I. Introduction

- Canals and related infrastructure can be very dangerous to people and animals
- People drown in canals, inverted siphons and other facilities every year
- One of the most important considerations is the number of people that might be exposed to dangerous facilities (canals, siphons, etc.) at a given site
- It is difficult to determine generally applicable design standards for safety features because of many factors that should be considered
- Note that design engineers can be held legally liable for mishaps & accidents

II. USBR Hazard Classifications

- The kind of safety protection applied to a given canal and canal structures normally depends on the safety classification:

  Class A  Canals nearby or adjacent to schools and recreational areas, or where children are often present
  Class B  Canals nearby or adjacent to urban areas, county roads or highways that would have frequent public access or recreational use
  Class C  Canals nearby or adjacent to farms, county roads or highways that would have a possibility for children to occasionally be present
  Class D  Canals far from roads and houses that would usually not be visited by the public
  Class E  Canals that might be a hazard to domestic animals
  Class F  Canals that would be very hazardous to large game animals
III. Safety Devices for Canals

1. Preventative

- Fencing
- Sign Posting
- Guard Railings and other Barriers

2. Escape Devices (usually only upstream of the hazardous location)

- Safety Nets
- Ladders
- Cables with Floats
- Pipe Inlet Racks