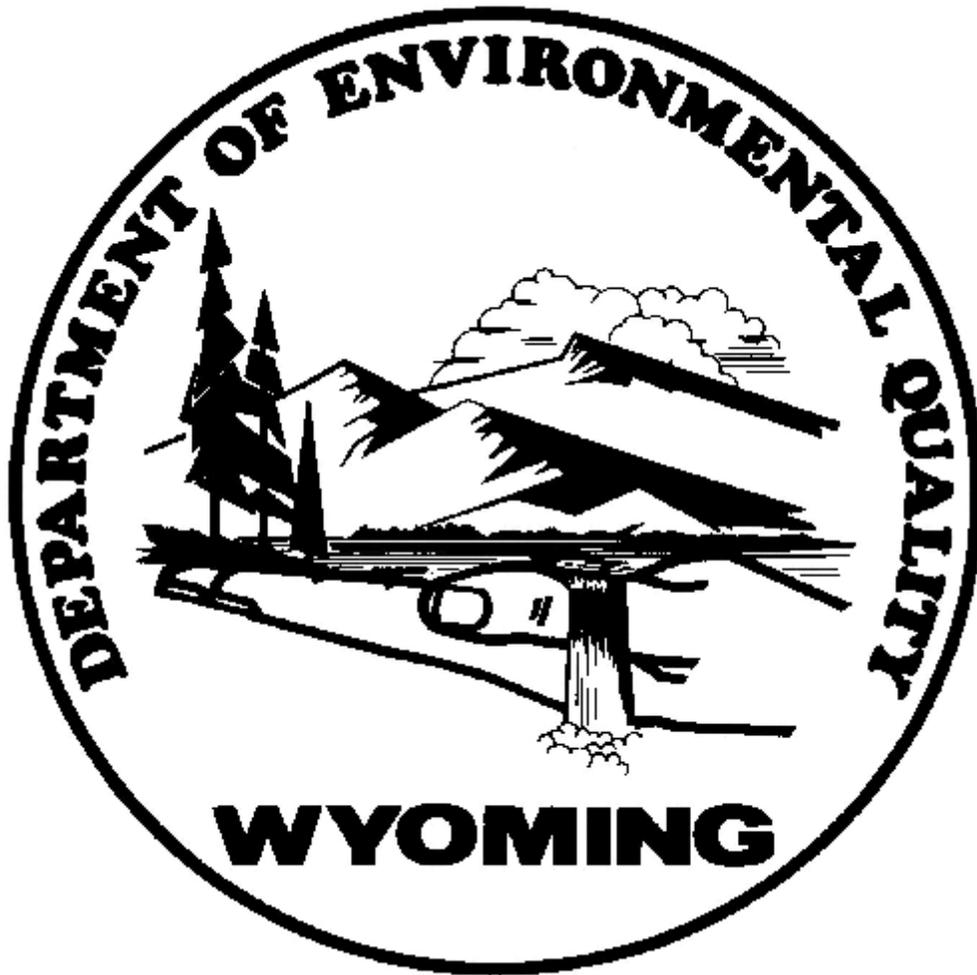


**DEPARTMENT OF ENVIRONMENTAL QUALITY
LAND QUALITY DIVISION**



GUIDELINE NO. 10

FENCING

I. INTRODUCTION

This document is a guideline only. Its contents are not to be interpreted by applicants or DEQ staff as mandatory. Its preparation is the result of numerous requests from applicants who expressed a need for a checklist containing all required information.

Fencing may be required in association with a mining operation to: (1) protect the health and safety of humans and animals, and (2) to temporarily protect revegetated areas. Fencing can be detrimental to wildlife in some situations, especially to antelope. It is desirable, therefore, to design fencing to do the job it is intended to do and at the same time reduce as much as possible any impacts on wildlife.

II. GENERAL DESIGNS

The following checklist should aid in selecting a general design which should then be modified in accordance with the special considerations below.

PURPOSE	FENCE TYPE (SEE FIGURE 1)
Keep out all livestock and antelope from hazardous areas or reclaimed areas	Sheep tight (Type I)
Keep out deer or other high jumping wildlife from hazardous areas or reclaimed areas	Tall sheep tight (Type II)
Keep out most cattle or horses but allow wildlife access (no sheep present)	Four strand barbed wire (Type III)
Perimeter marker only, no animal control	Two strands of smooth wire (use fencing for perimeter marker <u>only</u> if absolutely necessary)

III. SPECIAL CONSIDERATIONS

Sheep tight fence (Type I or Type II) should be used only when absolutely necessary. Minimize as much as possible to total area fenced with this type of fencing. Where it is necessary to use sheep tight fence along an access road, railroad, spur, etc., provide an underpass or overpass or other passageway every mile or so and at natural crossing points. It should be noted that antelope will not use an underpass.

