1. **Purpose**

This Standard Operating Procedure (SOP) is intended to assist National and Regional Technology Transfer Team personnel in performing their duties related to the Technical Studies Program. Its use will facilitate uniform application of the program across the nation. It outlines the procedures for the conduct and administration of technical studies that are funded in whole or in part by the Office of Surface Mining Reclamation and Enforcement (OSMRE). A process flow chart is attached as Appendix A outlining the steps in greater detail, and identifying specific paragraphs of directives, this SOP, or documents internal to the program that provide authority, or identify detailed procedures associated with specific steps in the process, such as the Notice of Funding Opportunity or the proposal scoring form.

2. **Definitions**

1. **Applied Science Database.** A database maintained on the Technology Development and Transfer Website that details the specifics of each project and its status under the Technical Studies Program.

2. **Cooperative Agreement.** A legal agreement between OSMRE and a recipient that has as its principal purpose the transfer of a thing of value (funding) to the recipient to carry out a public purpose. Substantial involvement is expected between OSMRE and the recipient when carrying out the activity contemplated in the agreement.

3. **OSMRE Senior Management.** This is the OSMRE executive leadership body and includes the Director, Deputy Director, Regional Directors and Assistant Director, Program Support. OSMRE Senior Management selects Applied Science project priority topics, determines annual funding strategy, and has, in the Director, final selection authority for the Applied Science projects.

4. **OSMRE Senior Management Sponsor.** An OSMRE senior executive who provides management direction and oversight to the National Technology Transfer Team (NTTT). Unless specifically requested by OSMRE Senior Management, all communication from NTTT to OSMRE Senior Management will occur through the OSMRE Senior Management Sponsor.

4. **Drawdown.** Actual transfer of cash to the recipient to pay for costs incurred under an awarded cooperative agreement.

5. **Fact Sheet.** A two page summary of the results of each completed Applied Science project or technical investigation, in a prescribed format (See Appendix M).

6. **Federal Assistance Manual (FAM).** The Federal Assistance Manual (FAM) contains policies and procedures for the management of grants and cooperative agreements awarded by OSMRE. FAM is an official OSMRE directive, number GMT-10. Chapter 7 of the FAM, covering the Technical Studies Program is included as Appendix C of this SOP.
7. **Grants Specialist.** The individual within one of the regional grants teams who, at a given time is responsible for financial aspects of a cooperative agreement connected with a Technical Studies project.

8. **Interstate Mining Compact Commission (IMCC).** A multi-state governmental agency/organization that represents the natural resource and related environmental protection interests of its 28 full and 2 associate member states.

9. **National Association of Abandoned Mine Land Programs (NAAMLP).** A non-profit corporation with the goals of:
   - Providing a forum to address current issues, discuss common problems, and share new technologies regarding the reclamation of abandoned mine lands.
   - Fostering positive and productive relationships between the states and tribes represented by the NAAMLP and the Federal Government.
   - Serving as an effective, unified voice when presenting states/tribes common viewpoints.
   - Coordinating, cooperating, and communicating with the Interstate Mining Compact Commission and all other organizations dedicated to the wise use and restoration of our natural resources.

10. **National Technology Transfer Team (NTTT).** A team hosted by OSMRE including representatives from each OSMRE region, headquarters, TIPS, and NTTP. It also includes representatives from organizations outside OSMRE including IMCC, and NAAMLP.

11. **NTTT Team Leader.** The individual designated by the OSMRE executive sponsor to be responsible for the activities of NTTT.

12. **Performance Period.** The time during which the non-Federal entity may incur new obligations to carry out the work authorized under the Federal award. The Federal awarding agency or pass-through entity must include start and end dates of the period of performance in the Federal award (see §§200.210 Information contained in a Federal award paragraph (a)(5) and 200.331 Requirements for pass-through entities, paragraph (a)(1)(iv)).

13. **Principal Investigator (PI).** The individual specified in the proposal and cooperative agreement to be the lead scientist on the project.

14. **Project Technical Representative (PTR).** The individual specified in the cooperative agreement to be the OSMRE technical representative for the project.

15. **Proposal.** The document submitted by the Principal Investigator in response to the OSMRE Solicitation for Applied Science proposals for a given year. The proposal is submitted in a specified format and includes: a description of work to be performed, goals to be achieved, a proposed technology transfer plan, and all institution and financial information required to generate the cooperative agreement.

16. **Regional Technology Transfer Representative.** The individual in each OSMRE region responsible for coordinating technology transfer efforts in that region and providing leadership to the Regional Technology Transfer Team.

17. **Regional Technology Transfer Team.** Each OSMRE region includes a technology transfer team made up of representatives from each State or Tribe within that region, and various OSMRE representatives to assist the NTTT in technology development and transfer.

18. **Substantial Federal Involvement.** Interaction between the project PI, PTR, and Grants Specialist with the purpose of monitoring progress of the project and associated drawdown of funds. Substantial Federal Involvement is defined in FAM Chapter 1-10. A description of what constitutes Substantial Federal Involvement for an Applied Science project is provided in Appendix H of this SOP.

19. **TSR-4.** This Technical Studies Directive establishes the procedures for the conduct and administration of technical studies that are funded in whole or in part by OSMRE. A copy of TSR-4 is included as Appendix B of this SOP.

3. Procedures and Responsibilities

This SOP defines procedures, roles, and responsibilities within the Technical Studies program. Below is a step by step procedure that will assist OSMRE staff involved in the technical studies program throughout the four key processes in the program, which include the following:

A. Key Process 1 – Identification of Potential Technical Study Topics
B. Key Process 2 – Solicitation, Ranking and Selection of Proposals
C. Key Process 3 – Tracking the Status of Projects
D. Key Process 4 – Dissemination of Information

Many of the steps in the processes include target dates. These are not intended to be hard and fast deadlines, but are intended to align the process with OSMRE milestones in the fiscal year, so that for each year, a pool of proposals recommended for funding by NTTT is in place at times when decisions are made by OSMRE Senior Management regarding obligation of funds.

Steps in the processes are numbered, with the numbers corresponding to the steps as depicted on the flowchart included as Appendix A of this SOP. Controls are noted in parentheses for many of the steps. These controls are OSMRE Directives, or guidance documents, such as this SOP, that direct teams or specific team members to initiate the activities defined in the steps.

A. Key Process 1 - Identification of Potential Technical Study Topics

1.1 – NTTT solicits potential Technical Study topics from team members. Each fiscal year, NTTT is tasked (TSR-4 Part 5.c) with soliciting, and providing to OSMRE Senior Management, a list of topics covering issues regarding mining and/or reclamation practices and, at the time, subject to debate. This list will be the pool of topics from which OSMRE Senior Management can select topics to be included in the next fiscal year’s solicitation of proposals. The NTTT Lead is responsible for initiating the solicitation for potential topics from the members of the team. Team members are responsible for forwarding the solicitation to members of their regional teams or organizations. This solicitation should occur by June 15.

1.2 – NTTT forwards potential Technical Study topics through the Senior Management Sponsor to OSMRE Senior Management. On or near July 15, the NTTT lead will forward the list of potential topics to the NTTT Senior Management Sponsor, who will forward the list to OSMRE Senior Management.

1.3 - OSMRE Senior Management identifies topics to be included in the solicitation of proposals for the next fiscal year. By the beginning of the last quarter of the fiscal year, NTTT is tasked with issuing a solicitation for proposals for potential Technical Studies projects. Since NTTT will have provided the NTTT Senior Management Sponsor with the list of potential topics on or near July 15 of the previous year, it is anticipated the final vetted list would be received from OSMRE Senior Management prior the July 1 of the current year, and incorporated into the solicitation for proposals (TSR-4 Part 5.a). Selected topics are then forwarded from OSMRE Senior Management through the Senior Management Sponsor to the NTTT.

B. Key Process 2 – Solicitation, Ranking, and Selection of Proposals

2.1 A Notice of Funding Opportunity is generated by NTTT. Each fiscal year, NTTT is tasked with generating a solicitation to provide an opportunity for interested institutions to submit proposals to conduct Technical Studies covering eligible topics selected by OSMRE Senior Management (TSR-4 Part 5.c, and FAM Chapter 7-210-20). NTTT will have the solicitation, in the form of a Notice of Funding Opportunity prepared, and ready for insertion of the final list of topics by June 15. The Notice of Funding Opportunity for proposals to be considered for funding during a given fiscal year will be posted by July 1st of the previous fiscal year. For example, a NOFO would be posted by July 1, 2017, soliciting proposals that would potentially be funded in FY 2018. A description of items that must be included in a Notice of Funding Opportunity is included as Appendix D of this SOP.
2.2 – Solicitation for proposals is posted on www.grants.gov. The solicitation for Technical Studies proposals will be posted on www.grants.gov on or about July 1st.

2.3 – Allow at least 60 days for interested parties to submit proposals. In order to increase the likelihood that proposals received will be well thought out and executed, it is necessary to allow sufficient time for interested parties to submit proposals. NTTT is directed to allow at least 60 days for interested parties to submit proposals (TSR-4 Part 6.a.2). NTTT commonly allows 90 days for submittal of proposals. This would result in the first day of the fiscal year typically being the deadline for submittal of proposals.

2.4 – The NTTT Lead screens proposals to verify they are representative of eligible topics as listed in the solicitation for proposals. The NTTT Lead will perform a preliminary screening of proposals upon receipt to verify they are representative of eligible topics identified in the NOFO. The NTTT Lead will also notify applicants if their proposals are not representative of eligible topics, in which case they cannot be considered for funding and will be rejected. A target date for completion of this task will be October 15th.

2.5 – Proposals are reviewed by grants personnel for pre-decisional evaluation. Upon completion of topic screening by the NTTT Lead, all Technical Studies proposals will be reviewed by grants personnel to verify that all information requested in the NOFO has been provided (FAM Chapter 7-210-20). Each of the proposals will be returned to the NTTT with a designation of complete, or incomplete. The NTTT Lead will inform applicants of incomplete proposals, of identified deficiencies, and that their proposals cannot be forwarded for further consideration. A target date for completion of this task will be October 28th.

2.6 – Each NTTT Regional Representative selects a technical expert in their region to review each proposal. An important aspect of each proposal that must be evaluated is technical merit. This can best be evaluated by a technical expert in the discipline with which the proposal topic is associated. In this step, the regional representatives designate at least one technical expert for each proposal. A target date for selection of technical experts will be November 1st.

2.7 – NTTT requires anyone who will review proposals to sign a non-disclosure form. The NTTT Lead will ensure that anyone who will review any proposal(s) signs a non-disclosure form and a conflict of interest statement, generated by NTTT. The non-disclosure form will include the following paragraph:

“These provisions are consistent with and do not supersede, conflict with, or otherwise alter the employee obligations, rights, or liabilities created by existing statute or Executive order related to 1) classified information, 2) communications to Congress, 3) the reporting to an Inspector General of a violation of any law, rule, regulation or mismanagement, a gross waste of funds, an abuse of authority, or a substantial and specific danger to public health or safety, or 4) any other whistleblower protection. The definitions, requirements, obligations, rights, sanctions, and liabilities created by controlling Executive orders and statutory provisions are incorporated into this agreement and are controlling.”

A target date for receipt of all signed non-disclosure form and the conflict of interest statement will be November 7th. A copy of the current non-disclosure form and of a non-conflict of interest statement are included as Appendix F of this SOP.

2.8 – Technical experts review assigned proposals. The purpose of the technical experts’ review of proposals is to provide the benefit of their expertise to the regional and national technology transfer teams (who cannot all be experts in all disciplines), as they (the teams) compare the proposals to determine which should be recommended for funding. The value of the technical expert reviews to this process is significantly enhanced if they are conducted in a consistent manner. In this step, the technical experts are required to numerically score the proposals based on specific criteria contained on a scoring form generated by NTTT and attached to this SOP as Appendix E. A target date for completion of technical expert review of proposals will be December 8th.
2.9 – The Regional and National Technology Transfer Team members review and score proposals. Each of the Regional and National Technology Transfer Team members will review and score each of the proposals, using the NTTT scoring form (Appendix E). This is to ensure all regional Technology Transfer Team members are knowledgeable of the content of the proposals and have developed an opinion regarding their merit, based on the same five scoring criteria used by the technical experts. Team members will provide their scores to the NTTT Regional Representatives, who will then populate the Regional Scoring Spreadsheets. A spreadsheet was developed by NTTT for each region. Copies of the spreadsheets, along with a description of their use, are attached to this SOP as Appendix G. A target date for completion of Regional Technology Transfer Team member review of proposals will be December 8th.

2.10 – Regional teams discuss, and reach a consensus scoring of proposals. Each regional technology transfer team will discuss, and reach a consensus scoring of each proposal in each of the scoring criteria included on the NTTT generated scoring form. Each regional team will document this scoring in the consensus score column on the appropriate regional scoring spreadsheet. The regional teams will not rank the proposals and ranking columns are not included on the regional scoring spreadsheets. Similar Spreadsheets (see Appendix G) will be provided to, and filled in by, NTTT representatives for: OSMRE Headquarters, NTTP, TIPS, IMCC, and NAAMLP. The completed spreadsheets will be forwarded to NTTT and read-only copies will be entered into the Technical Studies file for the subject fiscal year. Copies of the spreadsheets and a description of their use is included in Appendix G. A target date for completion of Regional Technology Transfer Team member consensus scoring of proposals will be December 30th.

2.11 – NTTT Lead inputs regional scores into national scoring and ranking spreadsheet. The NTTT Lead will follow the procedure in Appendix G to copy the regional, Headquarters, TIPS, NTTP, IMCC, and NAAMLP scores from their scoring spreadsheets into the national scoring and ranking spreadsheet. This process is semi-automated to minimize the potential for typographical errors. A target date for completion of this activity will be January 8th.

2.12 – NTTT discusses, and reaches a consensus scoring and ranking of proposals. NTTT will discuss, and reach a consensus scoring and ranking of all proposals. This scoring and ranking will be conducted and documented on the NTTT generated scoring and ranking spreadsheet, a copy of which is attached to this SOP in Appendix G. The team members will consider scores from each of the three OSMRE regions, Headquarters, TIPS, NTTP, IMCC, and NAAMLP, for each criteria category, for each proposal. They discuss each one, reach a consensus score for that criteria category for that proposal. Unless all NTTT member entities have very similar scores, and the team arrives at a very similar consensus score, the rationale for the consensus score is entered in the appropriate cell on the spreadsheet. Copies of the spreadsheets and a description of their use is included in Appendix G. A target date for completion of NTTT consensus scoring and ranking of proposals will be January 22nd.

2.13 – NTTT selects proposals to recommend for funding and forwards to regional grants teams for detailed review. If NTTT has been provided with an available funding amount, the team will provide the list of the highest-ranked proposals that can be funded with that amount to Grants personnel in the regions in which the individual studies will be conducted (if selected for funding), for a detailed review (TSR-4 Part 6.a.3). Proposals not recommended for funding are retained by NTTT in case additional funding becomes available. NTTT also keeps records in the Technical Studies Database of all proposals, including proposals that do not receive funding. A target date for NTTT to provide the list of proposals recommended for funding to Grants personnel will be January 22nd.

2.14 – Grants personnel from the Regions in which proposals are recommended by NTTT for funding will conduct additional reviews as necessary to ensure each proposal meets all Federal assistance, legal, and technical requirements. Grants personnel will verify financial adequacy of the proposals and eligibility of applicants to receive Federal funding (FAM Chapter 7 and TSR-4 Part 6.a.4). Grants personnel will provide NTTT with comments regarding the appropriateness of each proposed project, and its budget, within two weeks of receipt. This is done to ensure OSMRE Senior Management is made aware of any issues that may make an applicant ineligible for Federal assistance. A target date for completion of the detailed review of proposals will be February 7th.
2.15 – NTTT provides OSMRE Senior Management the summary listing of the top rated projects along with any concerns generated by the financial and technical review. NTTT will provide the OSMRE Senior Management Sponsor with the list of proposals recommended for funding (TSR-4, Part 6.a.5). In practice, the entire ranked list, with summaries of the proposals will be provided. This is done so that OSMRE Senior Management can elect to modify the recommendations based on other priorities. Proposals added to the recommended for funding list will undergo the grants review before further action. A target date for forwarding of the vetted list of proposals to OSMRE Senior Management, through the Senior Management Sponsor, will be February 8th.

2.16 – OSMRE Senior Management will select proposals to be funded, based on available funding and consensus ranking. The final decision to fund projects resides with OSMRE Senior Management. (TSR-4, Part 6.a.6). The final list of proposals selected for funding will be sent to NTTT through the OSMRE Senior Management Sponsor. Timing to complete Key Processes 1 and 2 should be such that the approved list of proposals can be considered during the mid-year review within the budgetary cycle. The OSMRE Senior Management Sponsor will forward the approved list for funding to OSMRE Chief of Planning, Analysis, and Budget and to Program Support Division for further action. The Office of Planning, Analysis and Budget will prepare the appropriate funding information and disseminate to the Regional budgetary office. The Program Support Division will inform the regional grants management to commence the grants process. The list of proposals not selected for funding by OSMRE Senior Management will then be returned to NTTT, which will retain the proposals in case additional funding becomes available.

C. Key Process 3 - Tracking Status of Projects to Verify Value of Results

3.1 – Upon receipt of the list of projects selected for funding, NTTT notifies successful and unsuccessful applicants. NTTT will inform applicants of the funding status of their proposals (TSR-4, Part 6.a.7). The NTTT Lead will be responsible for contacting all applicants, informing them of the status of funding for their proposals. Successful applicants will be informed of the next steps in the process. This task will be accomplished immediately upon receipt of the list of successful applicants from the OSMRE Senior Management Sponsor.

