in the Operating Floor slab due to density of reinforcing steel and limited thickness of slab.

Requested by: A. Raphael

Date: 01/25/09

Resolution: Delete conduit for future use and remove Note 5. See the attached sketches.

Approvals: A/E or Proj. Eng.: B. Kimble



Date: 01/26/10

Project Coordinator: A. Raphael



Date: 01/26/10

Manager:

Date:

Contractor shall take the following action:

- Await change order from P&PM
- Proceed with change as described
- Provide cost proposal for change as described

Distribution: E. W. Howell

Giffels

PPM

E&U

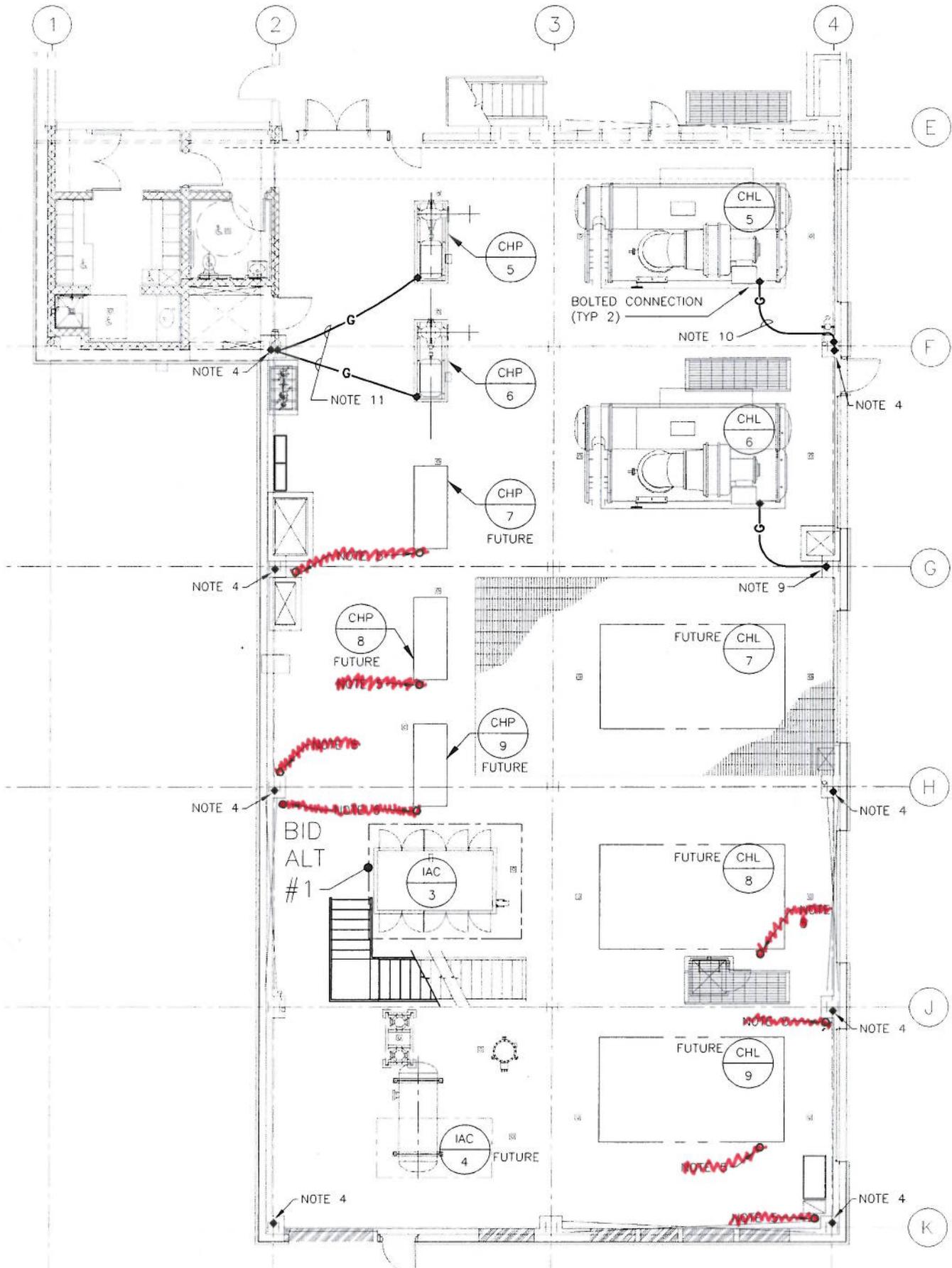
MPO

O&M

DOE

NLS II

ECN File



100B
 BUILDING 600 OPERATING FLOOR
 GROUNDING PLAN ELEV 77'-0"
 E-100 1/8" = 1'-0"

NOTES

1. 1/4" x 2" x 18" LONG COPPER GROUND BAR MOUNTED 18" AFF. #4/0 BARE COPPER GROUND FROM 250 Kcmil GROUND LOOP TO GROUND BAR. EXOTHERMIC WELD ALL PERMANENT GROUND CONNECTIONS TO GROUND BAR.
2. RUN #1/0 BARE COPPER GROUND FROM 250 Kcmil GROUND LOOP TO EQUIPMENT PEDESTAL. NOTE, GROUND WIRE TO BE CONCEALED IN CONCRETE UP TO PEDESTAL.
3. RUN 1-1/4" PVC (SCHEDULE 80) WITH PULLWIRE BELOW SLAB AND TURN UP AT COLUMN/WALL AND FUTURE EQUIPMENT AS INDICATED. PROVIDE COUPLING FLUSH WITH FLOOR WITH THREADED CAP AT BOTH ENDS. FOR FUTURE GROUND BETWEEN GROUND BAR AND EQUIPMENT PEDESTAL. NOTE, WATERPROOF SEAL CONDUIT WHERE PENETRATES FLOOR SLAB.
4. #4/0 BARE COPPER GROUND WIRE FROM 250 Kcmil GROUND LOOP IN FOOTING EXOTHERMIC WELDED TO WEB OF COLUMN 6" AFF—SEE DETAIL '100D' THIS SHEET.
5. PROVIDE 1-1/4" PVC (SCHEDULE 80) SLEEVE IN FLOOR WITH COUPLING FLUSH WITH FLOOR AND THREADED CAP. ALSO, PROVIDE BUSHING ON STUB-OUT BELOW FLOOR. FOR FUTURE GROUND WIRE BETWEEN EQUIPMENT AND GROUND TO BUILDING COLUMN.
6. NOT USED.
7. #4/0 BARE COPPER GROUND FROM 250 Kcmil GROUND LOOP IN FOOTING UP TO OPERATING FLOOR — SEE DETAIL "100B" THIS SHEET.
8. #4/0 BARE COPPER GROUND UP TO OPERATING LEVEL FLOOR SLAB, THEN IN SLAB TO CHILLER — SEE DETAIL "100B" THIS SHEET.
9. #4/0 BARE COPPER GROUND FROM CHILLER IN SLAB THEN DOWN COLUMN TO 250 Kcmil GROUND LOOP IN FOOTING — SEE DETAIL "100C" THIS SHEET.
10. #4/0 BARE COPPER GROUND IN SLAB FROM CHILLER TO COLUMN AND EXOTHERMIC WELD TO COLUMN 6" AFF.
11. #1/0 BARE COPPER GROUND RUN IN SLAB BETWEEN EQUIPMENT AND COLUMN AND EXOTHERMIC WELD TO COLUMN 6" AFF.
12. GROUND WIRE PIG TAIL TO STUB-UP AFF FOR EQUIPMENT GROUNDING.