Background
In the interest of improving the availability and reliability of the system, Westinghouse has redesigned the original 7300 Series RTD Amplifier (NRA) Card using the newest technology components commonly available today.

Description
The new NRA card (6D30262G01 and G03) is a form, fit and function replacement for the original NRA card (2837A15G01 through G04). The 6D30262G01 NRA card is for platinum RTD narrow- and wide-range applications, and the 6D30262G03 is for copper RTD narrow- and wide-range applications. These replacement NRA cards have been environmentally and seismically qualified to the original levels.

Qualification
The replacement printed circuit cards are qualified for use in accordance with the following Institute of Electrical and Electronics Engineering (IEEE) standards:

- Environmental: IEEE 323-1983
- Seismic: IEEE 344-1987

Benefits
The new NRA card design eliminates the use of “dipsticks” to program $R_{\text{supp}}$ and $R_{\text{span}}$. Instead, jumpers are removed to add precision resistors to the “span” and “suppression” networks of the RTD loop amplifier. This new design also eliminates the operational amplifier offset potentiometers previously used, thus simplifying the card’s calibration procedure. Additional benefits are reduced long-term drift and improved temperature stability (less than a 50 mV change with a temperature rise from 77 F to 158 F). Lead resistance acceptability, originally with a two-ohm maximum, has improved in the new design, which has satisfactorily tested up to 2,000 ohms. Card power consumption has also been reduced by a factor of 10 (1.5 watts compared to the original 17 watts).
7300 upgrade replacement card