

5. Annual Report of the Postmaster General. (Deborah K. Bowker, Vice President, Communications.)

16. Annual Comprehensive Statement to Congress. (William T. Johnstone, Vice President, Government Relations.)

7. Election of Chairman and Vice Chairman.

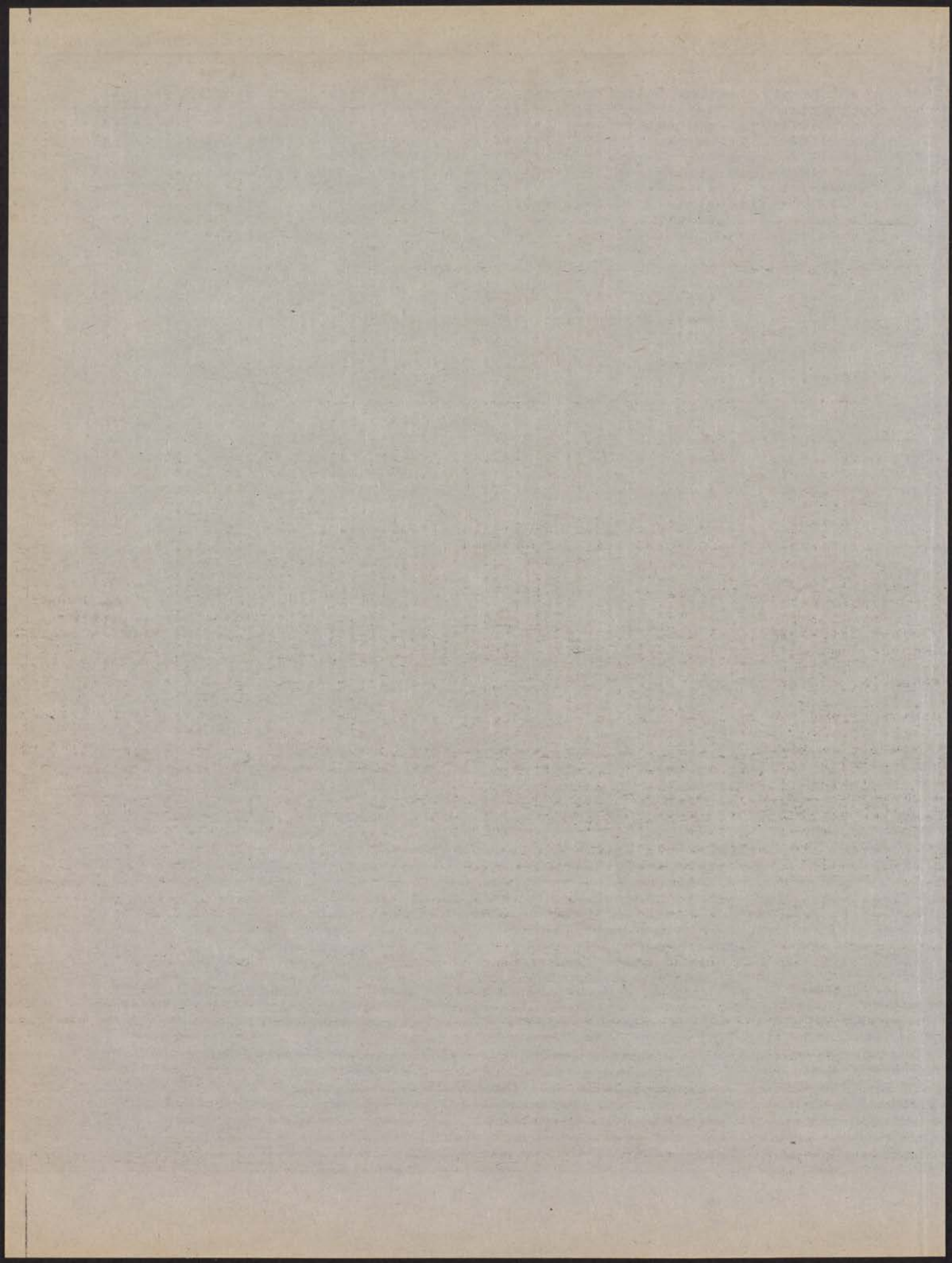
8. Tentative Agenda for the February 1-2, 1993, meeting in Washington, DC.

David F. Harris,

Secretary.

[FR Doc. 92-31329 Filed 12-21-92; 3:49 pm]

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Part II

**Nuclear Regulatory
Commission**

48 CFR Chapter 20

Acquisition Regulation (NRCAR); Final
Rule

NUCLEAR REGULATORY COMMISSION

48 CFR Chapter 20

RIN 3150-AC01

Acquisition Regulation (NRCAR)

AGENCY: Nuclear Regulatory Commission.

ACTION: Final rule.

SUMMARY: The Nuclear Regulatory Commission (NRC) is revising its Nuclear Regulatory Commission Acquisition Regulation (NRCAR) to establish requirements for the procurement of goods and services within the NRC to satisfy the particular needs of the agency. This rule expands the existing NRCAR to implement and supplement the government-wide Federal Acquisition Regulation (FAR). This rule applies to all contracts, including small purchases, where specified, awarded on or after the effective date, and to modifications awarded on or after the effective date which require a justification for other than full and open competition.

EFFECTIVE DATE: January 22, 1993.

FOR FURTHER INFORMATION CONTACT: Edward L. Halman, Director, Division of Contracts and Property Management, Nuclear Regulatory Commission, Washington, DC 20555. Telephone: (301) 492-4347.

SUPPLEMENTARY INFORMATION:

Background

The policies and procedures of the Federal Government regarding the procurement of supplies and services have been developed in a largely independent fashion. Many statutes bearing on Federal contracting have been directed toward specific agencies. Federal agencies traditionally have developed their own contracting procedures with limited attention to uniformity among agencies. The result was a system of procurement policies that varied from agency to agency, causing confusion within the contracting community. As long ago as 1972, the Commission on Government Procurement recommended that there be a standard Government-wide procurement regulatory system. The Office of Federal Procurement Policy, created in 1974, has worked with the agencies and the public to create a uniform procurement regulation known as the Federal Acquisition Regulation (FAR).

The FAR has been promulgated as the uniform, simplified acquisition regulation called for by Executive Order

12352, Federal Procurement Reforms. The FAR, which was issued by the General Services Administration, Department of Defense, and National Aeronautics and Space Administration, superseded the Defense Acquisition Regulation (DAR), the Federal Procurement Regulation (FPR), and the National Aeronautics and Space Administration Procurement Regulation (NASAPR) on April 1, 1984. The FAR was published in the Federal Register on September 19, 1983 (48 FR 42102) with an effective date of April 1, 1984. The FAR is codified as chapter 1 of title 48 of the Code of Federal Regulations.

Because of differing statutory authorities among Federal agencies, the FAR authorizes agencies to issue regulations to implement FAR policies and procedures internally and to include additional policies and procedures, solicitation provisions or contract clauses to satisfy the specific needs of the agency. The regulations being published today represent the NRC's necessary implementation and supplementation of the FAR.

Debarment, Suspension and Ineligibility

A single provision of the NRCAR was published as a final rule July 1, 1992 (57 FR 29220). That provision only contained agency debarment, suspension and ineligibility procedures. This rule publishes the NRCAR in its entirety, including the debarment procedures.

Organizational Conflicts of Interest

The proposed rule, which was published for public comments on October 2, 1989 (54 FR 40420), contained organizational conflicts of interest (COI) provisions which prohibited contractors from doing work for others that fell within the broad-scope of the underlying contract.

On August 15, 1991, the Commission approved a revision to its proposed NRCAR modifying the Agency's COI policy. The thrust of this revision limited COI restrictions to the relatively narrow scope and shorter duration of individual task orders rather than to the entire scope and term of the basic contract. While the NRC believed that the revised policy would increase competition for NRC technical assistance and research work, additional restrictions were added to (a) avoid the potential for unfair competitive advantage that could result if NRC contractors were permitted to market their services while working for NRC at a licensee site, and (b) ensure that NRC contractors do not have divided

financial interests while working at a licensee site.

Two of NRC's major technical assistance and research contractors commented that the COI provision, approved on August 15, 1991, was overly restrictive and would impede rather than enhance NRC's ability to increase competition in the technical assistance marketplace. Therefore, the NRC held a public meeting on March 26, 1992, in order that all interested parties could provide further comments on the proposed revision of the Commission's COI policy or provide alternatives that would achieve an equivalent level of COI protection (57 FR 4652; February 6, 1992).

The nature of the comments received in connection with the March 26, 1992, meeting varied with respect to how the commenters viewed the restrictiveness reflected in the proposed revision to the COI policy. While a number of commenters found the existing COI language adequate, others stated the policy was overly restrictive and lacking in flexibility.

The Commission has considered the comments concerning the substantial restrictions against performing any work at an NRC licensee site where the contractor performs on-site work for NRC, coupled with the lack of flexibility in applying this restriction, and agrees that exceptions to the blanket restriction may be permitted in appropriate cases. Thus, the Commission has modified the restriction to authorize the NRC contractor to perform work for NRC licensees at the site of work performed for NRC if:

(a) The work is not in the same technical area as the work performed for NRC; and

(b) The contracting officer determines that the specific situation will not pose a potential for technical bias or unfair competitive advantage.

In making the determination, the contracting officer will consider factors such as: the relative value of the work for NRC; whether there has been an on-going contractual or financial relationship between the NRC contractor and the NRC licensee that predates the NRC contract; whether the NRC contractor gained information about the availability of work for the NRC licensee as a result of contractor access to the site under the NRC contract; the relative amount of time spent at the site by the NRC contractor's personnel; whether the work for NRC at the site is specific or is a part of a generic task or contract; and any other factors that may indicate financial ties or competitive advantage.

requirement to disclose all other work proposed to be done by the contractor for others that may give rise to a COI situation. The specific objection related to the requirement that the NRC be informed of the work at least 15 days in advance of undertaking the work. Some companies complained that it is difficult for diversified firms to ensure that the division performing the work for NRC would be aware of the work by other divisions 15 days in advance in all cases. Giving due consideration to these comments, the Commission has modified the provision to require that the contractor use due diligence to identify and obtain information about work for others that would fall within the scope of the NRC contract, and report the information to NRC 15 days in advance of undertaking the work. The Commission has also added a corresponding provision which indicates that the contracting officer may approve reporting not in accordance with this provision in cases where the contractor justifies the deviation on the grounds of urgency or by showing that despite the exercise of due diligence, the contractor's officials responsible for the NRC contract were not aware of the work for others falling within this provision.

The above revision to the Commission's COI policy has published as a proposed rule August 18, 1992 (57 FR 37140). The final draft rule which was not changed from the proposed rule was approved by the Commission November 2, 1992. This final rule incorporates the November 2, 1992, COI language.

Administrative Procedure Act

Section 553 of the Administrative Procedure Act (5 U.S.C. 551 et seq) exempts rules relating to public contracts from the prior notice and comment procedure normally required for informal rulemaking. However, the Office of Federal Procurement Policy (OFPP), Office of Management and Budget, has established procedures to be used by all Federal agencies in the promulgation of procurement regulations. OFPP Policy Letter 83-2 states that an agency must provide an opportunity for public comment before adopting procurement regulation if the regulation is "significant."

This regulation is issued principally to create one body of guidance incorporating previously cleared procedures, to exercise delegations established by the FAR and to adopt other procedures that will not have a cost or administrative impact on contractors. The NRC issued its acquisition regulation proposed rule for

public comment on October 2, 1989 (54 FR 40420). The section on organizational conflicts of interest was issued for public comment on August 18, 1992 (57 FR 37140).

Public Comments

A proposed rule was published in the Federal Register on October 2, 1989 (54 FR 40420). Three organizations commented and all comments were considered in the development of this final rule. The comments and responses are summarized below, in the order of the NRCAR text with the exception of organizational conflicts of interest which is contained in a separate subsection.

One commenter suggested that NRCAR 2001.402, concerning policies for deviations from the FAR and the NRCAR, is instructional language that should be excluded from the NRCAR and issued through an NRC internal issuance. This policy, as much as any other internal concurrence or approval, affects the flow of the procurement process. Just as the FAR has a parallel Subpart 1.4, and numerous other specified internal concurrences and approvals, this section is an important part of the NRCAR. In addition, the place to specify the policies for deviating from any requirement is in the policy itself. This section remains in the NRCAR.

One commenter suggested that NRCAR 2001.602-3, Ratification of Unauthorized Commitments, is unnecessary. However, this provision specifies which officials within NRC may approve ratifications. It also specifies the information which must be provided to seek approval of a ratification. The contracting community can be profoundly affected by these policies. Therefore, this section remains in the NRCAR.

One commenter asked if NRCAR 2009.1, Responsible Prospective Contractors, provides special treatment to a firm predominantly staffed by former NRC employees, none of whom were employed by the NRC within the last two years. It does not. NRCAR 2009.1 is designed to prevent preferential treatment under the "revolving door" concept. To extend this restriction beyond two years is not practical in terms of recordkeeping and would be unduly restrictive for individuals whose firms have either survived or formed after a reasonable hiatus from government employment.

One commenter suggested that the NRCAR requirement found at § 2009.405-2(a) for a certification of debarment status is inconsistent with FAR clause 52.209.5. FAR clause

52.209-5 was added to the FAR in 1989. Therefore, the NRCAR clause is no longer necessary and has been removed from the final rule.

One commenter suggested that NRCAR 2009.570-3(c) contains instructional language that should be excluded from the NRCAR and promulgated through one of the NRC internal issuances. This section contains examples of conflicts for the information of potential contractors, as well as NRC staff and therefore, belongs in the survey. These examples are formatted to be similar to those in FAR 9.508, Examples, but the examples are specific to the NRC. The guidance provided after each example is used to illustrate, for potential contractors, as well as NRC staff, the possible resolution of each situation. Therefore, this section remains in the NRCAR.

