



Study Committee No C2

Working GROUP C2.22

No : WG C2.22	Name of Convener : Teresa Carolin, South Africa
TITLE of the WG : Application of resilience engineering to safety management principles in Control Centers, ensuring and enhancing power system reliability	
Background : Control Centers play a key role in managing system disturbances and security. They are on the forefront of preventive action and restoration of service activities. Applying safety management principles, is about trying to prevent accidents at the Control Centers thereby enhancing reliability. Conventional risk management is based on learning from experience, calculation of failure probabilities and deterministically identifying events that could result in significant adverse impact on the power system. In the context of power systems, the purpose of this is to prevent short term disturbances (ensuring security of supply) and in the medium to long term, ensure adequacy of the power system. Resilience engineering represents a new way of thinking about safety, allowing organisations to create robust and flexible processes to constantly review models of risk and optimise available resources while responding to accidents or disruptions. Thirteen control centers participated in a survey done and documented by a South African Cigre member, looking at safety management principles in control centres. Some initial results were obtained, but it was agreed that a simplified questionnaire, recirculated could provide additional information in understanding the current practices.	
Scope : <ul style="list-style-type: none">• Refine, simplify and send out a survey to obtain additional information to assist in understanding the current practice of safety management in Control Centres• Investigate what role resilience engineering may play in developing adaptive capacity in control centers, particularly in enhancing the response to accidents or disturbances• Document current practice and identify possible areas for further work if required	
Deliverables : <ul style="list-style-type: none">- Technical report and Electra article on the Safety Management Concepts as applied to Control Centers	
Time schedule : Initiation of the WG October 2009 and deliverable june 2011 The work will be divided into 4 phases: Phase 1 : Constitution of the WG and organisation of the work (October 2009) Phase 2 : Collection of information, analyses and recirculation of simplified survey Phase 3 : Preliminary Report and article WG meeting in Paris, 2010 Phase 4 ; Correction and publication June 2011.	
Papers issued : see Deliverables	
Other SCs concerned : C1 ,C4 ,B3	
Approval by TC Chairman : Klaus Fröhlich	Date : 07/07/2009