

Study on the Safety Regulation System Utilizing Risk Information

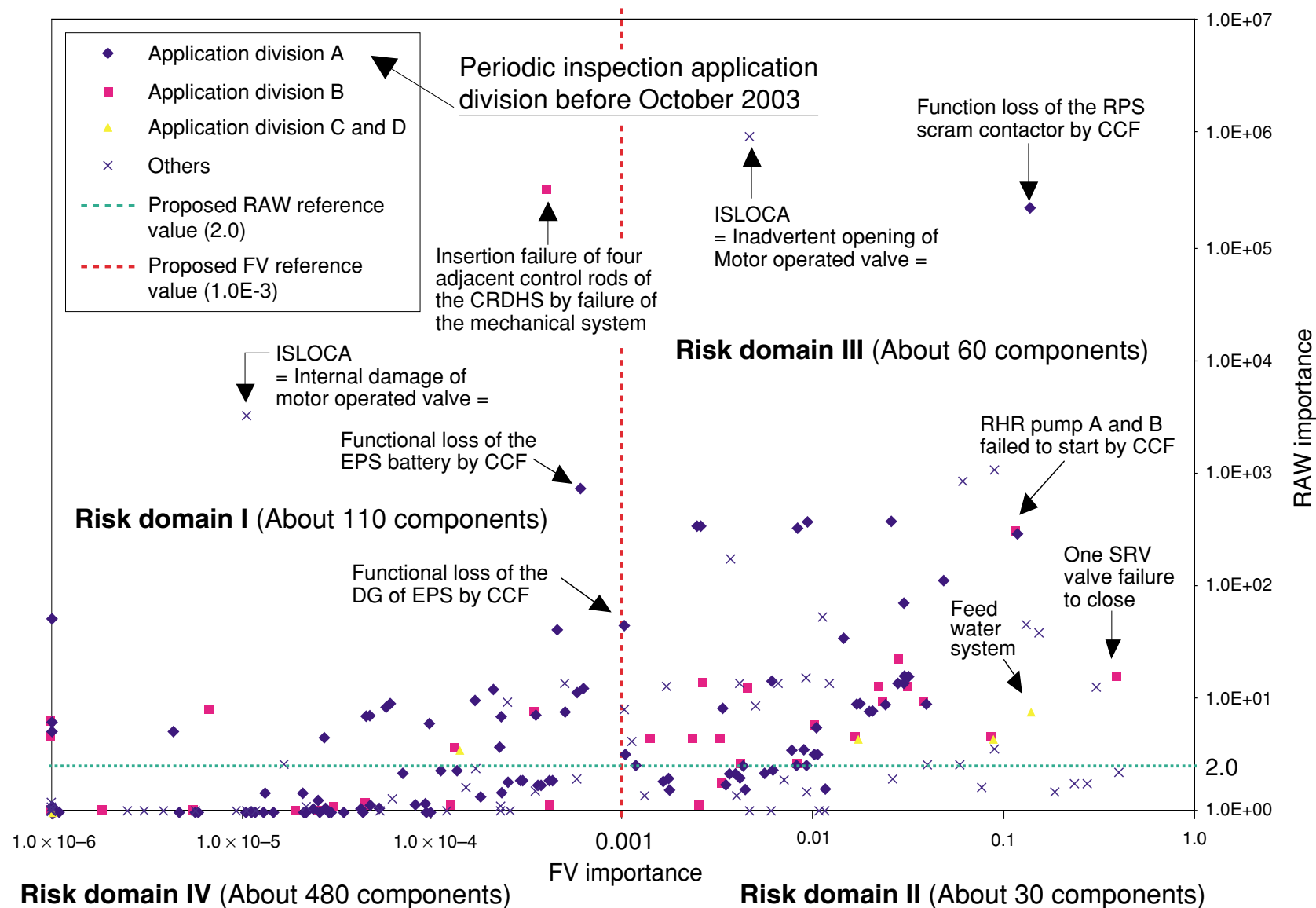
In order to improve the effectiveness of inspections, it is expected to carry out inspections referring to the quantitative risk assessment results of the safety assurance level.

Important equipment, components and piping have been selected from the point of view of core damage, and candidates for the periodic inspection have been proposed (e.g. components in the risk domain I through III could be the subject of periodic inspection).

Risk domain III	Risk domain I
Risk domain IV	Risk domain II

➔ It is possible to improve the effectiveness of inspection focusing on components with higher risk importance.

- Several components (application division C and D in the above figure) exist with higher risk importance (risk domain I through III), but do not subject to the periodic inspection.
- A number of components (application division A and B in the above figure) exist with lower risk importance (risk domain IV), but subject to the periodic inspection.



FV importance : Reduction ratio of core damage frequency assuming no failure of a certain component

RAW importance : Increase ratio of core damage frequency assuming 100% failure of a certain component

- A system has been developed to evaluate the importance of inspection findings objectively from the point of view of severe accidents.
- A methodology has been established to quantify relations between overhaul intervals and the core damage frequency.
- A draft of performance indicators and their thresholds have been proposed for monitoring the level of safety performance.