



# United States Department of the Interior

OFFICE OF SURFACE MINING  
RECLAMATION AND ENFORCEMENT  
Washington, D.C. 20240



**Directive:** TSR-4

**Title:** Technical Studies

**Approval:** Glenda H. Owens, Deputy Director \_\_\_\_\_

## 1. Purpose

This directive establishes the procedures for the conduct and administration of technical studies that are funded in whole or part by the Office of Surface Mining Reclamation and Enforcement (OSMRE). The technical studies are performed by parties other than OSMRE and include applied science projects, underground mine map projects, and technical investigations. These activities are conducted in support of the abandoned mine land (Title IV) and regulatory (Title V) programs of the Surface Mining Control and Reclamation Act of 1977 (SMCRA).

## 2. Summary of Changes

- a. Updated terminology and language in the directive to be consistent with other guidance documents pertinent to the Technical Studies Program.
- b. From the National Technology Transfer Team (NTTT) member list, the Western Interstate Energy Board Representative is removed (see paragraph 4.c).
- c. “Definitions” section is removed.
- d. Minor editorial changes are made throughout the document.
- e. The document is prepared following the guidelines provided in the latest Directive OPM-1 *Establishment and Maintenance of the OSMRE Directives and Standard Operating Procedures System* issued on July 26, 2023.

## 3. Policy

OSMRE is committed to the use of sound science and technology in both abandoned mine land and regulatory programs. To advance the use of sound science and technology in its programs, OSMRE will provide funding and support for appropriate technical studies that:

- a. Resolve technical questions or issues related to the purposes of SMCRA.

- b. Improve the efficiency and effectiveness of the SMCRA state, tribal, and federal regulatory and reclamation programs.
- c. Improve protection of the public and environment by promoting technology development and transfer related to surface coal mining and reclamation.
- d. Capture, preserve, and improve the public availability of historical information such as underground mine maps and geological records that will improve the safety of the public and mine workers.
- e. Build and/or enhance state and federal working relationships with academic institutions in coal mining and reclamation fields.
- f. Communicate enhanced science and technology to the mining and reclamation community.
- g. Efficiently use the limited OSMRE funds, through promoting outside participation, to design, monitor, and conduct studies while mine operators or others conduct the earthwork involved in mining and/or reclamation.

All scientific information generated or disseminated by OSMRE will comply with basic standards of quality to ensure and maximize its objectivity, utility, and scientific integrity. OSMRE will ensure that information disseminated will be developed from reliable methods and maintain good information quality at each stage of information development. Agency and Departmental guidance concerning information quality are available in Appendix A.

#### **4. Responsibilities**

a. OSMRE Senior Management.

For the purpose of the Technical Studies Program this term consists of the Director, Deputy Director, Regional Directors, and Assistant Director Program Support Directorate. The OSMRE Senior Management determines applied science, underground mine map, and technical investigation policy, selects technical studies priority topics, determines annual funding strategy, and selects projects.

b. OSMRE Senior Management Sponsor.

An OSMRE senior executive who provides management direction and oversight to the National Technology Transfer Team.

c. National Technology Transfer Team (NTTT).

An OSMRE sponsored team with members from the Interstate Mining Compact Commission (IMCC), National Association of Abandoned Mined Land Programs (NAAML), and OSMRE members representing the National Technical Training Program (NTTP), Technical Innovation and Professional Services (TIPS), and each of the three regional technology transfer teams. The team promotes technology development, transfer and distribution initiatives, products, and services for surface coal mining and reclamation. The National Technology Transfer Team's (NTTT) responsibilities include:

- (1) Identifying potential applied science priority topics.
- (2) Developing the Notice of Funding Opportunities (NOFO) to solicit applied science project proposals through <https://www.grants.gov/>.
- (3) Posting notice of solicitation on OSMRE website and other available communication methods; ranking project proposals through a merit review process.
- (4) Recommending selection options to be considered by the OSMRE Senior Management in the final project selection process; ensuring that funded projects meet intended goals.
- (5) Disseminating completed applied science project results via seminars, forums, workshops, webinars, and/or publications.
- (6) Notifying stakeholders and the public of upcoming technology transfer events, and availability of project results via the Technology Development and Transfer (TDT) newsletters, websites, OSMRE email distribution, and OSMRE social media routes.

d. National Technology Transfer Team Lead (NTTT Lead)

The nationwide lead of the National Technology Transfer Team. The National Technology Transfer Team Lead's responsibilities include:

- (1) Serving as leader of the of the NTTT Team and the OSMRE Applied Science Program.
- (2) Receiving position appointment from OSMRE Senior Management.

e. Regional Technology Transfer Team Lead.

