



Designation: D7630/D7630M – 10

Standard Practice for Minimum Geospatial Data for Postmining Land Uses¹

This standard is issued under the fixed designation D7630/D7630M; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This practice describes minimum data required to locate and identify a postmining land use for a surface coal mining and reclamation operation. Statutory language and definitions are found in Federal regulations 30 CFR 816/817.133 and 30 CFR 701.5.

1.1.1 These postmining land use designations reflect coal mining reclamation practices relative to the standards set forth in the Surface Mining Control and Reclamation Act of 1977 (SMCRA).² Geospatial data associated with postmining land use shall be obtained from each regulatory authority (RA), which are authorized under SMCRA to regulate surface coal mining operations (SCMO) and reclamation activities within their borders. Each RA shall be the authoritative data source (ADS) for coal mining geospatial data.

1.2 This standard is one of several that have been approved or are in development related to SMCRA approved coal mining operations. Also under development is a terminology standard. Initial development of these standards is being done on an individual basis; however, they may be consolidated to reduce repetition of information between them.

1.3 This practice is limited to permitted coal mining operations after the passage of SMCRA.

1.4 SMCRA identifies land use categories for surface coal mining permits, such as cropland, pasture/hayland, grazing land, forest, residential, fish and wildlife habitat, developed water resources, public utilities, industrial/commercial, and recreation.

1.5 Postmining land uses for mountaintop removal and steep slope mining operations with approximate original contour (AOC) variances include the following:

1.5.1 A mountaintop removal AOC variance may only be granted if the applicant proposes to remove the entire coal seam or seams running through the upper fraction of the hill, ridge, or mountain creating a level plateau or gently rolling

contour with no highwalls remaining, and capable of supporting the following postmining land uses.

1.5.2 The proposed postmining land use for a mountaintop removal operation with an AOC variance is limited to industrial, commercial, agricultural, residential, or public facility use.

1.5.3 The proposed use constitutes an equal or better economic or public use compared with the pre-mining use.

1.5.4 The proposed use will be compatible with adjacent land uses and existing state and local land use plans.

1.5.5 County commissions and other state and federal agencies were provided an opportunity to review and comment on the proposed postmining land use.

1.5.6 The application contains a specific plan and assurances that the proposed postmining land use will be:

1.5.6.1 Compatible with adjacent land uses; practicable with respect to financing and completing the proposed use; supported by commitments from public agencies where appropriate;

1.5.6.2 Planned pursuant to a schedule attached to the reclamation plan so as to integrate the mining operation and reclamation with the postmining land use;

1.5.6.3 Designed by a registered professional engineer to assure the stability, drainage, and configuration necessary for the intended use of the site.

1.6 *Units*—The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in non-conformance with the standard.

1.7 *This practice offers a set of instructions for performing one or more specific operations. This document cannot replace education or experience and should be used in conjunction with professional judgment. Not all aspects of this practice may be applicable in all circumstances. This ASTM standard is not intended to represent or replace the standard of care by which the adequacy of a given professional service must be judged, nor should this document be applied without consideration of a project's many unique aspects. The word "Standard" in the title of this document means only that the document has been approved through the ASTM consensus process.*

¹ This practice is under the jurisdiction of ASTM Committee D18 on Soil and Rock and is the direct responsibility of Subcommittee D18.01 on Surface and Subsurface Characterization.

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² Public Law 95-87, the Surface Mining Control and Reclamation Act of 1977 (SMCRA), passed August 3, 1977, as amended.