One commenter questioned why § 2014.201-670(b)(1) requires that past experience be described in all bids. This requirement has been edited to make it optional to fit circumstances. In some instances there is little or no procurement history available, the information requested concerning bidder qualifications and past experience enables the contacting officer to query the contacts identified and ascertain the offeror's performance record, integrity and business ethics.

One commenter suggested moving paragraphs (d) and (e) of NRCAR 2052.214-72, Bid Evaluations, to a new section NRCAR 2014.404-2. This information on materially unbalanced bids and separate charges remains in the provision because knowledge of this information can affect acceptance of the bid. These situations have occurred enough to merit including this information in the provision.

One commenter expressed concern that the requirement for all proposed work to be considered as stated in NRCAR 2019.705-2, Determining the Need for a Subcontracting Plan, is inconsistent with FAR 19.705-2. Both texts state that all proposed contract actions must be considered when determining whether a subcontracting plan will be required. NRCAR 2019.705-2 is therefore an unnecessary duplication and has been removed from the final rule.

One commenter suggested that NRCAR 2019.705-4, Reviewing the Subcontracting Plan, duplicates the FAR (19.7). However, the NRCAR text provides additionally that subcontracting plans may be requested from all concerns in the competitive range, and clarifies conditions for acceptance of master subcontracting plans. Because these provisions are not

in the FAR, the NRCAR text is necessary to provide consistent treatment of proposers.

One commenter suggested that NRCAR 2020.102 duplicates the FAR (20.3). However, the NRCAR text identifies the office that needs to be contacted for labor surplus area set-asides.

A commenter stated that the additional patent reporting requirements stated in NRCAR 2027.305-3 go beyond those required by the FAR. FAR 27.305-3(a) states that Agencies shall maintain appropriate procedures to protect the Government's interest and to check that subject inventories are identified and disclosed. The reporting described in the NRCAR simply requires the contractor to certify that no patent or similar activities took place under the contract. This response is necessary to document that the contractor has not generated work to which the Federal government might have technical or economic rights. This requirement remains in the NRCAR.

One commenter suggested that NRCAR 2035.71, Broad Agency Announcements, duplicates FAR 35.016, Broad Agency Announcement. The duplicate text has been removed from the final rule.

One commenter suggested that NRCAR 2042.803(b) be revised to state that audit cost issues will be resolved within 30 days when payment has not already been made to the contractor. The period in other situations would remain at six months. Contractors who have a need to receive payment due to a hardship currently can offer to help expedite the decision making process. Otherwise, six months is a reasonable period of time for receiving and reviewing audit reports, preparing positions and correspondence, and conducting negotiations. Because the process is dependent on a number of inputs, including the contractor's, the language has been clarified to indicate that "within six months" is a goal, not a deadline.

One commenter suggested that a standard for technical performance reports, OMB Circular A-110, Attachment H, Monitoring and Reporting Program Performance, be used, and took exception to monthly reporting requirements in NRCAR clause 2052.212-71, Technical Progress Report. The requirements of OMB Circular A-110 are applicable only to certain financial assistance awards; and are not appropriate for NRC contracts. However, the prescription for the NRCAR clause 2052.212-71 states that the contracting officer may alter the clause. This prescription has been

strengthened to clarify that the frequency of reporting is set at whatever frequency is meaningful and productive for each contract, considering the size and complexity of the particular project or program.

One commenter suggested that a standard for financial assistance, OMB Circular A-110, Attachment G.3.a, Financial Status Report, should be used to set the frequency of submission for Financial Status Reports under NRC contracts. The prescription for NRCAR 2052.212-72, Financial Status Report, states that the contracting officer may alter the clause. This prescription has been strengthened to clarify that the frequency of reporting is set at whatever frequency is meaningful and productive for each contract.

Paragraph (a) of NRCAR provision 2052.214-72 is duplicative of FAR clause 52.214-4, False Statements, and has been removed from the final rule.

It was suggested by one commenter that NRCAR clause 2052.215-76 be modified to require that cost related information on proposed subcontracts be included in the cost proposal, rather than the technical and management proposal. This change has been made to the final rule.

The same commenter recommended that paragraph (e)(4) of NRCAR clause 2052.215-76 permit offerors to address the criteria enumerated under paragraphs (e)(4)(i) through (e)(4)(ix) in other than the manner and sequence outlined. This would lead to inconsistencies and difficulties in evaluating proposals. The commenter suggested that the proposed change would provide offerors with flexibility to develop and structure their respective technical and management proposals in a format consistent with the stated evaluation criteria contained in an NRC solicitation. However, NRCAR 2015.407-70(b)(2) already states that the provision must be tailored to assure that all sections reflect the evaluation criteria. Therefore, no change has been made to the final rule.

One commenter suggested that the NRCAR clause 2052.215-76 should be expanded to include guidance for completion of the referenced Contractor Spending Plan. NRC's internal instructions provide only a suggested format which must, as the internal guidance states, be modified to meet each situation. The plan format developed for each specific proposed contract will appear in the Request for Proposal. While a Contractor Spending Plan is required for each applicable contract, the degree of flexibility permitted to the contracting officer is such that guidance for completion of

each plan is not appropriate in this regulation. No change is made to the provision for this purpose.

Subpart 4.603, Solicitation Provision, which requires in provision § 52.204-4 that contractors provide Data Universal Numbering System (DUNS) information, was added to the FAR by Federal Acquisition Circular 84-50. Therefore, NRCAR clause § 2052.215-73, Data Universal Numbering System (DUNS), is no longer required and has been removed from the final rule.

A comment was made that section 24, Public Law 100-679, exempts universities from having to comply with the Federal Travel Regulations if they follow their own travel policies in accordance with OMB Circular A-21, Cost Principles for Educational Institutions. Therefore, the commenter stated, NRCAR clause 2052.215-79, (formerly § 2052.215-75) Travel Reimbursement, should be modified in accordance with part 31 of the FAR, and several OMB Circulars, including A-21 (cost principles applicable to universities). A second commenter suggested that the clause be amended to be consistent with FAR part 31.205-46. NRCAR clause 2052.215-79 has been modified to make these clarifications. With these changes and the deletion of the word "domestic" from the first sentence of paragraph (c), paragraph (d) is no longer necessary and has been removed from the final rule.

One commenter states that NRCAR clause 2052.215-80, Travel Approvals, is inconsistent with OMB Circular A-21, when it says that "all domestic travel requires the prior approval of the project officer." OMB Circular A-21, Paragraph J.43.f of A-21, which is applicable to both direct and indirect costs, states that "domestic travel cost are allowable when permitted by the sponsoring agreement." Paragraph C.2 of A-21, Factors Affecting Allowability of Costs, states that in order for costs to be allowable, "they must conform to any limitations or exclusions set forth in these principles or in the sponsored agreement as to types or amounts of cost items." The NRC has reserved to project officers, whose role includes monitoring work and associated costs, the ability to determine that domestic travel costs are necessary and prudent expenditures under the contract. No change to this provision has been made in the final rule.

One commenter suggested that provision § 2052.216-74, Task Order Procedures, should specify the task order proposal due date which has been set by mutual agreement. Task ordering contracts are negotiated for needs that are not clearly defined and which will

need to be provided for quickly. The NRC contract administrator is responsible for setting a due date which reflects the agency's needs. If circumstances arise which prevent it from meeting the due date, the contractor should alert the contract administrator at the earliest opportunity. Therefore, no change is made to the provision of the final rule.

NRCAR clause 2052.235-70, Publication of Research Results, has been revised to clarify the requirements for the use of NRC Management Directives.

NRCAR clause 2052.245-71, Private Use of Contract Information and Data is deleted, since NRCAR clauses 2052.235-70 and 2052.235-71 provide adequate coverage.

Organizational Conflicts of Interest

Comments on the COI language contained in the proposed rule published on October 2, 1989 (54 FR 40420):

One commenter suggested that NRCAR 2009.570-5 and the additions to the general organizational conflicts of interest clause set forth under contract clauses §§ 2052.209-76 and 2059.209-77 conflicts restrictions should only be applied to work which is the same or similar to NRC work. The commenter stated that this would protect the NRC against situations which may (a) result in providing an offeror or contractor with an unfair competitive advantage, or (b) impair the offeror's or contractor's objectivity in performing work for the NRC. Paragraph (2) of § 2052.209-76, which would have required prior approval of the contracting officer to perform same or similar services; has been deleted and a new paragraph (§ 2052.209.73(c)(3)) has been added to the final rule. The paragraph prohibits the contractor from performing any of the following activities for a period of one year upon completion of work at a licensee or applicant site: (1) Soliciting work at that site; (2) performing work at that site; and (3) performing work in the same technical area for the licensee or applicant organization regardless of location. While the deletion may lead to some situations whereby NRC will not be able to issue some task orders to a contractor because of the contractor's other work for licensees started after the beginning of the NRC contract, the NRC believes that other alternatives exist to get the work accomplished. The new paragraph will minimize situations of unfair competitive advantage. Language has been added to NRCAR 2052.209-73(d)(3) to limit denial of approval under task order contracts to situations

where NRC has issued to plans to issue a task order in the same technical area or at the site.

A commenter suggested that paragraph (d), Disclosure After Award, be deleted in its entirety from NRCAR clause 2052.209-74 (currently § 2052.209-73(d)(3)). The commenter states that NRCAR 2052.209-74(c) already requires contractors to make immediate and full disclosure. However, paragraph (d)(1) also requires the contractor to provide a negative response. Paragraph (d)(3) additionally requires that any disclosure must include a description of action taken to avoid or mitigate such conflicts. NRCAR 2052.209-77 (currently § 2052.209.73(d)) requires that additional text be added to paragraph (d)(3), to clarify the applicability to task orders. Therefore, paragraph (d) is not deleted.

One commenter proposed that NRCAR clause 2052.209-77 (currently § 2052.209.73(d)(3)), Contractor Organizational Conflicts of Interest-Language for Task Order Contracts, imposes a burdensome information reporting requirement. Paragraph (d)(3) provides that the contractor will disclose all proposed new work of any type involving NRC licensees or applicants. The commenter suggested a change in the wording to "the same as, or substantially similar to." The commenter states correctly that this disclosure is necessary regardless of whether the proposed activities represent a potential or actual conflict of interest with work being performed for the NRC. Additionally, circumstances other than the nature of a contractor's work, such as its financial ties to a licensee could constitute a conflict of interest. Consequently, the disclosure requirements in paragraph (d)(3) remain unchanged in order that the Contracting Officer be provided with all requisite information in reaching a determination on organizational conflicts of interests. Therefore, no change is made to paragraph (d)(3) of this clause.

One commenter suggested that the contracting officer should be permitted to alter any conflict of interest clause. The clauses currently provide for basic policies to be applied in all or designated cases. Waivers or contracting officer decisions would provide flexibility in policy application. Open-ended altering of the basic policies would cause inequities and unnecessary delays to the procurement process. Therefore, the language is not changed for this purpose.

Comments on the COI language on the August 18, 1992 proposed rule (57 FR 37140):

Only one comment was received. It endorsed the proposed rule changes. The commenter also provided certain comments on implementation of the rule change. The commenter indicated that implementation of the rule should permit an NRC contractor to discuss and reach agreement with the NRC contracting officer concerning the application of the proposed restrictions to certain types of work for others which the contractor may wish to solicit in advance of such solicitation. The rule proposed would permit such discussion provided that the contractor can provide the contracting officer with the information, outlined above, to enable the contracting officer to determine that the situation will not pose a potential for technical bias or unfair competitive advantage. The commenter also indicated that it expected that, in instances in which the contractor expresses an interest in pursuing totally unrelated activities, a determination permitting an exception to the work for others restrictions would be a timely and routine matter. Under the proposed rule, exceptions from the work for others restrictions is a matter of discretion of the contracting officer, provided that contracting officer is able to reach a determination, on the basis of the factors discussed above, that the proposed work for others will not pose a potential for technical bias or unfair competitive advantage. The fact that the proposed work is totally unrelated to work being done for NRC would be an important factor in such a determination, but the other factors outlined above would also need to be considered.

Other Revisions

Since the proposed rule was published (October 2, 1989; 54 FR 40420) other amendments to proposed NRCAR text have been made as a result of internal review, changes in the Federal Acquisition Regulation, and coordination with other agencies. The amended sections are:

Section 2015.604 which incorporates the Procurement Integrity Act.

Section 2015.610 which provides more specific guidance on the conduct of written and oral discussions.

Section 2015.611 which clarifies the Source Evaluation Panel's basic role as one of fact-finding and scoring.

Section 2009.405-2, in which paragraph (a) has been deleted to be consistent with FAR 9.404.

Section 2009.570-8 which exempts supply subcontractors and includes the

\$10,000 threshold requiring offerors and contractors to have subcontractor and consultants submit a COI representation.

Section 2012.104-70 which gives the Contracting Officer more discretion in determining the reporting schedule.

Section 2014.201-670(b)(1) which makes the inclusion of this section optional to fit the circumstances.

Section 2052.214-72, in which paragraph (a) has been removed because it duplicated FAR 14.201-6(b)(4) and the clause cite has been changed to "FAR Subpart 1".

Section 2019.705-2 which has been removed because it duplicated FAR.

Section 2035.71 in which paragraphs (a) and (b) (4) and (2) have been removed because they duplicated FAR.

Section 2052.215-73, which has been removed because it duplicated FAR 4.603.

Section 2052.216-70, which segregates professional and clerical staff years.

Section 2052.235-71 which has been removed because it was inconsistent with Executive Order No. 12591.