3.2 – NTTT Regional Representatives select Project Technical Representatives (PTR) for all funded projects within their regions. Applied Science projects are funded either by cooperative agreements (almost all cases) or interagency agreements (when the applicant is a Federal agency, bureau, or an entity controlled and funded by one of these). A characteristic of cooperative agreements that separates them from grants is a requirement that ‘Substantial Federal Involvement’ be exercised. Substantial Federal Involvement is exercised primarily through the PTR. Specifics of what represents Substantial Federal Involvement are provided in Appendix H of this SOP.

3.3 – NTTT Regional Representatives provide PTRs with the project proposals, and this SOP, which, along with its appendices, includes all needed guidance documents. The NTTT Regional Representatives will ensure that PTRs are advised of their responsibilities with regard to Technical Studies projects to which they are assigned. They will provide the PTRs in their regions with copies of the proposals, and this SOP, with appendices.

3.4 – NTTT provides PTRs with training, preferably by someone who has previously served as a PTR. NTTT will provide training for prospective PTRs. This training, to be conducted by one or more persons who have previously served as a PTR, will cover all aspects of PTR responsibilities as defined in the reference documents. A key element of this training will be covering this SOP, during which the prospective PTRs will be walked through the third key process of the Applied Science program, which covers tracking of the project from start to finish. This will also include an explanation of how to conduct the initial technical programmatic review of the proposal, and an explanation of ‘Substantial Federal Involvement’ (Appendix H).

3.5 – NTTT provides grants personnel with proposals (grant application documents) including PTR technical programmatic review. The NTTT Regional Representatives will ensure that the Grants Specialists have the information necessary for them to begin to process the cooperative agreement or interagency agreement (FAM, Chapter 7-210-20).
3.6 – Grants Specialists generate draft Cooperative Agreements for each of the projects. The Grants Specialists will generate a draft cooperative agreement or interagency agreement for each project (FAM, Chapter 7-210-70(B)). The majority of Applied Science projects are funded via Cooperative Agreements. Interagency agreements will be used only if the applicant is another federal agency or bureau, or operates under the control of such and agency or bureau. A Cooperative Agreement differs from a grant primarily in that it requires Substantial Federal Involvement.

3.7 – Grants Specialists, PTRs, and Principal Investigators (PIs) develop understanding of Substantial Federal Involvement. The Grants Specialists, PTRs, and PIs will develop an understanding of what will constitute Substantial Federal Involvement for each project. Initially the Grants Specialist provides a draft cooperative agreement to the PTR and PI for review to provide an opportunity to eliminate any confusion concerning the study objectives. The PTR and PI then develop a document defining Substantial Federal Involvement for the project in question. In particular, all parties must be in agreement regarding the relationship between funding drawdowns and percentage of work completed by the PI. Appendix H of this SOP provides guidance regarding what constitutes Substantial Federal involvement.

3.8 – Grants Specialists finalize (complete) Cooperative Agreements and award funding. The Grants Specialists will finalize the Cooperative Agreements and award funding so that the Technical Study projects can proceed (FAM Chapter 7-110 -70(B)). At this point, all details of the agreement, including drawdown and amendment procedures, what is expected with regard to deliverables, and progress reporting must be understood by all parties.

3.9 – NTTT arranges for update of the Applied Science page of the OSMRE website and of the Applied Science Database with project information and PTRs names. The NTTT Lead will arrange with the webmaster of the OSMRE website and the Applied Science Database Manager for the addition of information about the newly funded projects, including identities of PIs and PTRs.

3.10 – PIs submit amendment request to Grants Specialists if any amendments to Cooperative Agreements are required. In any case where revisions to the scope of a Technical Studies project are contemplated, the PI must submit a request for an amendment to the Cooperative Agreement to the Grants Specialist (FAM, Chapter 7-220). The Grants Specialist, PTR, and PI for a project must work together to amend the cooperative agreement, should an amendment be required. The goal is for the project objectives and deliverables to be unaffected. A description of the process for requesting amendments or changes to the project is provided in Appendix I of this SOP.

3.11 – Grants Specialist enters the amendment into the official file. The Grants Specialist will enter the amendment into the official record of the cooperative agreement for the project (FAM, Chapter 7-210-40(H)). At the same time, NTTT enters a record of the amendments in the Applied Science Database.

3.12 – PI submits quarterly reports to the Grants Specialist. The PI will submit quarterly reports to the Grants Specialist so he or she, as well as NTTT, are assured the project is progressing satisfactorily (FAM, Chapter 7-230-20(A)). These reports will include a quarterly update of the progress of the project and a quarterly Federal Financial Report. The format for the quarterly performance report is provided as Appendix K of this SOP.

3.13 – Grants Specialists forward quarterly reports to PTRs. The Grants Specialist will forward the quarterly report and a standard programmatic checklist to the PTR for the project for technical/programmatic review.

3.14 – PTRs provide technical review of quarterly reports to the Grants Specialists. Each PTR will apprise the Grants Specialist of the progress of the Technical Studies Project for which he or she is responsible. The PTR must evaluate whether or not the percentage of project work completed is commensurate with the amount of funds drawn down and if the project is on track to meet all specified objectives. If any apparent discrepancies are identified, the PTR will notify the Grants Specialist. The Grants Specialist, PTR, and PI will discuss the situation to determine if any adjustments are necessary. When all are satisfied that the quarterly report is complete, the PTR will generate a
summary, which will be forwarded, along with the executed programmatic checklist, to the NTTT Lead.

3.15 – NTTT Lead reviews quarterly report summaries and executed programmatic checklists. The NTTT Lead will review the quarterly report summaries and programmatic checklists. Any questions he or she has regarding progress of the projects will be resolved with the Grants Specialists, PTRs, and PIs. When any questions are resolved, the NTTT Lead will approve, sign, and date the programmatic checklists and forward the same to the Grants Specialists. He or she will also forward a copy of the checklist, along with the quarterly report summary to the Applied Science Database Manager.

3.16 – Copies of quarterly reports, PTR reviews, and programmatic checklists are stored by the Grants Specialist in the official project file. The Grants Specialist will place the quarterly report, along with the PTR technical review and executed programmatic checklist in the official file for the Technical Study Project (FAM, Chapter 7-230-50(D)).

3.17 – Summaries of quarterly reports are entered by NTTT into a tracking spreadsheet stored in the Technical Studies Database. A person designated by the NTTT Lead will enter the summaries of quarterly reports and executed programmatic checklists into a tracking spreadsheet in the Technical Studies Database so that, if requested, information regarding the progress of each Technical Study project can be provided to any interested party. This will be done as the completed and reviewed quarterly reports are received.

3.18 – Upon completion of the project, the PI submits the final Federal Financial Report and final narrative performance report to the Grants Specialist. Upon completion of a project, the PI will, in lieu of a quarterly report, submit a final Federal Financial Report and narrative performance report to the Grants Specialist (FAM, Chapter 7-240-50). A description of the procedure for closeout of a Cooperative Agreement are included as Appendix J of this SOP.

3.19 – Grants Specialist forwards the final Federal Financial and narrative performance reports to the PTR for programmatic review. The Grants Specialist will forward the final Federal Financial Report and narrative performance report to the PTR for a programmatic review, to verify that all agreed upon objectives have been met prior to project close-out (FAM Chapter 7-240-60(A)).

3.20 – The PTR provides a programmatic review of the final Federal Financial Report and narrative performance report to the Grants Specialist. The PTR will provide a programmatic review of the final Federal Financial Report and narrative performance report to the Grants Specialist, verifying that all agreed upon objectives have been met, or identifying any that have not.

3.21 – The PTR determines if all project deliverables are acceptable. The PTR will review the final product deliverables and provide a written evaluation of the deliverables relative to what was agreed upon to confirm successful completion of the project. If all project deliverables are not acceptable, the PTR returns the deliverables to the PI with comments, and communicates with the PI until all project deliverables are acceptable. This step must be completed before any funds are de-obligated.

3.22 – The Grants Specialist de-obligates any remaining unused funds, and closes out the Cooperative Agreement. After receiving the programmatic review and verification that actual deliverables compare favorably with what was agreed upon, the Grants Specialist will verify that all financial obligations of the Cooperative Agreement have been met (FAM Chapter 7-240-60). Any unused funds will be de-obligated and the Grants Specialist will close-out the Cooperative Agreement. NTTT then enters the project information into the Applied Science Database for reference.

D. Key Process 4 – Dissemination of Technical Studies Results

4.1 – The PTR provides all approved project deliverables to the NTTT Regional Representative. The PTR will provide summaries of the interim technical reports, a summary and final project report, a summary fact sheet, and technology transfer products to the NTTT Regional Representative who will distribute them to OSMRE, tribal, and state program managers (TSR-4 Part 7.a). Templates for the final project report and fact sheets are provided as Appendices L and M, respectively, of this SOP.
4.2 – NTTT Regional Representatives ensure project deliverables are distributed to NTTT and Regional Technology Transfer Teams (TSR-4 Part 7.b).

4.3 – The NTTT Regional Representative will provide copies of the final report and any supporting materials to all NTTT members, the region’s OSMRE, state, and tribal technology team representatives, and other potentially interested parties (TSR-4 Part 7.c).

4.4 – The NTTT Lead will ensure that the availability of project results to the public is made through various means including the OSMRE website and through technology transfer events (TSR-4 Part 7.c). The NTTT Lead will make use of existing, new, and emerging technologies to maximize dissemination of study results to stakeholders and interested parties.

APPENDICES:
Appendix A –Technical Studies Process Flow Chart
Appendix B –Directive TSR-4 (Technical Studies)
Appendix C –Federal Assistance Manual (FAM) Chapter 7
Appendix D –Required Contents of a Notice of Funding Opportunity
Appendix E –Technical Studies Proposal Scoring Form
Appendix F –Non-Disclosure and Conflict of Interest Forms
Appendix G –Technical Studies Proposal Scoring and Ranking Spreadsheets
Appendix H –Substantial Federal Involvement
Appendix I –Amendments and Changes to Projects
Appendix J –Closeout of Cooperative Agreements
Appendix K –Quarterly Performance Report Format
Appendix L –Final Report Template
Appendix M –Fact Sheet Template

4. Change History

<table>
<thead>
<tr>
<th>SOP no.</th>
<th>Effective Date</th>
<th>Significant Changes</th>
<th>Previous SOP no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOP-2014-01_TSD</td>
<td>10/01/2017</td>
<td>Initial version</td>
<td>NA</td>
</tr>
</tbody>
</table>
Technical Studies Process Flow Diagram

The Technical Studies Process Flow Diagram describes in detail the process that the National Technology Transfer Team (NTTT) undergoes during the selection of potential topics, the solicitation, the ranking, and the selection of proposals, tracking the status of projects, and the dissemination of information after the project has been completed. For more details about each step please reference the Standard Operating Procedure (SOP) associated with this document.

1. Start (For Next Fiscal Year)

1.1: NTTT solicits potential Technical Study topics from organizations of team members

1.2: NTTT forwards potential Technical Study topics through the Senior Management Sponsor to OSMRE Senior Management

1.3: OSMRE Senior Management identifies topics to be included in the solicitation of proposals for the next Fiscal Year

1.3a Topics not selected

1.3b Selected topics are forwarded from OSMRE Senior Management through the Senior Management Sponsor to the NTTT

Note: Technical Study Topics are solicited from NTTT members, NTTT organizations (forwarded through NTTT Lead), regional team members, States and Tribes (forwarded through NTTT Regional Representative), Field Office Directors and TSD branch managers (forwarded through TSD Chief)
2.1 The proposal solicitation (Notice of Funding Opportunity or NOFO) is generated by NTTT

2.2: The proposal solicitation is posted on www.grants.gov

2.3: Allow at least 60 days for proposals to be submitted (typically 90 days)

2.4a: NTTT Lead screens proposals to verify that they are representative of eligible topics which are included in the proposal solicitation

2.5a: Proposals reviewed by the Grants Specialist for administrative completeness

2.5b: Administratively incomplete proposals are not accepted

2.5c: NTTT Lead notifies applicants of administratively incomplete proposal

2.5d: Proposals deemed administratively complete returned to NTTT

2.1: TSR-4 Part 5.c, and FAM Chapter 7-210-20

2.3: TSR-4 Part 6.a.2

C2.1: FAM Chapter 7-210-20
2.6: Each NTTT Regional Representative selects at least one technical expert in their region for each proposal

Target Date: November 1ST

2.7a: NTTT requires anyone who will review proposals to sign a non-disclosure form

Target Date: November 7th

2.7b: NTTT Regional Representative sends proposals and scoring forms to proposal reviewers

Target Date: November 8th

2.8: Technical experts review assigned proposals and send scoring forms back to NTTT Regional Representatives

Target Date: December 8th

2.9a: Regional and National Technology Transfer Team members review and score proposals

Target Date: December 8th

2.9b: NTTT Regional Representatives populate the Regional Scoring Spreadsheets

Target Date: December 8th

C2.8: NTTT scoring form (SOP, Appendix E)

C2.9: NTTT scoring form (SOP, Appendix E)

C2.9: Regional Scoring Spreadsheets (SOP, Appendix F)
2.10: Regional teams discuss technical expert reviews, and reach a consensus scoring of proposals

2.11: NTTT lead inputs regional consensus scores into National Scoring and Ranking Spreadsheet

2.12: NTTT discusses, and develops consensus scoring of proposals

2.13a: NTTT ranks and selects proposals to recommend for funding and forwards to the Grants Specialist

2.13b: Proposals not recommended for funding are retained by NTTT in case additional funding becomes available

2.13c: NTTT keeps record of all proposals including proposals that do not receive funding

2.14a: Proposals recommended for funding are reviewed by the Grants Specialist for financial adequacy and applicant eligibility

2.14: FAM Chapter 7 and TSR-4 Part 6.a.4

Note: After consensus is complete, no more revisions can take place

C2.11: National Scoring and Ranking Spreadsheet (SOP, Appendix F)

C2.13: TSR-4 Part 6.a.3

Note: Occurs concurrently at the same meeting

Target Date: December 30th

Target Date: January 8th

Target Date: January 22nd

Target Date: February 7th

END
The Department of the Interior
The Office of Surface Mining Reclamation and Enforcement

National Technology Transfer Team
Applied Science Program

2.14b: Grants Specialist returns recommended proposals to NTTT

2.15: NTTT provides OSMRE Senior Management with list of top proposals, with any concerns noted during the financial adequacy review

2.16a: With an approved fiscal year Congressional Budget, the OSMRE Director establishes priorities for funding Technology Transfer activities

2.16b: Funds available for Applied Science studies

2.16c: OSMRE Senior Management selects proposals to be funded, based on available funding and NTTT consensus ranking and financial adequacy and applicant eligibility review

2.16d: List of proposals not selected for funding returned to NTTT

2.16e: Proposals are retained by NTTT in case additional funding becomes available

2.16f: OSMRE Senior management provides NTTT with the list of funded proposals through the Senior Management Sponsor

C2.15: TSR-4, Part 6.a.5

Note: NTTT communicates with management sponsor regarding when the Executive Council will meet to discuss funding

C2.16: TSR-4, Part 6.a.6

END

END
2.16g: OSMRE Senior Management informs regional budget personnel of funds and funding codes

2.16h: Regional budget personnel inform the Grants Specialist of the Applied Science funding

3.1: NTTT notifies successful and unsuccessful applicants

3.2: NTTT Regional Representatives select Project Technical Representatives (PTR)

3.3: NTTT Representatives provide PTRs with project proposals, SOP, TSR-4, and FAM Chapter 7

3.4: NTTT provides PTRs with Training, preferably by someone who has previously serviced as a PTR

3.5: NTTT Regional Representatives provides the Grants Specialist with proposals (grant application documents) including PTR technical review

3.6: Grants Specialist generates the draft Cooperative Agreement or Interagency Agreement
3.7: Grants Specialist, PTR and Principal Investigators (PIs) develop an understanding of Substantial Federal Involvement

3.8: Grants Specialist completes the Cooperative/Interagency Agreements and award funding

3.9: NTTT updates the website with funded projects and lists the projects in the Applied Science Database

3.10a: PI submits amendment request to the Grants Specialist if any amendments to Cooperative agreements are required

3.10b: Grants Specialist works with PTR and PI to amend cooperative agreements, if appropriate

3.11a: Grants Specialist enters Amendment into official file

3.11b: NTTT enters amendments in the Applied Science Database

3.12a: PI submits quarterly reports to the Grants Specialist and PTR, both of which communicate with PI until completion of the project

3.12b: PI submits quarterly reports to the Grants Specialist

3.13: Grants Specialist forwards quarterly reports to PTRs for technical review of progress versus schedule

3.14: PTRs provide technical review of quarterly reports and sends back to the Grants Specialist

C3.10: FAM, Chapter 7-220

C3.11: FAM, Chapter 7-210-40(H)

C3.12: FAM, Chapter 7-230-20(A)

C3.14: FAM, Chapter 7-230-50(A)3

C3.8: FAM Chapter 7-110-70(B)
3.15: NTTT Lead reviews quarterly report summaries and executed programmatic checklists

3.16: Copies of quarterly reports and PTR reviews are stored by the Grants Specialist in the official file

3.17: Summaries of quarterly reports are entered by NTTT into a tracking spreadsheet stored in the Applied Science Database

3.18: Upon completion of the project, PI submits final Federal Financial Report and final narrative performance report to the Grants Specialist

3.19: Grants Specialist forwards the final Federal Financial Report and final Progress Report to the PTR for programmatic review

3.20: The PTR provides a programmatic review of the final Federal Financial Report and narrative performance report to the Grants Specialist

3.21a: PTR determines if all project deliverables are acceptable

3.21c: PI revises deliverables and returns to PTR

3.21b: Deliverables returned to PI by the PTR

Note: If all funds are used by PI before PI turns in all deliverables, the Grants Specialist can close out the Cooperative Agreement.
3.22a: After receiving programmatic review from PTR, the Grants Specialist will verify that all financial obligations of Cooperative Agreement have been met. Any unused funds will be de-obligated, and Cooperative Agreement will be closed out by the Grants Specialist.