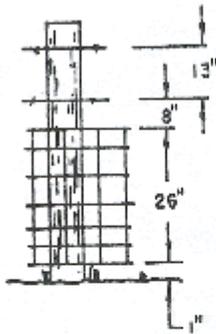
On sheep range where the sheep are removed for part of the year and antelope access to the mine site is permissible, lay-down panels should be installed for about 3/4 of the fence length but broken up into a number of segments. Panels should be placed at natural crossing points. The company should take the responsibility for laying down the panels and include this in their plan for mitigating adverse effects on wildlife.

Stress locations such as fence corners, near water, across drainages, etc. should be reinforced when necessary against the class or classes of animals it is desired to exclude. Height should also be increased here to 48 inches on fence type I and III by using an additional strand of barbed wire.

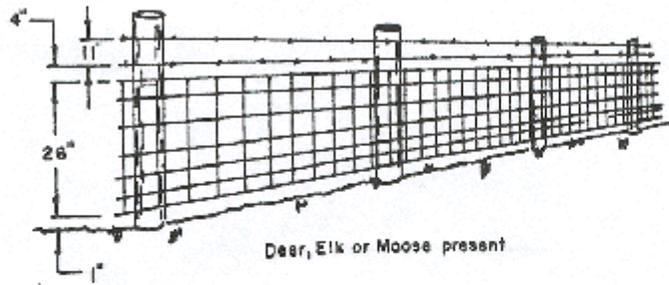
Ninety degree corners are potential death traps during blizzards. Corners should consist of several smaller angles to prevent animals from piling up (Figure 2). If a graded fire-break is used, locate this back away from the fence.

On wildlife migration routes, do not fence perpendicular to the route but rather angle the fenceline (Figure 3). Fencing should be oriented to drift animals around hazardous areas (Figure 4).

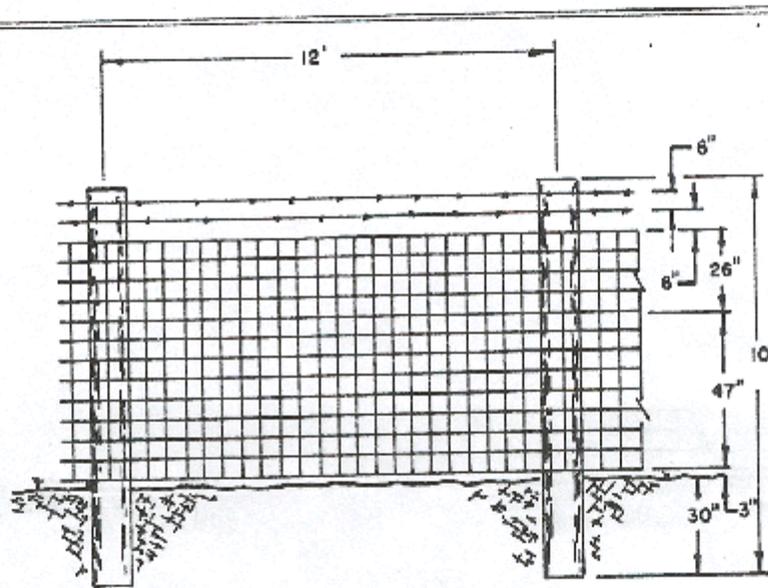
Lockable gates should be provided to let out animals which happen to get through sheep tight fencing. One-way gates may be more desirable (Figure 5). Gates should be located at corners or at the tip of a broad V places in the fenceline.



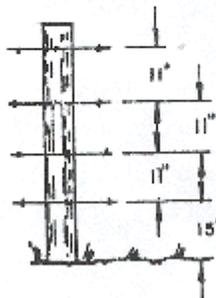
Modification if no
Deer, Elk or Moose present