Environmental Impact: Categorical Exclusion

The NRC has determined that this regulation is the type of action described in the categorical exclusion set forth in 10 CFR 51.22(c) (5) and (6). Therefore, neither an environmental impact statement nor an environmental assessment is required for this rule.

Paperwork Reduction Act Statement

This final rule amends information collection requirements that are subject to the paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.). These requirements were approved by the Office of Management and Budget approval number 3150-0169.

The information collection requirements were submitted to OMB at the proposed rule stage. At that time, OMB denied approval. OMB believed that rather than promulgating an NRC regulation, NRC should forward those provisions appropriate for inclusion in the FAR to the FAR Councils for consideration in accordance with FAR 1.304(c). OMB further requested that publication of provisions relating to Conflict of Interest Policies Applicable to Consultants await implementation in the FAR. It is the NRC's position that because we are required by law to have separate procurement regulations implementing the FAR and these provisions only apply to the special circumstances of the NRC, the provisions of the NRCAR are not appropriate for inclusion in the FAR for

government wide usage. In addition, in accordance with Sec. 8, Public Law 95-601, adding Sec. 170A to Public Law 83-703, 68 Stat. 919, as amended (42 U.S.C. 2210a), NRC's organizational conflicts of interest provision takes precedence over the FAR 9.5, Organizational and Consultant Conflicts of Interest. However, where non-conflicting guidance appears in FAR 9.5, the NRC shall follow that guidance. With these considerations, NRC therefore requested OMB approval of the information collection requirements at the final rule stage and OMB subsequently approved these requirements.

The public reporting burden for this collection of information is estimated to average 10.7 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Information and Records Management Branch (MNBB-7714), U.S. Nuclear Regulatory Commission, Washington, DC 20555, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-3019, (3150-0169), Office of Management and Budget, Washington, DC 20503.

Regulatory Analysis

This final rule establishes the procedures and requirements necessary to implement and supplement the FAR. The final rule presents the regulations necessary to ensure that the regulations governing the procurement of goods and services within the NRC satisfy the particular needs and requirements of the NRC. This final rule constitutes an administrative action governing the procurement activities of the NRC. These provisions would not have an adverse economic impact on any contractor or potential contractor because they merely supplement the requirements applicable to the acquisition of goods and services by the agency. By clearly and explicitly implementing the FAR and presenting those additional provisions necessary to reflect the needs of the NRC, the final rule would allow a contractor or potential contractor to understand more easily the regulations to be used in soliciting, evaluating and awarding contracts for the provision of goods and services. This constitutes the regulatory analysis for this final rule.

Regulatory Flexibility Certification

As required by the Regulatory Flexibility Act of 1980, 5 U.S.C. 605(b), the Commission certifies that this rule does not have a significant economic impact on a substantial number of small entities. The final rule establishes the procedures and requirements necessary to implement and supplement the FAR which will govern the acquisition of goods and services by the NRC. To the extent that the final rule effects a small entity, it sets out provisions applicable to small business and to small, disadvantaged business concerns.

Backfit Analysis

The NRC has determined that a backfit analysis is not required for this final rule because it does not involve any provision which would impose backfits as defined in 10 CFR part 50.109(a)(1).

List of Subjects

48 CFR Parts 2001, 2002, 2003, 2004, and 2005

Government procurement, Nuclear Regulatory Commission Acquisition Regulations.

48 CFR Part 2009

Government procurement, Nuclear Regulatory Commission Acquisition Regulations, Reporting and recordkeeping requirements.

48 CFR Parts 2010, 2012, and 2013

Government procurement, Nuclear Regulatory Commission Acquisition Regulations.

48 CFR Parts 2014 and 2015

Government procurement, Nuclear Regulatory Commission Acquisition Regulations, Reporting and recordkeeping requirements.

48 CFR Parts 2016 and 2017

Government procurement, Nuclear Regulatory Commission Acquisition Regulations.

48 CFR Part 2019

Government procurement, Nuclear Regulatory Commission Acquisition Regulations, Reporting and recordkeeping requirements.

48 CFR Parts 2020, 2022, 2024, and 2025

Government procurement, Nuclear Regulatory Commission Acquisition Regulations.

48 CFR Part 2027

Government procurement, Nuclear Regulatory Commission Acquisition

Regulations, Reporting and recordkeeping requirements.

48 CFR Parts 2030, 2031, 2032, 2033, 2035, and 2039

Government procurement, Nuclear Regulatory Commission Acquisition Regulations.

48 CFR Part 2042

Government procurement, Nuclear Regulatory Commission Acquisition Regulations, Reporting and recordkeeping requirements.

48 CFR Part 2045

Government procurement, Nuclear Regulatory Commission Acquisition Regulations.

48 CFR Part 2052

Government procurement, Nuclear Regulatory Commission Acquisition Regulations, Reporting and recordkeeping requirements.

For the reasons set out in the preamble and under the authority of the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, 5 U.S.C. 552 and 553, and FAR subpart 1.3, the NRC is revising chapter 20 to title 48 of the Code of Federal Regulations.

CHAPTER 20—NUCLEAR REGULATORY COMMISSION

PART

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Subpart 2001.3—Agency Acquisition Regulations

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Subpart 2001.4—Deviations from the FAR and the NRCAR

2001.402 Policy.

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Subpart 2001.6—Contracting Authority and Responsibilities

2001.600-70 Scope of subpart.

2001.601 General.

2001.602-3 Ratification of unauthorized commitments.

2001.603 Selection, appointment, and termination of appointment.

Authority: Sec. 161, 68 Stat. 948, as amended (42 U.S.C. 2201); Sec. 201, 88 Stat. 1242, as amended (42 U.S.C. 5841; 41 U.S.C. 418(b)).

Subpart 2001.1—Purpose, Authority, Issuance

2001.101 Purpose.

This subpart establishes chapter 20, the Nuclear Regulatory Commission Acquisition Regulation (NRCAR), and provides for the codification and publication of uniform policies and procedures for acquisitions by the NRC. The NRCAR is not, by itself, a complete document. It must be used in conjunction with the Federal Acquisition Regulation (FAR) (48 CFR Chapter 1).

2001.102 Authority.

The NRCAR and the amendments to it are issued by the Director, Office of Administration, under a delegation from the Executive Director for Operations in accordance with the authority of the Atomic Energy Act of 1954, as amended (42 U.S.C. 161), the Energy Reorganization Act of 1974 (42 U.S.C. 5841, 5872), the Federal Property and Administrative Services Act of 1949 (40 U.S.C. 486(c)), as amended, FAR Subpart 1.3, and other applicable law.

2001.103 Applicability.

The FAR and NRCAR apply to all NRC acquisitions of supplies and services which obligate appropriated funds, except as exempted by Sections 31 and 161 of the Atomic Energy Act of 1954 as amended, and Section 205 of the Energy Reorganization Act of 1974 as amended. For procurements made from nonappropriated funds, the Director, Division of Contracts and Property Management, shall determine the rules and procedures that apply.

2001.104 Issuance.

2001.104-1 Publication and code arrangement.

(a) The NRCAR and its subsequent changes are:

(1) Published in the daily issue of the Federal Register; and

(2) Codified in the Code of Federal Regulations (CFR).

(b) The NRCAR is issued as 48 CFR Chapter 20.

2001.104-2 Arrangement of the regulations.

(a) General. Chapter 20 is divided into parts, subparts, sections, subsections, paragraphs, and further subdivisions as necessary.

(b) Numbering. The numbering system and part, subpart and section titles used in this chapter 20 conform with those used in the FAR as follows:

(1) Where chapter 20 implements the FAR or supplements a parallel part, subpart, section, or paragraph of the

FAR, that implementation or supplementation is numbered and captioned to the FAR part, subpart, section, or subsection being implemented or supplemented, except that the implementation or supplementation is preceded with a 20 or 200 so that there will always be four numbers to the left of the decimal. For example, NRC's implementation of FAR 1.104-1 is shown as 2001.104-1 and the NRC's implementation of FAR 24.1 is shown as 2024.1.

(2) When NRC supplements material contained in the FAR, it is given a unique number containing the numerals "70" or higher. The rest of the number parallels the FAR part, subpart, section, subsection, or paragraph it is supplementing. For example, Section 170A of the Atomic Energy Act of 1954, as amended, requires a more comprehensive organizational conflict of interest review for NRC than is contemplated by FAR 9.5. This supplementary material is identified as 2009.570.

(3) Where material in the FAR requires no implementation or supplementation, there is no corresponding numbering in the NRCAR. Therefore, there may be gaps in the NRCAR sequence of numbers where the FAR requires no further implementation.

(c) **Citation.** The NRCAR will be cited in accordance with Federal Register Standards approved for the FAR. Thus, this section when referred to in the NRCAR is cited as 2001.104-2(c). When this section is referred to formally in official documents, such as legal briefs, it should be cited as "48 CFR 2001.104-2(c)." Any section of the NRCAR may be formally identified by the section number, e.g., "NRCAR 2001.104-2." In the NRCAR, any reference to the FAR will be indicated by "FAR" followed by the section number, for example FAR 1-104.

2001.104-3 Copies.

Copies of the NRCAR in Federal Register and CFR form may be purchased from the Superintendent of Documents, Government Printing Office, Washington, DC 20402.

2001.105 Information collection requirements: OMB approval.

(a) The Nuclear Regulatory Commission has submitted the information collection requirements contained in this part to the Office of Management and Budget (OMB) for approval as required by the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.).

(b) The information collection requirements contained in this part appear in 2009.570-3(b)(1)&(2), 2009.570-3(c), 2009.570-3(c)(4)(ii), 2009.570-5(b), 2009.570-8, 2014.201-670, 2015.607, 2019.705-4(a), 2027.305-3(a), 2042.803(a)(b), 2052.204-70(b)(j)&(k), 2052.204-71, 2052.204-72, 2052.209-71, 2052.209-72, 2052.209-73(d)(2)&(3)&(f), 2052.210-70(b), 2052.210-71, 2052.212-70, 2052.212-71, 2052.212-72, 2052.213-73, 2052.214-71, 2052.214-72(a), 2052.214-74, 2052.214-75, 2052.215-70, 2052.215-71(f), 2052.215-76, 2052.215-77, 2052.216-74, 2052.235-70, 2052.235-71, and 2052.235-72.

Subpart 2001.3 Agency Acquisition Regulations

2001.301 Policy.

Policy, procedures, and guidance of an internal nature will be promulgated through internal NRC issuances such as Management Directives, or Division of Contracts and Property Management Instructions.

2001.303 Public participation.

FAR 1.301 and Section 22 of the Office of Federal Procurement Policy Act, as amended (41 U.S.C. 418b) require rulemaking for substantive acquisition rules, but allow discretion in the matter for other than significant issues meeting the stated criteria. Accordingly, the NRCAR has been promulgated and may be revised from time to time in accordance with FAR 1.301. This procedure for significant subject matter generally involves issuing a notice of proposed rulemaking, inviting public comment, review and analysis of comments received, and publication of a final rule. The final rule includes a discussion of the public comments received and describes any changes made as a result of the comments.

Subpart 2001.4—Deviations From the FAR and the NRCAR

2001.402 Policy.

(a) Requests for authority to deviate from the provisions of the FAR or the NRCAR must be signed by the requesting office and submitted to the Director, Division of Contracts and Property Management, in writing as far in advance as possible. Each request for deviation must contain the following:

(1) A statement of the deviation desired, including identification of the specific paragraph number(s) of the FAR or NRCAR from which a deviation is requested;

(2) The reason why the deviation is considered necessary or would be in the best interest of the Government;

(3) If applicable, the name of the contractor and identification of the contract affected;

(4) A statement as to whether the deviation has been requested previously and, if so, circumstances of the previous request (including the result of that request);

(5) A description of the intended effect of the deviation;

(6) A statement of the period of time for which the deviation is needed; and

(7) Any pertinent background information which will contribute to a full understanding of the desired deviation.

2001.403 Individual deviations.

In individual cases, deviations from either the FAR or the NRCAR will be authorized only when essential to effect a necessary acquisition or where special circumstances make the deviations clearly in the best interest of the Government. Individual deviations must be authorized in advance by the Director, Division of Contracts and Property Management.

2001.404 Class deviations.

Where deviations from the FAR or NRCAR are considered necessary for classes of contracts, requests for authority to deviate must be submitted in writing to the Director, Division of Contracts and Property Management, who will consider the submission jointly with the Chairperson of the Civilian Agency Acquisition Council, as appropriate.

Subpart 2001.6—Contracting Authority and Responsibilities

2001.600-70 Scope of subpart.

This subpart deals with the placement of contracting authority and responsibility within the agency, the selection and designation of contracting officers, and the authority of contracting officers.

2001.601 General.

(a) Contracting authority vests in the Chairman. The Chairman has delegated this authority to the Executive Director for Operations (EDO). The EDO has delegated this authority to the Director, Office of Administration (ADM). The Director, ADM, has delegated the authority to the Director, Division of Contracts and Property Management, who, in turn, makes contracting officer appointments within the Headquarters and Regional Offices. All of the above delegations are formal written

delegations containing dollar limitations and conditions.

(b) The Director, Division of Contracts and Property Management, establishes contracting policy throughout the agency; monitors the overall effectiveness and efficiency of the agency's contracting office; establishes controls to assure compliance with laws, regulations, and procedures; and delegates contracting officer authority.

2001.602-3 Ratification of unauthorized commitments.

(a) The Government is not bound by agreements or contractual commitments made to prospective contractors by persons to whom contracting authority has not been delegated. Any unauthorized commitment may be in violation of the Federal Property and Administrative Services Act, other Federal laws, the FAR, the NRCAR, and good acquisition practice. Certain requirements of law and regulation necessary for the proper establishment of a contractual obligation may not be met under an unauthorized commitment; for example, the certification of the availability of funds, justification for other than full and open competition, competition of sources, determination of contractor responsibility, certification of current pricing data, price/cost analysis, administrative approvals, and negotiation of appropriate contract clauses.