3.22b: NTTT Project information is entered into and retained in the Applied Science Database for reference.

4.1: PTR provides all approved project deliverables to the NTTT Regional Representative.

4.2: NTTT Regional Representatives ensure deliverables are distributed to NTTT and Regional Technology Transfer teams.

4.3: The NTTT Regional Representative will provide copies of the final report and any supporting materials to all NTTT members, the region’s OSMRE, state, and tribal technology team representatives, and other potentially interested parties.

4.4: NTTT Lead ensures that availability of project results is further announced by various means.

END

* This document outlines a multi-level Flow Chart. Users who require assistance related to 508 Compliance should contact Michael Richmond/mrichmond@osmre.gov/(412) 937-2850 for information regarding the "Technical Studies Process Flow Diagram."
APPENDIX B

Directive TSR-4
1. **Purpose.** This directive establishes the procedures for the conduct and administration of technical studies that are funded in whole or in part by the Office of Surface Mining Reclamation and Enforcement (OSM). The technical studies are performed by parties other than OSM and include applied science projects, underground mine map projects, and technical investigations. These activities are conducted in support of the abandoned mine land and regulatory programs of the Surface Mining Control and Reclamation Act of 1977 (SMCRA).

2. **Summary of Changes.** This is a new directive.

3. **Definitions.** All terms used in this directive are used consistently with those in SMCRA and 30 CFR Chapter VII, except for those new terms defined below. The following is a list of the three types of studies and projects covered by this document.

   a. **Applied Science Project.** An investigation that is selected through an annual solicitation process to develop and demonstrate the use of improved technologies, consistent with SMCRA, to address environmental and/or public safety issues related to regulation of surface coal mining and reclamation of abandoned mines.

   b. **Technical Investigation.** An investigation or study of special topics, concerns or issues in association with SMCRA applications. The technical investigations/studies are conducted in partnership with states, tribes, researchers and/or others, and funded by OSM from sources other than the Applied Science Program budget.

   c. **Underground Mine Map Project.** A project selected through an annual 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 underground mine maps.

4. **Policy.** OSM is committed to the use of sound science in both its abandoned mine land and regulatory programs. In order to advance the use of sound science in its programs, OSM will provide funding and support for appropriate technical studies that:

   - resolve technical questions or issues related to the purposes of SMCRA;
   - improve the efficiency and effectiveness of the SMCRA state, tribal, and Federal regulatory and reclamation programs;
• improve protection of the public and environment by promoting technology
development and transfer related to surface coal mining and reclamation;

• 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 of mine workers;

• build and/or enhance state and Federal working relationships with academic
institutions in the coal fields;

• communicate good science and technology to the mining and reclamation
community; and

• stretch the limited OSM funds through promoting outside participation such that
OSM funds are utilized to design, monitor and conduct studies while mine operators
or others conduct the earthwork or cover other expenses involved in
construction/implementation.

All scientific information generated or disseminated by OSM will comply with basic standards
of quality to ensure and maximize its objectivity, utility, and integrity. OSM will ensure that
information disseminated will be developed from reliable methods and ensure information
quality at each stage of information development. OSM’s guidelines for this topic can be found
can be found on its website at www.doi.gov/ocio/guidelines/515Guides.pdf.

5. **Responsibilities.**

a. **OSM Senior Management** responsible for technical studies consists of the
Director, Deputy Director, Regional Directors, and Assistant Director Program Support. The
OSM Senior Management determines applied science and underground mine map policy, selects
applied science project priority topics, determines annual funding strategy, and selects projects.

b. **OSM Senior Management Sponsor** is an OSM senior executive who provides
management direction and oversight to the National Technology Transfer Team.

c. **National Technology Transfer Team (NTTT)** is an OSM sponsored team with
members from the Interstate Mining Compact Commission (IMCC), Western Interstate Energy
Board (WIEB), and National Association of Abandoned Mined Land Programs that promotes
technology development, transfer and distribution initiatives, products, and services for surface
coal mining and reclamation. The NTTT identifies potential applied science priority topics;
develops the annual solicitation for applied science project proposals; develops dissemination
strategies for the annual solicitation; ranks project proposals for use by OSM Senior
Management in annual project selections; ensures that funded projects meet intended goals; and
disseminates applied science project results via seminars, forums, workshops, publications,
newsletters, fact sheets, and websites.
d. **Underground Mine Map (UGMM) Steering Committee** is a joint OSM, IMCC,
and WIEB committee that was formed to promote the acquisition, digitization, preservation, and
distribution of underground mine maps. The UGMM Steering Committee develops the annual
solicitation for underground mine map project proposals; develops dissemination strategies for
the annual solicitation; ranks project proposals for use by OSM Senior Management in annual
project selections; ensures that funded projects meet intended goals; and disseminates project
results to interested parties as appropriate.

e. **Directorate National Technology Transfer Team Representative** – for applied
science and underground mine map projects only –is the Directorate’s representative to the
NTTT. The Representative responsibilities include:

1. Provides timely feedback to the Project Technical Representative and the
Grants Financial Specialist (or contracting officer if appropriate) on the quality and adequacy of
the recipient product submissions;

2. Ensures that internal tracking reports are updated in a timely manner;

3. Updates the Technology Transfer Website in a timely manner; and

4. Distributes final reports to the National and Regional Technology Transfer
teams.

f. **Grants Financial Specialist** prepares the cooperative agreements, obtains the
appropriate approvals, and maintains the financial files and reports. The Grants Financial
Specialist responsibilities include:

1. Assures OSM’s compliance with OSM Directive GMT-10 (FAM) and the
Federal regulations;

2. Acts as the primary contact with the recipient on fiscal, administrative,
and financial matters;

3. Provides copies of quarterly financial and performance reports to the
Project Technical Representative; and

4. Works with the Project Technical Representative to resolve issues with the
recipient.

g. **Project Technical Representative** serves as the primary technical contact between
OSM and the recipient by carrying out the following:

1. Assists the Grants Financial Specialist in developing and administering
each agreement;
(2) Carries out the Technical Representative roles identified in the cooperative agreement and in FAM;

(3) Ensures that, in accordance with the Department of Interior Manual 505 DM2, OSM provides the “Substantial Federal Involvement” necessary and appropriate to achieve agreements goals;

(4) Reviews products, reports, and deliverables and advises the Grants Financial Specialist on needed actions;

(5) Identifies 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 Financial Specialist and the Directorate Technology Transfer Team Representative;

(6) Works with recipient to ensure that reports are received in a timely manner;

(7) Sends recipient’s products to the appropriate technology transfer team representative for quality review and for processing by the NTTT;

(8) Prepares a summary analysis of reports and product deliverables in standard formats within 30 days of receipt and submits one copy each to the Grants Financial Specialist and the Directorate Technology Transfer Team Representative;

(9) Assists the appropriate OSM management and NTTT members with the resolution of any technical problems found with product submissions by the grantee; and

(10) Develops a two page fact sheet that summarizes the results of the project for use in technology transfer.

6. **Procedures.**

   a. **Applied Science Project Procedure.** The following procedure and approximate timelines will be followed:

      (1) On an annual basis, OSM announces the solicitation of proposals for eligible projects during the first quarter of each fiscal year that funding is available for the Applied Science Program;

      (2) OSM allows at least 60 days for interested parties to submit proposals;

      (3) The NTTT, or a subgroup thereof, reviews, ranks the proposals, and develops a summary of the highest ranked proposals for consideration by OSM Senior Management;
b. Underground Mine Map Project Procedure. The following procedure and approximate timelines will be followed:

(1) On an annual basis, OSM announces the solicitation of proposals for eligible projects during the first quarter of each fiscal year that funding is available. In addition, OSM notifies the individuals responsible for SMCRA abandoned mine land and regulatory programs, and the State Geologist for each state where coal mining has occurred;

(2) OSM allows at least 60 days for interested parties to submit proposals;

(3) Members of the UGMM Steering Committee review and rank all of the proposals;

(4) The Directorates from which the highest ranked proposals originated conduct additional reviews as necessary to ensure each project meets all Federal assistance, legal and technical requirements, and provide the UGMM Steering Committee comments regarding the appropriateness of each proposed project and its budget within two weeks of receipt;

(5) UGMM Steering Committee provides OSM Senior Management a complete listing of the consensus ranking results along with any concerns generated by the financial and technical review;

(6) The OSM Senior Management makes a final decision on which proposals to fund considering funding availability, the consensus ranking by the UGMM Steering Committee and other factors;

(7) OSM notifies successful applicants; and
As soon as the required applications are received from the successful applicants and funding becomes available, OSM 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.** OSM offices may initiate technical investigations to resolve technical questions or issues related to the purposes of SMCRA. OSM offices may enter into partnerships, contracts, or cooperative agreements with state, tribal, Federal, university and other organizations to accomplish these purposes. Funding will come from sources other than the OSM Applied Science Program budget.

7. **Reporting Requirements.**

a. **Report Distribution Within OSM.** The project technical representative will provide summaries of the interim technical reports and both a summary and the complete final project report, along with any technology transfer products, to the Directorate Technology Transfer Team Representative who will distribute as appropriate to OSM, tribal, and state program managers.

b. **Report Distribution to SMCRA States and Tribes.** For Applied Science Projects, the Directorate Technology Transfer Team Representative will provide paper and/or electronic copies of the final report and any supporting materials to all NTTT members, the region’s OSM, state and tribal technology team representatives and other potentially interested parties. Where document or file sizes are large, the Directorate may send notifications to the organizations named above announcing completion of such a project and providing information on how to acquire project results.

c. **Making Project Results Available to the Public.** For Applied Science Projects and others as appropriate, OSM will further announce availability of project results by various means including the OSM website and through technology transfer events. The appropriate Directorate 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. The technology transfer website will contain instructions for the public to acquire copies of project results.

8. **Effect on Other Documents.** None

9. **References.** Section 201(c) (5) of SMCRA

10. **Effective Date.** Upon Issuance

11. **Distribution.** By electronic format
12. **Appendices.** None

**Contact:** Mid-Continent Regional Director
APPENDIX C

Federal Assistance Manual (FAM) Chapter 7
CHAPTER 7-100
TECHNICAL STUDIES PROGRAM OVERVIEW

- 7-100-00  What does this chapter do?
- 7-100-10  Why was the Technical Studies program established?
- 7-100-20  What are the objectives of the Technical Studies program?
- 7-100-30  Where can you find out about specific assistance opportunities?
- 7-100-40  What are other applicable requirements for a Technical Studies cooperative agreement?

7-100-00  What does this chapter do?

This chapter provides a general overview of our Technical Studies program. The work performed under this program support the abandoned mine land and regulatory programs of the Surface Mining Control and Reclamation Act of 1977, as amended (SMCRA). They are performed by parties other than us at the Office of Surface Mining Reclamation and Enforcement (OSMRE) and include applied science projects, underground mine map projects, and technical investigations.

7-100-10  Why was the Technical Studies program established?

A. We work with state and tribal partners to ensure that citizens and the environment are protected during coal mining and that the land is restored to beneficial use when mining is finished. We also work with states and tribes to reclaim and restore lands and water degraded by mining operations before SMCRA was enacted. Additionally, we work with colleges and universities and other state and federal agencies to further the science of reclaiming mined lands and protecting the environment.

B. During fiscal year (FY) 2005, Congress approved our request for a program to fund proposals for applied science projects and for underground mine map projects. Our operating annual budget provides funding for these projects.

C. Addressing the need to map underground mines requires significant federal support. We developed the Underground Mine Mapping Initiative (UGMMI) as part of our Technical Studies program to meet these needs. Through the Underground Mine Map Steering Committee, we collaborated with the Interstate Mining Compact Commission (IMCC) and Western Interstate Energy Board (WIEB) to coordinate Underground Mine Map Projects. We also collaborated with the Mine Safety and Health Administration (MSHA) and various state agencies to complete underground mine map projects.

7-100-20  What are the objectives of the Technical Studies program?

The Technical Studies program supports two efforts:

A. Applied Science projects develop and demonstrate improved technologies to address public safety and environmental issues related to mining coal and reclaiming the lands affected by mining.
B. Underground Mine Map projects encourage efforts to collect, preserve and convert into digital format maps of underground coal mines. The maps provide valuable information for protecting public and miner safety, evaluating mine pools, and investigating mine subsidence.

7-100-30 Where can you find out about specific assistance opportunities?

We will announce opportunities for Technical Studies cooperative agreements in three channels. You will find additional information on specific opportunities and how to apply for them as follows:

A. We will post the announcement on Grants.gov. Grants.gov is the federal government’s website to announce and accept applications for federal grant and cooperative agreement opportunities.

B. We will post the announcement on OSMRE’s Technology Transfer web page.

C. We will send announcements by direct mail or electronic mail to organizations that have shown an interest in SMCRA-related activities.

7-100-40 What other applicable requirements for a Technical Studies cooperative agreement?

If you receive a cooperative agreement, the following requirements apply:

A. You must keep records in accordance with the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, at 2 CFR Part 200, Subpart D.

B. You must send us quarterly reports on your technical and financial performance under the cooperative agreement.

C. You may also be required to meet the audit requirements.
CHAPTER 7-110
APPLIED SCIENCE COOPERATIVE AGREEMENTS

- 7-110-00 What does this chapter do?
- 7-110-10 What is the objective of applied science projects?
- 7-110-20 Who is eligible for an applied science cooperative agreement?
- 7-110-30 Where can you find out about applied science opportunities?
- 7-110-40 What requirements must your proposal meet?
- 7-110-50 What costs are allowable?
- 7-110-60 How will we review and select proposals?
- 7-110-70 What happens if we select your proposal?

7-110-00 What does this chapter do?

This chapter provides guidance on how you can propose an applied science project. It explains how we, the Office of Surface Mining (OSMRE), review and select proposals, and how we award applied science cooperative agreements.

7-110-10 What is the objective of applied science projects?

Our objective is to further the science of reclaiming mined lands and protecting the environment. We request proposals for projects that develop and demonstrate improved technologies to address environmental issues related to surface coal mining and land reclamation after mining. We provide funding for selected projects through cooperative agreements.

7-110-20 Who is eligible for an applied science cooperative agreement?

Public, private, or non-profit entities are eligible. You may be a Federal, state, local, or tribal government entity, a college or university, or other qualified entity.

7-110-30 Where can you find out about applied science opportunities?

If funding is available, we will announce the opportunity for assistance. You may obtain a copy of the announcement using the sources we identified in chapter 7-100-30. Our announcement will include any high priority topics we identify for that year.

7-110-40 What requirements must your proposal meet?

Your proposal must meet the following requirements.

A. Address coal mining reclamation issues in at least one of our three regions.

B. Include a summary statement addressing the proposal’s value associated with coal mining reclamation or regulation.

C. Do not propose quality control or consumer evaluations for commercial products.
D. You may include costs for salaries, fringe benefits, travel, equipment, materials, and services.

E. Do not include fees or profit.

F. Do not include Federal employee salary or compensation.

G. Your proposal must meet the “Instructions for Preparing the Proposal” in our funding opportunity announcement.

7-110-50 What costs are allowable?

A. In general, you may spend funds from the cooperative agreement for costs which are directly associated with your approved project and are reasonable and necessary to conduct it.

B. Costs must be allowable under the Office of Management and Budget’s cost principles. See the applicable section in the Code of Federal Regulations (CFR), Title 2 Part 200, for more information.

7-110-60 How will we review and select proposals?

We have a multi-tiered process to review, rank and score proposals. The process was developed by the National Technology Transfer Team (NTTT), a partnership organization of representatives from our coal mining states and tribes and OSMRE.

A. Technical experts provide a detailed evaluation and pre-decisional scoring of the proposals. Then NTTT uses consensus final scoring to identify the highest ranked proposals.

B. Our technical representatives and grants staff review the proposals with the highest scores to identify other technical and financial assistance issues that might affect the award. The NTTT provides a summary of the top rated proposals to OSMRE senior management.

C. Senior management will make recommendations to the Director who will select which proposals that will receive funding.

7-110-70 What happens if we select your proposal?

A. If we select your proposal, we will contact you about the following information.

   1. We will list any additional information or documents we need in order to award your cooperative agreement.

   2. We will identify all of your and our relevant points of contact for this proposal.

   3. We will identify specific conditions that you must meet.
APPLIED SCIENCE COOPERATIVE AGREEMENTS

4. We will define the level of substantial Federal involvement. Substantial Federal involvement is a requirement for Federal cooperative agreements.

5. We will outline specific reporting requirements.

6. We will address any questions or issues you may have.

B. Once we have gathered all of the required information, we will process your cooperative agreement. We will send you a written award document. This document will include all special conditions that apply to your cooperative agreement. We will also send you information on OSMRE contacts for your agreement, any other conditions of your award, reports, and closeout requirements.

C. Your cooperative agreement will show the start and end dates of your performance period.

1. You cannot incur costs before the start date, or after the end date, of your performance period.

2. You may begin requesting funds from the U. S. Treasury’s electronic payment system on or after the start date of the performance period.

3. You may request an extension of your performance period. However, we must receive your request at least 30 days before the date the performance period is scheduled to end.
CHAPTER 7-120
UNDERGROUND MINE MAP COOPERATIVE AGREEMENTS

- 7-120-00 What does this chapter do?
- 7-120-10 What is the objective of underground mine map projects?
- 7-120-20 Who is eligible for an underground mine map cooperative agreement?
- 7-120-30 Where can you find out about underground mine map opportunities?
- 7-120-40 What requirements must your proposal meet?
- 7-120-50 What costs are allowable?
- 7-120-60 How will we review and select proposals?
- 7-120-70 What happens if we select your proposal?

