

# Our experience with a mobile shielded remote handling system for Impact testing of radioactive samples

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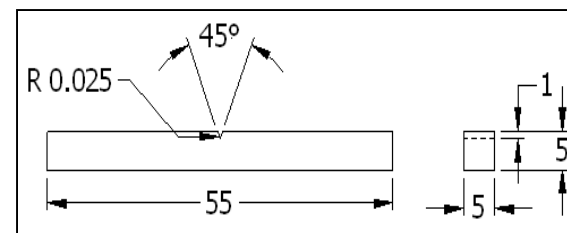
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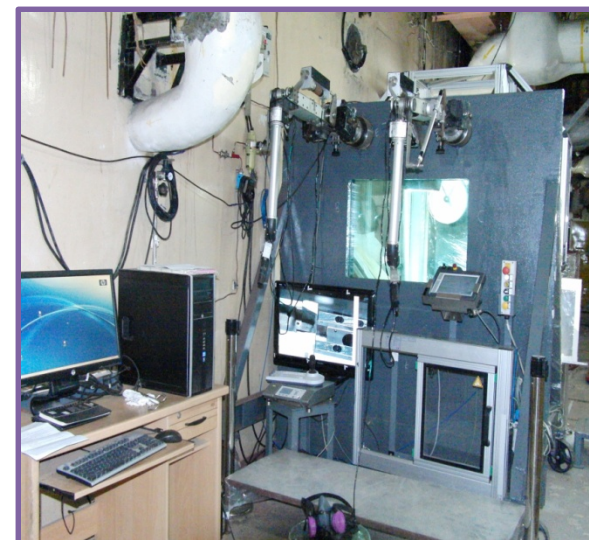
- Accelerated Irradiation Experiment of Miniature Charpy V-Notch (MCVN) Impact Samples of SS316L(N) and SS304L(N) material
- Irradiation carried out at FBTR reactor in the range of 2-5dpa to simulate low dose irradiation of permanent structural components of reactor for a life of 40+ years
- Non availability of Impact testing machine inside RML hot cells required building of temporary facility to test the irradiated MCVN samples
- Impact testing behind the hot cells in a temporary facility

## Challenges of mobile shielded remote handling system for impact testing

- Temporary facility with optimum shielding capacity and size
- Specimen transfer from cell to impact machine and back without cross contamination
- Alignment of MCVN specimen – within  $\pm 0.25\text{mm}$
- Minimum dose expenditure



MCVN Impact Samples  
(500-900mGy/h dose rate)



Remote Impact testing setup

Please visit the poster to know how we did it!