(b) The execution of otherwise proper contracts made by individuals without contracting authority, or by contracting officers in excess of the limits of their delegated authority, may later be ratified. To be effective, the ratification must be in the form of a written procurement document clearly stating that ratification of a previously unauthorized commitment is intended. All ratifications must be approved by the Competition Advocate except that ratifications of procurement actions valued at \$2,500 or less may be approved by the appropriate Regional Administrator or at a level above the appropriate Headquarters Contracting Officer. For any such action approved by the Regional Administrator, all other terms of Subpart 2001.6 are applicable, and a copy of all documentation must be submitted within two working days to the Competition Advocate.

(c) Request received by contracting officers for ratification of commitments made by personnel lacking contracting authority must be processed as follows:

(1) The Designating Official, responsible for the office request, shall furnish the contracting officer all records and documents concerning the

commitment and a complete written statement of facts, including, but not limited to:

- (i) A statement as to why the contracting office was not used including the name of the employee who made the commitment;
- (ii) A statement as to why the proposed contractor was selected;
- (iii) A list of other sources considered;
- (iv) A description of work to be performed or products to be furnished;
- (v) The estimated or agreed upon contract price;
- (vi) A certification of the appropriated funds available;
- (vii) A statement of whether the contractor has commenced performance; and
- (viii) A description of how unauthorized commitments in similar circumstances will be avoided in the future.

(2) The contracting officer shall review and forward the written statement of facts for a determination of approval to the Competition Advocate DCPM, with any comments or information which should be considered in evaluating the request for ratification.

(3) The NRC legal advisor may be asked for an opinion, advice, or concurrence if there is concern regarding the propriety of the funding source, appropriateness of the expense, or when some other legal issue is involved.

2001.603 Selection, appointment, and termination of appointment.

The Director, Division of Contracts and Property Management, is authorized by the Director, Office of Administration, to select and appoint contracting officers and to terminate their appointment as prescribed in FAR 1.603. Delegations of contracting officer authority are issued by memorandum which includes a clear statement of the delegated authority, including responsibilities and limitations in addition to the "Certificate of Appointment"; SF 1402.

PART 2002—DEFINITIONS

Authority: 42 U.S.C. 2201; 42 U.S.C. 5841, and 41 U.S.C. 418(b).

Subpart 2002.1—Definitions

2002.100 Definitions.

Agency means the Nuclear Regulatory Commission (NRC).

Agency Head or Head of the Agency means the NRC Executive Director for Operations, for the purposes specified in this regulation and the FAR. This delegation does not extend to internal

NRC requirements such as clearance levels and Commission papers which specify higher levels of authority.

Commission means the NRC Commission of five members, or a quorum thereof, sitting as a body, as provided by Section 201 of the Energy Reorganization Act of 1974 (42 U.S.C. 5841).

Competition Advocate means the individual appointed as such by the Agency Head as required by Public Law 98-369. The Director, Division of Contracts and Property Management, has been appointed the Competition Advocate for the NRC.

Day means calendar day unless otherwise specified. If the last day of the designated period of time is a Saturday, Sunday, or legal holiday under Federal law, the period includes the next business day.

Head of the Contracting Activity (HCA) means the Director, Division of Contracts and Property Management.

Procurement Executive means the individual appointed as such by the Agency Head pursuant to Executive Order 12352. The Director, Office of Administration, has been appointed the NRC Procurement Executive.

PART 2003—IMPROPER BUSINESS PRACTICES AND PERSONAL CONFLICTS OF INTEREST

Subpart 2003.1—Safeguards.

Sec.

2003.101 Standards of conduct.

2003.101-3 Agency regulations.

Subpart 2003.2—Contractor Gratuities to Government Personnel

2003.203 Reporting suspected violations of the gratuities clause.

Authority: 42 U.S.C. 2201; Sec. 201, 88 Stat. 1242, as amended; 42 U.S.C. 5841; and 41 U.S.C. 418(b).

Subpart 2003.1—Safeguards

2003.101 Standards of conduct.

2003.101-3 Agency regulations.

NRC standards of conduct for its employees are published in 10 CFR Part 0. The standards of conduct include requirements for financial disclosure (§ 0.735-28).

Subpart 2003.2—Contractor Gratuities to Government Personnel

2003.203 Reporting suspected violations of the gratuities clause.

(a) Suspected violations of the "Gratuities" clause, FAR 52.203.3, must be reported orally or in writing directly to the NRC Office of the Inspector

General. A report must include all facts and circumstances related to the case. Refer to 10 CFR 0.735-42, Gifts, Entertainment and Favors, for an explanation regarding what is prohibited and what is permitted.

(b) When appropriate, discussions with the contracting officer or a higher procurement official, procurement policy staff, and the procurement legal advisor prior to filing a report are encouraged.

PART 2004—ADMINISTRATIVE MATTERS

Authority: 42 U.S.C. 2201; 42 U.S.C. 5841; and 41 U.S.C. 481(b).

Subpart 2004.4—Safeguarding Classified Information Within Industry

2004.404 Contract clauses.

The security clauses used in NRC contracts are found at 2052.204. They are:

(a) Security, 2052.204-70. This clause will be used in all contracts during the performance of which the contractor may have access to, or contact with classified information, including National Security information, restricted data, formerly restricted data, and other classified data.

(b) Site Access Badge Requirements, 2052.204-71. This clause will be used in all contracts under which the contractor will require access to Government facilities. The clause may be altered to reflect any special conditions to be applied to foreign nationals.

SUBCHAPTER B—COMPETITION AND ACQUISITION PLANNING

PART 2005—PUBLICIZING CONTRACT ACTIONS

Authority: Sec. 161, 68 Stat. 948, as amended (42 U.S.C. 2201); Sec. 201, 88 Stat. 1242, as amended (42 U.S.C. 5841); Pub. L. 93-400, 88 Stat. 796, as amended by Pub. L. 96-83, 93 Stat. 648, Pub. L. 98-577, 98 Stat. 3074 (41 U.S.C. 401 et seq.).

Subpart 2005.5—Paid Advertisements

2005.502 Authority.

Before placing paid advertisements in newspapers and trade journals to publicize contract actions, written authority must be obtained from the Director, Division of Contracts and Property Management, for Headquarters activities, or the Director, Division of Resource Management and Administration, within each regional office for a regional procurement.

PART 2009—CONTRACTOR QUALIFICATIONS

Subpart 2009.1—Responsible Prospective Contractors

Sec.
2009.100 NRC policy.
2009.105-70 Contract provisions.

Subpart 2009.4—Debarment, Suspension, and Ineligibility

2009.403 Definitions.
2009.404 Consolidated list of parties excluded from Federal procurement or non-procurement programs.
2009.405 Effect of listing.
2009.405-1 Continuation of current contracts.
2009.405-2 Restrictions on subcontracting.
2009.406 Debarment.
2009.406-3 Procedures.
2009.407 Suspension.
2009.407-3 Procedures.
2009.470 Appeals.

Subpart 2009.5—Organizational Conflicts of Interest

2009.500 Scope of subpart.
2009.570 NRC organizational conflicts of interest.
2009.570-1 Scope of policy.
2009.570-2 Definitions.
2009.570-3 Criteria for recognizing contractor organizational conflicts of interest.
2009.570-4 Representation.
2009.570-5 Contract clauses.
2009.570-6 Evaluation, findings, and contract award.
2009.570-7 Conflicts identified after award.
2009.570-8 Subcontracts.
2009.570-9 Waiver.
2009.570-10 Remedies.

Authority: 42 U.S.C. 2201; Sec. 201, 88 Stat. 1242; as amended; 42 U.S.C. 5841; and 41 U.S.C. 418(b).

Subpart 2009.1—Responsible Prospective Contractors

2009.101 NRC policy.

(a) It is NRC policy that contracts will not normally be placed on a noncompetitive basis with an individual who was employed by the NRC within two years of the date of the request for procurement action. This policy also pertains to any firm in which a former NRC employee is a partner, principal officer, majority stockholder, or which is otherwise controlled or predominantly staffed by former NRC employees and for granting consent of subcontracts. An exception to this policy will be made if it is determined by the agency Procurement Executive to be in the best interest of the Government to do so. This restriction also applies to former NRC employees acting as a principal under a task order type contract or as a principal under a

contract awarded non-competitively under the Small Business Administration's 8(a) Program. This policy is also applied when reviewing subcontracts for the purpose of granting consent under NRC prime contracts.

(b) The term *NRC employee* includes special Government employees performing services for NRC as experts, advisors, consultants, or members of advisory committees, if—

(1) The contract arises directly out of the individual's activity as a special employee;

(2) The individual is in a position to influence the award of the contract; or

(3) The Contracting Officer determines that another conflict of interest exists.

(c) A justification explaining why it is in the best interest of the Government to contract with an individual or firm described in paragraph (a) of this section on a noncompetitive basis may be approved by the Procurement Executive after consulting with the Executive Director for Operations or his designee. This is in addition to any justification and approvals which may be required by the FAR for use of other than full and open competition.

(d) Nothing in this policy statement shall be construed as relieving former employees from obligations prescribed by law, such as 18 U.S.C. 207, Disqualification of Former Officers and Employees.

2009.105-70 Contract provisions.

The contracting officer shall insert the following provisions in all solicitations:

(a) Section 2052.209-70, Qualifications of Contract Employees.

(b) Section 2052.209-71, Current/Former Agency Employee Involvement.

Subpart 2009.4—Debarment, Suspension, and Ineligibility

2009.403 Definitions.

As used in 2009.4:
Debarring official means the Procurement Executive.

Initiating official means the contracting officer, the Head of the Contracting Activity (HCA), the Procurement Executive, or the Inspector General.

Suspending official means the Procurement Executive.

2009.404 Consolidated list of parties excluded from Federal procurement or non-procurement programs.

The contracting officer responsible for the contract affected by the debarment or suspension shall perform the actions required by FAR 9.404(c)(1)-(3).

2009.405 Effect of listing.

Compelling reasons are considered to be present where failure to contract with the debarred or suspended contractor would seriously harm the agency's programs and prevent accomplishment of mission requirements. The Procurement Executive is authorized to make the determinations under FAR 9.405. Requests for these determinations must be submitted through the HCA to the Procurement Executive.

2009.405-1 Continuation of current contracts.

The HCA is authorized to make the determinations under FAR 9.405-1.

2009.405-2 Restrictions on subcontracting.

The HCA is authorized to approve subcontracts with debarred or suspended subcontractors under FAR 9.405-2.

2009.406 Debarment.**2009.406-3 Procedures.**

(a) Investigation and referral. When a contracting officer becomes aware of possible irregularities or any information which may be sufficient cause for debarment, the case must be referred through the HCA to the Procurement Executive immediately. The case must be accompanied by a complete statement of the facts (including a copy of any criminal indictments, if applicable) along with a recommendation for action. Where the statement of facts indicates the irregularities to be possible criminal offenses, or for any other reason further investigation is considered necessary, the matter must first be referred to the HCA who will consult with the Office of the Inspector General to determine if further investigation is required prior to referring to the debarring official.

(b) Decision-making process. If, after reviewing the recommendations and consulting with the Office of the General Counsel and, if appropriate, the Office of the Inspector General, the debarring official determines debarment is justified, the debarring official shall initiate the proposed debarment in accordance with FAR 9.406-3(c) and notify the HCA of the action taken. If the contractor fails to submit a timely written response within 30 days after receipt of the notice, the debarring official may notify the contractor in accordance with FAR 9.406-3(d) that the contractor is debarred.

(c) Fact-finding proceedings. For actions listed under FAR 9.406-3(b)(2), the contractor shall be given the opportunity to appear at an informal hearing. The hearing should be held at

a location and time that is convenient to the parties concerned, and no later than 30 days after the contractor received the notice, if at all possible. The contractor and any specifically named affiliates may be represented by counsel or any duly authorized representative. Witnesses may be called by either party. The proceedings must be conducted expeditiously and in such a manner that each party will have an opportunity to present all information considered pertinent to the proposed debarment.

2009.407 Suspension.**2009.407-3 Procedures.**

(a) Investigation and referral. When a contracting officer becomes aware of possible irregularities or any information which may be sufficient cause for suspension, the case must be referred through the HCA to the Procurement Executive immediately. The case must be accompanied by a complete statement of the facts along with a recommendation for action. Where the statement of facts indicates the irregularities to be possible criminal offenses, or for any other reason further investigation is considered necessary, the matter must first be referred to the HCA who will consult with the Office of the Inspector General to determine if further investigation is required prior to referring the matter to the suspending official.

(b) Decision-making process. If, after reviewing the recommendations and consulting with the Office of the General Counsel, and if appropriate, the Office of the Inspector General, the suspending official determines suspension is justified, the suspending official shall initiate the proposed suspension in accordance with FAR 9.407-3(b)(2). The contractor shall be given the opportunity to appear at an informal hearing, similar in nature to the hearing for debarments as discussed in FAR 9.406-3(b)(2). If the contractor fails to submit a timely written response within 30 days after receipt of the notice, the suspending official may notify the contractor in accordance with 9.407-3(d) that the contractor is suspended.

2009.470 Appeals.

A debarred or suspended contractor may appeal the debarring/suspending official's decision by mailing or otherwise furnishing a written notice within 90 days from the date of the decision to the Executive Director for Operations. A copy of the notice of appeal must be furnished to the debarring/suspending official from whose decision the appeal is taken.

