

## RANGE SAFETY REQUIREMENTS

**General:** Whether in the context of a simple site visit, the design of a range, or in the training of soldiers, range safety cannot be stressed too often. Safety should never be forgotten or become routine; ranges are used for the training of lethal weapon systems, and injury is a constant possibility. The well-being of the soldiers/trainers, the impact of the range on civilian populations, and the siting of buildings on the range must be considered in the safe design of every range. In addition to Department of the Army publications, reviewing the respective installation's Range Control Standing Operating Procedures (SOP) is also required.

### Personal Safety:

- a. **NEVER** pick up or disturb shell casings or projectile fragments on a range site. Ordnance (intact or fragmented) can lie dormant and inert for years, but can be triggered by movement, heat, or impact. Do not collect spent ammunition – it is against Federal law to remove ordnance from an Installation without the proper authority.
- b. **NEVER** enter an impact area. Entrance into impact areas is strictly limited by AR 350-xx SRP and AR 385-63 Range Safety. If entrance to an impact area is requested by a customer, ensure that the Government Contracting Officer gives the prime permission for entrance. Few government agents have the authority to direct anyone to enter an impact area.
- c. **NEVER** go to a range site without first coordinating with the Installation Range Control Office.

**Support Facilities:** Range support facilities shall be designed and sited to comply with the following:

- a. Department of Army Pamphlet 385-63 (DA PAM 385-63 Range Safety)
- b. DA PAM 385-64 Ammunition and Explosives Safety Standards
- c. Occupational Safety and Health Standards, Title 29, Code of Federal Regulations, Part 1910
- d. DA PAM 40-501 Hearing Conservation Program

### Quantity-Distance Siting Requirements:

**Ammunition Breakdown Building.** Siting for the ammunition breakdown building must meet DA PAM 385-64 requirements and is based on the quantity and classification of the ammunition items involved. For example, DA PAM 385-64 shows that 25-mm ammunition without explosive projectiles is classified as class/division 1.4, and the

intraline distance is 15m (50ft) for any quantity of ammunition. Once the quantity-distance is known, the ammunition breakdown building must be sited as follows:

- a. Not less than intraline distance from the range firing line, range support facilities, and other exposed sites associated with the range (DA PAM 385-64).
- b. Not less than inhabited building distance from exposed sites of the range, including the installation boundary (DA PAM 385-64).
- c. Not less than public traffic route distance from any navigable stream, passenger railway, or public street, road, or highway (including roads on military reservations that are used routinely by the general public for through traffic) (DA PAM 385-64).
- d. Beyond the quantity-distance arcs from existing potential explosives sites on an installation (DA PAM 385-64).

**Ammunition Loading Dock:** Siting for the ammunition loading dock must meet DA PAM 385-64 requirements and must be based on the quantity and classification of the ammunition items involved. Once the quantity-distance is known, the ammunition loading dock must be sited as follows:

- a. Not less than intraline distance from the range firing line, range support facilities, and other exposed sites associated with the range (DA PAM 385-64).
- b. Not less than inhabited building distance from exposed sites of the range, including the installation boundary (DA PAM 385-64).
- c. Not less than public traffic route distance from any navigable stream, passenger railway, public street, road, or highway (including roads on military reservations that are used routinely by the general public for through traffic) (DA PAM 385-64).
- d. Beyond the quantity-distance arcs from existing potential explosives sites on an installation (DA PAM 385-64).

**Hazardous Noise:** DA PAM 40-501 defines hazardous noise as a steady state exposure of 85 dBa or more, regardless of duration, and impulse exposure exceeding 140 dBp. Because weapons used on training ranges create hazardous noise, range support facilities must be sited so that personnel shall not be exposed to the hazardous noise during range activities.

- a. **Hazardous Impulse Noise Contours.** One of the primary factors for the siting of support facilities is the hazardous impulse noise resulting from weapons firing. For each weapons system to be used on a range, the 140 dBp noise contours shall be drawn from each firing position. The support facilities shall be sited beyond the hazardous impulse noise contours.

- b. Range Operation and Control (ROC) Siting. The ROC is the only structure that, if it is not possible to do otherwise, may be located within the hazardous noise contours created by range activities. If the ROC is located within the hazardous noise contour, it must be designed to provide adequate sound attenuation in order to protect personnel from hazardous noise exposure or personnel must wear suitable hearing protection devices.
  
- c. Noise. Noise is a major concern of the public in locations adjacent to training facilities. Do not assume that the public will ignore or “learn to cope with” high noise levels; ranges have been shut down or severely restricted due to public reaction to noise. Ensure that the installation facilities representative and/or the local Corps District representative has coordinated with local community leaders for sound attenuation requirements to avoid severe operational restrictions.