7-120-00 What does this chapter do?

This chapter provides information you can use to submit a proposed underground mine map project. It explains how we, the Office of Surface Mining Reclamation and Enforcement (OSMRE), review and select proposals and how we award underground mine map cooperative agreements.

7-120-10 What is the objective of underground mine map projects?

Our objective is to cooperate with you on projects to continue efforts to acquire, preserve, archive, and distribute underground coal mine maps. We fund these projects through cooperative agreements. Our ultimate goal is to improve protection of the public and the environment by making all maps accessible.

7-120-20 Who is eligible for an underground mine map cooperative agreement?

You are eligible if you meet all three of the following criteria:

A. You must be an agency of a state, U.S. territory or tribal government.
B. You must possess hard-copy underground coal mine maps.
C. You must be able to meet our minimum scanning requirements.

7-120-30 Where can you find out about underground mine map opportunities?

If funding is available, we will announce the assistance opportunity. You may obtain a copy of the announcement using the sources we identified in Chapter 7-100-30. Our announcement will include any high priority topics we identify for that year. Your proposal will receive additional consideration if you address one of those high priority topics.

7-120-40 What requirements must your proposal meet?

Your proposal must meet the following requirements:

A. Support activities in at least one of our three regions.
B. Include a letter of endorsement by an authorized official representing your state agency.

FEDERAL ASSISTANCE MANUAL
C. You may include costs for salaries, fringe benefits, travel, equipment, materials, and services.

D. You cannot include fees or profit.

E. You cannot include costs of Federal employee salary or compensation.

F. Your proposal must meet the “Instructions for Preparing the Proposal” in the announcement.

7-120-50 What costs are allowable?

A. In general, you may spend funds from the cooperative agreement for costs which are directly associated with your approved project, and are reasonable and necessary to conduct it.

B. For more information about allowable costs, you should refer to the cost principles established by the Office of Management and Budget. See the Code of Federal Regulations, under 2 CFR Part 200.

7-120-60 How will we review and select proposals?

A. After we receive all the proposals, a team of Underground Mine Map Steering Committee members will review and rank them. Ranking criteria include viability, innovation, proposal quality, ability to address special interest topics (if identified), and level of external financial support.

B. Our technical representatives and grants staff will review the proposals with the highest scores to identify other technical and financial assistance issues that might affect the award.

C. The OSMRE Executive Council will approve the final projects.

7-120-70 What happens if we select your proposal?

A. If we select your proposal, we will contact you about the following information:

   1. Additional documents that we require.
   2. We will identify all relevant Federal and recipient points-of-contact.
   3. We will identify specific conditions. We will define the level of substantial Federal involvement. These are required for Federal cooperative agreements.
   4. We will outline reporting requirements.
   5. We will discuss any questions or issues you may have.

B. When we have all the required information, we will process your cooperative agreement. We will send you a written award document. This document will include all special conditions that apply to your cooperative agreement. We will also send you information about any other special conditions of your award, OSMRE contacts for your project, and reports and closeout.
C. Your cooperative agreement will show the start and end dates of your performance period.

1. You cannot incur costs before the start date, or after the end date, of your performance period.

2. You may begin requesting funds from the U.S. Treasury’s electronic payment system on or after the start date of the performance period.

3. You may request an extension of your performance period. However, we must receive your request at least 30 days before the performance period is scheduled to end.
CHAPTER 7-210
APPLICATION REVIEW AND PROCESSING
FOR A TECHNICAL STUDIES PROGRAM COOPERATIVE AGREEMENT

- 7-210-00 What does this chapter do?
- 7-210-10 How long will we take to process your application?
- 7-210-20 What do we require to make your application administratively complete?
- 7-210-30 How will we review your application?
- 7-210-40 How will we award your cooperative agreement?

7-210-00 What does this chapter do?

This chapter explains the procedures used by us, the Office of Surface Mining Reclamation and Enforcement (OSMRE), to review and complete your application for a Technical Studies program cooperative agreement. It also explains how we will award your cooperative agreement if we select your proposal for funding.

7-210-10 How long will we take to process your application?

We will process all selected proposals within 60 days of the date we select winning proposals or the date we receive a complete application, whichever is later. We will use this time to obtain additional documents, agree upon our level of significant Federal involvement, and finalize any other issues about your cooperative agreement.

7-210-20 What do we require to make your application administratively complete?

We require the following documents to form an administratively complete application.

A. Signed or approved Application for Federal Assistance, form SF-424.

B. Narrative budget explanation and justification. You may use optional form OSM-47 or an alternative format.

C. Signed or approved Non-construction Assurances document, form SF424 B.

D. Signed or approved Construction Assurances document, form SF 424 D, if applicable.

E. Certifications document for compliance with Debarment and Suspension, Drug-Free Workplace, and Lobbying requirements.

F. Disclosure of lobbying activities, form SF-LLL, if applicable.

G. Indirect cost rate proposal for the year of the award approved by a Federal agency.

FEDERAL ASSISTANCE MANUAL
APPLICATION REVIEW AND PROCESSING
FOR A TECHNICAL STUDIES PROGRAM COOPERATIVE AGREEMENT

7-210-30 How will we review your application?

A. We will ensure that your application package is complete. We will also validate budget information in your application. We will contact you if we need additional information.

B. We will contact you for a meeting or teleconference to accomplish the following.
   a. We will clarify all deliverables for your project.
   b. We will identify the type and extent of our involvement in the project. This includes milestones, decision points, and direct participation, where applicable.
   c. We will identify primary Federal and recipient contacts.
   d. We will discuss payment issues and financial and programmatic reporting requirements during your agreement.

C. We will develop a document with terms and conditions to supplement the cooperative agreement. This document will give specific requirements and responsibilities necessary to carry out the terms of the agreement based on our previous discussions with you. We will provide the document to you for comment and approval.

D. We will confirm availability of funds.

E. We will check the System for Award Management (SAM) to determine if you are excluded from receiving this Federal assistance.

F. We will determine if you are subject to the single audit requirement found in the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, at 2 CFR Part 200 Subpart E. If so, we will confirm that you have met the requirement.

G. The technical and financial specialists who will work with your project must document their recommendations to proceed with the award.

7-210-30 How will we award your cooperative agreement?

A. We will enter your application data into our electronic grant system.

B. We will notify our Office of Communications of the planned award so they may issue Congressional and public news releases. Our awarding office must follow the notification procedure established by the Office of Communications.
C. Our awarding office will approve your cooperative agreement in our electronic grant system. Our accounting system will update Treasury’s financial assistance payment system, which will process your cash requests.

D. We will send you the written cooperative agreement with all applicable terms and conditions.

E. If we cannot approve your cooperative agreement, we will contact you in writing. We will explain the reasons for our action, and provide corrective actions if applicable.

7-210-40 What are our records requirements?

Our awarding office must maintain the official file for the cooperative agreement. At a minimum, the official file must contain the following records.

A. Your application as originally received, all additions or revisions to it, and any other information you provided.

B. All meetings or telephone conversations about your application and/or proposal.

C. All our correspondence with you related to the application or award.

D. All of our internal reviews of your application.

E. Our approved budget authority to make an award.

F. All questions that were brought up during the review process and the resolution of those questions.

G. Explanations of any delays in the timing of the award.

H. Documentation of specific actions by the project technical point-of-contact which make up our substantial involvement in the project.
CHAPTER 7-220
AMENDMENTS AND POST-AWARD CHANGES
FOR A TECHNICAL STUDIES PROGRAM COOPERATIVE AGREEMENT

• 7-220-00 What does this chapter do?
• 7-220-10 When can you request changes to your cooperative agreement?
• 7-220-20 What changes require an application and amendment?
• 7-220-30 How must you apply for an amendment?
• 7-220-40 What changes require your written request and our approval?
• 7-220-50 How will we process your change requests?

7-220-00 What does this chapter do?

If you need to make a program or budget change to your cooperative agreement, this chapter explains which changes require our approval, how you should submit your request for a change, and how we will process your request. This chapter applies to cooperative agreements awarded to you for the Technical Studies program, including Applied Science cooperative agreements and Underground Mine Mapping cooperative agreements, by us, the Office of Surface Mining Reclamation and Enforcement (OSMRE).

7-220-10 When can you request changes to your cooperative agreement?

A. You must submit your proposed change or amendment and get our approval before you actually make the change or obligate any funds. If you incur costs prior to our approval, we may disallow those costs.

B. We will not approve any change in your agreement if we receive your request after the scheduled end date of the performance period. If you have unforeseen circumstances that are out of your control, then we will consider your explanations on a case-by-case basis.

C. If you are requesting a time extension, you must submit your request at least 30 days prior to the scheduled performance period end date. If we approve your request, we will normally approve only one extension for a period no longer than one year. If you require additional consideration, you must justify your special or unusual circumstances.

7-220-20 What changes require an application and amendment?

A. You must submit a formal application for an amendment to your cooperative agreement if you wish to change any of the following items.

1. Adding more funds to your agreement.

2. Deobligating unneeded funds before the end of your performance period.

3. Extending or shortening your performance period.
AMENDMENTS AND POST-AWARD CHANGES
FOR A TECHNCIAL STUDIES PROGRAM COOPERATIVE AGREEMENT

4. A material change in the level of financial contribution by other contributors to your project.

B. If you are unsure if your change requires an amendment, please contact the grant specialist in our awarding office for assistance.

7-220-30 How must you apply for an amendment?

A. You may submit your application for an amendment to our awarding office by regular mail or e-mail. You must have the capability to submit signed documents. Scanned documents are acceptable.

B. Your amendment application must include the following items at a minimum.


2. A program narrative explaining and justifying the requested change. You may use our optional form OSM 51 or any format, or include the narrative in your transmittal letter.

3. Revised budget information, if you are requesting a change in the budget.

7-220-40 What changes require your written request and our approval?

A. You may request the following changes to your cooperative agreement by a written request. These changes require our prior approval but do not require a formal application and amendment.

1. Changes in key personnel working on your project.

2. Changing the scope of your project. Scope changes are changes in the goals or objectives of the agreement, or the work you will perform, from your original application that have the potential to affect the success of your program.

3. Cumulative budget transfers between direct cost categories that exceed ten percent (10%) of the approved budget.

4. Any cost item not included in the original budget that requires our approval to be allowable. An example of a cost item which is allowable only with our prior approval is equipment. You can find more information regarding these cost items in the applicable Office of Management and Budget (OMB) cost principles at 2 CFR Part 200.

B. Your written request must include a narrative justification of the requested change. If you are requesting a budget change, you must include revised budget information. You must send this request to the grant specialist in our awarding office. You may send the request by regular mail.
7-220-50 How will we process your change requests?

A. We will make a decision on your request within 30 days of receiving it. If we need more time to consider your requests, we will notify you as to when we will decide.

B. If we approve your request, we will send you our approval in writing within 30 days of receiving your request. In the case of an amendment, we will process your application and approve the amendment in the same way we process new cooperative agreement applications as described in chapter 7-210.
CHAPTER 7-230
PERFORMANCE AND FINANCIAL REPORTING
FOR A TECHNICAL STUDIES PROGRAM COOPERATIVE AGREEMENT

- 7-230-00 What does this chapter do?
- 7-230-10 Where do these requirements come from?
- 7-230-20 When must you submit reports?
- 7-230-30 How can you submit reports to us?
- 7-230-40 What reports must you submit?
- 7-230-50 How will we review your reports?

7-230-00 What does this chapter do?

This chapter explains our reporting requirements for the Technical Studies program funded by the Office of Surface Mining Reclamation and Enforcement (OSMRE). It describes what reports you must complete, when they are due, and what information you must include. This information applies to you as a recipient of a cooperative agreement for an applied science project or an underground mine map project.

7-230-10 Where do these requirements come from?

The Department of the Interior has established the requirements for submission of recipient performance and financial reports in the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards at 2 CFR Part 200, Subpart D.

7-230-20 When must you submit reports?

A. You must submit interim performance and financial reports to us quarterly. Interim reports are due to us 30 days after the end of the report period. The report period for the first report begins on the effective date of your cooperative agreement. The report periods for interim reports must end on the last day of a calendar quarter: March 31, June 30, September 30, or December 31. If your cooperative agreement starts during a calendar quarter, calculate 90 days then extend your first report period to the next quarter end date. Subsequent reports are due for every three-month period.

B. You must submit the final performance and financial reports within 90 days after the end of your performance period. The reporting period for a final report ends on the last day of the performance period.

C. If you cannot submit a report by the required due date, contact us before the due date. We may extend the report due date based on your adequate justification.

7-230-30 How can you submit reports to us?

A. You may submit reports by regular mail. Paper reports must have an original signature.

FINANCIAL ASSISTANCE MANUAL
PERFORMANCE AND FINANCIAL REPORTING
FOR A TECHNICAL STUDIES PROGRAM COOPERATIVE AGREEMENT

B. You may also submit reports by e-mail. The forms must include the name and title of the authorized official who signed them and the date signed. You must maintain the originally signed forms in your files.

7-230-40 What reports must you submit?

You must submit the following reports.


B. Narrative Performance Report. You may use the optional OSM 51 form, a blank page, or another acceptable format. You must include the following information in your report.

1. Your OSMRE cooperative agreement number.

2. A brief introduction of your project. You may use the same introduction for every performance report you submit on this project.

3. Task description listing the tasks that you have initiated during this report period. The descriptions must come from the statement of work.

4. Summarize this quarter’s accomplishments and significant events. If any milestones have been reached or significant advances made, list them here. For Underground Mine Mapping agreements, provide details of work including the number of maps acquired, restored, preserved, scanned, georeferenced, etc.

5. List to-date accomplishments, with the percentage completion on all tasks scheduled up to this date. This section will take a broader perspective than the previous section.

6. For Applied Science agreements, discuss technical progress. This section is left to your discretion. You may embed figures and tables in the text or put them on separate pages. Note that any data must be accompanied by a thorough description, and any tables or figures need to be able to stand on their own.

6. Your plans for the next reporting period. List which tasks you will initiate, etc. List all unresolved issues.

7-230-50 How will we review your reports?

A. We will verify and determine if you have complied with the following basic requirements:

1. We will ensure that your reports are timely.
2. We will validate that your report is mathematically accurate and that it is consistent with our drawdown records.

3. We will validate your reported activities and accomplishments.

B. If we have any concerns, we will work with you to correct the reports.

C. We will prepare a monitoring statement to document the review.

D. We will update our program databases.
CHAPTER 7-240
CLOSING A TECHNICAL STUDIES PROGRAM
APPLIED SCIENCE COOPERATIVE AGREEMENT

- 7-240-00 What does this chapter do?
- 7-240-10 Where do these requirements come from?
- 7-240-20 When do we close out an applied science cooperative agreement?
- 7-240-30 When is your closeout package due?
- 7-240-40 How can you send your closeout package to us?
- 7-240-50 What information must you provide to close your cooperative agreement?
- 7-240-60 How will we review your reports and close your cooperative agreement?

7-240-00 What does this chapter do?

This chapter explains to you, a recipient of an applied science cooperative agreement under our Technical Studies program, how to prepare and process your final reports. It also explains how we, the Office of Surface Mining Reclamation and Enforcement (OSMRE), will close your cooperative agreement.

7-240-10 Where do these requirements come from?

The requirements for closeout procedures come from the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, at 2 CFR Part 200, subpart D.

7-240-20 When do we close out an applied science cooperative agreement?

A. The closeout process begins at the end of the performance period of your cooperative agreement. We will normally close your agreement within 180 calendar days after the end of the performance period.

B. We may close your cooperative agreement without audit. However, we reserve the right to take additional administrative action resulting from the findings of a subsequent audit.

C. We will not close your cooperative agreement until you have paid all allowable costs and we have deobligated any excess funding.

D. We will not close your agreement if it is in litigation or under appeal.

E. If we terminate your agreement for any reason, we will not close it until all termination actions have been completed.

7-240-30 When is your closeout package due?

A. Your closeout package is due to us 90 days after the end of the performance period of your cooperative agreement.

FINANCIAL ASSISTANCE MANUAL
B. However, you may send us a written request with justification for an extension of the due date. If we approve your request, we may require you to submit interim performance and financial reports.

7-240-40 How can you send your closeout package to us?

You may send us your closeout package by e-mail or by regular mail.

7-240-50 What information must you provide to close your cooperative agreement?

Your closeout package must include the following information.

A. Final Federal Financial Report, on the SF 425 form, as described in chapter 7-230.

B. Final narrative performance report, on the optional OSM 51 form or plain paper, as described in chapter 7-230.

C. You must include all project deliverables. Project deliverables are unique to each award. They may include a final technical report, information for a fact sheet, electronic presentations, workshop presentations, peer-reviewed papers, and technical conference presentations. We may provide formats which you must follow for your deliverable reports.

D. Report of Government Property, if you acquired or held any property under this cooperative agreement. Use the Tangible Personal Property Report (SF-428) that allows for any inventory format acceptable to our awarding office. If we provide any Federally owned property to you under this cooperative agreement, list it in your inventory separately from grant-purchased property.

E. List any in-kind services and materials you received that directly contributed to the completion of your project. Include the value of in-kind materials and services in this list and in the total expenditures on your financial report.

7-240-60 How will we review your reports and close your cooperative agreement?

A. We will ensure that you have submitted complete and acceptable deliverables and reports. We will work with you to obtain missing or revised documents.