Subpart 2009.5—Organizational Conflicts of Interest**2009.500 Scope of subpart.**

In accordance with 42 U.S.C. 2210a., NRC acquisitions are processed in accordance with 2009.570, which takes precedence over FAR 9.5 with respect to organizational conflicts of interest. Where non-conflicting guidance appears in FAR 9.5, that guidance must be followed.

2009.570 NRC organizational conflicts of interest.**2009.570-1 Scope of policy.**

(a) It is the policy of NRC to avoid, eliminate, or neutralize contractor organizational conflicts of interest. The NRC achieves this objective by requiring all prospective contractors to submit information describing relationships, if any, with organizations or persons (including those regulated by the NRC) which may give rise to actual or potential conflicts of interest in the event of contract award.

(b) Contractor conflict of interest determinations cannot be made automatically or routinely. The application of sound judgment on virtually a case-by-case basis is necessary if the policy is to be applied to satisfy the overall public interest. It is not possible to prescribe in advance a specific method or set of criteria which would serve to identify and resolve all of the contractor conflict of interest situations which might arise. However, examples are provided in these regulations to guide application of this policy guidance. The ultimate test is as follows: Might the contractor, if awarded the contract, be placed in a position where its judgment may be biased, or where it may have an unfair competitive advantage?

(c) The conflict of interest rule contained in this subpart applies to contractors and offerors only. Individuals or firms who have other relationships with the NRC (e.g., parties to a licensing proceeding) are not covered by this regulation. This rule does not apply to the acquisition of consulting services through the personnel appointment process, NRC agreements with other government agencies, international organizations, or state, local, or foreign governments. Separate procedures for avoiding conflicts of interest will be employed in these agreements, as appropriate.

2009.570-2 Definitions.

As used in 2009.570:
Affiliates means business concerns which are affiliates of each other when either directly or indirectly one concern

or individual controls or has the power to control another, or when a third party controls or has the power to control both.

Contract means any contractual agreement or other arrangement with the NRC except as provided in 2009.570-1(c).

Contractor means any person, firm, unincorporated association, joint venture, co-sponsor, partnership, corporation, affiliates thereof, or their successors in interest, including their chief executives, director, key personnel (identified in the contract), proposed consultants or subcontractors, which are a party to a contract with the NRC.

Evaluation activities means any effort involving the appraisal of a technology, process, product, or policy.

Offeror or prospective contractor means any person, firm, unincorporated association, joint venture, co-sponsor, partnership, corporation, or their affiliates or successors in interest, including their chief executives, director, key personnel, proposed consultants, or subcontractors, submitting a bid or proposal, solicited or unsolicited, to the NRC to obtain a contract.

Organizational conflicts of interest means that a relationship exists whereby a contractor or prospective contractor has present or planned interests related to the work to be performed under an NRC contract which:

- (1) May diminish its capacity to give impartial, technically sound, objective assistance and advice, or may otherwise result in a biased work product; or
- (2) May result in its being given an unfair competitive advantage.

Potential conflict of interest means that a factual situation exists that suggests that an actual conflict of interest may arise from award of a proposed contract. The term *potential conflict of interest* is used to signify those situations that—

- (1) Merit investigation before contract award to ascertain whether award would give rise to an actual conflict; or
- (2) Must be reported to the contracting officer for investigation if they arise during contract performance.

Research means any scientific or technical work involving theoretical analysis, exploration, or experimentation.

Subcontractor means any subcontractor of any tier who performs work under a contract with the NRC except subcontracts for supplies and subcontracts in amounts not exceeding the small purchase threshold.

Technical consulting and management support services means

internal assistance to a component of the NRC in the formulation or administration of its programs, projects, or policies which normally require that the contractor be given access to proprietary information or to information that has not been made available to the public. These services typically include assistance in the preparation of program plans, preliminary designs, specifications, or statements of work.

2009.570-3 Criteria for recognizing contractor organizational conflicts of interest.

(a) General.

(1) Two questions will be asked in determining whether actual or potential organizational conflicts of interest exist:

(i) Are there conflicting roles which might bias an offeror's or contractor's judgment in relation to its work for the NRC?

(ii) May the offeror or contractor be given an unfair competitive advantage based on the performance of the contract?

(2) NRC's ultimate determination that organizational conflicts of interest exist will be made in light of common sense and good business judgment based upon the relevant facts. While it is difficult to identify and to prescribe in advance a specific method for avoiding all of the various situations or relationships that might involve potential organizational conflicts of interest, NRC personnel will pay particular attention to proposed contractual requirements that call for the rendering of advice, consultation or evaluation activities, or similar activities that directly lay the groundwork for the NRC's decisions on regulatory activities, future procurements, and research programs. Any work performed at an applicant or licensee site will also be closely scrutinized by the NRC staff.

(b) *Situations or relationships.* The following situations or relationships may give rise to organizational conflicts of interest:

(1) The offeror or contractor shall disclose information, that may give rise to organizational conflicts of interest under the following circumstances. The information may include the scope of work or specification for the requirement, being performed, the period of performance, and the name and telephone number for a point of contact at the organization knowledgeable about the commercial contract.

(i) Where the offeror or contractor provides advice and recommendation to the NRC in the same technical area where it is also providing consulting

assistance to any organization regulated by the NRC.

(ii) Where the offeror or contractor provides advice to the NRC on the same or similar matter on which it is also providing assistance to any organization regulated by the NRC.

(iii) Where the offeror or contractor evaluates its own products or services, or has been substantially involved in the development or marketing of the products or services of another entity.

(iv) Where the award of a contract would result in placing the offeror or contractor in a conflicting role in which its judgment may be biased in relation to its work for the NRC, or would result in an unfair competitive advantage for the offeror or contractor.

(v) Where the offeror or contractor solicits or performs work at an applicant or licensee site while performing work in the same technical area for the NRC at the same site.

(2) The contracting officer may request specific information from an offeror or contractor or may require special contract clauses such as provided in 2009.570-5(b) in the following circumstances:

(i) Where the offeror or contractor prepares specifications that are to be used in competitive procurements of products or services covered by the specifications.

(ii) Where the offeror or contractor prepares plans for specific approaches or methodologies that are to be incorporated into competitive procurements using the approaches or methodologies.

(iii) Where the offeror or contractor is granted access to information not available to the public concerning NRC plans, policies, or programs that could form the basis for a later procurement action.

(iv) Where the offeror or contractor is granted access to proprietary information of its competitors.

(v) Where the award of a contract might result in placing the offeror or contractor in a conflicting role in which its judgment may be biased in relation to its work for the NRC or might result in an unfair competitive advantage for the offeror or contractor.

(c) *Policy application guidance.* The following examples are illustrative only and are not intended to identify and resolve all contractor organizational conflict of interest situations.

(1)(i) *Example.* The ABC Corp., in response to a Request for Proposal (RFP), proposes to undertake certain analyses of a reactor component as called for in the RFP. The ABC Corp. is one of several companies considered to be technically well qualified. In

response to the inquiry in the RFP, the ABC Corp. advises that it is currently performing similar analyses for the reactor manufacturer.

(ii) *Guidance.* An NRC contract for that particular work normally would not be awarded to the ABC Corp. because the company would be placed in a position in which its judgment could be biased in relationship to its work for the NRC. Because there are other well-qualified companies available, there would be no reason for considering a waiver of the policy.

(2)(i) *Example.* The ABC Corp., in response to an RFP, proposes to perform certain analyses of a reactor component that is unique to one type of advanced reactor. As is the case with other technically qualified companies responding to the RFP, the ABC Corp. is performing various projects for several different utility clients. None of the ABC Corp. projects have any relationship to the work called for in the RFP. Based on the NRC evaluation, the ABC Corp. is considered to be the best qualified company to perform the work outlined in the RFP.

(ii) *Guidance.* An NRC contract normally could be awarded to the ABC Corp. because no conflict of interest exists which could motivate bias with respect to the work. An appropriate clause would be included in the contract to preclude the ABC Corp. from subsequently contracting for work with the private sector that could create a conflict during the performance of the NRC contract. For example, ABC Corp. would be precluded from the performance of similar work for the company developing the advanced reactor mentioned in the example.

(3)(i) *Example.* The ABC Corp., in response to a competitive RFP, submits a proposal to assist the NRC in revising NRC's guidance documents on the respiratory protection requirements of 10 CFR part 20. ABC Corp. is the only firm determined to be technically acceptable. ABC Corp. has performed substantial work for regulated utilities in the past and is expected to continue similar efforts in the future. The work has and will cover the writing, implementation, and administration of compliance respiratory protection programs for nuclear power plants.

(ii) *Guidance.* This situation would place the firm in a role where its judgment could be biased in relationship to its work for the NRC. Because the nature of the required work is vitally important in terms of the NRC's responsibilities and no reasonable alternative exists, a waiver of the policy, in accordance with 2009.570-9 may be warranted. Any

waiver must be fully documented in accordance with the waiver provisions of this policy with particular attention to the establishment of protective mechanisms to guard against bias.

(4)(i) *Example.* The ABC Corp. submits a proposal for a new system to evaluate a specific reactor component's performance for the purpose of developing standards that are important to the NRC program. The ABC Corp. has advised the NRC that it intends to sell the new system to industry once its practicability has been demonstrated. Other companies in this business are using older systems for evaluation of the specific reactor component.

(ii) *Guidance.* A contract could be awarded to the ABC Corp. if the contract stipulates that no information produced under the contract will be used in the contractor's private activities unless this information has been reported to the NRC. Data on how the reactor component performs, which is reported to the NRC by contractors, will normally be disseminated by the NRC to others to preclude an unfair competitive advantage. When the NRC furnishes information about the reactor component to the contractor for the performance of contracted work, the information may not be used in the contractor's private activities unless the information is generally available to others. Further, the contract will stipulate that the contractor will inform the NRC contracting officer of all situations in which the information, developed about the performance of the reactor component under the contract, is proposed to be used.

(5)(i) *Example.* The ABC Corp., in response to a RFP, proposes to assemble a map showing certain seismological features of the Appalachian fold belt. In accordance with the representation in the RFP and 2009.570-3(b)(1)(i), ABC Corp. informs the NRC that it is presently doing seismological studies for several utilities in the eastern United States, but none of the sites are within the geographic area contemplated by the NRC study.

(ii) *Guidance.* The contracting officer would normally conclude that award of a contract would not place ABC Corp. in a conflicting role where its judgment might be biased. Section 2052.209-73(c) Work for Others, would preclude ABC Corp. from accepting work which could create a conflict of interest during the term of the NRC contract.

(6)(i) *Example.* AD Division of ABC Corp., in response to a RFP, submits a proposal to assist the NRC in the safety and environmental review of applications for licenses for the construction, operation, and decommissioning of fuel

cycle facilities. ABC Corp. is divided into two separate and distinct divisions, AD and BC. The BC Division performs the same or similar services for industry. The BC Division is currently providing the same or similar services required under the NRC's contract for an applicant or licensee.

(ii) *Guidance.* An NRC contract for that particular work would not be awarded to the ABC Corp. The AD Division could be placed in a position to pass judgment on work performed by the BC Division, which could bias its work for NRC. Further, the Conflict of Interest provisions apply to ABC Corp. and not to separate or distinct divisions within the company. If no reasonable alternative exists, a waiver of the policy could be sought in accordance with 2009.570-9.

(7)(i) *Example.* The ABC Corp. completes an analysis for NRC of steam generator tube leaks at one of a utility's six sites. Three months later, ABC Corp. is asked by this utility to perform the same analysis at another of its sites.

(ii) *Guidance.* 2052.290-73(c)(3) would prohibit the contractor from beginning this work for the utility until one year after completion of the NRC work at the first site.

(8)(i) *Example.* ABC Corp. is assisting NRC in a major on-site analysis of a utility's redesign of the common areas between its twin reactors. The contract is for two years with an estimated value of \$5 million. Near the completion of the NRC work, ABC Corp. requests authority to solicit for a \$100K contract with the same utility to transport spent fuel to a disposal site. ABC Corp. is performing no other work for the utility.

(ii) *Guidance.* The Contracting Officer, would allow the contractor to proceed with the solicitation because (A) it is not in the same technical area as the NRC work and (B) the potential for technical bias by the contractor because of financial ties to the utility is slight due to the relative value of the two contracts.

(9)(i) *Example.* The ABC Corp. is constructing a turbine building and installing new turbines at a reactor site. The contract with the utility is for five years and has a total value of \$100 million. ABC Corp. has responded to an NRC Request for Proposal requiring the contractor to participate in a major team inspection unrelated to the turbine work at the same site. The estimated value of the contract is \$75K.

(ii) *Guidance.* An NRC contract would not normally be awarded to ABC Corp. since these factors create the potential for financial loyalty to the utility that may bias the technical judgment of the contractor.

(d) Other considerations.

(1) The fact that the NRC can identify and later avoid, eliminate, or neutralize any potential organizational conflicts arising from the performance of a contract is not relevant to a determination of the existence of conflicts prior to the award of a contract.

(2) It is not relevant that the contractor has the professional reputation of being able to resist temptations which arise from organizational conflicts of interest, or that a follow-on procurement is not involved, or that a contract is awarded on a competitive or a sole source basis.

2009.570-4 Representation.

(a) The following procedures are designed to assist the NRC contracting officer in determining whether situations or relationships exist which may constitute organizational conflicts of interest with respect to a particular offeror or contractor. The procedures apply to small purchases meeting the criteria stated in the following paragraph (b) of this section.

(b) The organizational conflict of interest representation provision at 2052.209-72 must be included in solicitations and unsolicited proposals, (including those for task orders and modifications for new work) for:

- (1) Evaluation services or activities;
- (2) Technical consulting and management support services;
- (3) Research; and
- (4) Other contractual situations where special organizational conflicts of interest provisions are noted in the solicitation and would be included in the resulting contract. This representation requirement also applies to all modifications for additional effort under the contract except those issued under the "Changes" clause. Where, however, a statement of the type required by the organizational conflicts of interest representation provisions has previously been submitted with regard to the contract being modified, only an updating of the statement is required.

