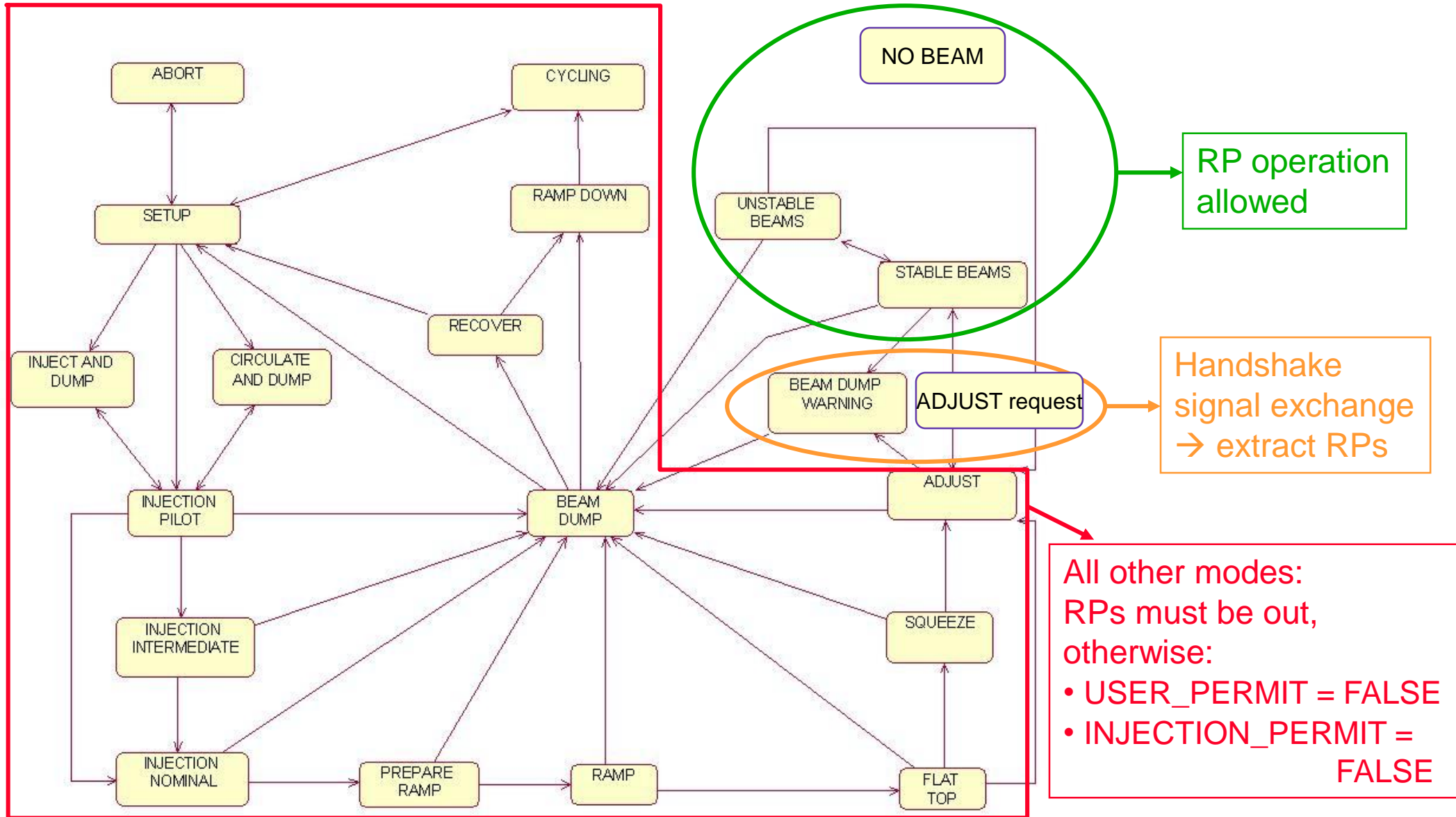


# Roman Pot Operation in NO\_BEAM Mode

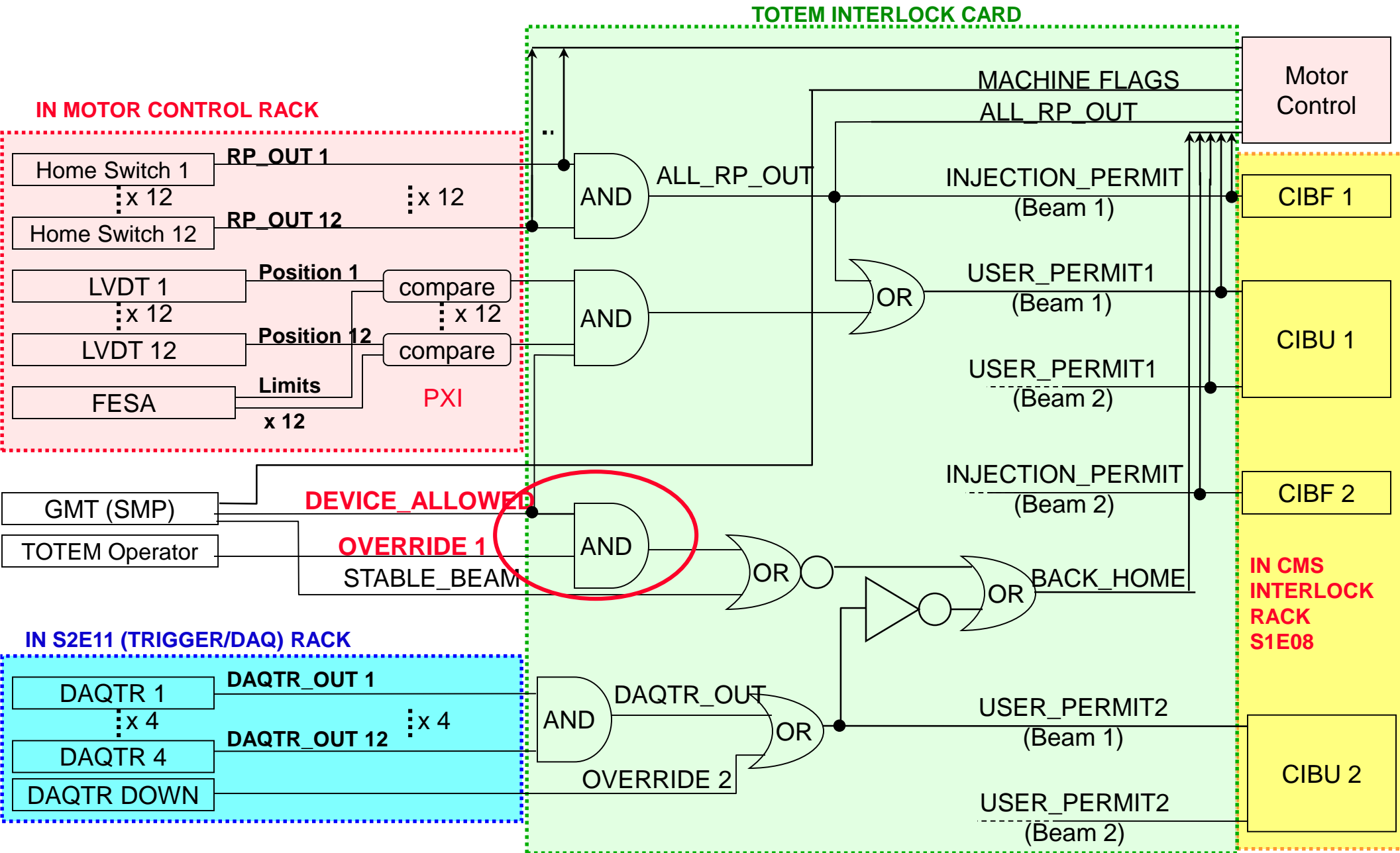


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PH-TOT  
18.09.2009

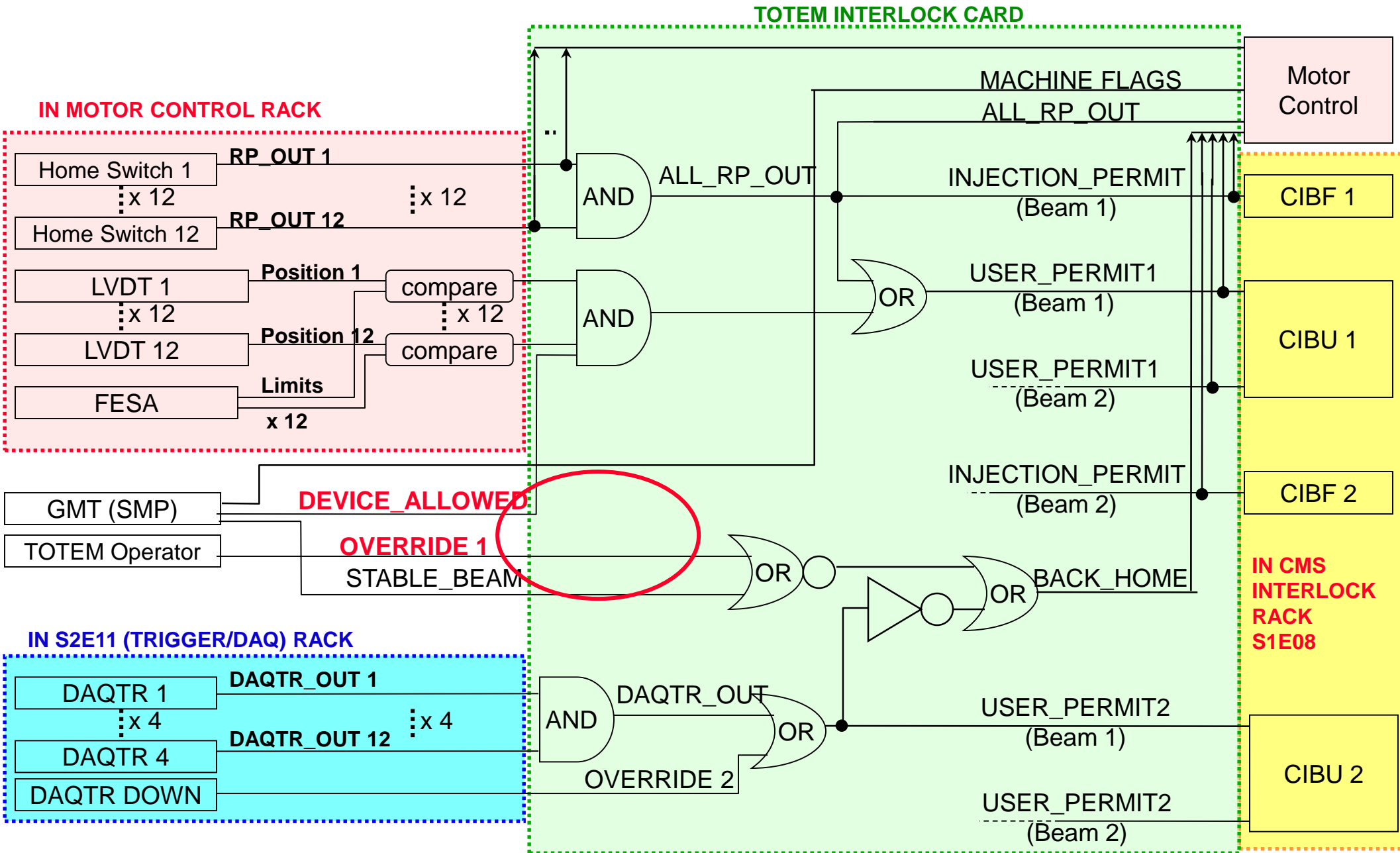
# Contexts of RP Operation: The Beam Modes



# Interlock Block Diagramme (old)



# Interlock Block Diagramme (new)



# Additional Complication: Emergency Extraction

Not visible in the interlock diagramme:

USER\_PERMIT=FALSE → Motor control extracts all RPs in emergency mode (springs)

USER\_PERMIT = DEVICE\_ALLOWED x (all LVDTs in limits) + (all RPs at home switch)

↓  
= STABLE\_BEAM + UNSTABLE\_BEAM

x = AND
+ = OR

NO\_BEAM → DEVICE\_ALLOWED = FALSE → cannot operate RPs

problem: no NO\_BEAM hardware signal

possible solutions ?

- include NO\_BEAM in DEVICE\_ALLOWED ? (clean, but is it possible ?)
- yet another override signal ? (more and more bricolage)
- drop DEVICE\_ALLOWED and fully rely on limits from collimation database ?  
(does not look safe enough to me)
- is there a BEAM\_PRESENT hardware flag ?  
→ extract only if (BEAM\_PRESENT = TRUE) x (USER\_PERMIT=FALSE)



# Interlock Block Diagramme (first year)

