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(54) **METHOD AND SYSTEM FOR REMOTE MONITORING OF PROTON BEAM EMITTING AND DELIVERY SYSTEMS**

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(57) **ABSTRACT**

A remote diagnostic monitoring of operating states for physical components of a particle accelerator system includes generating, by at least one processor, a component hierarchy corresponding to a physical arrangement of one or more physical components of a particle emitting system and including corresponding operating indicators of operating states of the physical components, identifying, by the at least one processor, a faulted physical component among the physical components, identifying, by the at least one processor, one or more fault path components among the physical components, the fault path components corresponding to a portion of the physical arrangement associated with the faulted physical component, and modifying, by the at least one processor, the operating indicators of the fault path components to fault state indicators.

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