The Region's representative to NTTT. The Regional Technology Transfer Team Lead's responsibilities include:

- (1) Providing timely feedback to the Project Technical Representative and the Grants Specialist (or Contracting Officer if appropriate) on the quality and adequacy of the recipient product submissions.
- (2) Ensuring that internal tracking reports are updated in a timely manner.
- (3) Updating the Technology Transfer website in a timely manner.
- (4) Distributing final reports to NTTTT.

f. Underground Mine Mapping Initiative (UGMMI) Steering Committee.

A joint OSMRE and IMCC committee that was formed to promote the acquisition, digitization, preservation, and distribution of underground mine maps. The Underground Mine Mapping Initiative (UGMMI) Steering Committee responsibilities include:

- (1) Developing the solicitation for underground mine map project proposals and dissemination strategies for the solicitation.
- (2) Ranking project proposals for use by the OSMRE Senior Management in project selections.
- (3) Ensuring that funded projects meet intended goals; and disseminating project results to interested parties as appropriate.

g. Underground Mine Mapping Initiative (UGMMI) Coordinator.

The UGMMI representative to NTTTT. The UGMMI Coordinator's responsibilities include:

- (1) Working with managers to request/obtain funding for UGMMI project(s).
- (2) Organizing, coordinating, and leading UGMMI Steering Committee.
- (3) Developing and distributing solicitation with inputs from UGMMI Steering Committee.
- (4) Coordinating the ranking of all proposals with the UGMMI Steering Committee and delivering final funding recommendations to the Director or Deputy Director.
- (5) Providing timely feedback and assistance to the Project Technical Representatives and Grants Specialist.

(6) Providing, at the request of OSMRE Senior Management, briefings, and project status updates.

(7) Providing project status updates to NTTT.

h. Grants Specialist.

Prepares the cooperative agreements, obtains the appropriate approvals, and maintains the financial files and reports. The Grants Specialist's responsibilities include:

(1) Assuring OSMRE's compliance with OSMRE Directive GMT-10 (FAM) and the federal regulations.

(2) Acting as the primary contact with the recipient on fiscal, administrative, and financial matters.

(3) Providing copies of quarterly financial and performance reports to the Project Technical Representative.

(4) Working with the Project Technical Representative to resolve issues with the recipient.

i. Project Technical Representative (PTR).

Serves as the primary technical contact between OSMRE and the recipient by carrying out the following duties:

(1) Assisting the Grants Specialist in developing and administering each agreement.

(2) Carrying out the PTR roles identified in the cooperative agreement and in FAM.

(3) Ensuring that, in accordance with the Department of Interior Manual 505 DM2, OSMRE provides the "Substantial Federal Involvement" necessary and appropriate to achieve agreements goals.

(4) Reviewing products, reports, and deliverables and advising the Grants Specialist on needed actions.

(5) Identifying issues or barriers encountered that can interfere with attaining the project's goals and objectives and immediately brings these to the attention of the Grants Specialist and the NTTT Lead.

- (6) Working with recipient to ensure that reports are received in a timely manner.
- (7) Sending recipient's products to the appropriate technology transfer team representative for quality review and for processing by NTTT.
- (8) Preparing summary analyses of reports and product deliverables in standard formats within 30 days of receipt and submitting a copy to the Grants Specialist and the NTTT Lead.
- (9) Assisting the appropriate OSMRE management and NTTT members with the resolution of any technical problems found with product submissions by the grantee.
- (10) Developing a two-page fact sheet that summarizes the results of the project for use in technology transfer.

