

Application of Robotics to Assemble a Used Fuel Container in the Canadian Used Fuel Packing Plant

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Abstract : The newest Canadian Used Fuel Container (UFC)- (called also "Mark II") modifies the design approach for its Assembly Robotic Cell (ARC) in the Canadian Used (Nuclear) Fuel Packing Plant (UFPP). Some of the robotic design solutions are presented in this paper. The design indicates that robots and manipulators are expected to be used in the Canadian UFPP. As normally, the UFPP design will incorporate redundancy of all equipment to allow expedient recovery from any postulated upset conditions. Overall, this paper suggests that robot usage will have a significant positive impact on nuclear safety, quality, productivity, and reliability.

Keywords : used fuel packing plant, robotic assembly cell, used fuel container, deep geological repository

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