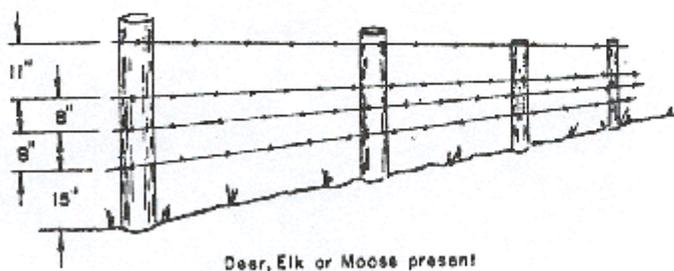
Type I



Type II



Modification if no
Deer, Elk or Moose present



Type III

FIGURE I - FENCE TYPES

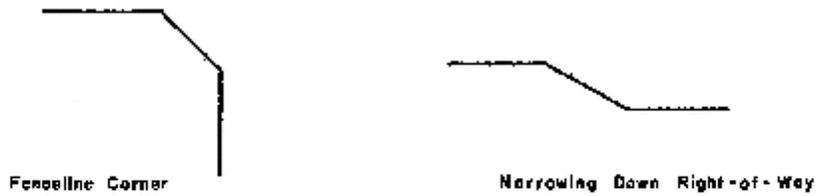


FIGURE 2
Fencing of corners to prevent blizzard losses of animals

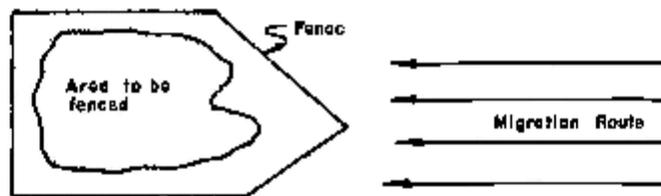


FIGURE 3
Fencing on wildlife migration route

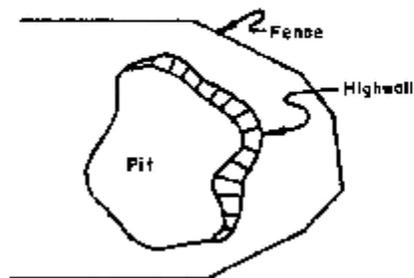
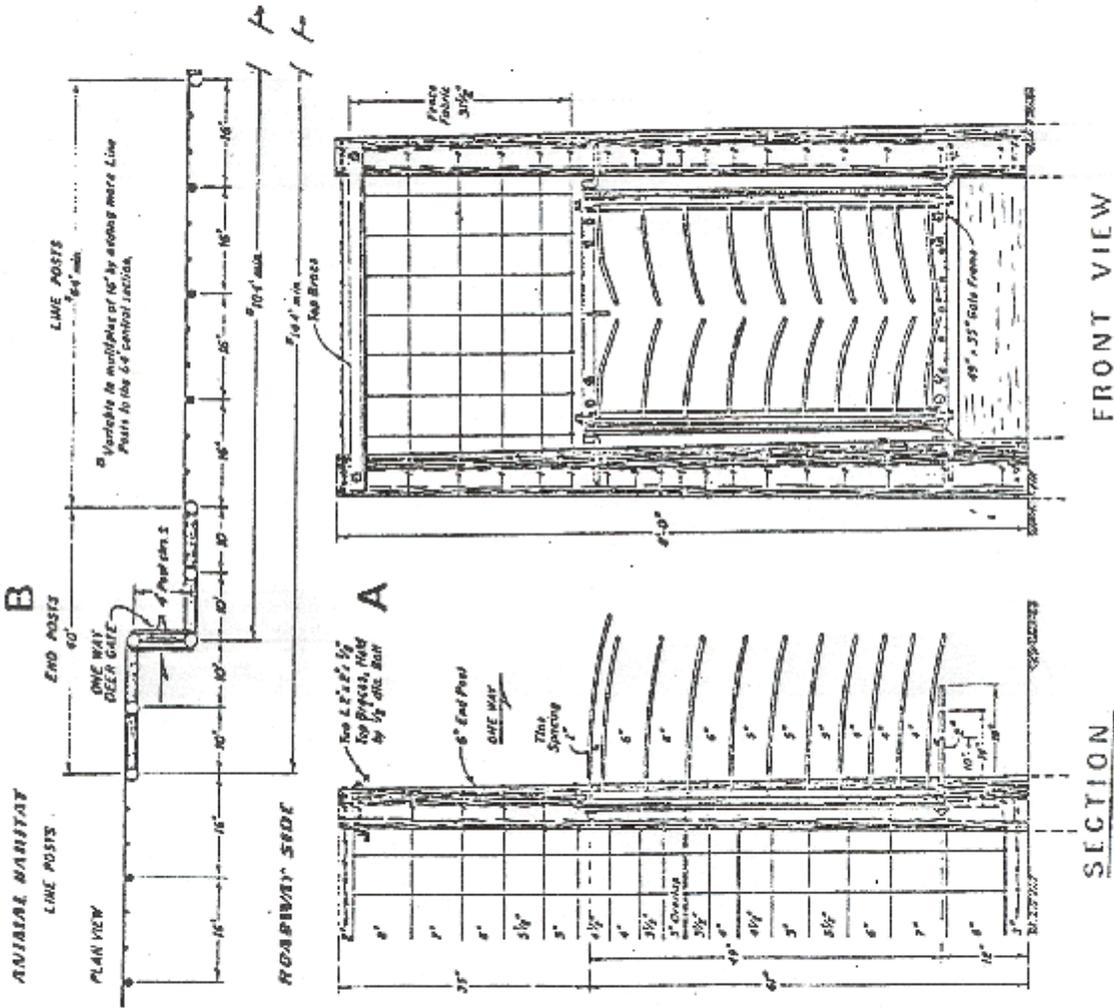


FIGURE 4
Fencing around hazardous area

FIGURE 5.

ANIMAL HARBOR



One-way deer gate (A), one-way deer gate placement (B)