B. We will verify that we have added all changes into your cooperative agreement by appropriate revisions or amendments.

C. We will resolve with you any disputes, suspensions, withholding of funds, and violations of agreement clauses and assurances.
D. We will include a written evaluation of your performance under the cooperative agreement in our official file for this agreement.

E. We will approve the disposition of any property you may have purchased with cooperative agreement funds.

F. If you have any Federally owned property, we will reconcile it with our records.

G. We will deobligate any excess funds from your cooperative agreement.

H. We may use a closeout checklist to document our review and closeout actions.

I. We will notify you in writing that your cooperative agreement is closed and remind you of our records retention and access requirements. See Chapter 2-260 for more information on record retention.
CHAPTER 7-250
CLOSING A TECHNICAL STUDIES PROGRAM
UNDERGROUND MINE MAP COOPERATIVE AGREEMENT

- **7-250-00** What does this chapter do?
- **7-250-10** Where do these requirements come from?
- **7-250-20** When do we close out an underground mine map cooperative agreement?
- **7-250-30** When is your closeout package due?
- **7-250-40** How can you send your closeout package to us?
- **7-250-50** What information must you provide to close your cooperative agreement?
- **7-250-60** How will we review your reports and close your cooperative agreement?

7-250-00 What does this chapter do?

This chapter describes how you, a recipient of an underground mine map cooperative agreement under our Technical Studies program, should prepare and submit your final reports. It also explains how we the Office of Surface Mining Reclamation and Enforcement (OSMRE) will close your cooperative agreement.

7-250-10 Where do these requirements come from?

The requirements for closeout procedures come from the *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* at 2 CFR 200, Subpart D.

7-250-20 When do we close out an underground mine map cooperative agreement?

A. The closeout process begins at the end of the performance period of your cooperative agreement. We will normally close your agreement within 180 calendar days after the end of the performance period.

B. We may close your cooperative agreement without audit. However, we reserve the right to take additional administrative action resulting from the findings of a subsequent audit.

C. We will not close your cooperative agreement until you have paid all allowable costs and we have deobligated any excess funding.

D. We will not close your agreement if it is in litigation or under appeal.

E. If we terminate your agreement for any reason, we will not close it until all termination actions have been completed.

7-250-30 When is your closeout package due?

A. Your closeout package is due to us 90 days after the end of the performance period of your cooperative agreement.

**FINANCIAL ASSISTANCE MANUAL**
However, you may send us a written request with justification for an extension of the due date. If we approve your request, we may require you to submit interim performance and financial reports.

7-250-40 How can you send your closeout package to us?

You may send us your closeout package by e-mail or by regular mail.

7-250-50 What information must you provide to close your cooperative agreement?

Your closeout package must include the following information.

A. Final Federal Financial Report, on the SF 425 form, as described in Chapter 7-230.

B. Final narrative performance report, on the optional OSM 51 form or plain paper, as described in Chapter 7-230. We will use your final report to promote our technology transfer efforts.

C. If any deliverables were required for your project, you must include them. They may include a final technical report, information for a fact sheet, and other materials. We may provide formats which you must follow for your deliverable reports.

D. Report of Government Property, if you acquired or held any property under this cooperative agreement. Use the Tangible Personal Property Report (SF-428) that allows for any inventory format acceptable to our awarding office. If we provide any federally owned property to you under this cooperative agreement, list it in your inventory separately from grant-purchased property.

7-250-50 How will we review your reports and close your cooperative agreement?

A. We will verify that you completed the work as described in your proposal, and that it meets required quality standards.

B. We will ensure that you have submitted complete and acceptable documents. We will work with you to obtain missing or corrected documents.

C. We will verify that we have added all changes into your cooperative agreement by appropriate revisions or amendments.

D. We will resolve with you any suspensions, withholding of funds, disputes, and violations of agreement clauses and assurances.

E. We will include a written evaluation of your performance under the cooperative agreement in our official file for this agreement.
F. We will approve the disposition of any property you may have purchased with cooperative agreement funds.

G. If you have any federally owned property, we will reconcile it with our records.

H. We will deobligate any excess funds from your cooperative agreement.

I. We may use a checklist to document our files.

J. We will notify you in writing that your underground mine map cooperative agreement is closed and remind you of our records retention and access requirements.
APPENDIX D

Required Content of a Notice of Funding Opportunity
The full text of the notice of funding opportunity is organized in sections. The required format outlined in this appendix indicates immediately following the title of each section whether that section is required in every announcement or is a Federal awarding agency option. The format is designed so that similar types of information will appear in the same sections in announcements of different Federal funding opportunities. Toward that end, there is text in each of the following sections to describe the types of information that a Federal awarding agency would include in that section of an actual announcement.

A Federal awarding agency that wishes to include information that the format does not specifically discuss may address that subject in whatever section(s) is most appropriate. For example, if a Federal awarding agency chooses to address performance goals in the announcement, it might do so in the funding opportunity description, the application content, or the reporting requirements.

Similarly, when this format calls for a type of information to be in a particular section, a Federal awarding agency wishing to address that subject in other sections may elect to repeat the information in those sections or use cross references between the sections (there should be hyperlinks for cross-references in any electronic versions of the announcement). For example, a Federal awarding agency may want to include in Section I information about the types of non-Federal entities who are eligible to apply. The format specifies a standard location for that information in Section III.1 but that does not preclude repeating the information in Section I or
creating a cross reference between Sections I and III.1, as long as a potential applicant can find the information quickly and easily from the standard location.

The sections of the full text of the announcement are described in the following paragraphs.

A. Program Description—Required

This section contains the full program description of the funding opportunity. It may be as long as needed to adequately communicate to potential applicants the areas in which funding may be provided. It describes the Federal awarding agency’s funding priorities or the technical or focus areas in which the Federal awarding agency intends to provide assistance. As appropriate, it may include any program history (e.g., whether this is a new program or a new or changed area of program emphasis). This section may communicate indicators of successful projects (e.g., if the program encourages collaborative efforts) and may include examples of projects that have been funded previously. This section also may include other information the Federal awarding agency deems necessary, and must at a minimum include citations for authorizing statutes and regulations for the funding opportunity.

B. Federal Award Information—Required

This section provides sufficient information to help an applicant make an informed decision about whether to submit a proposal. Relevant information could include the total amount of funding that the Federal awarding agency expects to award through the announcement; the anticipated number of Federal awards; the expected amounts of individual Federal awards (which may be a range); the amount of funding per Federal award, on average, experienced in previous years; and the anticipated start dates and periods of performance for new Federal awards. This section also should address whether applications for renewal or supplementation of existing projects are eligible to compete with applications for new Federal awards.

This section also must indicate the type(s) of assistance instrument (e.g., grant, cooperative agreement) that may be awarded if applications are successful. If cooperative agreements may be awarded, this section either should describe the “substantial involvement” that the Federal awarding agency expects to have or should reference where the potential applicant can find that information (e.g., in the funding opportunity description in A. Program Description—Required or Federal award administration information in section D. Application and Submission Information). If procurement contracts also may be awarded, this must be stated.

C. Eligibility Information
This section addresses the considerations or factors that determine applicant or application eligibility. This includes the eligibility of particular types of applicant organizations, any factors affecting the eligibility of the principal investigator or project director, and any criteria that make particular projects ineligible. Federal agencies should make clear whether an applicant's failure to meet an eligibility criterion by the time of an application deadline will result in the Federal awarding agency returning the application without review or, even though an application may be reviewed, will preclude the Federal awarding agency from making a Federal award. Key elements to be addressed are:

1. Eligible Applicants—Required. Announcements must clearly identify the types of entities that are eligible to apply. If there are no restrictions on eligibility, this section may simply indicate that all potential applicants are eligible. If there are restrictions on eligibility, it is important to be clear about the specific types of entities that are eligible, not just the types that are ineligible. For example, if the program is limited to nonprofit organizations subject to 26 U.S.C. 501(c)(3) of the tax code (26 U.S.C. 501(c)(3)), the announcement should say so. Similarly, it is better to state explicitly that Native American tribal organizations are eligible than to assume that they can unambiguously infer that from a statement that nonprofit organizations may apply. Eligibility also can be expressed by exception, (e.g., open to all types of domestic applicants other than individuals). This section should refer to any portion of Section IV specifying documentation that must be submitted to support an eligibility determination (e.g., proof of 501(c)(3) status as determined by the Internal Revenue Service or an authorizing tribal resolution). To the extent that any funding restriction in Section IV.5 could affect the eligibility of an applicant or project, the announcement must either restate that restriction in this section or provide a cross-reference to its description in Section IV.5.

2. Cost Sharing or Matching—Required. Announcements must state whether there is required cost sharing, matching, or cost participation without which an application would be ineligible (if cost sharing is not required, the announcement must explicitly say so). Required cost sharing may be a certain percentage or amount, or may be in the form of contributions of specified items or activities (e.g., provision of equipment). It is important that the announcement be clear about any restrictions on the types of cost (e.g., in-kind contributions) that are acceptable as cost sharing. Cost sharing as an eligibility criterion includes requirements based in statute or regulation, as described in § 200.306 Cost sharing or matching of this Part. This section should refer to the appropriate portion(s) of section D. Application and Submission Information stating any pre-award requirements for submission of letters or other documentation to verify commitments to meet cost-sharing requirements if a Federal award is made.
3. **Other—Required**, if applicable. If there are other eligibility criteria (i.e., criteria that have the effect of making an application or project ineligible for Federal awards, whether referred to as “responsiveness” criteria, “go-no go” criteria, “threshold” criteria, or in other ways), must be clearly stated and must include a reference to the regulation of requirement that describes the restriction, as applicable. For example, if entities that have been found to be in violation of a particular Federal statute are ineligible, it is important to say so. This section must also state any limit on the number of applications an applicant may submit under the announcement and make clear whether the limitation is on the submitting organization, individual investigator/program director, or both. This section should also address any eligibility criteria for beneficiaries or for program participants other than Federal award recipients.

**D. Application and Submission Information**

1. **Address to Request Application Package**—Required. Potential applicants must be told how to get application forms, kits, or other materials needed to apply (if this announcement contains everything needed, this section need only say so). An Internet address where the materials can be accessed is acceptable. However, since high-speed Internet access is not yet universally available for downloading documents, and applicants may have additional accessibility requirements, there also should be a way for potential applicants to request paper copies of materials, such as a U.S. Postal Service mailing address, telephone or FAX number, Telephone Device for the Deaf (TDD), Text Telephone (TTY) number, and/or Federal Information Relay Service (FIRS) number.

2. **Content and Form of Application Submission**—Required. This section must identify the required content of an application and the forms or formats that an applicant must use to submit it. If any requirements are stated elsewhere because they are general requirements that apply to multiple programs or funding opportunities, this section should refer to where those requirements may be found. This section also should include required forms or formats as part of the announcement or state where the applicant may obtain them.

This section should specifically address content and form or format requirements for:

i. **Pre-applications**, letters of intent, or white papers required or encouraged (see Section IV.3), including any limitations on the number of pages or other formatting requirements similar to those for full applications.

ii. **The application as a whole.** For all submissions, this would include any limitations on the number of pages, font size and typeface, margins, paper size, number of copies, and sequence
or assembly requirements. If electronic submission is permitted or required, this could include special requirements for formatting or signatures.

**iii. Component pieces of the application** (e.g., if all copies of the application must bear original signatures on the face page or the program narrative may not exceed 10 pages). This includes any pieces that may be submitted separately by third parties (e.g., references or letters confirming commitments from third parties that will be contributing a portion of any required cost sharing).

iv. Information that successful applicants must submit after notification of intent to make a Federal award, but prior to a Federal award. This could include evidence of compliance with requirements relating to human subjects or information needed to comply with the National Environmental Policy Act (NEPA) (42 U.S.C. 4321-4370h).

3. **Dun and Bradstreet Universal Numbering System (DUNS) Number and System for Award Management (SAM)—Required.**

This paragraph must state clearly that each applicant (unless the applicant is an individual or Federal awarding agency that is excepted from those requirements under 2 CFR § 25.110(b) or (c), or has an exception approved by the Federal awarding agency under 2 CFR § 25.110(d)) is required to: (i) Be registered in SAM before submitting its application; (ii) provide a valid DUNS number in its application; and (iii) continue to maintain an active SAM registration with current information at all times during which it has an active Federal award or an application or plan under consideration by a Federal awarding agency. It also must state that the Federal awarding agency may not make a Federal award to an applicant until the applicant has complied with all applicable DUNS and SAM requirements and, if an applicant has not fully complied with the requirements by the time the Federal awarding agency is ready to make a Federal award, the Federal awarding agency may determine that the applicant is not qualified to receive a Federal award and use that determination as a basis for making a Federal award to another applicant.

4. **Submission Dates and Times—Required.** Announcements must identify due dates and times for all submissions. This includes not only the full applications but also any preliminary submissions (e.g., letters of intent, white papers, or pre-applications). It also includes any other submissions of information before Federal award that are separate from the full application. If the funding opportunity is a general announcement that is open for a period of time with no specific due dates for applications, this section should say so. Note that the information on dates that is included in this section also must appear with other overview information in a
location preceding the full text of the announcement (see § 200.203 Notices of funding opportunities of this Part).

Each type of submission should be designated as encouraged or required and, if required, any deadline date (or dates, if the Federal awarding agency plans more than one cycle of application submission, review, and Federal award under the announcement) should be specified. The announcement must state (or provide a reference to another document that states):

i. Any deadline in terms of a date and local time. If the due date falls on a Saturday, Sunday, or Federal holiday, the reporting package is due the next business day.

ii. What the deadline means (e.g., whether it is the date and time by which the Federal awarding agency must receive the application, the date by which the application must be postmarked, or something else) and how that depends, if at all, on the submission method (e.g., mail, electronic, or personal/courier delivery).

iii. The effect of missing a deadline (e.g., whether late applications are neither reviewed nor considered or are reviewed and considered under some circumstances).

iv. How the receiving Federal office determines whether an application or pre-application has been submitted before the deadline. This includes the form of acceptable proof of mailing or system-generated documentation of receipt date and time.

This section also may indicate whether, when, and in what form the applicant will receive an acknowledgement of receipt. This information should be displayed in ways that will be easy to understand and use. It can be difficult to extract all needed information from narrative paragraphs, even when they are well written. A tabular form for providing a summary of the information may help applicants for some programs and give them what effectively could be a checklist to verify the completeness of their application package before submission.

5. Intergovernmental Review—Required, if applicable. If the funding opportunity is subject to Executive Order 12372, “Intergovernmental Review of Federal Programs,” the notice must say so. In alerting applicants that they must contact their state's Single Point of Contact (SPOC) to find out about and comply with the state's process under Executive Order 12372, it may be useful to inform potential applicants that the names and addresses of the SPOCs are listed in the Office of Management and Budget's Web site. www.whitehouse.gov/omb/grants/spoc.html.
6. Funding Restrictions—Required. Notices must include information on funding restrictions in order to allow an applicant to develop an application and budget consistent with program requirements. Examples are whether construction is an allowable activity, if there are any limitations on direct costs such as foreign travel or equipment purchases, and if there are any limits on indirect costs (or facilities and administrative costs). Applicants must be advised if Federal awards will not allow reimbursement of pre-Federal award costs.

7. Other Submission Requirements—Required. This section must address any other submission requirements not included in the other paragraphs of this section. This might include the format of submission, i.e., paper or electronic, for each type of required submission. Applicants should not be required to submit in more than one format and this section should indicate whether they may choose whether to submit applications in hard copy or electronically, may submit only in hard copy, or may submit only electronically.

This section also must indicate where applications (and any pre-applications) must be submitted if sent by postal mail, electronic means, or hand-delivery. For postal mail submission, this must include the name of an office, official, individual or function (e.g., application receipt center) and a complete mailing address. For electronic submission, this must include the URL or email address; whether a password(s) is required; whether particular software or other electronic capabilities are required; what to do in the event of system problems and a point of contact who will be available in the event the applicant experiences technical difficulties.1

Footnote(s):
1 With respect to electronic methods for providing information about funding opportunities or accepting applicants’ submissions of information, each Federal awarding agency is responsible for compliance with Section 508 of the Rehabilitation Act of 1973 (29 U.S.C. 794d).

E. Application Review Information

1. Criteria—Required. This section must address the criteria that the Federal awarding agency will use to evaluate applications. This includes the merit and other review criteria that evaluators will use to judge applications, including any statutory, regulatory, or other preferences (e.g., minority status or Native American tribal preferences) that will be applied in the review process. These criteria are distinct from eligibility criteria that are addressed before an application is accepted for review and any program policy or other factors that are applied during the selection process, after the review process is completed. The intent is to make the application process transparent so applicants can make informed decisions when preparing their applications to maximize fairness of the process. The announcement should clearly
describe all criteria, including any sub-criteria. If criteria vary in importance, the announcement should specify the relative percentages, weights, or other means used to distinguish among them. For statutory, regulatory, or other preferences, the announcement should provide a detailed explanation of those preferences with an explicit indication of their effect (e.g., whether they result in additional points being assigned).

If an applicant's proposed cost sharing will be considered in the review process (as opposed to being an eligibility criterion described in Section III.2), the announcement must specifically address how it will be considered (e.g., to assign a certain number of additional points to applicants who offer cost sharing, or to break ties among applications with equivalent scores after evaluation against all other factors). If cost sharing will not be considered in the evaluation, the announcement should say so, so that there is no ambiguity for potential applicants. Vague statements that cost sharing is encouraged, without clarification as to what that means, are unhelpful to applicants. It also is important that the announcement be clear about any restrictions on the types of cost (e.g., in-kind contributions) that are acceptable as cost sharing.

