



Radiological Event Feedback as a Tool of Dose Reduction at the Dukovany NPP: Results

CEZ plc

State Office for Nuclear Safety

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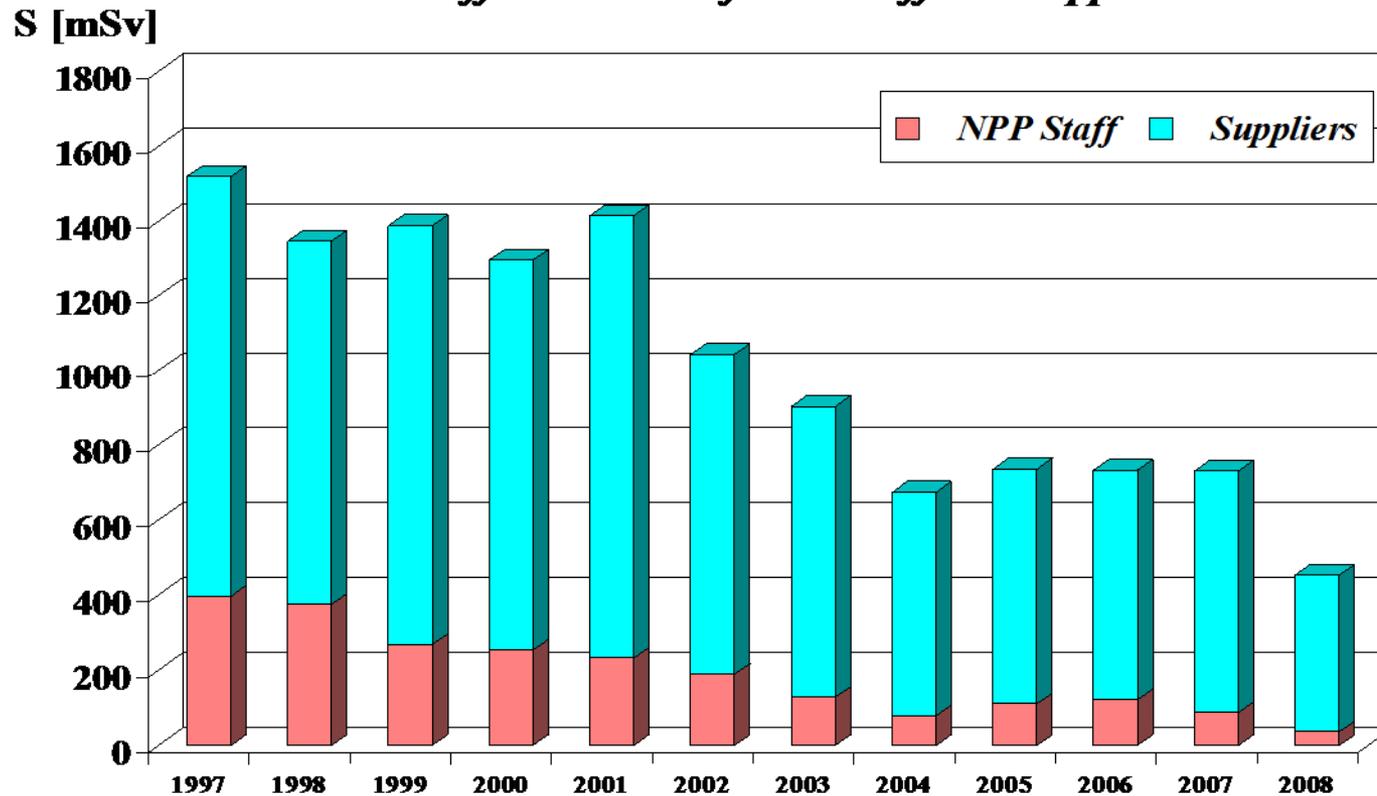
Vienna, Austria, 13-15 October 2009

