

## POTENTIAL DAMAGE DUE TO VACUUM

Sulfuric Acid plants that incorporate utility equipment such as boilers, economizers and or superheaters may experience potentially damaging vacuum conditions under certain circumstances. These conditions may exist if one or more of the items of utility equipment develop a significant steam or water vapor leak into the process side ( $\text{SO}_2/\text{SO}_3$ ) of the system. The water vapor may rapidly react with circulating sulfuric acid in the drying, absorbing or heat recovery towers and may also serve to condense the water vapor, creating a sudden vacuum for which the plants are not normally designed. Operators are cautioned to take appropriate steps to avoid actions that may cause the potentially damaging conditions to occur. These actions include, but are not limited to, proper maintenance of utility systems, properly ventilating steam or water vapor from the plant prior to startup, including opening manways for potential vacuum relief, and avoiding isolation of portions of the plant that could trap condensable vapors. Owners and Operators of plants nominally 10 years or older may need to be especially vigilant.

Please contact your MECS representative should you require assistance with your specific installation. Consultation will be provided at nominal and standard industrial rates.