Relief Valves in Parallel

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ABSTRACT

There exists a potential for significant damage and injury from the misapplication of parallel relief valves. It is becoming common practice to apply parallel, 100%-sized relief valves to the process when this was not the design intent. When such valves are installed and each is properly sized, the design intent is to present only one to the process at any given time. The other valve is an installed spare. By presenting both valves to the process, the calculated relief capacity becomes well over 200%. The result of this practice can cause damage to piping resulting in a product release to atmosphere. Under some circumstances, the actual relief capacity may be reduced to a point where the design relief capacity is negated and the code purpose is defeated.