

# Pharmaceutical Industry

## CASE STUDY

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### Key Facts

Sector      Pharmaceutical

Category      RLA Study Report Fermentor FE - 1126

### Problem

- The Fermentor Tank FE1126 was installed in the year 1990. It is used for fermenting with organic nitrogen source, with liquid ammonia and mild caustic. The total batch time was 11 days.
- The Fermentor had been in long use. Of late, a leakage problem started and repair works needed to be undertaken in the different Fermenters.
- In view of the problem faced, a need was felt to carry out Residual life assessment work so that the Ferment can be put to use safely for the specified period depending upon the findings and judgments based on assessments.



### Diagnosis

- Based on the testing and analysis done the life of the fermentor can be considered to be the original design life as no significant flaws/defect could be observed under normal operating conditions.
- If the systematic monitoring and inspection approach is adopted, it's life can be considered even more than the designed life. Present report will act as the base line data.
- The health of the fermentor should be assessed after 5 years of further operation.



## Solution/Recommendations

- The fermentor is fit for continue in service. At the first available opportunity, it is recommended to remove both the dished ends and carry out solution annealing treatment on them. They will become as good as new then they are to be re-welded to the straight shell. The solution annealing may be done with the proper inspection by insitu Metallography.
- The microstructure shall possess uniformly distributed austenitic grains with twins without any carbide precipitations and strain lines. The re assessment period is for health assessment is considered to be 5 years.

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## Contact Us

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