

December 21, 1994, revisions that were made in response to OSM's September 9, 1994, issue letter. OSM and North Dakota met on April 11, 1995 (administrative record No. ND-U-16). Thereafter, by letter dated May 11, 1995 (administrative record No. ND-U-17), North Dakota submitted, at its own initiative, additional revisions and explanatory information to its revegetation success document.

Based upon the revisions to and additional explanatory information for the proposed program amendment submitted by North Dakota, OSM reopened the public comment period in the May 23, 1995, **Federal Register** (60 FR 27246; administrative record No. ND-U-23). The public comment period ended on June 7, 1995.

III. Director's Findings

As discussed below, the Director, in accordance with SMCRA and 30 CFR 732.15 and 732.17, finds, with certain exceptions and additional requirements, that the proposed program amendment submitted by North Dakota on February 17, 1994, and as revised by it and supplemented with additional explanatory information on December 21, 1994, is no less effective than the corresponding Federal regulations. Accordingly, the Director approves the proposed amendment.

1. General Substantive Revisions to North Dakota's Revegetation Document

North Dakota proposed revisions to its revegetation document that are general in nature in that the revisions are made throughout the document and/or apply to most if not all success standards and sampling techniques for all land uses. These revisions include (1) reference of technical documents used and other agencies consulted during development of the revegetation document, (2) limiting a permittee's use of revegetation success standards and sampling techniques to those approved in the revegetation document unless North Dakota and OSM approval is first obtained on a case-by-case basis, (3) use of U.S. Natural Resource Conservation Service (NRCS, formerly the Soil Conservation Service) soil mapping units and productivity indices whenever possible, rather than soil series, to develop technical productivity standards, (4) use of North Dakota agricultural annual county cropland yields to develop a correction factor for climatic variability, (5) use of a county-wide correction factor in conjunction with the NRCS yield information to adjust for climatic yield conditions on land reclaimed for use as cropland or prime farmland, (6) submission of aerial

photos of areas used to develop standards, (7) submission of maps which identify either the locations of sampling transects or the sampling areas and number of randomly located sample units per area, (8) submission of cover data in tabular form showing composition by species, using absolute cover values with relative cover submitted to aid in data interpretation, (9) submission of production data by growth form, and (10) clarification that actual *sample means* must be used in formulas that determine sample size when measuring success of revegetation for bond release.

The Federal regulations at 30 CFR 816.116(a)(1) and 817.116(a)(1) require that standards for success of revegetation and statistically valid sampling techniques for measuring success of revegetation shall be selected by the regulatory authority and included in an approved regulatory program.

Because the proposed revisions identified above clarify and generally improve North Dakota's revegetation document, the Director finds that these proposed revisions are no less effective than the Federal regulations at 30 CFR 816.116(a)(1) and 817.116(a)(1). The Director approves the proposed revisions.

2. Substantive Revisions to North Dakota's Revegetation Document Proposed in Response to Required Amendments

a. *Chapter II, Section F, countable trees and shrubs.* At 30 CFR 934.16(b), OSM required that North Dakota revise its revegetation document or otherwise amend its program to require that at least 80 percent of the trees and shrubs counted to determine revegetation success have been in place for at least 60 percent of the 10-year period of revegetation responsibility (Finding No. 26.a, 57 FR 807, 821, January 9, 1992).

North Dakota proposed to revise Chapter II, Section F, concerning reclaimed lands developed for use as woodland, to require for fourth-stage bond release that the permittee demonstrate that 80 percent of the total number of trees and shrubs planted have been in place for 60 percent of the liability period. In addition, North Dakota recommended the use of permanent quadrats in each woodland community to document the time in place requirement and required that the permittee provide documentation to verify that not more than 20 percent of the number of trees and shrubs present at year 4 have been replanted.

The Federal regulations at 30 CFR 816.116(b)(3)(ii) and 817.116(b)(3)(ii) require, for areas to be developed for

fish and wildlife habitat, recreation, shelter belts, or forest products, that at the time of bond release, at least 80 percent of the trees and shrubs used to determine success shall have been in place for 60 percent of the applicable minimum period of responsibility.

The Director finds that North Dakota's revisions of Chapter II, Section F, concerning time in place revegetation success standards for trees and shrubs on land reclaimed for use as woodland, are no less effective than the Federal regulations at 30 CFR 816.116(b)(3)(ii) and 817.116(b)(3)(ii). The Director approves these proposed revisions and removes the required amendment at 30 CFR 934.16(b).

b. *Chapter II, Sections F and H, ground cover.* At 30 CFR 934.16(c), OSM required that North Dakota revise its revegetation document to require that evaluations of ground cover success be valid at the 90 percent confidence level (Finding No. 3, 54 FR 10141, 10142, March 10, 1989).

North Dakota proposed to revise Chapter II, Section F, concerning reclaimed lands developed for use as woodland, to require that ground cover must be equal to or greater than 90 percent of the approved standard with 90 percent statistical confidence. North Dakota also proposed to revise Chapter II, Section H, concerning reclaimed lands developed for use as fish and wildlife habitat/grassland, to require that ground cover must be equal to or greater than that of the approved reference area or standard with 90 percent statistical confidence.

The Federal regulations at 30 CFR 816.116(a)(2) and 817.116(a)(2) require that the sampling techniques for measuring success of revegetation shall use a 90 percent statistical confidence interval (i.e., one-sided test with a 0.10 alpha error).

The Director finds that North Dakota's revisions of Chapter II, Sections F and H, concerning the requirement to demonstrate success of ground cover with 90 percent statistical confidence, are no less effective than the Federal regulations at 30 CFR 816.116(a)(2) and 817.116(a)(2). The Director approves these proposed revisions and removes the required amendment at 30 CFR 934.16(c).

c. *Chapter II, Sections F and G, woody plant stocking.* At 30 CFR 934.16(d), OSM required that North Dakota revise its revegetation document or otherwise amend its program to require that evaluations of the success of woody plant stocking be valid at the 90 percent confidence level (Finding No. 4, 54 FR 10141, 10142, March 10, 1989).