Vladimír Kulich, Libor Urbančík



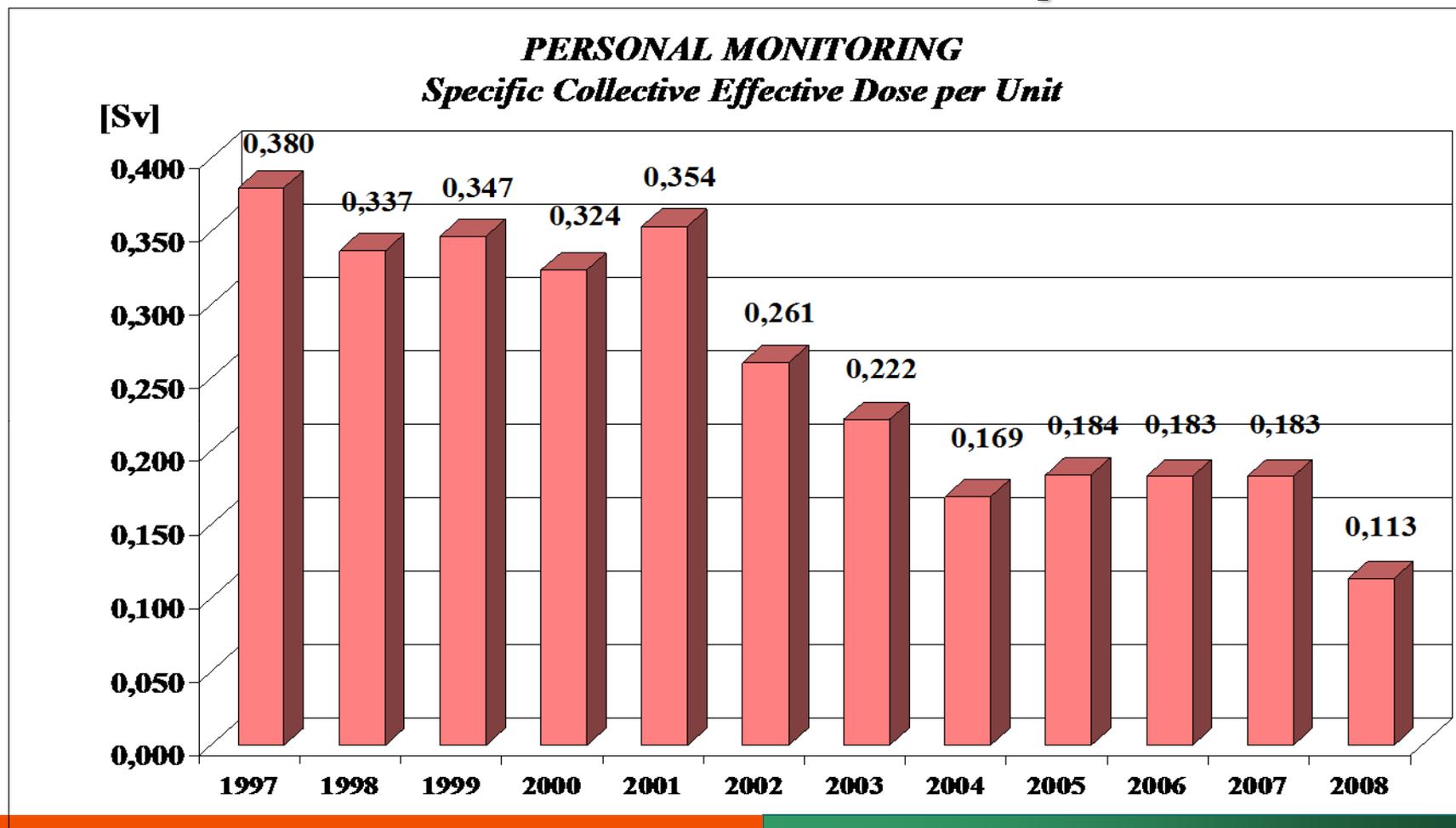
Dukovany NPP has reached the best ever results in radiation protection

