

## RELIEF VALVE BLOWS

### The Story

During the summer of 1973, on two cargo vessels of the Colorado class, the escape piping from the superheater safety relief valves ruptured when the valve lifted while the valve was being "set and sealed." In one case the inspector and members of the ship's engineering department were standing next to the valve only moments before the valve lifted. The engineroom was quickly filled with steam and, fortunately, damage was limited to sheared lagging on the boiler casing and the ruptured pipe. As the inspector stated, "Personnel injury was only averted by providence's good timing."

On these two vessels low pressure flexible metal hose was utilized to provide for thermal expansion and to change the direction of the escape piping. It was this metal hose that failed.

### Lesson Learned

*Safety and relief valve escape piping, particularly the expansion joints and flexible pipe (hose) sections, should be inspected to ascertain their physical condition and to be sure that they are not subject to undue stress caused by improper installation. When these components require renewal they should be replaced with units designed for the rapidly fluctuating temperature and pressure that will be encountered; the manufacturer may be consulted to determine the units' suitability. When installed, new units should not be used to replace elbows or bends nor to support the escape piping in any manner.*

Prevention Through People



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