2. Review and Selection Process—Required. This section may vary in the level of detail provided. The announcement must list any program policy or other factors or elements, other than merit criteria, that the selecting official may use in selecting applications for Federal award (e.g., geographical dispersion, program balance, or diversity). The Federal awarding agency may also include other appropriate details. For example, this section may indicate who is responsible for evaluation against the merit criteria (e.g., peers external to the Federal awarding agency or Federal awarding agency personnel) and/or who makes the final selections for Federal awards. If there is a multi-phase review process (e.g., an external panel advising internal Federal awarding agency personnel who make final recommendations to the deciding official), the announcement may describe the phases. It also may include: the number of people on an evaluation panel and how it operates, the way reviewers are selected, reviewer qualifications, and the way that conflicts of interest are avoided. With respect to electronic methods for providing information about funding opportunities or accepting applicants' submissions of information, each Federal awarding agency is responsible for compliance with Section 508 of the Rehabilitation Act of 1973 (29 U.S.C. 794d).

In addition, if the Federal awarding agency permits applicants to nominate suggested reviewers of their applications or suggest those they feel may be inappropriate due to a conflict of interest, that information should be included in this section.
3. Anticipated Announcement and Federal Award Dates—Optional. This section is intended to provide applicants with information they can use for planning purposes. If there is a single application deadline followed by the simultaneous review of all applications, the Federal awarding agency can include in this section information about the anticipated dates for announcing or notifying successful and unsuccessful applicants and for having Federal awards in place. If applications are received and evaluated on a “rolling” basis at different times during an extended period, it may be appropriate to give applicants an estimate of the time needed to process an application and notify the applicant of the Federal awarding agency's decision.

F. Federal Award Administration Information

1. Federal Award Notices—Required. This section must address what a successful applicant can expect to receive following selection. If the Federal awarding agency’s practice is to provide a separate notice stating that an application has been selected before it actually makes the Federal award, this section would be the place to indicate that the letter is not an authorization to begin performance (to the extent that it allows charging to Federal awards of pre-award costs at the non-Federal entity's own risk). This section should indicate that the notice of Federal award signed by the grants officer (or equivalent) is the authorizing document, and whether it is provided through postal mail or by electronic means and to whom. It also may address the timing, form, and content of notifications to unsuccessful applicants. See also §200.210 Information contained in a Federal award.

2. Administrative and National Policy Requirements—Required. This section must identify the usual administrative and national policy requirements the Federal awarding agency's Federal awards may include. Providing this information lets a potential applicant identify any requirements with which it would have difficulty complying if its application is successful. In those cases, early notification about the requirements allows the potential applicant to decide not to apply or to take needed actions before receiving the Federal award. The announcement need not include all of the terms and conditions of the Federal award, but may refer to a document (with information about how to obtain it) or Internet site where applicants can see the terms and conditions. If this funding opportunity will lead to Federal awards with some special terms and conditions that differ from the Federal awarding agency's usual (sometimes called “general”) terms and conditions, this section should highlight those special terms and conditions. Doing so will alert applicants that have received Federal awards from the Federal awarding agency previously and might not otherwise expect different terms and conditions. For the same reason, the announcement should inform potential applicants about special requirements that could apply to particular Federal awards after the review of applications and
other information, based on the particular circumstances of the effort to be supported (e.g., if human subjects were to be involved or if some situations may justify special terms on intellectual property, data sharing or security requirements).

3. Reporting—Required. This section must include general information about the type (e.g., financial or performance), frequency, and means of submission (paper or electronic) of post-Federal award reporting requirements. Highlight any special reporting requirements for Federal awards under this funding opportunity that differ (e.g., by report type, frequency, form/format, or circumstances for use) from what the Federal awarding agency’s Federal awards usually require.

G. Federal Awarding Agency Contact(s)—Required

The announcement must give potential applicants a point(s) of contact for answering questions or helping with problems while the funding opportunity is open. The intent of this requirement is to be as helpful as possible to potential applicants, so the Federal awarding agency should consider approaches such as giving:

i. Points of contact who may be reached in multiple ways (e.g., by telephone, FAX, and/or email, as well as regular mail).

ii. A fax or email address that multiple people access, so that someone will respond even if others are unexpectedly absent during critical periods.

iii. Different contacts for distinct kinds of help (e.g., one for questions of programmatic content and a second for administrative questions).

H. Other Information—Optional

This section may include any additional information that will assist a potential applicant. For example, the section might:

i. Indicate whether this is a new program or a one-time initiative.

ii. Mention related programs or other upcoming or ongoing Federal awarding agency funding opportunities for similar activities.

iii. Include current Internet addresses for Federal awarding agency Web sites that may be useful to an applicant in understanding the program.

iv. Alert applicants to the need to identify proprietary information and inform them about the way the Federal awarding agency will handle it.
v. Include certain routine notices to applicants (e.g., that the Federal government is not obligated to make any Federal award as a result of the announcement or that only grants officers can bind the Federal government to the expenditure of funds).
APPENDIX E

Proposal Scoring Form
**Office of Surface Mining Reclamation and Enforcement**  
**Applied Science Proposal – 2018**  
**Evaluation Form**

Proposal Number:  
Proposal Title:  
Principal Investigator:  
Technical Reviewer:  
Date Proposal Reviewed:  

Proposal score:

<table>
<thead>
<tr>
<th>Criterion 1</th>
<th>Criterion 2</th>
<th>Criterion 3</th>
<th>Criterion 4</th>
<th>Criterion 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Merit</td>
<td>Value to SMCRA</td>
<td>Technology Transfer Potential</td>
<td>Number of Regions that will Benefit</td>
<td>Risk Assessment Factors</td>
</tr>
</tbody>
</table>

Total Score: _____ of 67 Points Possible

**Criterion 1. Technical Merit (24 Points).** Three points for each “yes”  

Score: _____

- Technical merit refers to multiple aspects of the proposal; does it have the potential to advance the science in any mining or reclamation area, are research facilities described adequate, and have all aspects of the subject been considered to the extent that success is likely, does it address issues that are known result in impacts to the environment or public safety?

  - Y/N: Will the results of the proposed study be a valuable addition to the science?
  - Y/N: Does the proposed study present new or innovative techniques that are relevant to coal mining and/or coal mine reclamation?
Y/N: Are the project description and statement of work thoroughly discussed, detailed, and logically sequenced?

Y/N: Does the proposal address all technical variables that could reasonably be expected to impact success?

Y/N: Does the proposal indicate the investigators have access to adequate facilities to conduct the proposed work?

Y/N: Is the proposed timeframe appropriate for the stated scope of work?

Y/N: If the proposed study involves field activities, has access to the needed site(s) been obtained?

Y/N: Will the results of the proposed study provide on the ground benefits rather than lead to subsequent research?

Rationale for scoring (strengths and weaknesses):

Criterion 2. Value to SMCRA (18 Points). Three points for each “yes”  

• Will the results of the proposed study provide a benefit to OSMRE and its ability to enforce SMCRA?
  
  Y/N: Will the results of the proposed study be directly applicable to improving mining or reclamation practices, from an environmental perspective?
  
  Y/N: Will the study be an investigation of practical application of accepted theory?
  
  Y/N: Will results of the study have the potential to improve quality of life for residents of mining communities?
  
  Y/N: Does the proposed project plan to employ students during the study?
  
  Y/N: Will results of the study have the potential to provide long term post mining or reclamation benefits?
Y/N: Can the proposed study be directly associated with one or more SMCRA based regulations or directives? Please cite.

Rationale for scoring (strengths and weaknesses):

Criterion 3. Technology Transfer Potential (maximum of 16 points). Points for “yes”  Score: ______

- Does the proposal include a plan for technology transfer? Is there a specific plan for training, workshops, forums, or publications to transfer results?
  
  o Y/N: Does the proposal include a technology transfer plan?  
  o Y/N: Does the proposal indicate a technology transfer plan will be implemented?  
  o Y/N: Will the results be presented at an OSMRE Technology Transfer Team call or Meeting?  
  o Y/N: Will the results be posted on the Principal Investigator’s institution website?  
  o Y/N: Will the results will be posted on a website other than OSMRE’s or the Principal Investigator’s institution website?  
  o Y/N: Results will be presented at a subject specific or local workshop or conference?  
  o Y/N: Will the results will be presented at a multi-themed or national conference?  
  o Y/N: Will the results will be published in a peer-reviewed publication with national distribution?

Rationale for scoring (strengths and weaknesses):
Criterion 4. National applicability of the proposed study (9 points). Points for “yes” Score: ______

- Y/N: Will results of the proposed study be site specific? 0 pts.
- Y/N: Will the results of the proposal be applicable in one OSMRE region? 3 pts.
- Y/N: Will the results of the proposal will be applicable in two OSMRE regions? 6 pts.
- Y/N: Will the results of the proposal will be applicable in three OSMRE regions? 9 pts.

Rationale for scoring (strengths and weaknesses):

Criterion 5. Risk Assessment Factors (0, minus 2 points). Score: ______

Deduct two points if the proposing institution is not current with project deliverables and/or performance measures on a previously funded technical investigation or applied science project as determined by the OSMRE NTTT regional team representative for projects in their region, and agreed to by a consensus of the NTTT.

Cite the Instance:
APPENDIX F

Non-Disclosure and Conflict of Interest Forms
OFFICE OF SURFACE MINING RECLAMATION and ENFORCEMENT (OSMRE)

FY 2017 NONDISCLOSURE OF CONFIDENTIAL INFORMATION AGREEMENT

Dear Proposal Reviewer:

This is to confirm your agreement to maintain the confidential nature of certain trade secrets and proprietary information which are disclosed to you in the course of your review and evaluation of project proposals, reports, or other materials (the "materials") submitted to the OSMRE. Your review of proprietary information, which shall be clearly designated as such, shall be subject to the following terms and conditions.

1) You shall not disclose proprietary information found in the proposals to any other party without the prior written authorization of the OSMRE National Technology Transfer Team (NTTT) or the proposer/grantee. You shall also take affirmative steps to safeguard all documents forwarded to you by OSMRE which embody, or are derived from, proprietary information against unauthorized disclosure and/or use. You shall not offer for publication or presentation in any forum any articles, papers, speeches, or talks based on or derived from OSMRE Applied Science proposal review evaluations.

2) You shall use the proprietary information only for purposes of reviewing and evaluating the material's technical merit and economic feasibility. You shall make no use whatsoever of any part of the proprietary information except for performing OSMRE Applied Science evaluations. Any other use of the proprietary information shall constitute unauthorized disclosure by you and may subject you to appropriate remedies by law or in equity.

3) In performing evaluations, you shall agree not to divulge proprietary information to any employees, consultants, vendors, subcontractors, or agents without prior written consent of the OSMRE NTTT. In the event such consent is obtained, you shall agree to divulge the proprietary information only to assist you in evaluations of the materials, and you shall advise anyone you disclose to that the information you are giving them is of a confidential nature, and as such, they shall be bound by the same confidentiality obligations as stated in this agreement. You shall use due diligence in enforcing these obligations, and you shall require of, and obtain from, any such recipients of information an agreement directly with OSMRE in substantially the same form as this agreement.

4) You shall defend and hold the OSMRE harmless from liability in case of any claim or suit arising out of any act of disclosure of proprietary information by you, your employees, consultants, vendors, subcontractors, or agents.
5) The obligations set forth in all of the above paragraphs shall not apply to any information which:

   A. was published or presented in the public domain at the time of its disclosure to you by the OSMRE, or thereafter becomes published or available in the public domain through no act or omission of yours;

   B. was in your possession at the time of the OSMRE’s disclosure to you and such information was not required to be kept confidential;

   C. was received lawfully from a third party who did not obtain the information from the OSMRE and who did not impose any obligation of confidentiality on you.

6) The foregoing obligations in Paragraphs 1, 2, 3, and 4 shall continue until the time when the entire body of the proprietary information falls under any one of the exceptions set forth in Paragraph 5. In proving such exceptions, the burden of proof shall be with you.

7) Originals and all copies of the proposals sent to, or reproduced by you, including without limitation, descriptions, designs, estimates, calculations, data, drawings, models, apparatus, sketches, etc., shall be returned to the OSMRE upon completion of your evaluation. In lieu of returning to the OSMRE all such materials as listed above, you must destroy said materials.

These provisions are consistent with and do not supersede, conflict with, or otherwise alter the employee obligations, rights, or liabilities created by existing statute or Executive order related to 1) classified information, 2) communications to Congress, 3) the reporting to an Inspector General of a violation of any law, rule, regulation or mismanagement, a gross waste of funds, an abuse of authority, or a substantial and specific danger to public health or safety, or 4) any other whistleblower protection. The definitions, requirements, obligations, rights, sanctions, and liabilities created by controlling Executive orders and statutory provisions are incorporated into this agreement and are controlling.

If you agree to the foregoing, please indicate your acceptance by signing and dating below.

Accepted and Agreed to:  
Accepted and Agreed to:

By: ____________________________  
By: ____________________________

Signature  
Team Leader
Proposal Reviewer

__________________________
Typed or Printed Name

__________________________
Date

OSMRE, National Technology Transfer Team

__________________________
Date
United States Department of the Interior

CONFLICT OF INTEREST FORM

Purpose

The purpose of the conflict of interest statement is to protect Department of the Interior’s Office of Surface Mining (OSM) from any real or potential conflicts of interest. As an executive branch employee your unique duties may expose you a conflict of interest in the long term, unless an “exemption” applies or the circumstances warrant to potential conflicts of interest which may require you to disqualify yourself (“recusal”). Recusal is often the appropriate way to prevent the use of other means of resolving the conflict of interest.

Laws and Regulations Governing Conflicts of Interest

18 U.S.C. § 208, prohibits an employee from participating personally and substantially, in an official capacity, in any “particular matter” that would have a direct and predictable effect on the employee’s own financial interests or on the financial interests of:
- the employee’s spouse or minor child;
- a general partner of a partnership in which the employee is a limited or general partner;
- an organization in which the employee serves as an officer, director, trustee, general partner, or employee; or
- a person with whom the employee is negotiating for or has an arrangement concerning prospective employment.

A “particular matter” is virtually any Government matter to which an employee might be assigned, including policy matters and matters involving specific parties, such as contracts or grants.

5 C.F.R. § 2635.502, employees are required to consider whether their impartiality would be questioned whenever their involvement in a “particular matter involving specific parties” might affect certain personal or business relationships.

The term “particular matter involving specific parties” refers to a subset of all “particular matters” and includes Government matters such as a contract, grant, permit, license, or loan. If a particular matter involving specific parties is likely to have a direct and predictable effect on the financial interests of a member of the employee’s household, or if a person with whom the employee has a “covered relationship” is or represents a party to such matter, the employee must consider whether a reasonable person would question the employee’s impartiality in the matter. An employee has a covered relationship with:
- a person with whom the employee has or seeks a business, contractual, or other financial relationship
- a person who is a member of the employee’s household or is a relative with whom the employee has a close personal relationship
- a person for whom the employee’s spouse, parent, or dependent child serves or seeks to serve as an officer, director, trustee, general partner, agent, attorney, consultant, contractor, or employee
- any person for whom the employee has within the last year served as an officer, director, trustee, general partner, agent, attorney, consultant, contractor, or employee or
- any organization (other than a political party) in which the employee is an active participant

Financial Interest

A person has a financial interest if the person has, directly or indirectly, through business, investment, or family:

a. An ownership or investment interest in any entity with which the OSM has a transaction or arrangement,

b. A compensation arrangement with the OSM or with any entity or individual with which the OSM has a transaction or arrangement, or

c. A potential ownership or investment interest in, or compensation arrangement with, any entity or individual with which the OSM is negotiating a transaction or arrangement.
Compensation includes direct and indirect remuneration as well as gifts or favors that are not insubstantial.

A financial interest is not necessarily a conflict of interest but should be disclosed prior to the person residing on any committee or team in which the conflict may exist.

---

### Non-Financial Interest

If the employee concludes that participation in such a matter would cause a reasonable person to question the employee’s impartiality, the employee should not work on the matter pending possible authorization from the appropriate agency official. Moreover, an employee should not work on any matter if the employee is concerned that circumstances other than those expressly described in the regulation would raise a question regarding the employee’s impartiality. The employee should follow agency procedures so that the agency can determine whether participation is appropriate.

---

### Procedures

1. **Duty to Disclose**
   In connection with any actual or possible conflict of interest, DOI employees must disclose the existence of the possible conflicts of interest and be given the opportunity to disclose all material facts to the Contracting Officer and/or Office of Ethics considering the proposed transaction or arrangement.

2. **Violations of the Conflicts of Interest Policy**
   If an employee has failed to disclose actual or possible conflicts of interest, once discovered it will be reported to the correct agency within the Department of the Interior for action.

3. **Sign and complete Conflict of Interest Agreement Form**

   I, ______________________ have read the above information and have determined that I do not have any conflicts of interest regarding the serving on an evaluation team for proposals submitted in response to the Applied Science solicitation for Fiscal Year ______.

   Signature: ____________________________________________
   Date: __________________

   OR

   I, ______________________ have read the above information and have determined that I may have conflicts of interest regarding the serving on an evaluation team for proposals submitted in response to the Applied Science solicitation for Fiscal Year ______. I have attached my statement of how a conflict may exist and wish to:

   ______ recuse myself from the process; or
   ______ have the Contracting Officer review the circumstances and make a determination of if a conflict of interest exists.

   Signature: ____________________________________________
   Date: __________________
APPENDIX G
Scoring and Ranking Spreadsheets and their Use
SCORING AND RANKING SPREADSHEETS AND THEIR USE

Regional Technology Transfer Teams

Regional Representatives of the National Technology Transfer Team will be provided with a spreadsheet to be used in scoring of proposals by the Regional Technology Transfer Teams. An excerpt of an example spreadsheet, in this case for the Appalachian Region is shown below. Note that, although only two scoring criteria are shown on the example for it to remain readable at this scale, there are similar columns for all five of the scoring criteria contained on the NTTT Proposal Scoring Form. Project information, such as: the assigned proposal number, project title, applying institution or entity, project location, funds requested from OSMRE, and total project funds will be input by NTTT before the spreadsheets are sent to the Regional Representatives. Note also, that a maximum number of points is allowed for each criterion. The spreadsheet will not allow a user to input a value outside the range allowed for that criterion.