PERSONAL MONITORING
Collective Effective Dose of NPP Staff and Suppliers



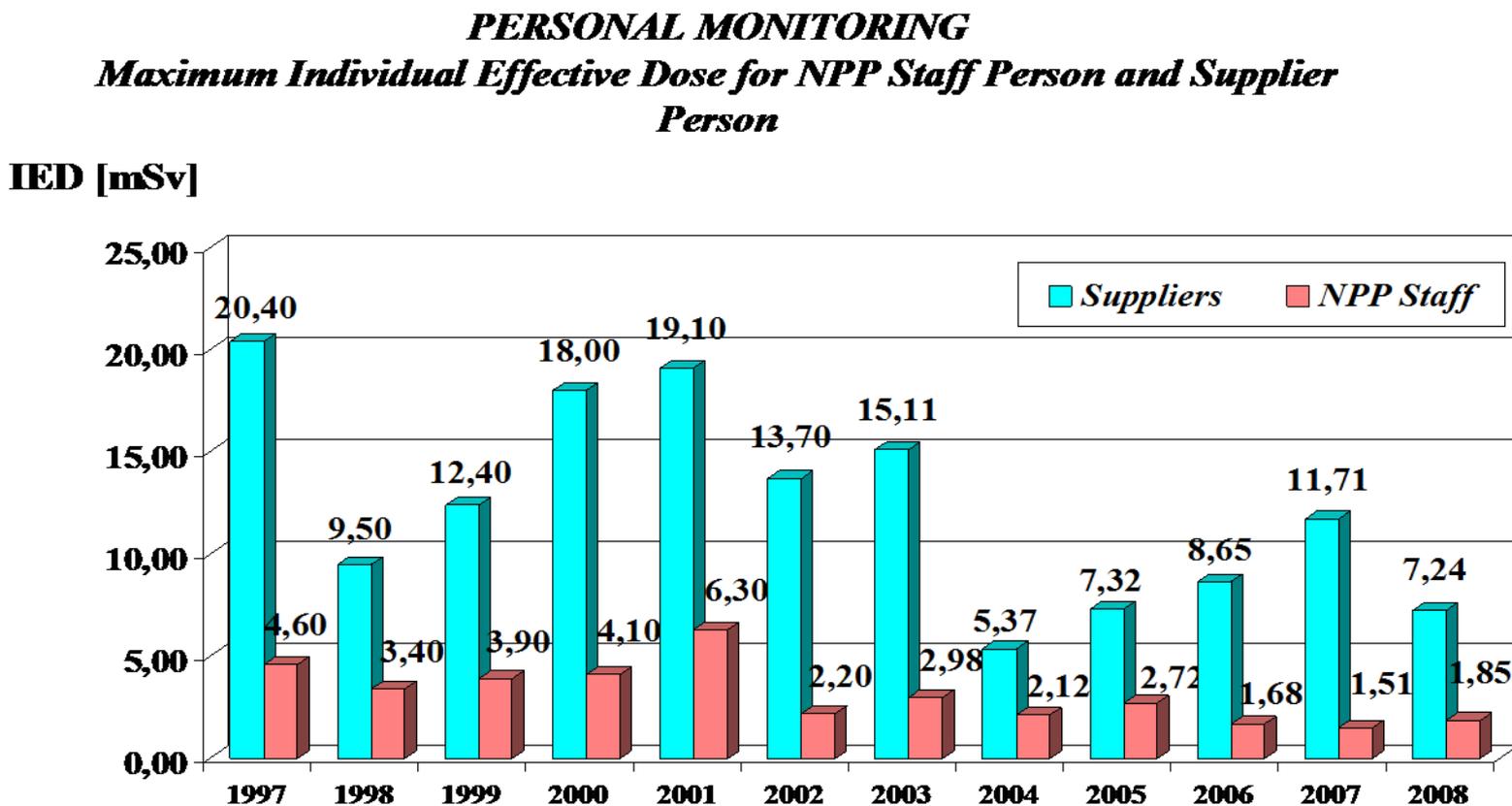


Dukovany NPP has reached the best ever results in radiation protection



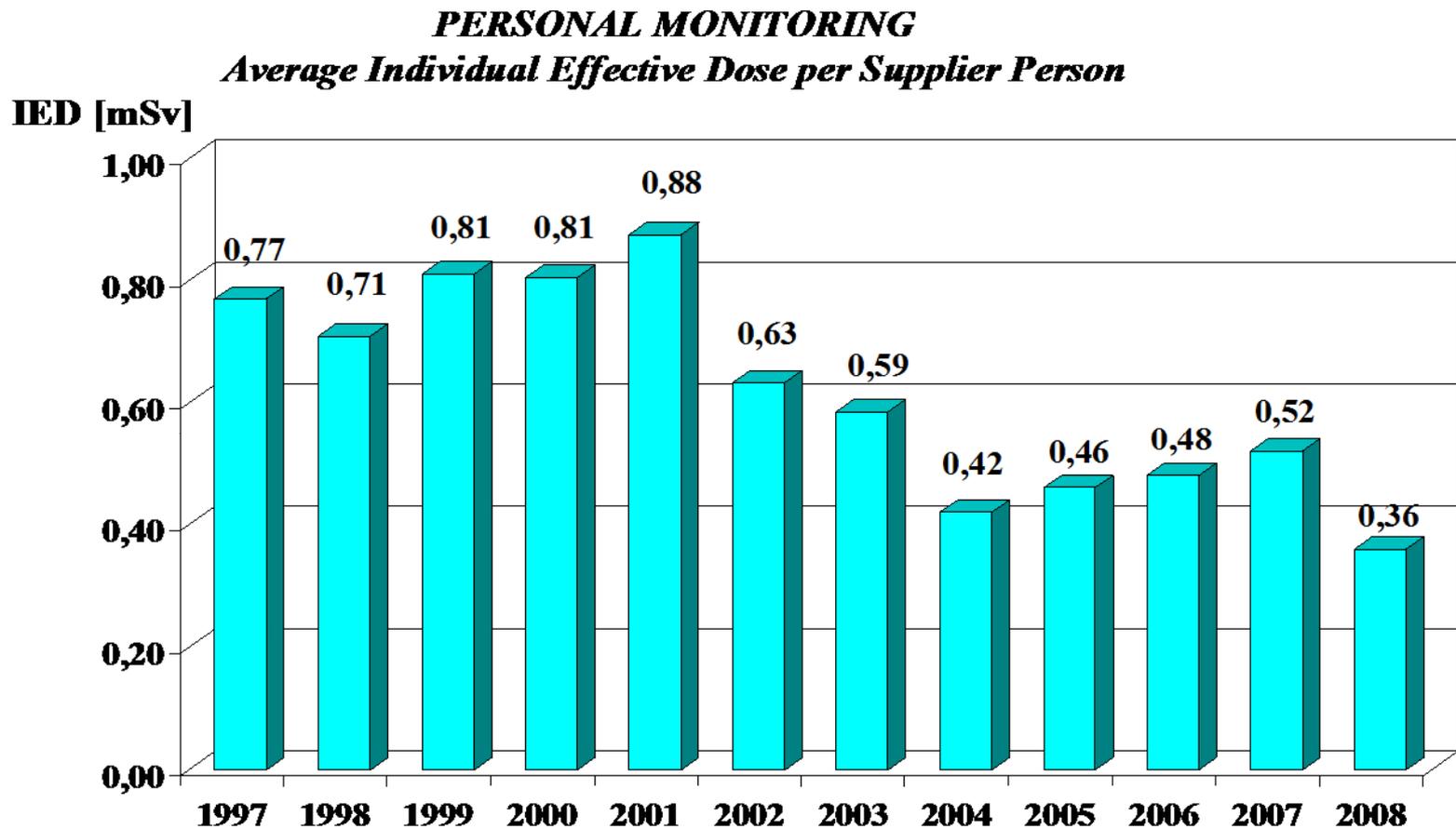


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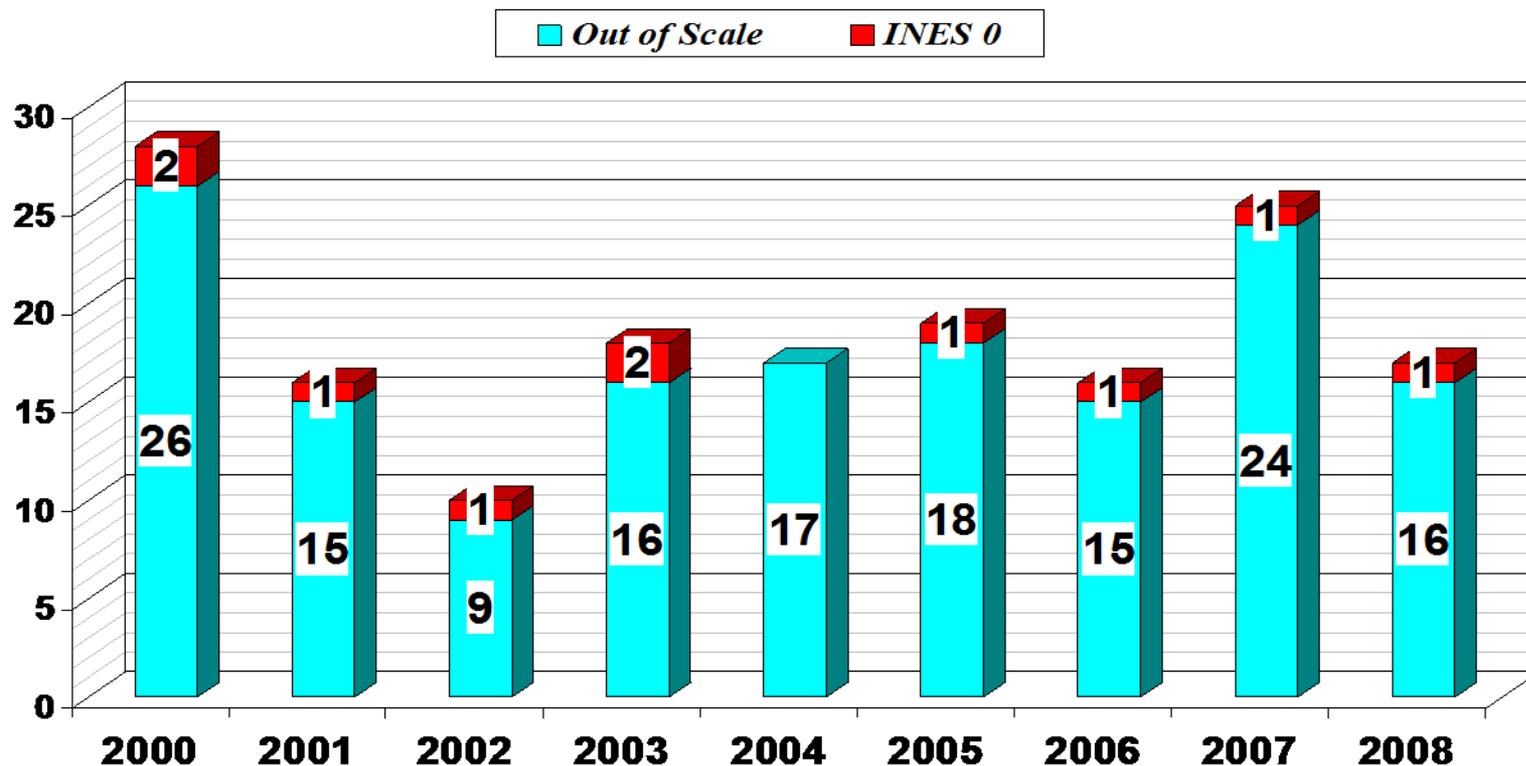
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Dukovany NPP has reached the best ever results in radiation protection

Number of Events Related to the Radiation Protection Investigated by the Dukovany NPP Events Commission in 2000 - 2008





Criteria for radiological event rating



Non-significant events, i.e. events out of the INES scale from the radiation protection point of view must simultaneously fulfill all the conditions given below:

- No human radioactive contamination***
- No unnecessary exposure***
- No production of radioactive wastes***
- No operating limit is exceeded***