## 5. **Procedures**

### a. Applied Science Project Procedure.

Applied Science Project is an investigation that is selected through solicitation and merit review processes when funding is available for developing and demonstrating the use of improved technologies that are consistent with SMCRA to address environmental and/or public safety issues related to regulation of surface coal mining and reclamation of abandoned mines. The following procedure and approximate timelines will be followed:

- (1) OSMRE prepares and announces a solicitation of proposals via Notice of Funding Opportunity (NOFO) for eligible projects when funding is available for the Applied Science Program. Notice of Funding Opportunities are published on <https://www.grants.gov/>.
- (2) OSMRE allows at least 60 days for interested parties to submit proposals.
- (3) NTTT and Grants specialist(s) conduct administratively complete and merit reviews.
- (4) NTTT ranks the proposals and develops a summary of the ranked proposals for consideration by OSMRE Senior Management.
- (5) The NTTT Lead provides the OSMRE Senior Management with summary listing of top-ranked projects along with any concerns and recommendations generated by the financial and technical review.

- (6) The OSMRE Senior Management makes a final decision on which proposals will be funded considering funding availability, the recommendations provided by NTTT, and other agency factors.
- (7) OSMRE notifies successful and unsuccessful applicants. OSMRE begins awarding funds for the successful applications. During project development and award, OSMRE staff will execute responsibilities as outlined in the “Responsibilities” section of this directive. The successful applicants will submit financial reports and technical reports as outlined in the FAM and in the funding agreement.

b. Underground Mine Mapping Initiative (UGMMI) Project Procedure.

UGMMI projects are selected through a solicitation process that funds efforts by states or tribes to preserve and archive mine maps and/or to provide a means for the public/private sector to acquire information from available underground mine maps. The following procedure and approximate timelines will be followed:

- (1) When funding is available, OSMRE announces the solicitation of proposals for eligible projects.
- (2) OSMRE allows at least 60 days for interested parties to submit proposals.
- (3) Members of the UGMMI Steering Committee review and rank all proposals.
- (4) Grants Specialists from each of the three regions conduct reviews as necessary to ensure each proposal recommended for funding within their region meets all Federal assistance, legal, and technical requirements.
- (5) Grants Specialists provide the UGMMI Steering Committee with comments regarding the appropriateness of each proposed project and its budget within two weeks of receipt.
- (6) UGMMI Steering Committee provides the OSMRE Senior Management a complete listing of the ranking results along with any concerns generated by the financial and technical review.
- (7) The OSMRE Senior Management makes a final decision on which proposal(s) to be funded considering funding availability, the recommendations provided by the UGMMI Steering Committee, and other agency factors.
- (8) UGMMI Coordinator notifies successful and unsuccessful applicants.

(9) As soon as the funding becomes available, OSMRE begins awarding funds. The successful recipient or grantee will submit financial reports and technical reports as outlined in the FAM and in the funding agreement.

c. Technical Investigation Procedure.

Technical investigations involve study of special topics, concerns, or issues in association with SMCRA application and are funded by OSMRE from sources other than the Applied Science Program. OSMRE offices may initiate technical investigations to resolve technical questions or issues related to the purposes of SMCRA. OSMRE offices may enter partnerships, contracts, or cooperative agreements with states, tribal nations, federal agencies, university, and other pertinent organizations to accomplish identified goals.

6. **Reporting Requirements**

a. Report Distribution Within OSMRE.

The project technical representative will obtain and provide summaries of the interim technical reports, two-page factsheet, and the complete final project report, along with any technology transfer products, for each project to the Technology Transfer Team Lead who will distribute to OSMRE managers and other pertinent entities.

b. Report Distribution to SMCRA States and Tribes.

For Applied Science Projects, the Regional Technology Transfer Team Lead will provide paper and/or electronic copies of the final report and any supporting materials to all NTTT members, the region's state and tribal technology team representatives, and other interested parties.

c. Making Project Results Available to the Public.

For Applied Science Projects and others as appropriate, OSMRE will further announce availability of project results by various means including the OSMRE website, social media, and technology transfer events. The NTTT Lead will ensure that the technology transfer website is updated to include project status reports, final technical reports, and other project information that may contribute to meeting the purposes of SMCRA.

7. **Effect on Other Documents**

When issued, this version of Directive TSR-4 supersedes all previous versions and subsequent Change Notices.



**8. References**

Section 201(c) (5) of SMCRA.

**9. Effective Date**

Upon signature.

**10. Distribution**

By electronic format. All OSMRE directives are publicly available at <https://www.osmre.gov/laws-and-regulations/directives>.

**11. Appendices**

See the OSMRE directives page linked in the “Distribution” section above for links to appendices.

a. Information Quality Guidance and Resources

**12. Contact**

Regional Director, DOI Regions 1 and 2 – Appalachian Region.