1.8 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:³

D653 Terminology Relating to Soil, Rock, and Contained Fluids

D5254 Practice for Minimum Set of Data Elements to Identify a Ground-Water Site

D5911 Practice for Minimum Set of Data Elements to Identify a Soil Sampling Site

2.2 ANSI Standards:⁴

ANSI INCITS 61-1986 (R2002) Geographic Point Locations for Information Interchange, Representation of (formerly ANSI X3.61-1986 (R1997))

ANSI INCITS 320-1998 (R2003) Information technology—Spatial Data Transfer

2.3 Federal Geographic Data Committee Standards:⁵

FGDC-STD-001 Content Standard for Digital Geospatial Metadata

Project 1574-D Information Technology - geographic information framework data content standard, Part 5 governmental unit and other geographic area boundaries

2.4 Code of Federal Regulations:⁶

30 CFR Part 700 et seq.

3. Terminology

3.1 Except as listed or noted below, all definitions are in accordance with Terminology **D653**.

3.2 Definitions of Terms Specific to This Standard:⁷

3.2.1 *active SCMO*—a SCMO that has ongoing coal production or reclamation activities or both.

3.2.2 *attribute*—a defined characteristic of a feature.

3.2.3 *attribute value*—a specific quality or quantity assigned to an attribute.

3.2.4 *authoritative data source*—a recognized source as defined in SMCRA.

3.2.5 *feature*—geographical representation of a discrete real world phenomena. For this standard the geographical representation is usually realized in a digital information system such as a GIS represented as points, lines, and polygons.

³ For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

⁴ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, <http://www.ansi.org>.

⁵ Available from Federal Geographic Data Committee, 590 National Center, Reston, VA 20192, www.fgdc.gov.

⁶ Available from U.S. Government Printing Office Superintendent of Documents, 732 N. Capitol St., NW, Mail Stop: SDE, Washington, DC 20401, <http://www.access.gpo.gov>.

⁷ The terms defined here are consistent with those defined in 30 CFR Part 700 and SMCRA, though not verbatim.

3.2.6 *National ID*—permit ID assigned to SCMO by RA, prefixed with state or tribal abbreviation.

3.2.7 *National Map Data Steward*—the OSM designated liaison by the RA.

3.2.8 *permit*—written authorization to conduct surface coal mining and reclamation operations issued by an RA to a permittee.

3.2.9 *permit ID*—unique identifier assigned by the RA for administrative purposes.

3.2.10 *permit status*—to identify between active, inactive SCMO revoked, or final bond release (termination of jurisdiction).

3.2.11 *permittee*—an entity to whom a permit has been issued by an RA to conduct surface coal mining and reclamation operations.

3.2.12 *polygon*—a representation of a geographical area, consisting of a connected, non-intersecting, sequence of line segments, forming a ring, that represents the outer boundary of the area to be described. Polygons may include any number of additional interior rings representing the boundaries of areas to be excluded.

3.2.13 *Office of Surface Mining Reclamation and Enforcement (OSM)*—OSM is the federal government bureau established under Title II of SMCRA, found within the United States Department of Interior (DOI). The SMCRA provides OSM a legal basis for assigning primary responsibility for regulation of coal mining operations and reclamation of abandoned mine land to the states and Indian tribes. Twenty-four coal resource states have been granted primary regulatory authority, also known as “primacy,” and the exclusive jurisdiction of the implementation of SMCRA. In coal states that do not have primacy and some federal and Indian lands, OSM issues the coal mine permits, conducts the inspections, and handles the enforcement and reclamation responsibilities.

3.2.14 *preferred domain*—a finite list (or range) of permissible values for a specified attribute.

3.2.15 *state*—a state of the United States of America. The twenty-four “primacy” states include Alabama, Alaska, Arkansas, Colorado, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Mississippi, Missouri, Montana, New Mexico, North Dakota, Ohio, Oklahoma, Pennsylvania, Texas, Utah, Virginia, West Virginia, and Wyoming.

3.2.16 *tribe*—any Native American or Alaskan Native tribe, band, group, or community having a governing body recognized by the DOI Secretary that has assumed full regulatory authority over the administration and enforcement of coal mining operations or abandoned mine lands on Native American lands. Navajo, Hopi, and Crow tribes have initiated efforts to assume primacy in being the RA.

3.2.17 *reclamation*—those actions taken to restore mined land to the postmining land use approved by the RA.

3.2.18 *regulatory authority*—entity(s) with jurisdiction over the regulation of coal or non-coal mining or both and reclamation operations or mitigation or both.