

Feasibility study project of visual and measurement technologies for Innovative Approach 〈Hamamatsu Photonics K.K.〉

Purpose and Goal

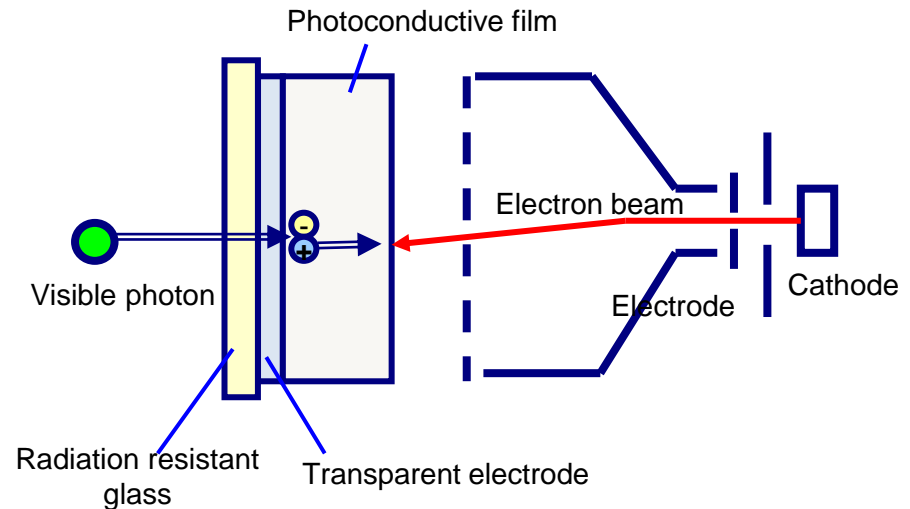
Purpose “Feasibility study for the radiation resistant imaging sensor” to visualize the inside of the PCV and RPV
Target Radiation resistant 2MGy

Overview and Feature

Make a proposal for the image pick-up tube as the most suitable imaging sensor for radiation resistant utilizing the technologies that we only own.

Overview

Conduct trial production, evaluation and radiation resistant test for radiation resistant image pick-up tube.
Mount the prototype tube on camera, and check its operational flexibility and evaluate the image.
Study the availability of the material required for image pick-up tube. Make a plan for the schedule after R&D.



Output so far/Output expected

Output so far

- (1) Start up all process for the trial production and evaluation for radiation resistant image pick-up tube
- (2) Determine and place an order for newly purchased material for image pick-up tube
- (3) Select the camera for image evaluation and place an order
- (4) Study the number of material required for image pick-up tube for decommissioning

Output expected

- (1) Results of first trial production for image pick-up tube using the material we have, the results of the evaluation and irradiation test
- (2) Second trial production of the image pick-up tube using new materials and comparison with (1)
- (3) Image evaluation results with the camera
- (4) Requirements on obtaining the material required for production of image pick-up tube production
- (5) Plan after R&D

Overall Schedule

	Mid-Dec	Jan.	Feb.	Mar.
(1) Image pick-up tube 1st prototype	Start the process	Prototype evaluation	Process review	Irradiation test
(2) Image pick-up tube 2nd prototype	Material order placement		Prototype evaluation	Irradiation test
(3) Image evaluation using a camera	Selection, order placement		Operation check	Image evaluation
(4) Study availability of material	Study the number of materials	→	Study availability	Clarify its requirements
(5) Plan after R&D		Study	→	→