Records of the Navy Safety Center, Norfolk, VA were reviewed to find data relevant to inadvertant operation of installed Fire Extinguishing Systems in civilian Nuclear power plants. Navy data show the incidence of collateral fire or other damage by fresh water on operating electrical equipment in submarines, and in shore facilities is about the same as the civilian experience, about 30%.

Aboard surface ships, however, the collateral damage incidence is much lower, about 15%. With sea water, the collateral damage incidence is at least 75%. It is concluded that the fire extinguisher water has to be contaminated, as by rust in sprinkler systems or deposited salt spray, for mos collateral damage to occur.

Reasons for inadvertant operation (or advertant operation) of firex systems at shore facilities, sub-marines, and surface ships resemble those for nuclear power plants. Mechanical or electrical failures lead the list, followed by mishaps during maintenance.

Detector and alarm system failures are significant problems at navy shore facilities, and significant at nuclear power plants. Ships and submarines have few automatic firex systems, so this kind of failure is hot significant. The Navy depends on trained firefighters to intervene. Prompt action with a protable CO^2 extinguisher is usually effective.

Fixed halon and CO^2 systems in shore facilities cause no collateral damage. Lists of individual Navy incidents with water and with halon and carbon dioxide are included as appendices to this report.