



Fig.7-2 illustrates the positions of the SDC and SDG in the hierarchy of safety standards, placing them in the middle between upper-level fundamentals and lower-level codes and standards. In order to realize a basic safety concept, the SDC provide systematic and comprehensive approaches to the appropriate design of the structure, system, and components (SSC), which are manufactured according to the codes and standards. In contrast, the SDG show recommendations on

The SDG, established based on the SDC, explain the SSC in detail to ensure the safety of the reactor, even under more severe conditions than those of the design-basis accident in the light of lessons learned from the accident at the TEPCO's Fukushima Daiichi NPS. Fig.7-3 shows the relationship between the SDG and SDC and the specification process. The Safety Approach SDG puts special emphasis on design measures against accidents related to core reactivity and decay-heat removal. The design measures are comprehensively summarized with examples because they are important to safety and can affect the condition of the whole reactor. SDG on Safety Approach has been approved by GIF and is currently being reviewed by international organizations. In addition, we are drafting an SSC SDG document that clarifies design concepts related to achieving a higher degree of safety, focusing on each SSC. The SSC SDG established in Japan will be standardized internationally together with the collaboration framework for the GIF in the near future.