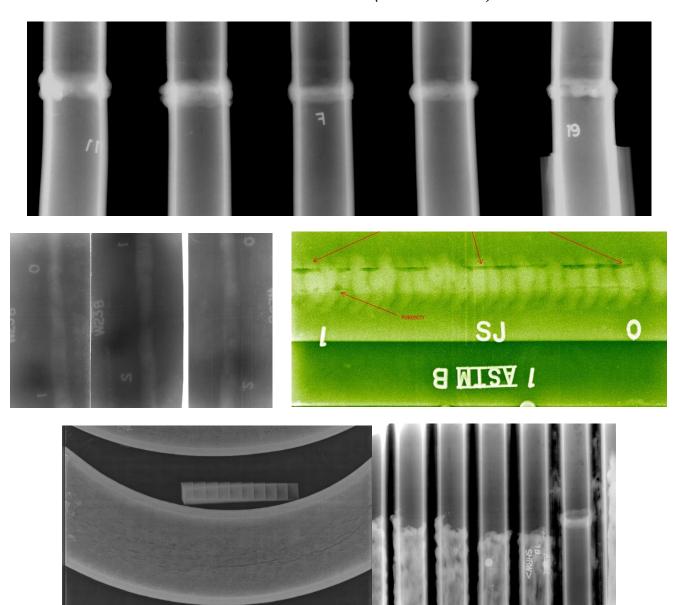


Digital or Computed RT Examination Uses

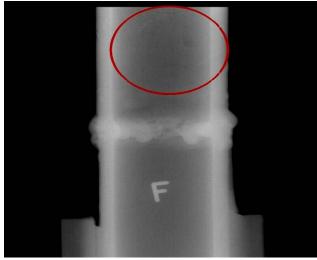
- o This process provides quality images to assess weld integrity more safely and with higher production rates than ever possible with conventional processes.
- The typical use of a Selenium 75 radioisotope allows for less boundary area therefore reducing impacts on other work scopes needed for project completion.

Header/tube welds (Dissimilar material)





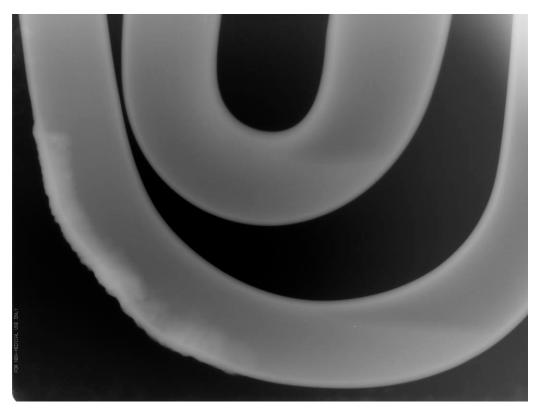
o Through the use of computed radiography the imaged items can be further analyzed for issues with base metal/ existing (old) material such as pitting, base metal cracking, wall thinning or corrosion and tube blockage.



Tube pitting and cracking in existing tube stub



Accidental cut-out overlooked by QC

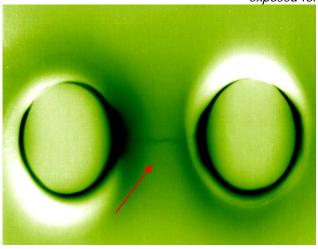


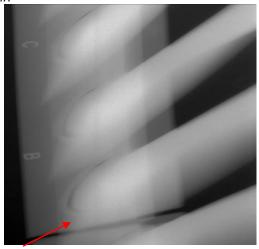
Eroded pad weld on reheat tube



Computed radiography can save time on heavier walled items such as headers due to decreased radiographic exposure need. A heavy wall 3" thick header can be examined in the time frame of a lunch, or break window (15-30 minutes) with comparable image quality. Instead of possibly days of exposure, or the use of Cobalt 60- a much stronger and more dangerous form of radioactive isotope, with conventional RT.

Ligament crack in 3.5 in. thick header exposed for 7 minutes Erosion on LP Turbine Rotor 1.75", exposed for 2 min





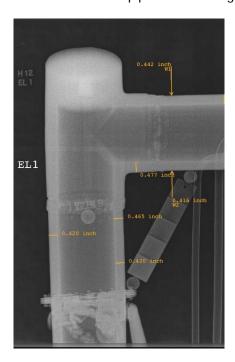


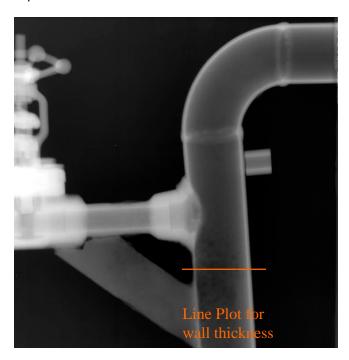


.75" Thick BFW valve weld, 4-90 second exposures (6-9 minute exposures with conventional RT)

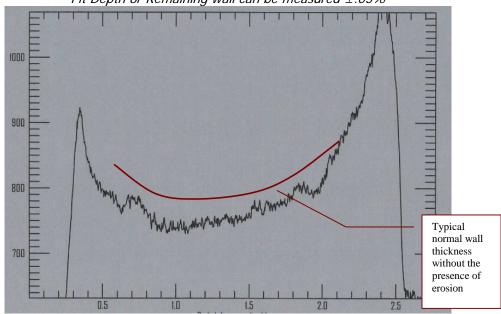


- o If Computed or Digital RT is to be used for piping integrity studies it is not always necessary to remove insulation or coatings to achieve quality images of all necessary aspects i.e. wall thickness, weld quality, and wall integrity.
- Digital Profiling is used to make wholesale piping integrity determination by looking at 360° of the pipe-wall in a single exposure

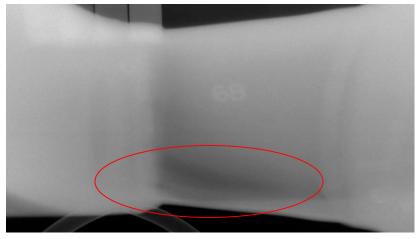




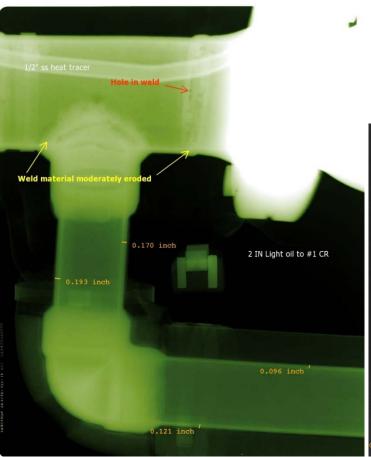
Line Plot for wall thickness:
Pit Depth or Remaining wall can be measured ±.05%







8" SCH 80 -Found to be eroded



As well as wall thinning RT profile can be used to assess other issues in weld materials or base metal that UT thickness could never ascertain.

