Section 17.24.724

REVEGETATION SUCCESS CRITERIA

(1) Role of Reference Areas in Determining Revegetation Success

Reference areas in good ecological condition have been established and approved by the Department for each major community or site type within the area disturbed by mining. These historic types and their correlation with land use emphases are listed in Table 313-7. SCM will maintain these approved areas, or replacements if appropriate and approved by MDEQ, to evaluate plant cover, productivity, and woody plant density in historic types. Vegetation in reference areas is monitored approximately every five years. If a reference area is found to be unsatisfactory, e.g., in poor ecological condition, SCM will sample and propose a new one to the Department.

SCM proposes using technical standards to evaluate revegetation success (Section 17.24.313.1(h)(x)). The proposed standards for plant cover, production, and shrub density were mathematically derived from baseline and reference area monitoring data. Some historic types presently are represented by little data, i.e., some types weren't sampled often. For this reason and to better represent the range of climatic conditions present at the mine, SCM may continue to sample reference areas to augment the database and possibly revise those standards in the future, with MDEQ concurrence, based on additional data.

In the event that historic data becomes inappropriate for evaluating revegetation, e.g., global warming and climatic change, SCM may revert to using reference areas rather than technical standards, comparing data collected from reference areas during the years in which data also was collected in bond release units.

(2) Control and Management of Reference Areas

Reference areas are in good ecological condition. If a reference area is found to be in fair or poor ecological condition, it will be replaced with Department approval. Each reference area is shown in Appendix B, revised l990 MPA. Reference areas are sampled with randomly located transects.

(a) SCM either owns the land on which reference areas are located or has a long-term agreement with the landowner or management agency to manage the fenced area that delineates the reference plant community.

(b) Reference areas will be managed in a manner comparable to revegetated areas and compatible with approved postmine land uses.

Each reference area is defined on the ground by a fenced enclosure to allow regulation of livestock grazing. Enclosure gates have been left open some years when livestock was present in that pasture and vegetation sampling was not scheduled. This practice will continue.

(3) Derivation of Technical Standards

SCM proposes technical standards based upon data collected at the mine, including future data that may be collected from new baseline studies or additional reference vegetation sampling.

Standards are based on perennial cover and production and individual shrubs for species for which individuals can be discerned. SCM has reliable cover and production data for historic types from the South Fork, Carbone and Pearson Creek amendment areas and reference area monitoring. Collectively this comprises a reasonable database for computing representative premine cover and production. These data represent at least two different precipitation regimes (i.e., they were sampled in at least two years, usually more). To augment the data base, SCM samples each reference area every five years or more frequently. The existing data for each recognized type are summarized in Section 17.24.313. Technical standards appear in Section 17.24.313(1)(h)(x).