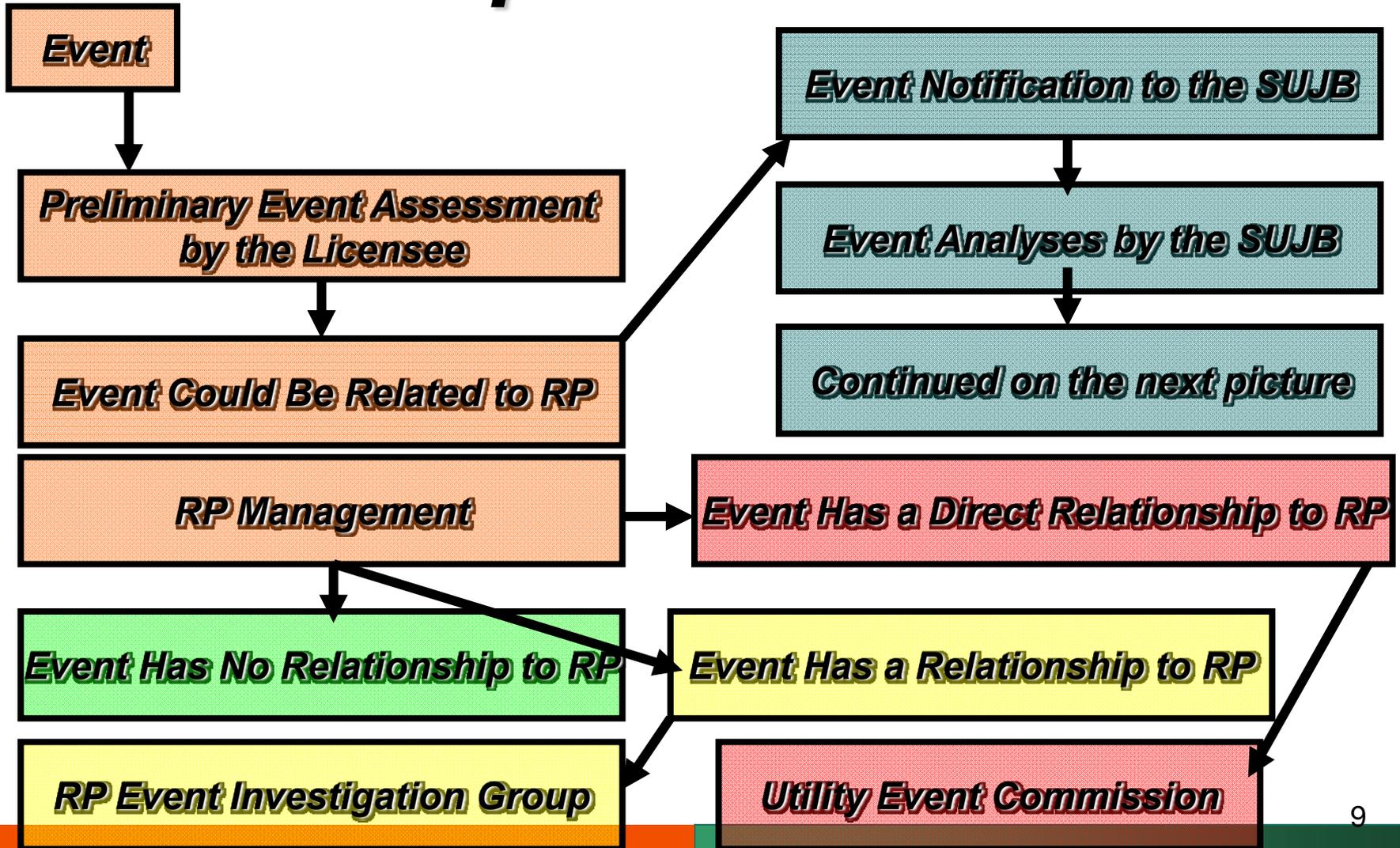
Operating limits



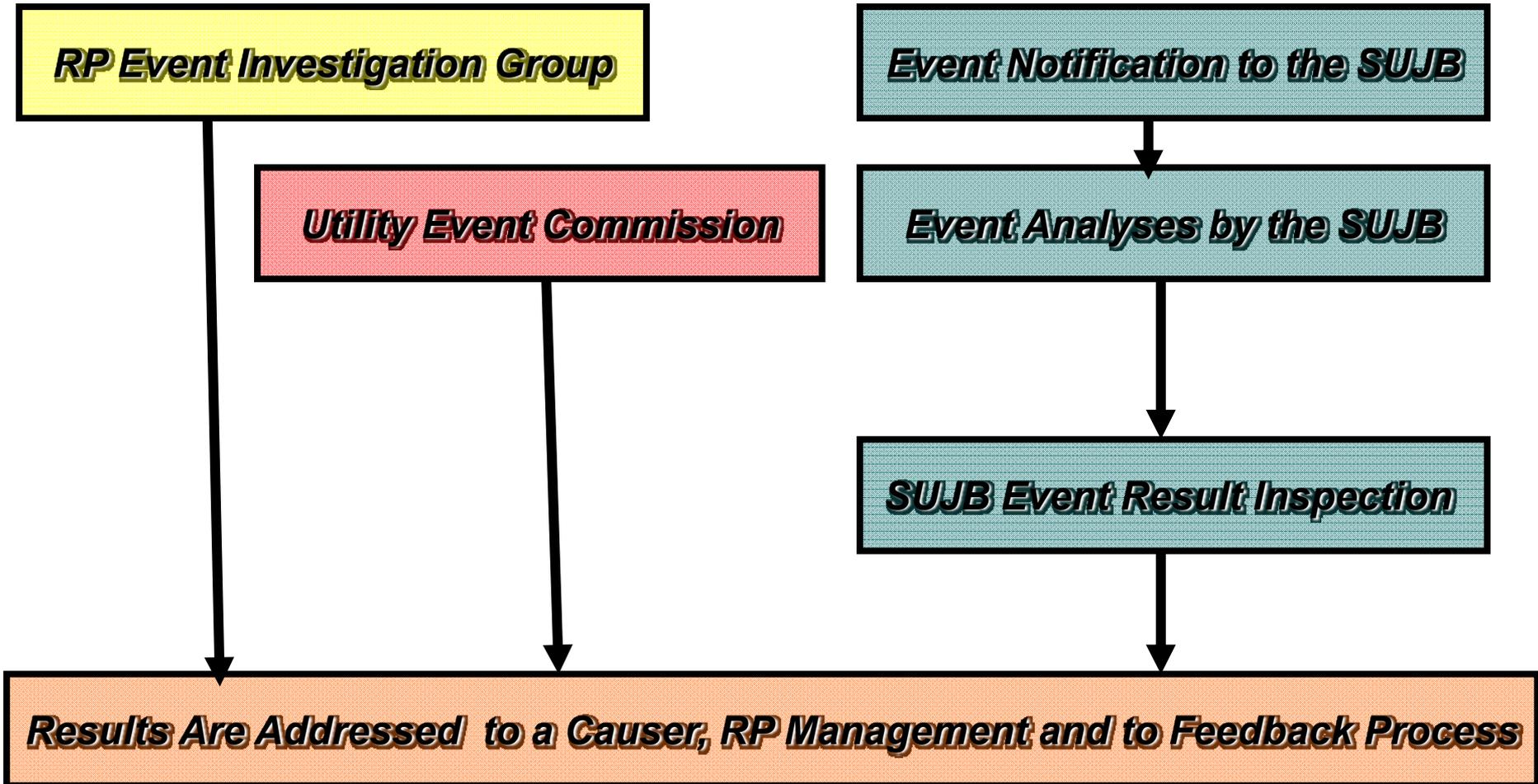
Operating limits

- *are set below the reference levels approved by the SONS;*
- *operating limits serve the operator as the first capturing barrier for a potentially developing event, this barrier allows us to detect any radiological event deep below the approved limits;*
- *are deeply set below dose constraints;*
- *serve as the first tool for the event both sorting and rating;*

Event sorting and rating **process**



Event sorting and rating **process**





Event Classification



Conclusions

Results of the Dukovany NPP safety performance in terms of both occupational exposures and radiological events are presented. Both these areas are evidently well controlled. Occupational radiation exposures are kept as low as it is the goal for the next generation of NPPs. The number of radiological events approaches statistical insignificance. The data of both the WANO and the IAEA indicators show that, in the Czech nuclear power plants, and Dukovany NPP in particular, operation is stable and safe and meets the standard of every normal power plant.



***Thank you for your
attention.***

Any questions?