(c) The offeror may, because of actual or potential organizational conflicts of interest, propose to exclude specific kinds of work contained in a RFP unless the RFP specifically prohibits the exclusion. Any such proposed exclusion by an offeror will be considered by the NRC in the evaluation of proposals. If the NRC considers the proposed excluded work to be an essential or integral part of the required work and its exclusion would be to the detriment of the competitive posture of the other offerors, the NRC shall reject the proposal as unacceptable.

(d) The offeror's failure to execute the representation required by paragraph (b) of this section with respect to an invitation for bids is considered to be a minor informality. The offeror will be permitted to correct the omission.

2009.570-5 Contract clauses.

(a) *General contract clause.* All contracts and small purchases of the types set forth in 2009.570-4(b) must include the clause entitled, "Contractor Organizational Conflicts of Interest," set forth in 2052.209-73.

(b) *Other special contract clauses.* If it is determined from the nature of the proposed contract that an organizational conflict of interest exists, the contracting officer may determine that the conflict can be avoided, or, after obtaining a waiver in accordance with 2009.570-9, neutralized through the use of an appropriate special contract clause. If appropriate, the offeror may negotiate the terms and conditions of these clauses, including the extent and time period of any restriction. These clauses include but are not limited to:

- (1) Hardware exclusion clauses which prohibit the acceptance of production contracts following a related non-production contract previously performed by the contractor;
- (2) Software exclusion clauses;
- (3) Clauses which require the contractor (and certain of its key personnel) to avoid certain organizational conflicts of interest; and
- (4) Clauses which provide for protection of confidential data and guard against its unauthorized use.

2009.570-6 Evaluation, findings, and contract award.

The contracting officer shall evaluate all relevant facts submitted by an offeror and other relevant information. After evaluating this information against the criteria of 2009.570-3, the contracting officer shall make a finding of whether organizational conflicts of interest exist with respect to a particular offeror. If it has been determined that real or potential conflicts of interest exist, the contracting officer shall:

- (a) Disqualify the offeror from award;
- (b) Avoid or eliminate such conflicts by appropriate measures; or
- (c) Award the contract under the waiver provision of 2009.570-9.

2009.570-7 Conflicts identified after award.

If potential organizational conflicts of interest are identified after award with respect to a particular contractor, and the contracting officer determines that conflicts do exist and that it would not be in the best interest of the government

to terminate the contract, as provided in the clauses required by 2009.570-5, the contracting officer shall take every reasonable action to avoid, eliminate, or, after obtaining a waiver in accordance with 2009.570-9, neutralize the effects of the identified conflict.

2009.570-8 Subcontracts.

The contracting officer shall require offerors and contractors to submit a representative statement from all subcontractors (other than a supply subcontractor) and consultants performing services in excess of \$10,000 in accordance with 2009.570-4(b). The contracting officer shall require the contractor to include contract clauses in accordance with 2009.570-5 in consultant agreements or subcontracts involving performance of work under a prime contract.

2009.570-9 Waiver.

(a) The contracting officer determines the need to seek a waiver for specific contract awards, with the advice and concurrence of the program office director and legal counsel. Upon the recommendation of the Procurement Executive, and after consultation with legal counsel, the Executive Director for Operations may waive the policy in specific cases if he determines that it is in the best interest of the United States to do so.

(b) Waiver action is strictly limited to those situations in which:

- (1) The work to be performed under contract is vital to the NRC program.
- (2) The work cannot be satisfactorily performed except by a contractor whose interests give rise to question of conflict of interest.

(3) Contractual and/or technical review and surveillance methods can be employed by the NRC to neutralize the conflict.

(c) For any waivers, the justification and approval documents must be placed in the NRC Public Document Room, 2120 L Street, NW. (Lower Level), Washington, DC.

2009.570-10 Remedies.

In addition to other remedies permitted by law or contract for a breach of the restrictions in this subpart or for any intentional misrepresentation or intentional nondisclosure of any relevant interest required to be provided for this section, the NRC may debar the contractor from subsequent NRC contracts.

PART 2010—SPECIFICATIONS, STANDARDS, AND OTHER PURCHASE DESCRIPTIONS

Sec.

2010.004—Brand name products or equal.
2010.011—Solicitation provisions and contract clauses.

Authority: Sec. 161, 68 Stat. 948, as amended (42 U.S.C. 2201); Sec. 201, 88 Stat. 1242, as amended (42 U.S.C. 5841; 41 U.S.C. 418(b)).

2010.004 Brand name products or equal.

(a) Acquisitions will generally not be based on a specifically identified product or feature(s) thereof. However, under unusual circumstances this type of approach may be used as described below.

(b) Brand name or equal purchase descriptions must cite all brand name products known to be acceptable and of current manufacture. If the use of a brand name or equal purchase description results in the purchase of an acceptable brand name product which was not listed as an "equal" product, a reference to that brand name product should be included in the purchase description for later acquisition. If a brand name product is no longer applicable, the reference to that brand name must be deleted from any subsequent purchase description.

(1) It is imperative that brand name or equal purchase descriptions specify each physical or functional characteristic of the product that is essential to the intended use. Failure to do so may result in a defective solicitation and the necessity to resolicit the requirement. Care must be taken to avoid specifying characteristics that cannot be shown to materially affect the intended end use and which unnecessarily restrict competition.

(2) When describing essential characteristics, permissible tolerances should be indicated. A characteristic (e.g., a specific dimension) of a brand name product may not be specified unless it is essential to the Government's need. The contracting officer shall be able to justify the requirement.

(c) The clause found at 2052.210-70 must be inserted in all solicitations citing a brand name or equal, except when samples are requested.

(d) An offer may not be rejected for failure of the offered product to equal a characteristic of a brand name product if it was not specified in the brand name or equal description. However, if it is clearly established that the unspecified characteristic is essential to the intended end use, the solicitation is defective and no award may be made. In these cases, the contracting officer should resolicit the requirements, using a purchase description that sets forth the essential characteristics.

(e) In small purchases within the open market limitations, brand name policies

and procedures are applicable to the extent practicable.

2010.011 Solicitation provisions and contract clauses.

The contracting officer shall insert the clause at 2052.210-71, Drawings, Designs, Specifications, and Data, in all contracts in which drawings, designs, specifications, or other data will be developed and the NRC must retain full rights to them (except for the contractor's right to retain a copy for its own use). When any of the clauses prescribed at FAR 27.409, Solicitation Provisions and Contract Clauses, are included in the solicitation/contract, this clause will not be used.

PART 2012—CONTRACT DELIVERY OR PERFORMANCE

Authority: 42 U.S.C. 2201; 42 U.S.C. 5841; and 41 U.S.C. 418(b).

Subpart 2012.104—Contract clauses

2012.104-70 NRC clauses.

(a) The contracting officer shall insert the clause at 2042.212-70, Preparation of Technical Reports, when deliverables include a technical report.

(b) The contracting officer shall insert the clause at 2052.212-71, Technical Progress Report, in all solicitations and contracts except—

(1) Firm fixed price; and
(2) Indefinite-delivery contracts to be awarded on a time and materials or labor-hour basis, or which provide for issuance of delivery orders for specific products/services (line items).

(c) The contracting officer shall insert the clause at 2052.212-72, Financial Status Report, in all solicitations and contracts (except Fixed Price) when detailed assessment of costs is warranted and a Contractor Spending Plan is required; use the clause at 2052.212-73 Financial Status Report—Alternate 1 when no Contractor Spending Plan is required.

(d) The contracting officer may alter these clauses prior to issuance of the solicitation or during competition by solicitation amendment. Reporting requirements should be set at a meaningful and productive frequency. Insignificant changes may also be made by the contracting officer on a case-by-case basis during negotiations, without solicitation amendment.

SUBCHAPTER C—CONTRACTING METHODS AND CONTRACT TYPES

PART 2013—SMALL PURCHASE AND OTHER SIMPLIFIED PURCHASE PROCEDURES

Authority: 42 U.S.C. 2201; 42 U.S.C. 5841; and 41 U.S.C. 418(b).

Subpart 2013.5—Purchase Orders

2013.505-2 Agency order forms in lieu of Optional Forms 347 and 348.

NRC Form 103, Purchase Order, is prescribed for use by the NRC in lieu of Optional Forms 347 and 348.

PART 2014—SEALED BIDDING

Subpart 2014.2—Solicitation of Bids

Sec.

2014.201 Preparation of invitation for bids.
2014.201-670 Solicitation provisions.

Subpart 2014.4—Opening of Bids and Award of Contract

2014.406 Mistakes in bids.

2014.406-3 Other mistakes disclosed before award.

Authority: 42 U.S.C. 2201; 42 U.S.C. 5841; and 41 U.S.C. 418(b).

Subpart 2014.2—Solicitation of Bids

2014.201 Preparation of invitation for bids.

2014.201-670 Solicitation provisions.

(a) The contracting officer shall insert the provision at 2052.214-70, Prebid Conference, in Invitations for Bids (IFB) where there will be a prebid conference. This provision may be altered by the contracting officer to fit circumstances.

(b) The cognizant contracting officer shall insert in all invitations for bids, except as noted, the provisions at:

(1) Section 2052.214-71, Bidder Qualifications and Past Experiences. (optional, to fit circumstances)

(2) Section 2052.214-72, Bid Evaluation (paragraph f. is optional).

(3) Section 2052.214-73, Timely Receipt of Bids.

(4) Section 2052.214-74, Disposition of Bids.

Subpart 2014.4—Opening of Bids and Award of Contract

2014.406 Mistakes in bids.

2014.406-3 Other mistakes disclosed before award.

(a) The Director, Division of Contracts and Property Management, is delegated the authority to make the determinations concerning mistakes in bids, including those with obvious clerical errors, discovered prior to award. These determinations will be concurred in by legal counsel prior to notification of the bidder.

(b) The cognizant contracting officer is delegated the authority to make determinations concerning mistakes disclosed after award in accordance with FAR 14.406-4.

PART 2015—CONTRACTING BY NEGOTIATION**Subpart 2015.4—Solicitation and Receipt of Proposals and Quotations**

Sec.

2015.407-70 Solicitation provisions and contract clauses.

2015.413 Disclosure and use of information before award.

2015.413-2 Alternate II.

Subpart 2015.5—Unsolicited Proposals

2015.506 Agency procedures.

2015.506-1 Receipt and initial review.

2015.506-2 Evaluation.

2015.507 Contracting methods.

Subpart 2015.6—Source Selection

2015.602 Applicability.

2015.604 Responsibilities.

2015.605 Evaluation factors.

2015.607 Disclosure of mistakes before award.

2015.608 Proposal evaluation.

2015.610 Written or oral discussions.

2015.611 Best and final offers.

2015.612 Sources Evaluation Panel structure.

2015.670 Contract provisions.

Authority: 42 U.S.C. 2201; 42 U.S.C. 5841; and 41 U.S.C. 418(b).

Subpart 2015.4—Solicitation and Receipt of Proposals and Quotations**2015.407-70 Solicitation provisions and contract clauses.**

(a) The contracting officer shall insert in Requests for Proposals (RFPs) the provisions at:

(1) Section 2052.215-70, Key Personnel;

(2)(i) Section 2052.215-71, Project Officer Authority (for solicitations for cost reimbursement, cost plus fixed fee, cost plus award fee, cost sharing labor hour or time and materials, including task order contracts);

(ii) Section 2052.215-72, Project Officer Authority—Alternate 1 (for solicitations for issuance of delivery orders for specific products/services).

(iii) Section 2052.215-72, Project Officer Authority—Alternate 2 with paragraph (b)(1) deleted and the remainder of the clause renumbered (for solicitations for firm fixed price contracts);

(iv) This provision § 2052.215-70 and Alternate 1 are intended for experienced, trained project officers, and may be altered to delete duties where appropriate.

(3) Section 2052.215-73, Timely Receipt of Proposals;

(4) Section 2052.215-74, Award Notification and Commitment of Public Funds; and

(5) Section 2052.215-75, Disposition of Proposals.

(b) The contracting officer shall insert in all solicitations for negotiated procurements for cost type contracts that do not provide for task orders or delivery orders, the provision at 2052.215-76, Proposal Presentation and Format except that:

(1) For all solicitations for negotiated task order contracts, paragraphs (e)(4) (xi) and (xii) must be deleted (and the remainder renumbered), and the paragraph found at 2052.215-77 must be substituted for paragraph (d)(2).

(2) For all negotiated procurements for a fixed price, labor hour, or time and materials contract, paragraph (d)(2) shall be deleted from the provision 2052.215-76.

The provision must be tailored to assure that all sections, but in particular paragraph (e), Technical and Management Proposal, reflect a one-to-one relationship to the evaluation criteria.

(c) The contracting officer shall insert the provision at 2052.215-78, Preproposal Conference, in RFPs where there will be a preproposal conference. This provision may be altered to fit the circumstances of the requirement.

(d) The contracting officer shall insert the clauses at 2052.215-79, Travel Reimbursement, 2052-215-79, Travel Reimbursement—Alternate 1 with paragraph (a) deleted and the remainder of the clause renumbered (for contracts when there is no ceiling amount on domestic travel), and 2052-215-80, Travel Approvals, in RFPs where there will be travel.

2015.413 Disclosure and use of information before award.**2015.413-2 Alternate II.**

The procedures discussed at FAR 15.413-2 may be used if approved at a level above the contracting officer.

Subpart 2015.5—Unsolicited Proposals**2015.506 Agency procedures.**

(a) The Division of Contracts and Property Management, Policy Branch (PB), is the point of contact for the receipt, acknowledgement, and handling of unsolicited proposals.

