

## عنوان مقاله:

Root Cause Analysis Of A Gas Turbine H-25 Combustion Chamber Burner Crack & Corrosion

## محل انتشار:

پنجمین کنفرانس بین المللی فناوری و مدیریت انرژی با رویکرد پیوند انرژی، آب و محیط زیست (سال: 1397)

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## خلاصه مقاله:

This paper summarizes the methodology and results of the root cause analysis investigation & outlines the convergence of results obtained from the independently conducted mechanical. The root cause analysis involved the following distinct stages: I) Burners high temperature analysis to determine the modes of high temperature and corresponding thermal stress. II) Examination of cracking and corrosion burner including analyses of the mechanics of their cracking and corrosion. We conclude that crack growth occurred by fatigue. It can be concluded from the growth rate predictions that the fatigue damage process was not a continuous one, but rather, occurred intermittently over short time durations, such as during startup and shutdown transients. The cycle stress levels associates with multiple startup and shutdown transients provide the conditions required for the growth of small cracks as long as there exists sufficient excitation of the first resonance mode of the Swirler. Cracking and corrosion due to nitrogen penetration and high operating temperatures. Regarding structural analysis, the effect of applying thermal barrier coating on reducing the temperature of the piece and reducing cracking has been investigated. The application of thermal damper .coatings can be effective in reducing the amount of degradation

## کلمات کلیدی:

.RCA, gas turbine, burner, cracking & corrosion

## لینک ثابت مقاله در پایگاه سیویلیکا:

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