Each State representative will provide the Regional Representative with his or her scores, for each of the five scoring criteria, for each proposal. The Regional Representative will input these scores in the appropriate cells, along with the scores provided by the technical experts who reviewed each of the proposals. The spreadsheet will then provide the starting point for the regional team’s discussion and consensus scoring of the proposals.

Each regional team will discuss the merits of each proposal. The teams will ultimately provide a consensus score for each criterion, for each proposal. Unless all scores for a given criterion and proposal are very close, and the consensus score is not somewhere near the average of the individual scores, the team will provide a rationale behind their consensus score for that criterion and proposal.

Upon completion, the spreadsheet will be returned to NTTT. It is important that the spreadsheet not be revised in any way since it is designed to be linked to a spreadsheet used by the NTTT in final scoring and ranking, such that the consensus scores from each region are automatically entered in corresponding cells on that spreadsheet. This is to avoid the necessity of manually entering consensus scores from the regional teams into the NTTT spreadsheet, and to minimize the potential for errors.
National Technology Transfer Team

As scoring spreadsheets are received from NTTT Representatives, they will be copied into two separate folders. A protected (read only) copy will be placed in the Technical Studies file for the subject fiscal year. A second copy will be placed in a folder with the working copy of the NTTT Scoring and Ranking Spreadsheet. The link between each scoring spreadsheet and the NTTT Scoring and Ranking Spreadsheet will be established as follows:

1. Open the NTTT Scoring and Ranking Spreadsheet. All project information will have already been entered as proposals arrived from applicants.
2. Select the DATA menu at the top of the spreadsheet;
3. Select the “Edit Links” option;
4. An “Edit Links” dialog box will open:
   a. Select the title of the scoring spreadsheet for which you would like to establish a link – the selected title will highlight;
   b. Select “Change Source”;
   c. Navigate to the folder in which you placed the working copy of the NTTT Scoring and Ranking Spreadsheet;
d. Select the title of the same scoring spreadsheet for which you are establishing a link; 

5. The link between the selected scoring spreadsheet and the NTTT Scoring and Ranking Spreadsheet will now be established, and all the consensus scores from that scoring spreadsheet will now be visible in the appropriate cells.

6. Repeat this process for each of the scoring spreadsheets.

Shown below is an example copy of the NTTT Scoring and Ranking Spreadsheet with the link with the Appalachian Region (AR) Scoring Spreadsheet established. Note again that, for clarity, only two of the five scoring criteria columns are shown:

![Example Spreadsheet]

Shown below is the same spreadsheet with links with all of the scoring spreadsheets established:

![Example Spreadsheet with Links]

The NTTT Scoring and Ranking Spreadsheet will, at this point, be the starting point for discussion between the NTTT members. Using the same process as was used by the regional teams, the NTTT members will discuss, and arrive at a consensus score for each criterion, for each proposal. Unless all scores for a given criterion and proposal are very close, and the consensus score is not somewhere near the average of the individual scores, the team will provide a rationale behind their consensus score for that criterion and proposal.

The NTTT Scoring and Ranking Spreadsheet has multiple sheets, with tabs at the bottom. The first sheet, shown above, is used only to arrive at consensus scores for each of the scoring criteria, for each proposal. All discussion regarding scoring of the proposals is completed and all consensus scores for each proposal are entered before moving to the second sheet.
The second sheet of the NTTT Scoring and Ranking Spreadsheet differs from the first sheet in that it includes a “Consensus Total” column and a “Rationale” Column. The “Consensus Total” column is self-explanatory. The “Rationale” column is used to address equivalent total scores. In the example below, three proposals received a total of 46 points. In order to rank the proposals numerically, it will be necessary to differentiate between members of any groupings with equivalent scores. In the example, the team would review the three proposals and their scores in each of the five scoring criteria. They will need to rank them, in this case, from one to three. They would note in the rationale column the rationale for ranking each of the proposals as first, second, or third. They would then go back to the first sheet and, considering the rationale, add 0.1 to the consensus score for the pertinent scoring criterion for the lowest ranked proposal (third in this case), unless it is equal to the maximum for that criterion. Similarly, the team would add 0.2 to the pertinent consensus score for the next lowest ranked proposal, and 0.3 for the next, and so on. This process will be repeated for any groupings of proposals with equivalent total scores.

<table>
<thead>
<tr>
<th>Ranged Proposal No.</th>
<th>Project Title</th>
<th>Institution</th>
<th>Project Location</th>
<th>Fiscal Year Requested</th>
<th>Total Fiscal Request</th>
<th>Consensus Total</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>001-2016-AB-TN</td>
<td>A GIS Platform for National Uranium, Design, Edition Assessment, and Stability Evaluation Mapping (Geometrics, Uranium, Restoration)</td>
<td>Univ. of Tennessee</td>
<td>Tennessee</td>
<td>$300,000.00</td>
<td>$294,535.00</td>
<td>25</td>
<td>National</td>
</tr>
<tr>
<td>002-3016-AB-MW</td>
<td>Potential for a-cation-Exchange Nanofiltration of Arsenic and Solid Matter Coagulation with Coagulation of Gentle Water from Acid Mine Drainage</td>
<td>Southern Ill. Univ.-Carbondale</td>
<td>Illinois</td>
<td>$281,000.00</td>
<td>$286,240.00</td>
<td>34</td>
<td>National</td>
</tr>
<tr>
<td>003-3016-AB-GM</td>
<td>Techno-Economic Feasibility Study of New Processes for Simultaneous Concentration of TSS and Recovery of Clean Water from Acid Mine Drainage</td>
<td>Univ. of Cincinnati</td>
<td>Ohio</td>
<td>$385,000.00</td>
<td>$347,206.00</td>
<td>31</td>
<td>National</td>
</tr>
<tr>
<td>004-3016-AB-WV</td>
<td>Spell Type and Forestry Reclamation Approach (Phosphorus Exchange) for Monitoring Water Quality of Reclaimed Surface Water Sites in West Virginia</td>
<td>WVU/Ohio Univ. &amp; WV Tech.</td>
<td>West Virginia</td>
<td>$110,000.00</td>
<td>$110,000.00</td>
<td>48</td>
<td>National</td>
</tr>
<tr>
<td>005-3015-AB-IB</td>
<td>A Passive Magnetic-Field Nutrient Removal System Utilizing Functionalized Nanoparticles for Initial Treatment of Seasonal Acid Water from Uranium Mine Systems</td>
<td>Univ. of Idaho</td>
<td>Idaho</td>
<td>$109,000.00</td>
<td>$172,143.00</td>
<td>50</td>
<td>National</td>
</tr>
<tr>
<td>006-2016-AB-KT</td>
<td>Investigation of Improving Geologic Conditions in the Art Modest (U.S. Steel Corp. Area)</td>
<td>Montana Tech.</td>
<td>Montana</td>
<td>$100,000.00</td>
<td>$194,340.00</td>
<td>57</td>
<td>National</td>
</tr>
<tr>
<td>007-3015-AB-KT</td>
<td>Developing an Integrated Pregrowth of Acid Mine Drainage to Identify Underground Contaminant and Geohydrologic Flow Paths</td>
<td>Montana Tech.</td>
<td>Montana</td>
<td>$195,000.00</td>
<td>$200,000.00</td>
<td>48</td>
<td>National</td>
</tr>
<tr>
<td>008-3015-AB-PA</td>
<td>Batch Method of Measure TSS Generation/Removal from Coal Ashes</td>
<td>Penn State Univ.</td>
<td>Pennsylvania</td>
<td>$200,000.00</td>
<td>$207,000.00</td>
<td>42</td>
<td>National</td>
</tr>
<tr>
<td>009-3015-AB-PA</td>
<td>Pilot Investigation and Model Analysis of Coal Superimposed</td>
<td>Penn State Univ.</td>
<td>Pennsylvania</td>
<td>$200,000.00</td>
<td>$206,110.00</td>
<td>40</td>
<td>National</td>
</tr>
</tbody>
</table>

As is shown in the example below, we now have no equivalent scores, and the proposals can be ranked numerically.
We can now move to the third sheet. This sheet is simply selected columns from the second sheet, plus a cumulative funds column.

<table>
<thead>
<tr>
<th>Assigned Proposal No.</th>
<th>Project Title</th>
<th>ES/MRF Funds Requested</th>
<th>Cumulative ES/MRF Funds</th>
<th>ES/MRF Total Points (max of 67 pts)</th>
</tr>
</thead>
<tbody>
<tr>
<td>001-2016-AR-TN</td>
<td>A GIS Platform for Natural Landform Design, Erosion Assessment, and Stability Evaluation During Geomorphic Mine Reclamation</td>
<td>$200,000.00</td>
<td>$200,000.00</td>
<td>25</td>
</tr>
<tr>
<td>002-2016-AR-TN</td>
<td>Potential for In-situ Biochemical Remediation of Aqueous and Solid wastes Associated with Coal Mining and Processing in the U.S. Phase III Method Development and validation</td>
<td>$197,858.00</td>
<td>$197,858.00</td>
<td>34</td>
</tr>
<tr>
<td>003-2016-AR-OH</td>
<td>Techno-Economic Feasibility Study of a Novel Process for Simultaneous Extraction of TDS and Recovery of Clean Water from Acid Mine Drainage</td>
<td>$199,999.00</td>
<td>$199,999.00</td>
<td>31</td>
</tr>
<tr>
<td>004-2016-AR-WV</td>
<td>Spill Type and Forestry Reclamation Effect on Discharge Water Quality at Reclaimed Surface Mine Site in West Virginia</td>
<td>$20,000.00</td>
<td>$297,958.00</td>
<td>46.1</td>
</tr>
<tr>
<td>005-2016-AR-ID</td>
<td>A Passive Magnetized Metal Removal System Utilizing Functionalized Nanoparticles for Initial Treatment of Seasonal Acid Rock Drainage: New Technology for Enhancing Passive Treatment Systems</td>
<td>$199,949.00</td>
<td>$199,949.00</td>
<td>50</td>
</tr>
<tr>
<td>006-2016-AR-MT</td>
<td>Investigation of Improving Soil Conditions in the Arkansas U.S. Using Cover Crops</td>
<td>$200,000.00</td>
<td>$200,000.00</td>
<td>52</td>
</tr>
<tr>
<td>007-2016-AR-MT</td>
<td>Development of Isotopic Fingerprint of Acid Mine Drainage to Identify Underground Controls on Underground Flow Paths</td>
<td>$200,000.00</td>
<td>$200,000.00</td>
<td>46.3</td>
</tr>
<tr>
<td>008-2016-AR-PA</td>
<td>Batch Method to Measure TDS Generation Potential from Coal Refuse</td>
<td>$200,000.00</td>
<td>$200,000.00</td>
<td>42</td>
</tr>
<tr>
<td>009-2016-AR-PA</td>
<td>Field investigation and Stability Analysis of Coal Slurry Impoundments</td>
<td>$200,000.00</td>
<td>$200,000.00</td>
<td>46.2</td>
</tr>
</tbody>
</table>

The information on the third sheet is all that is needed to complete the ranking of the proposals. The ranking is evident at this point: The remaining activities are for documentation and to identify the cutoff point if the amount of available funding is known.
The proposals cannot be sorted by scores from highest to lowest using this sheet because the information is linked to previous sheets. Therefore, all the cell contents are copied, and pasted as values and formatting on the fourth sheet. This sheet is blank, except for headings and cell formats until the information on the third sheet is imported. The fourth sheet, with the example information above is shown below:

<table>
<thead>
<tr>
<th>Project Proposal No.</th>
<th>Project Title</th>
<th>EPHF Funds Requested</th>
<th>CERLA/SHF Funds Acquired</th>
<th>Metropolitan Statistical Area</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>002-2015-AH-1</td>
<td>Potential for In-situ Bioremediation of Spent and Solid Wastes Associated with Coal Mining and Processing in the US Phase I Method Development and Validation</td>
<td>$337,898.00</td>
<td></td>
<td></td>
<td>34</td>
</tr>
<tr>
<td>003-2015-AH-CH</td>
<td>Techno-Economic Feasibility Study of a Novel Process for Simultaneous Concentration of TSS and Recovery of Clean Water from Acid Mine Drainage</td>
<td>$399,998.00</td>
<td></td>
<td></td>
<td>31</td>
</tr>
<tr>
<td>004-2015-AH-WV</td>
<td>Spill Type and Forestry Redundancy Approach: Effect on Discharge Water Quality at Reclaimed Surface Mine Site in West Virginia</td>
<td>$52,800.00</td>
<td></td>
<td></td>
<td>46.1</td>
</tr>
<tr>
<td>006-2015-WX-MT</td>
<td>Investigation of Improving Soil Conditions in the And Western U.S. Using Cover Corps</td>
<td>$200,000.00</td>
<td></td>
<td></td>
<td>57</td>
</tr>
<tr>
<td>007-2015-WX-MT</td>
<td>Developing a Novel Approach to Explore Acid Mine Drainage to Identify Underground Controls on Groundwater Flow Paths</td>
<td>$399,954.00</td>
<td></td>
<td></td>
<td>46.9</td>
</tr>
<tr>
<td>008-2015-AR-PA</td>
<td>Batch Method to Measure TDS Generation Potential From Coal Refuse</td>
<td>$200,000.00</td>
<td></td>
<td></td>
<td>42</td>
</tr>
<tr>
<td>009-2015-AR-PA</td>
<td>Field Investigation and Stability Analysis of Coal Slurry Impoundments</td>
<td>$200,000.00</td>
<td></td>
<td></td>
<td>40.2</td>
</tr>
</tbody>
</table>

We can now sort the proposals by total scores, from highest to lowest:
We can now rank the proposals by inserting Number 1 in the top cell of the “Ranking” column, inserting the formula (value of top cell of “Ranking” column + 1) in the second cell, and copying that formula in all cells to the bottom of the column.

We can also populate the “Cumulative OSMRE Funds” column. We can copy the “OSMRE Funds Requested” for the top ranked proposal into the top cell of the “Cumulative OSMRE Funds” column. We can insert in the second cell the formula (value of top cell of “Cumulative OSMRE Funds” column + the value of the second cell of the “OSMRE Funds Requested” column). We can then copy that formula in all cells to the bottom of the column, as shown:

<table>
<thead>
<tr>
<th>Assigned Proposal No.</th>
<th>Project Title</th>
<th>OSMRE Funds Requested</th>
<th>Cumulative OSMRE Funds</th>
<th>Consensus Total Points (max of 87 pts)</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>001-2016-WR-MT</td>
<td>Investigation of Improving Soil Conditions in the Arid Western U.S. Using Cover Crops</td>
<td>$200,000.00</td>
<td>$200,000.00</td>
<td>52</td>
<td>1</td>
</tr>
<tr>
<td>005-2016-WR-ID</td>
<td>A Passive Magnetized Metal Removal System Utilizing Functionalized Nanoparticles for Initial Treatment of Seasonal Acid Rock Drainage: New Technology for Enhancing Passive Treatment Systems</td>
<td>$199,949.00</td>
<td>$399,949.00</td>
<td>50</td>
<td>2</td>
</tr>
<tr>
<td>007-2016-WR-MT</td>
<td>Developing an Isotopic Fingerprint of Acid Mine Drainage to Identify Underground Controls on Groundwater Flow Paths</td>
<td>$199,954.00</td>
<td>$599,963.00</td>
<td>46.3</td>
<td>3</td>
</tr>
<tr>
<td>009-2016-AR-PA</td>
<td>Field Investigation and Stability Analysis of Coal Slurry Impoundments</td>
<td>$799,963.00</td>
<td>$799,963.00</td>
<td>46.2</td>
<td>4</td>
</tr>
<tr>
<td>004-2016-AR-MW</td>
<td>Spill Type and Forestry Reclamation Approach Effect on Discharge Water Quality at Reclaimed Surface Mine Site in West Virginia</td>
<td>$200,000.00</td>
<td>$1,082,703.00</td>
<td>42</td>
<td>5</td>
</tr>
<tr>
<td>002-2016-WR-IL</td>
<td>Potential for in-situ Biocatalytic Remediation of Aquous and Solid Wastes Associated with Coal Mining and Processing in the U.S. Phase I Method Development and validation</td>
<td>$200,000.00</td>
<td>$1,280,601.00</td>
<td>34</td>
<td>6</td>
</tr>
<tr>
<td>003-2016-AR-OH</td>
<td>Techno-Economic Feasibility Study of a Novel Process for Simultaneous Concentration of TDS and Recovery of Clean Water from Acid Mine Drainage</td>
<td>$199,999.00</td>
<td>$1,480,600.00</td>
<td>31</td>
<td>7</td>
</tr>
<tr>
<td>001-2016-AR-TN</td>
<td>A GIS Platform for Natural Landform Design, Erosion Assessment, and Stability Evaluation During Geomorphic Mine Reclamation</td>
<td>$200,000.00</td>
<td>$1,680,600.00</td>
<td>25</td>
<td>8</td>
</tr>
</tbody>
</table>
Finally, we can identify which projects to recommend for funding, if the amount of available funds is known. For example, if $1,000,000.00 is available:

<table>
<thead>
<tr>
<th>Assigned Proposal No.</th>
<th>Project Title</th>
<th>OSMIR Funds Requested</th>
<th>Cumulative OSMIR Funds</th>
<th>Consensus Total Points (max of 65 pts)</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>006-2016-WR-MT</td>
<td>Investigation of Improving Soil Conditions in the Arid Western U.S. using Cover Crops</td>
<td>$200,000.00</td>
<td>$200,000.00</td>
<td>52</td>
<td>1</td>
</tr>
<tr>
<td>005-2016-WR-IO</td>
<td>A Passive Magnetically Metal Removal System Utilizing Functionalized Nanoparticles for Initial Treatment of Seasonal Acid Rock Drainage: New Technology for Enhancing Passive Treatment Systems</td>
<td>$399,949.00</td>
<td>$399,949.00</td>
<td>50</td>
<td>2</td>
</tr>
<tr>
<td>007-2016-MR-MT</td>
<td>Developing an Isotopic Fingerprint of Acid Mine Drainage to Identify Underground Controls on Groundwater Flow Paths</td>
<td>$999,999.00</td>
<td>$599,999.00</td>
<td>46.3</td>
<td>3</td>
</tr>
<tr>
<td>009-2016-AR-PA</td>
<td>Field Investigation and Stability Analysis of Coal Slurry Impoundments</td>
<td>$200,000.00</td>
<td>$1,399.00</td>
<td>46.2</td>
<td>4</td>
</tr>
<tr>
<td>004-2016-AR-WV</td>
<td>Spoil Type and Forestry Reclamation Approach: Effect on Discharge-Water Quality at Reclaimed Surface Mine Site in West Virginia</td>
<td>$82,800.00</td>
<td>$82,800.00</td>
<td>45.1</td>
<td>5</td>
</tr>
<tr>
<td>008-2016-AR-PA</td>
<td>Batch Method to Measure TDS Generation Potential from Coal Refuse</td>
<td>$200,000.00</td>
<td>$1,082,800.00</td>
<td>42</td>
<td>6</td>
</tr>
<tr>
<td>002-2016-MR-IL</td>
<td>Potential for in-situ Biochemical Remediation of Aquifers and Solid Wastes Associated with Coal Mining and Processing in the US: Phase I Method Development and validation</td>
<td>$197,898.00</td>
<td>$1,280,601.00</td>
<td>34</td>
<td>7</td>
</tr>
<tr>
<td>003-2016-AR-OH</td>
<td>Techno-Economic Feasibility Study of a Novel Process for Simultaneous Concentration of TDS and Recovery of Clean Water from Acid Mine Drainage</td>
<td>$199,999.00</td>
<td>$1,480,600.00</td>
<td>31</td>
<td>8</td>
</tr>
<tr>
<td>001-2016-AR-TN</td>
<td>A GIS Platform for Natural Landform Design, Erosion Assessment, and Stability Evaluation During Geomorphic Mine Reclamation</td>
<td>$200,000.00</td>
<td>$1,680,600.00</td>
<td>25</td>
<td>9</td>
</tr>
</tbody>
</table>

The proposals in the green color-coded portion of the table would be recommended by NTTT for funding.

All sheets of the NTTT Scoring and Ranking Spreadsheet will be saved as a read-only file under the subject fiscal year in the Technical Studies Database. If any question arises as to why a given proposal was, or was not recommended for funding, the information is retained on the spreadsheet. Also, the rationale behind every decision made during the merit based scoring and ranking procedure is retained on the spreadsheet, or on the regional spreadsheets. Rationales behind scores provided by experts, and individual team members will be retained on the individual scoring forms, as illustrated in Appendix E.
FAM DEFINITION OF SUBSTANTIAL FEDERAL INVOLVEMENT

What is considered under FAM 2-100-60 to be Substantial Federal Involvement during project performance?

A. We may consider the following activities to constitute Substantial Federal Involvement during project performance, depending on the specific circumstances:
   
   a. We have an option to halt an activity immediately (for example, if construction specifications are not being met);
   b. Requiring you to get our approval of one stage of project activity before beginning work on a subsequent stage within the performance period;
   c. Approving, or helping you select, recipients of contracts or sub-grants you award under the assistance instrument; if this level of involvement is required by law or authorized by waiver;
   d. Helping you select your key personnel;
   e. Collaborating or participating jointly with you in performance of project activities;
   f. Monitoring performance to provide specific direction or re-direction of work;
   g. Setting agreed-upon requirements before award, defining the scope of services offered, organizational structure, staffing, mode of operation, and other management processes. Closely monitoring or working with you to ensure compliance with these requirements beyond the exercise of normal Federal stewardship.

B. We do not consider the following activities to be Substantial Federal Involvement in project performance:
   
   a. Approval of your plans prior to award;
   b. Performing normal Federal stewardship responsibilities during performance to ensure that the objectives, terms, and conditions of the award are accomplished;
   c. Reviewing your performance after the project is completed;
   d. Enforcing legal requirements such as civil rights, environmental protection, and provisions for the disabled.
   e. Enforcing general fiscal and administrative requirements such as those included in Office of Management and Budget (OMB) regulations;
   f. Becoming more involved than was expected because of problems in your project or financial performance

C. We do not consider providing technical assistance, advice, or guidance to you as Substantial Federal Involvement during project performance if any of the following conditions are met:
   
   a. We provide assistance at your request;
   b. We do not require you to follow the advice;
   c. We do require you to follow our guidance, but we provide it before the project starts and we informed you of this requirement before we made the award.
APPENDIX I

TECHNICAL STUDIES PROGRAM AMENDMENTS AND POST-AWARD CHANGES
What is covered in this Appendix?
If you need to make a program or budget change to your cooperative agreement, this appendix explains how you should submit your request for a change, which changes require our approval, and how we will process your request.

What is our policy for amendments and post-award changes?
OSMRE policy is as follows:

A. You must submit your proposed change or amendment before you actually make the change or incur an obligation. If you incur costs prior to our approval, we may disallow those costs.

B. We may not approve any change in your agreement if we receive your request after the scheduled end date of the performance period. Requests resulting from unforeseen circumstances, beyond your control, will be considered on a case-by-case basis.

C. If you are requesting a time extension, you must submit your request at least 30 calendar days prior to the scheduled performance period end date. If we approve your request, we will normally approve only one extension, for a period of no longer than one year. If you require additional consideration, you must justify your special or unusual circumstances.

D. We will not close your cooperative agreement:
   a. If your agreement is in litigation or under appeal;
   b. If your agreement has been terminated for any reason and we have not completed the termination action;
   c. Until you have paid all allowable allocable and reasonable costs and we have de-obligated any excess funding.

E. Department of the Interior Common Rule at 43 CFR, Part 12 lists all changes requiring OSMRE approval.

What changes require OSMRE approval?
Among the changes listed in 43 CFR, Part 12 are:

A. Any budgetary revision resulting in a need for additional funding;

B. Any revision to the scope, goals, or objectives of your project;

C. Any need to extend the performance period;

D. Any change in key persons working on your project;

E. Any change in the level of contribution by other financial contributors to your project;

F. Any change in your financial or accounting systems.

If you are unsure if your change requires OSMRE approval, please contact your servicing grant specialist.

What are the procedures to request changes to the agreement?

A. You must submit a formal amendment request if you wish to change any of the following items:

   a. Adding more funds to your agreement;
   b. De-obligating unneeded funds prior to the end of your performance period;
c. Extending you performance period;
d. Changing the scope of your project – scope changes are any changes in the objectives of
the agreement or any performed work that is not covered in the approved plans.

You may submit your formal amendment to the OSMRE grant specialist administering your
cooperative agreement by normal or electronic mail. You must have the capability of submitting
signed documents. Scanned documents are acceptable.

B. You may request changes in your agreement by written notification if your request involves any
of the following:
   a. Changes in key personnel that require OSMRE approval;
   b. General changes in the project that do not involve changes in scope or key personnel;
   c. Cumulative transfers among budgeted direct cost categories that exceed the (10)
      percent of the current approved budget;
   d. Any cost item not included in the original budget that requires OSMRE approval – you
      can find more information regarding these cost items in 2 CFR, part 220 or 225.

Your written notification must include a narrative justification and revised budget information
for the requested change, if appropriate. You must send this request to the OSMRE grant
specialist administering your agreement. You have the option to submit by regular or electronic
mail.

What are the requirements for a formal amendment?
If we require you to submit a formal amendment, you must submit, at a minimum:

A. An application for Federal Assistance, form SF-424;
B. A program narrative justifying the requested change – you may submit in any format, or use our
   optional form OSM-51;
C. Revised budget information, if appropriate.

How and when will OSMRE process your change requests?

A. We will make a decision on your request and notify you within 30 calendar days of receipt of the
   request. If we need more time to consider your requests, we will notify you as to when we will
   decide;
B. If we approve your request, we will process your submissions and either award your
   amendment, or send approval documents within 40 calendar days of your request;
C. We will maintain your submissions and approval/award documents in our official file.
APPENDIX J

Technical Studies Program Applied Science Projects - Closeout
TECHNICAL STUDIES PROGRAM APPLIED SCIENCE PROJECTS – CLOSEOUT

What is covered in this Appendix?
This appendix covers how to close an Applied Science or Technical Investigation cooperative agreement under the Technical Studies program.

Where do these requirements come from?
The Department of the Interior has established the requirements for the Code of Federal Regulations (CFR) Title 43, Part 12, Subpart C, Administrative and Audit Requirements and Cost Principles for Assistance Programs.

What is our policy for closing cooperative agreements?
OSMRE policy is as follows:

A. You shall close out your cooperative agreement at the end of your performance period.
B. Your closeout package is due to us 90 days after the end of the performance period. Under certain circumstances, we may approve your request to extend the due date for your closeout documents.
C. We will normally close your agreement within 180 calendar days after the end of the performance period.
D. We will not close your cooperative agreement:
   a. If your agreement is in litigation or under appeal;
   b. If your agreement has been terminated for any reason and we have not completed the termination action;
   c. Until you have paid all allowable allocable and reasonable costs and we have de-obligated any excess funding.
E. You are subject to records retention requirements. We have a right of access to those records, and you retain a responsibility for program property.
F. We may close your cooperative agreement without audit. However, we reserve the right to take additional administrative action resulting from the findings of a subsequent audit.

What must I submit to close my cooperative agreement?
To request a closeout, you will submit to us:

A. A transmittal letter – include a statement in the letter that you consider the cooperative agreement to be complete, that you have made payments for all allowable costs from awarded funds, and that, subject to final audit, OSMRE is released from all obligations arising from the agreement;
B. Final Federal Financial Report (SF-425);
C. Final Progress Report;
D. Your Report of Government Property (Form OSM-60), if applicable;
E. A listing of all in-kind services and materials you received that directly contributed to completion of the project, and their value;
How can I request an extension of my final report due date?
If you have made every reasonable effort to send a complete closeout package by the due date, and you will not be able to do so, you may send us a request to extend your final report due date and written justification supporting your request. You shall also submit interim financial and program narrative reports within 30 days of the performance period end date.

How will OSMRE review and process my closeout package?
A. We will verify that you have submitted complete and acceptable documents and we will work with you to obtain missing or corrected documents;
B. We will verify all changes to your cooperative agreement, and that we have included all revisions in your agreement;
C. We will resolve with you any suspensions, withholdings, disputes, or violations of agreement clauses and assurances;
D. We will include a written evaluation of your performance report in our file for the cooperative agreement;
E. We will approve the disposition of any property you may have purchased with cooperative agreement funds;
F. If you have any federally owned property, we will reconcile it with our records;
G. We will de-obligate any excess funds from your cooperative agreement;
H. We may use the Grant and Cooperative Agreement Closeout checklist to document the closeout in our files;
I. We will notify you that your cooperative agreement is closed, and remind you of your records retention requirements.
APPENDIX K

Quarterly Performance Report Format
A separate performance report must be completed for each project and submitted quarterly. The quarters are based on the calendar year (i.e. 1st qtr = January – March, 2nd qtr = April – June, 3rd qtr = July – September, 4th qtr = October – December). The PI has one month after the end of the quarter to submit the quarterly reports.

Each report MUST reference your OSMRE Cooperative/Interagency Agreement Number.

Introduction
Include a brief introduction of your project. The same introduction may be used on every progress report submitted.

Task Description
This section will include a list of the tasks that have been initiated during this reporting period. The descriptions need to come from the Statement of Work.

Summary of this Quarter’s Accomplishments and Significant Events
All accomplishments, meetings attended regarding the project, etc. are to be listed in this section. If any milestones have been reached or significant advances been made, list them here.

To-Date Accomplishments
This section will be from a broader perspective than the previous section. Here, simply list the percentage completed of all tasks scheduled up to this date.

Technical Progress
This section is left to your discretion. You may embed figures and tables in the text or place on separate pages. Note that any data must be accompanied by a thorough description and any tables or figures need to be able to stand on their own.

Plans for Next Period
List general plans for the upcoming period. This includes which tasks will be initiated, etc. Also list all unresolved issues.
APPENDIX L

Final Report Template
Geotechnical Properties and Flow Behavior of Coal Refuse under Static and Impact Loading

OSMRE Cooperative Agreement Number: #
Final Report

Reporting Period (Start Date and End Date)

Principal Author(s):
(Private Investigator (PI) for the project should be listed first)

Date Report was Issued (Month [spelled out] and Year [4 digits])

Name and address of submitting organization
(This section should also contain the name and address of significant contractors or subcontractors who participated in the production of the report.)
Disclaimer

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.
Abstract
A brief, concise summary of the report

Graphical Materials List

Introduction

Executive Summary
It should be a well organized summary that highlights the important accomplishments of the project during the reporting period. It should be no less than one page and no more than two pages in length, and should be single spaced. This summary must be much more comprehensive than the traditional “abstract.”

Experimental
It should describe, or reference all experimental methods being used for the project. It should also provide detail about materials and equipment being used. Standard methods can be referenced to the appropriate literature, where details can be obtained. Equipment should be described only if it is not standard, or if information is not available through the literature or other reference publications.

Results and Discussion
It is extremely important to include enough relevant data, especially statistical data, to allow the project manager to justify the conclusions. It also means that only relevant data should be included in the report. With the relevant data, explain how you interpreted the data and how that relates to the original purpose of the project. Make it very clear on how this applied science effort solved or contributed to solving the original problem.

Conclusion
It should not simply reiterate what was already included in the “Results and Discussion” section. It should summarize what has already been presented, and include any logical implications, to include how the successes are relevant to technology development in the future. This is extremely important, since “relevancy” continues to be a criterion.

References
APPENDIX M

Fact Sheet Template
Geotechnical Properties and Flow Behavior of Coal Refuse under Static and Impact Loading

Authors: Karl Williard1, Blair Borries1, Timothy Straub2, Donald Roseboom2, Clayton Nielson1, Veronica Kelly1, and Jack Nawrot1
Affiliations: Southern Illinois University Carbondale1 and United States Geological Survey, Urbana, IL2

Project Description and Objectives:
Millions of tons of coal waste are produced every year and stored in coal waste slurry impoundments. Since impounded slurried waste has high water content and low shear strength, an inadequately designed or constructed impounding structure is susceptible to the flow failure via a breach of its embankment following static or impact (e.g. blast-induced) loading.

In other cases a flow failure may occur in the form of a breakthrough into an adjacent or subjacent underground mine.

Applicability to Mining and Reclamation:
The results of this study provide a better understanding of coal waste slurry flowability and consequent failure potential of coal waste impoundments. It is concluded that using liquid limit as the maximum allowable water content is an appropriate, conservative option for preventing flow failure during the construction and expansion of an impounding facility. In addition, the construction of slurry cells in place of large impounding structures was found to be an effective countermeasure to flow-failure potential. Both types of failure endanger public safety and health, property. The influence of important parameters such as water content, particle size distribution, viscosity, and magnitude of static and impact loading on the material’s flowability was investigated.

Methodology:
The geotechnical properties and flow behavior of impounded coal refuse under static and impact loading was assessed by using a range of standard laboratory tests, and small-scale model and centrifuge model experiments. The centrifuge model was used to measure slurry flow characteristics under loads equivalent to those imposed on slurry at depth in a typical impoundment. All of the tests followed ASTM standards or common practices used in geotechnical engineering. The tests and experiments were conducted on coal waste slurry samples collected at two coal preparation plants, one each in Kentucky and West Virginia.

In addition, the construction of slurry cells in place of large impounding structures was found to be an effective countermeasure to flow-failure potential. Both types of failure endanger public safety and health, property. The influence of important parameters such as water content, particle size distribution, viscosity, and magnitude of static and impact loading on the material’s flowability was investigated.
Highlights:

Important conclusions of the study include the following:

1. Geotechnical properties of the coal waste slurry such as particle size distribution, specific gravity, compressibility, consolidation parameters, permeability, liquid and plastic limits, in-situ water content, shear strength, and viscosity play important roles in the flow characteristics of coal waste slurry.

2. Flow did not occur at water contents slightly higher than the liquid limit. By comparing the results of the small scale model test and centrifuge test, it was found that the increase of mass or volume of slurry sample increased flow velocity.

3. The advantage of slurry cells is related to the dikes of coarse refuse separating them, i.e. their great stiffness and geotechnical strength, high permeability, and ability to engender speedy dissipation of pore water pressure within the slurried fine refuse.

Results and Findings:

A few of the findings from the study include the following: The flow characteristics of the coal waste slurry samples were greatly dependent on water. Since impounded slurred waste has high water content and low shear strength, an inadequately designed or constructed impounding structure is susceptible to the flow failure via a breach of its embankment following static or impact (e.g. blast-induced) loading. In other cases a flow failure may occur in the form of a breakthrough into an adjacent or subjacent underground mine.

The geotechnical properties and flow behavior of impounded coal refuse under static and impact loading was assessed by using a range of standard laboratory tests, and small-scale model and centrifuge model experiments.