(b) Unsolicited proposals in original and two copies, and requests for additional information regarding their preparation must be submitted to: Chief, Policy Branch, Division of Contracts and Property Management, Mail Stop P-1118, U.S. Nuclear Regulatory Commission, Washington, DC 20555.

This will ensure that the proposal is logged into the unsolicited proposal tracking system.

2015.506-1 Receipt and initial review.

(a) PB shall acknowledge receipt of an unsolicited proposal, complete a preliminary review, assign a docket number, and send copies of the unsolicited proposal to the appropriate program office Director(s) or designee for evaluation.

(b) PB shall be responsible for controlling reproduction and distribution of proposal material by notifying evaluators of their responsibilities and tracking the number of proposals received and forwarded to evaluators.

(c) An acknowledgement letter will be sent to the proposer by the PB, providing an estimated data for a funding decision or identifying the reasons for non-acceptance of the proposal for review in accordance with FAR 15.503 and 15.505.

2015.506-2 Evaluation.

Directors of NRC offices shall conduct comprehensive technical evaluations of proposals submitted to them by the PB, in accordance with the criteria discussed in FAR 15.506-2(a).

2015.507 Contracting methods.

If a noncompetitive contract is recommended, the Director of the recommending NRC office shall submit to the Division of Contracts and Property Management a written evaluation, Request for Procurement Action (RPPA) and Justification for Other Than Full and Open Competition in accordance with FAR 15.507(b)(5).

Subpart 2015.6—Source Selection**2015.602 Applicability.**

This subpart does not apply to contracts awarded to the Small Business Administration under Section 8(a) of the Small Business Act.

2015.604 Responsibilities.

(a) All persons participating in the evaluation process may not discuss or reveal information concerning the evaluations except to an individual participating in the same evaluation proceeding, and then only to the extent that the information is required in connection with the proceeding. Divulging information during evaluation, selection, and negotiation phases of the acquisition to offerors or to other persons not having a need to know could jeopardize the resultant award and violates the information-disclosure provisions of FAR 3.104, Procurement Integrity. These provisions carry criminal as well as civil and administrative penalties. Only the contracting officer (or authorized representative within the Division of

Contracts and Property Management) may release source selection information to others during the selection process. The contracting officer (or authorized representative) shall instruct all participants in the evaluations to observe the prohibitions of the Procurement Integrity Act. A procurement official certification must be signed for each agency employee personally and substantially involved in preparing or approving the advance procurement plans, statement of work and participating in the source evaluation process [i.e. serving as a member of the Source Evaluation Panel (SEP)].

(b) All persons participating in the evaluation process shall declare any financial or other relationships which may create conflict or interest problems with their evaluation duties. A form for this purpose must be signed prior to receipt of any proposals or participation in discussion of proposals.

(c) Only the contracting officer (or authorized representative within the Division of Contracts and Property Management) may conduct discussions with offerors relative to any aspect of the acquisition. The contracting officer may include other personnel in discussions, as necessary.

2015.605 Evaluation factors.

The evaluation criteria included in the solicitation serve as the standard against which all proposals are evaluated, and are the basis for the development of proposal preparation instructions, in accordance with 2015.407-70(b). Indication in the solicitation of the relative importance of evaluation factors and subfactors is accomplished by the assignment of a numerical weight to each. For those factors that will not be numerically weighted, only their relative importance will be stated in the solicitation. Examples of factors which may not be numerically weighted are conflict of interest, estimated cost, and business evaluations, and "go/on go" evaluation factors.

2015.607 Disclosure of mistakes before award.

(a) The contracting officer shall require that the offeror's clarification(s) provided in accordance with FAR 15.607 be in writing.

(b) A correction of a mistake in a proposal may be made only after a written determination to permit it has been made by the contracting officer.

2015.608 Proposal evaluation.

(a) A Source Evaluation Panel (SEP) shall evaluate technical proposals in

accordance with the solicitation technical evaluation criteria. The SEP prepares and signs the Competitive Range Report with the SEP's findings and scoring for each technical proposal together with its analysis of cost and other factors and forwards the report for the review and approval of the Designating Official. The contracting officer uses this technical evaluation and analysis of costs and other factors in determining the competitive range.

(b) The Designating Official (Office Director or designee) is responsible for appointing the SEP and is responsible for conducting an independent review and evaluation of the SEP's two primary products after proposal evaluation: the Competitive Range Report and the Final Evaluation Report. Any cancellation of solicitations and subsequent rejection of all proposals must be approved by the Head of the Contracting Activity.

2015.610 Written or oral discussions.

The contracting officer shall point out to each offeror within the competitive range any deficiencies including ambiguities or uncertainties in its proposal. The discussions are intended to assist the SEP in understanding the proposals and their strengths and weaknesses based upon the individual efforts of each offeror to ensure that the meaning and emphasis of solicitation provisions have been adequately conveyed to the offerors so that all offerors are competing equally on the basis intended by the Government.

2015.611 Best and final offers.

The SEP evaluates the technical proposal portion of the best and final offers. Technical proposals will be recorded and rescored by the SEP, as appropriate, and a Final Evaluation Report of the SEP's findings and scoring for each technical proposal will be prepared and forwarded to the Designating Official for review and approval prior to submission to the contracting officer for final approval. The report will include a summary of the technical analysis of costs as a part of the analysis of the technical proposals. The SEP's individual evaluation worksheets and summary score sheet must accompany the Final Evaluation Report and will become part of the official file.

2015.612 Source Evaluation Panel structure.

(a) For all proposed contracts with total estimated values in excess of \$25,000 and expected to result from competitive technical and price/cost negotiations, the cooperative review efforts of technical, contracting, and

other administrative personnel are formalized through the establishment of a SEP.

(b)(1) The SEP includes:

(i) At least three technical members (one of whom serves as the chairperson) who participate in the scoring of proposals using weighted evaluation criteria and evaluating proposals using other unweighted factors; and

(ii) A contract negotiator who ensures that procurement rules and regulations are followed, ensures that the integrity of the process is maintained, and negotiates the contract on behalf of the NRC.

(2) Except in unusual cases, the SEP should not exceed five members including the Chairperson. The technical members are usually employees of the NRC program office initiating the request or other NRC employees with expertise in areas related to the solicitation Statement of Work. Appointment of a technical member from other than the office initiating the request is encouraged. Employees of other agencies with expertise in a specific area may also serve as SEP technical members not withstanding the fact that they are not employees of the NRC. Evaluators need not be Federal employees, but the potential for conflict of interest must be carefully considered in these cases and the solicitation should notify offerors of the NRC's intent to use non-Federal evaluators. The CO will make a determination whether or not a non-federal evaluator will be a voting SEP member. For proposed procurements with a total estimated cost of less than \$500,000 over a performance period of three years or less, a single technical member may be appointed to evaluate proposals with the contracting officer's approval. Designation of SEP members is accomplished by memorandum initiated by the director of the program office or the director's designee. This official is referred to as the Designating Official (DO).

(c) The SEP chairperson may obtain the services of advisors (e.g., legal, financial, etc.) to assist the SEP. Advisors who serve on technical evaluation committees are appointed in writing by the DO. Advisors are not SEP members, and therefore do not score proposals. Advisors need not be Federal employees, but the potential for conflict of interest must be carefully considered in these cases, and the solicitation should notify offerors of the NRC's intent to use non-Federal advisors.

(d) The contracting officer shall establish the competitive range on all acquisitions. This is accomplished by

approval of the SEP's written recommendation transmitted by the DO.

(e) The source selection official is the contracting officer. Selection is made based on review of the SEP's recommendations as endorsed by the DO, together with all supporting data to ensure that award is in accordance with sound procurement principles and directly related to the evaluation criteria as set forth in the solicitation. Any proposed selection not endorsed by the DO will be concurred in by the Head of the Contracting Activity.

2015.670 Contract provisions.

(a) The contracting officer shall include the provision found at 2052.215-81, Contract Award and Evaluation of Proposals, in all solicitations, where technical is more important than cost:

(1) The contracting officer shall substitute the paragraph found at 2052.215-82 for paragraph (b) in all solicitation for negotiated competitive procurements where cost is more important than technical merit.

(2) The contracting officer shall substitute the paragraph found at 2052.215-83 for paragraph (b) in all solicitations for negotiated competitive procurements where cost and technical merit are of equal significance.

(b) The contracting officer may make appropriate changes to the provision to accurately reflect other evaluation procedures, such as evaluation of proposals against mandatory criteria and benchmarking criteria for ADP procurements.

PART 2016—TYPES OF CONTRACTS

Subpart 2016.3—Cost Reimbursement Contracts

Sec.
2016.307-70 Contract provisions and clauses.

Subpart 2016.5 Indefinite-Delivery Contracts

2016.506-70 Contract provisions and clauses.

Authority: 42 U.S.C. 2201; 42 U.S.C. 5841; and 41 U.S.C. 418(b).

Subpart 2016.3—Cost Reimbursement Contracts

2016.307-70 Contract provisions and clauses.

(a) The contracting officer shall insert the clause at 2052.216-70, Level of Effort, in solicitation for negotiated procurements containing labor costs other than maintenance services, to be awarded on a cost reimbursement, cost sharing, cost-plus-award fee, cost-plus-

fixed fee, time and materials, or labor hour basis.

(b) The contracting officer shall insert the following provisions and clauses in all cost reimbursement contracts:

(1) Section 2052.216-71, Indirect Cost Rates (where provisional rates without ceilings apply).

(2) Section 2052.216-72, Indirect Cost Rates—Alternate 1 (where predetermined rates apply).

(3) Section 2052.216-73, Indirect Cost Rates—Alternate 2 (where provisional rates with ceilings apply).

(c) The contracting officer may make appropriate changes to these clauses to reflect different arrangements.

Subpart 2016.5—Indefinite-Delivery Contracts

2016.506-70 Contract provisions and clauses.

The contracting officer shall insert the following provisions in all solicitations and contracts that contain task order procedures:

(a) Section 2052.216-74, Task Order Procedures;

(b) Section 2052.216-75, Accelerated Task order Procedures.

SUBCHAPTER D—SOCIOECONOMIC PROGRAMS

PART 2017—SPECIAL CONTRACTING METHODS

Authority: 42 U.S.C. 2201; 42 U.S.C. 5841; and 41 U.S.C. 418(b).

Subpart 2017.2—Options

2017.204 Contracts

(a) The contracting officer may approve extensions to five year contracts for up to a total of an additional six months, for the purpose of completing the competitive process for a follow on contract, provided that the competitive requirement was received in DCPM not less than six months before the end of the fifth year.

(b) The Head of the Contracting Activity may approve extensions for up to a total of one year.

PART 2019—SMALL BUSINESS AND SMALL DISADVANTAGED BUSINESS CONCERNS

Subpart 2019.7—Subcontracting with small business and small disadvantaged business concerns

Sec.

2019.705 Responsibilities of the contracting officer under the subcontracting assistance program.

2019.705-4 Reviewing the subcontracting plan.

Authority: 42 U.S.C. 2201; 42 U.S.C. 5841; and 41 U.S.C. 418(b).

Subpart 2019.7—Subcontracting with Small Business and Small Disadvantaged Business Concerns

2019-705 Responsibilities of the contracting officer under the subcontracting assistance program.

2019.705-4 Reviewing the subcontracting plan.

(a) During the source selection process, subcontracting plans may be requested from all concerns required to submit them and determined to be in the competitive range, for negotiation with the apparent successful offeror.

(b) The contracting officer may accept the terms of an overall or "master" company subcontracting plan incorporated by reference into a specific subcontracting plan submitted by the apparent successful offeror/bid for a specific contract, if:

(1) The master plan contains all of the elements required by FAR 19.704;

(2) Subcontracting goals for small and small disadvantaged business concerns are specifically set forth in each contract or modification over the statutory threshold;

(3) Any changes to the plan deemed necessary and required by the contracting officer in areas other than goals are specifically set forth in the contract or modification; and

(4) The contracting officer has copies of the entire plan.

PART 2020—LABOR SURPLUS AREA CONCERNS

Authority: 42 U.S.C. 2201; 42 U.S.C. 5841; and 41 U.S.C. 418(b).

Subpart 2020.1—General

2020.102 General Policy.

Acquisitions that are in excess of \$25,000 must be reviewed for potential labor surplus area set-aside consideration in accordance with FAR 20.104 using publications and other information identifying labor surplus areas obtained from: U.S. Department of Labor, Employment and Training Administration, U.S. Employment Service, Office of Labor Market Information, 200 Constitution Ave., NW., room N4456, Washington, DC 20510, Telephone Number: (202) 535-0157.

PART 2022—APPLICATION OF LABOR LAWS TO GOVERNMENT ACQUISITIONS

Subpart 2022.1 Basic Labor Policies

Sec.

2022.101-1 General.

2022.103-4 Approvals.

Subpart 2022.9 Nondiscrimination Because of Age**2022.901-70 Contract provisions.**

Authority: 42 U.S.C. 2201; 42 U.S.C. 5841; and 41 U.S.C. 4186(b).

Subpart 2022.1 Basic Labor Policies**2022.101-1 General.**

The Head of Contracting Activity shall designate programs or requirements for which it is necessary that contractors be required to notify the Government of actual or potential labor disputes that are delaying or threaten to delay the timely contract performance.

2022.103-4 Approvals.

The agency approving official for contractor overtime shall be the contracting officer.

Subpart 2022.9—Nondiscrimination Because of Age**2022.901-70 Contract provisions.**

The contracting officer shall insert the provision found at 2052.222-70, Nondiscrimination Because of Age, in all solicitations.

