Ni and Ni$_2$Al$_3$ coatings were applied to superheater tubes that were built into a wood-fired boiler with an outlet steam temperature of 520 °C. The present paper evaluates the performance of the coatings after two years of service. The corrosion performance of the coatings is discussed with respect to the temperature histograms and deposit composition and compared to the performance of the coatings after the first year. The Ni coatings showed extremely protective behaviour for 1 year however after 2 years exposure, the Ni coating was chemically attacked, thick NiO was formed and sulphur containing precipitates were present at the base of the Ni layer indicating grain boundary ingress of corrosive species. For the Ni$_2$Al$_3$ coatings, localized attack was observed after the first year of exposure, but after two years no intact nickel aluminide coatings were observed.
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