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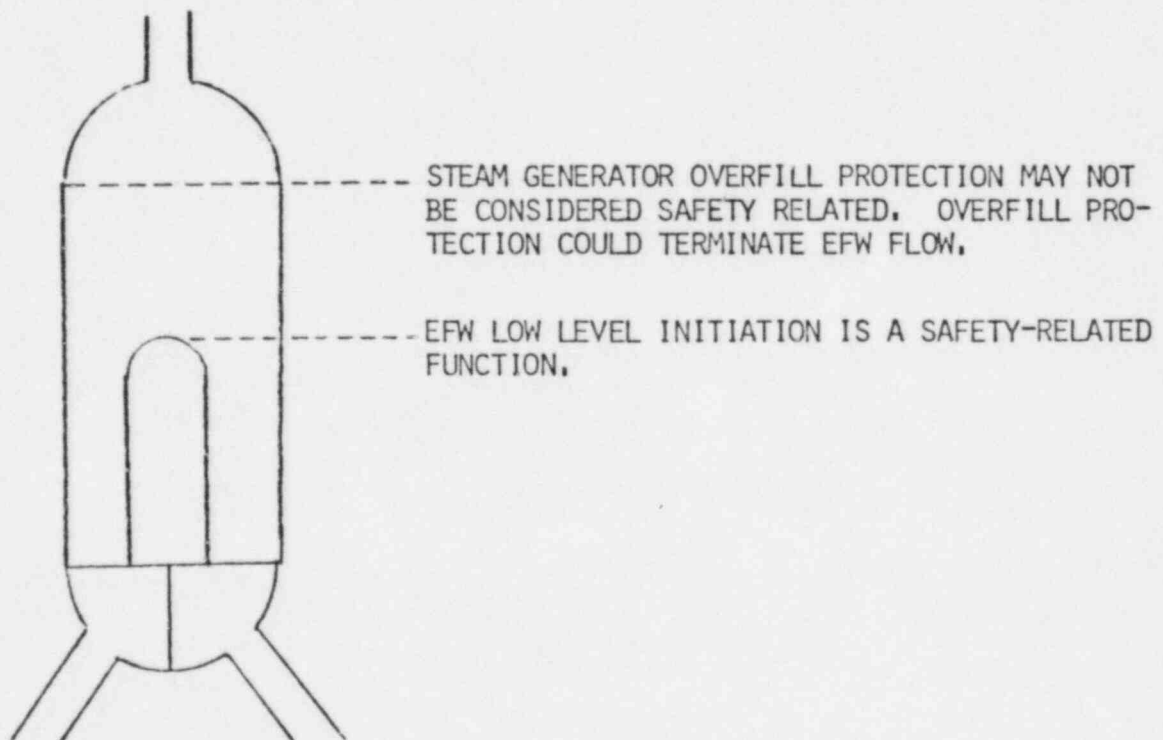
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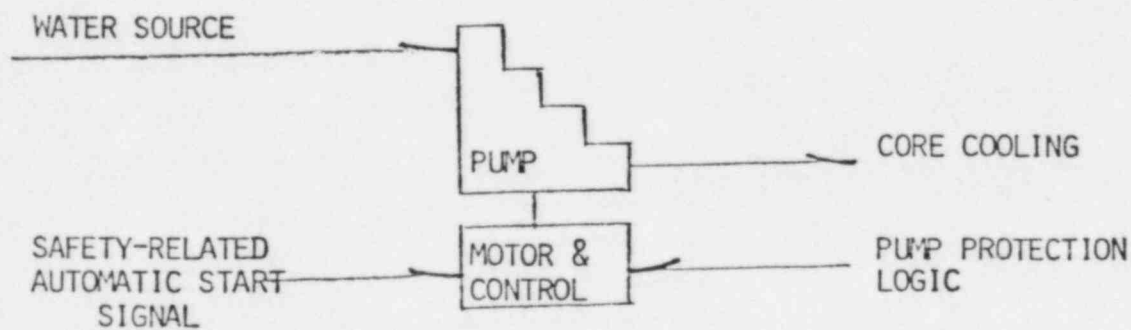
EXAMPLE #1

THE INJECTION OF EMERGENCY FEEDWATER (EFW) FOR PWR'S AND HIGH PRESSURE COOLANT INJECTION (HPCI) FOR BWR'S ARE SAFETY-RELATED FUNCTIONS. THE EFW SYSTEM AND THE HPCI SYSTEM ARE INITIATED UPON DETECTION OF LOW WATER LEVEL. AUTOMATIC TERMINATION OF THESE SYSTEMS UPON DETECTION OF HIGH WATER LEVEL MAY ALSO BE PROVIDED. THE HIGH LEVEL TRIP IN SOME CASES HAS BEEN CONSIDERED AN EQUIPMENT PROTECTION DEVICE. HOWEVER, THE INADVERTENT TERMINATION OF EFW OR HPCI DUE TO MISOPERATION OF THE LEVEL SENSING EQUIPMENT WHEN SUBJECTED TO A HARSH ENVIRONMENT COULD DEFEAT THE SAFETY-RELATED INJECTION FUNCTION. THUS, THE ELECTRIC EQUIPMENT ASSOCIATED WITH AUTOMATIC INJECTION TERMINATION MUST BE ENVIRONMENTALLY QUALIFIED.



EXAMPLE #2

IN SOME CASES, THE ELECTRICAL CONTROL SYSTEM FOR A PUMP, FOR EXAMPLE A CHARGING PUMP OR AN ECCS PUMP, WILL INCLUDE TERMINATION COMMANDS ON LOSS OF LUBRICATION OIL PRESSURE OR LOW SUCTION PRESSURE. THESE FEATURES ARE NOT SAFETY RELATED, BUT ARE PROVIDED FOR EQUIPMENT PROTECTION. FAILURE OF THESE FEATURES WOULD DEFEAT THE SAFETY-RELATED FUNCTION. THEREFORE, THEY MUST BE ENVIRONMENTALLY QUALIFIED.



EXAMPLE #3

A SAFETY-RELATED FLUID SYSTEM MAY HAVE NONSAFETY-RELATED PORTIONS OF THE SYSTEM THAT ARE ISOLATED FROM THE SAFETY-RELATED PORTIONS OF THE SYSTEM UPON THE GENERATION OF A SAFETY FEATURES ACTUATION SIGNAL. ISOLATION MAY BE PERFORMED BY MOTOR-OPERATED VALVES. THESE VALVES AND VALVE OPERATORS MUST BE ENVIRONMENTALLY QUALIFIED.

