



Contribution ID: 158

Type: Poster

Examination the Performace of the Trayed Ethylen Production Column Using Gamma Ray Scan Technique

Wednesday, 26 April 2017 14:15 (2 hours)

Gamma ray scanning technique has been demonstrated to investigate the performance of trayed column in a petrochemical company. The trayed column is a caustic/water tower of having diameter of 4.2 m and 40 m height. The multigrad scanning was performed using 70 mCi of Co-60 gamma source and scintillation detector. Ten trays, starting from tray # 13 at elevation of 35.050 mm to tray # 4 at elevation of 26.950 mm above ground level. Scan data show that all trays were in their positions. Tray # 4 to tray # 10 were functioned properly and carried approximately the same amount of liquid. Light liquid flooding on tray # 11 and heavy flooding on tray # 12 were identified. Partial flooding was identified on the tray # 13. At the time of shutdown, the scanned data was verified and it was found that the liquid flooding on the tray # 12 was caused by presence of a bucket on that tray, covered with solidified mud.

Keywords: gamma ray scanning, trayed column, liquid flooding, ^{60}Co ,

Country/Organization invited to participate

Indonesia

Primary author: Mr SUGIHARTO, Sugiharto (Center for Isotopes and Radiation Application, Indonesia)

Co-authors: Mr SANTOSO, Sigit (Center for Isotopes and Radiation Application, Indonesia); Mr WIBISONO, Wibisono (Center for Isotopes and Radiation Application, Indonesia)

Presenter: Mr SUGIHARTO, Sugiharto (Center for Isotopes and Radiation Application, Indonesia)

Session Classification: P-B

Track Classification: RADIATION TECHNOLOGIES FOR MEASUREMENT