PART 2024—PROTECTION OF PRIVACY AND FREEDOM OF INFORMATION**Subpart 2024.1—Protection of Individual Privacy****2024.103 Procedures.****Subpart 2024.2—Freedom of Information Act****2024.202 Policy.**

Authority: 42 U.S.C. 2201; 42 U.S.C. 5841; and 41 U.S.C. 418(b).

Subpart 2024.1—Protection of Individual Privacy**2024.103 Procedures.**

The provisions at 10 CFR part 9, subpart B, Privacy Act Regulations, are applicable to the maintenance or disclosure of information for a system of records on individuals.

Subpart 2024.2—Freedom of Information Act**2024.202 Policy.**

The provisions at 10 CFR part 9, Subpart A, Freedom of Information Act Regulations, are applicable to the availability of NRC records to the public.

PART 2025—FOREIGN ACQUISITION

Authority: 42 U.S.C. 2201; 42 U.S.C. 5841; and 41 U.S.C. 418(b).

Subpart 2025.1—Buy American Act—Supplies**2025.102 Policy.**

Contracting officers may make the determination required by FAR 25.102(a)(4), provided the determination is factually supported in writing. For contracts exceeding \$1 million, the Head of the Contracting Activity shall approve the determination.

SUBCHAPTER 3—GENERAL CONTRACTING REQUIREMENTS**PART 2027—PATENTS, DATA, AND COPYRIGHTS****Subpart 2027.3—Patent Rights Under Government Contracts****Sec.**

2027.305 Administration of patent rights clauses.

2027.305-3 Follow-up by Government.

Authority: 42 U.S.C. 2201; 42 U.S.C. 5841; and 41 U.S.C. 418(b).

Subpart 2027.3—Patent Rights Under Government Contracts**2027.305 Administration of patent rights clauses.**

The contracting officer shall ensure that each contractor report is in writing on whether any patent rights are being claimed, before final payment and closeout of the contract.

2027.305-3 Follow-up by Government.

(a) The contracting officer shall, as a part of the closeout of a contract, require each contractor to report on any patents, copyrights, or royalties attained using any portion of the contract funds. The contractor shall, if no activity is to be reported, certify that in connection with the performance of the contract:

(1) No inventions or discoveries were made,

(2) No copyrights were secured, produced, or composed,

(3) No notices or claims of patent or copyright infringement have been received by the contractor or its subcontractors, and

(4) No royalty payments were directly involved in the contract or reflected in the contract price to the Government, nor were any royalties or other payments paid or owed directly to others.

(b) The contracting officer may waive any of the requirements paragraphs (a)(1)-(4) of this section, after documenting the file to indicate the—

(1) Impracticability of obtaining the document(s); and

(2) Steps taken to attempt to obtain them.

(c) The contracting officer shall notify agency legal counsel responsible for

patents whenever a contractor reports any patent, copyright, or royalty activity, and shall document the official file with the resolution to protect the Government's rights prior to making any final payment and closing out the contract.

PART 2030—COST ACCOUNTING STANDARDS

Authority: 42 U.S.C. 2201; 42 U.S.C. 5841; and 41 U.S.C. 418(b).

Subpart 2030.2—CAS Program Requirements**2030.201-5 Waiver.**

In accordance with the FAR 30.201-5(c), the Head of the Contracting Activity may waive CAS requirements.

PART 2031—CONTRACT COST PRINCIPLES AND PROCEDURES

Authority: 42 U.S.C. 2201; 42 U.S.C. 5841; and 41 U.S.C. 418(b).

Subpart 2031.1—Applicability**2031.109-70 Contract clauses.**

The contracting officer shall insert the clause at 2052.231-70, Precontract Costs, in all cost type contracts when costs in connection with work under the contract will be incurred by the contractor before the effective date of the contract. Approval for use of this clause must be obtained at one level above the contracting officer.

PART 2032—CONTRACT FINANCING

Authority: 42 U.S.C. 2201; 42 U.S.C. 5841; and 41 U.S.C. 418(b).

Subpart 2032.4—Advance Payments**2032.402 General.**

(a) The contracting officer shall have the responsibility and authority for making findings and determinations, and for approval of contract terms concerning advance payments.

(b) Before authorizing any advance payment agreements except for subscriptions to publications, the approving official shall coordinate with the Office of the Controller, Division of Accounting and Finance, to ensure completeness of contractor submitted documentation.

PART 2033—PROTESTS, DISPUTES, AND APPEALS**Subpart 2033.1—Protests****Sec.**

2033.103 Protests to the agency.

2033.203 Applicability.

2033.211 Contracting officer's decision.

Sec.

2033.214 Contract clause.

Authority: 42 U.S.C. 2201; 42 U.S.C. 5841; and 41 U.S.C. 418(b).

Subpart 2033.1—Protests**2033.103 Protests to the agency.**

The agency may not process, or shall cease processing, agency level protests that are protested outside the agency unless and until such time that a proper determination is made authorizing the agency to proceed under the applicable protest procedures.

2033.203 Applicability.

Pursuant to an interagency agreement between the NRC and the Department of Energy Board of Contract Appeals (EBCA), the EBCA will hear appeals from final decisions of NRC contracting officers issued pursuant to the Contract Disputes Act. The EBCA rules appear in 10 CFR part 1023.

2033.211 Contracting officer's decision.

Contracting officers shall alter the paragraph at FAR 33.211(a)(4)(iv) to identify the Energy Board of Contract Appeals and include its address: Webb Building, room 1006, 4040 N. Fairfax Drive, Arlington, Virginia 22203, when preparing a written decision.

2033.214 Contract clause.

The contracting officer shall use the clause at FAR 52.233-1, Disputes, with its Alternate I where continued performance is vital to National Security, the public health and safety, critical and major agency programs, or other essential supplies or services whose timely procurement from other sources would be impractical.

SUBCHAPTER F—SPECIAL CATEGORIES OF CONTRACTING**PART 2035—RESEARCH AND DEVELOPMENT CONTRACTING**

Sec.

2035.70 Contract clauses.

2035.71 Broad agency announcements.

Authority: 42 U.S.C. 2201; 42 U.S.C. 5841; and 41 U.S.C. 418(b).

2035.70 Contract clauses.

(a) The contracting officer shall insert the following clauses in all RFPs for Research and Development or in Requests for Proposals (RFPs) for other technical services as appropriate:

(b) Section 2052.235-70, Publication of Research Results, except that in the case of universities, the contracting officer shall substitute the paragraph found at 2052.235-71 for paragraph c.

(c) Section 2052.235-72 Safety, Health and Fire Protection.

2035.71 Broad agency announcements.

(a) Criteria for selecting contractors will include such factors as:

(1) Unique and innovative methods, approaches, or concepts demonstrated by the proposal.

(2) Overall scientific, technical, or economic merits of the proposal.

(3) The offeror's capabilities, related experience, facilities, techniques, or unique combinations of these which are integral factors for achieving the proposal objectives.

(4) The qualifications, capabilities, and experience of the proposed principal investigator, team leader, or key personnel who are critical in achieving the proposal objectives.

(5) Potential contribution of the effort to NRC's mission.

(6) Overall standing among similar proposals available for evaluation and/or evaluation against the known state-of-the-art technology.

(b) Once a proposal is received, communication between the agency's scientific or engineering personnel and the principal investigator is permitted for clarification purposes only and must be coordinated through the Division of Contracts and Property Management.

(c) After evaluation of the proposals, the Designating Official shall submit a comprehensive evaluation report to the contracting officer which recommends the source(s) for contract award. The report must reflect the basis for the selection or nonselection of each proposal received.

PART 2039—ACQUISITION OF INFORMATION RESOURCES

Sec.

2039.001 Policy.

2039.002 Delegations of procurement authority.

Authority: 42 U.S.C. 2201; 42 U.S.C. 5841; and 41 U.S.C. 418(b).

2039.001 Policy.

In accordance with the Federal Information Resources Management Regulation (41 CFR Ch. 201), and appropriate NRC Management Directives, the Office of Information Resources Management will be responsible for development and/or approval of requirements analysis including information needs, justification for specific make and model, analysis of alternatives, and Delegations of Procurement Authority for information resources management procurements in excess of \$25,000 (automated data processing, telecommunications, and records), when required. These documents must be submitted to the Division of Contracts and Property Management

with the Request for Procurement Action (RFP) for which these documents are required.

2039.002 Delegations of procurement authority.

The NRC official authorized to sign Agency Procurement Requests and Agency Telecommunications Requests for Delegations of Procurement Authority is the Deputy Executive Director for Nuclear Materials Safety, Safeguards and Operations Support or designee.

SUBCHAPTER G—CONTRACT MANAGEMENT**PART 2042—CONTRACT ADMINISTRATION**

Authority: 42 U.S.C. 2201; 42 U.S.C. 5841; and 418(b).

Subpart 2042.8—Disallowance of Costs**2042.803 Disallowing costs after incurrence.**

(a) Vouchers and invoices submitted to NRC must be submitted to the contracting officer or designee for review and approval for payment. If the examination of a voucher or invoice raises a question regarding the allowability of a cost submitted, the contracting officer or designee shall:

(1) Hold informal discussions with the contractor as appropriate.

(2) If the discussions do not resolve the matter, the contracting officer shall issue a notice advising the contractor of costs disallowed. The notice must advise the contractor that it may:

(i) If in disagreement with the disallowance, submit a written claim to the contracting officer for payment of the disallowed cost and explain why the cost should be reimbursed; or

(ii) If the disagreement(s) cannot be settled, file a claim under the disputes clause which will be processed in accordance with disputes procedures found at FAR subpart 33.2; and

(3) Process the voucher or invoice for payment and advise the NRC Division of Accounting and Finance to deduct the disallowed costs when scheduling the voucher for payment.

(b) When audit reports or other notifications question costs or consider them unallowable, the contracting officer shall resolve all cost issues through discussions with the contractor and/or auditor, whenever possible, within six months of receipt of the audit report.

(1) One of the following courses of action must be pursued:

(i) Accept and implement audit recommendations as submitted;

(ii) Accept the principle of the audit recommendation but adjust the amount of the questioned costs;

(iii) Reject audit findings and recommendations.

(2) When implementing the chosen course of action, the contracting officer shall:

(i) Hold discussions with the auditor and contractor, as appropriate;

(ii) If the contracting officer agrees with the auditor concerning the questioned costs, attempt to negotiate a mutual settlement of questioned costs;

(iii) Issue a final decision, including any disallowance of questioned costs; inform the contractor of his/her right to appeal the decision under the disputes procedures found at FAR subpart 33.2; and provide a copy of the final decision of the Office of the Inspector General; and

(iv) Initiate immediate recoupment actions for all disallowed costs owed the government by one or more of the following methods:

(A) Request that the contractor provide a credit adjustment (offset) against amounts billed the government on the next or other future invoice(s) submitted under the contract for which the disallowed costs apply;

(B) Deduct the disallowed costs from the next invoice submitted under the contract;

(C) Deduct the disallowed costs on a schedule determined by the contracting officer after discussion with the contractor (if the contracting officer determines that an immediate and complete deduction is inappropriate); and

(D) Advise the contractor that a refund is immediately payable to the government (in situations where there are insufficient payments owed by the government to effect recovery from the contract).

PART 2045—GOVERNMENT PROPERTY

Authority: 42 U.S.C. 2201; 42 U.S.C. 5841; and 41 U.S.C. 418(b).

Subpart 2045.3—Providing Government Property to Contractors

2045.370 Providing government property (in general).

(a) Unless otherwise provided for in FAR 45.302-1(d), applicable to Government facilities with a unit cost of less than \$10,000, a contractor may be provided Government property or allowed to purchase the property at Government expense upon determination made by the contracting officer with the advice of the agency property official that:

(1) No practicable or economical alternative exists; e.g., acquisition from other sources, utilization of subcontractors, rental of property, or modification of program project requirements;

(2) Furnishing Government property is likely to result in substantially lower costs to the Government for the items produced or services rendered when all costs involved (e.g., transportation, installation, modification, maintenance, etc.) are compared with the costs to the Government of the contractor's use of privately-owned property; and

(3) The Government receives adequate consideration for providing the property.

(b) If the program office is aware before the submission of the RFP that it will be necessary to provide prospective contractors with Government property, a written justification must accompany the RFP to the Division of Contracts and Property Management.

SUBCHAPTER H—CLAUSES AND FORMS

PART 2052—SOLICITATION PROVISIONS AND CONTRACT CLAUSES

Subpart 2052.2—Text of Provisions and Clauses

Sec.

2052.200— Authority.

2052.204-70 Security.

2052.204-71 Site access badge requirements.

2052.209-70 Qualifications of contract employees.

2052.209-71 Current/former agency employee involvement.

2052.209-72 Contractor organizational conflicts of interest (representation).

2052.209-73 Contractor organizational conflicts of interest.

2052.210-70 Brand name products or equal.

2052.210-71 Drawings, designs, specifications, and other data.

2052.212-70 Preparation of technical reports.

2052.212-71 Technical progress report.

2052.212-72 Financial status report.

2052.212-73 Financial status report—Alternate 1.

2052.214-70 Prebid conference.

2052.214-71 Bidder qualifications and past experiences.

2052.214-72 Bid evaluation.

2052.214-73 Timely receipt of bids.

2052.214-74 Disposition of bids.

2052.215-70 Key personnel.

2052.215-71 Project officer authority.

2052.215-72 Project officer authority—Alternate 1.

2052.215-73 Timely receipt of proposals.

2052.215-74 Award notification and commitment of public funds.

2052.215-75 Disposition of proposals.

2052.215-76 Proposal presentation and format.

Sec.

2052.215-77 Proposal presentation and format—Alternate 1 (language for negotiated task order contracts).

2052.215-78 Proposal presentation and format—Alternate 2 (language for negotiated fixed prices, labor hour, or time and materials contracts).

2052.215-79 Preproposal conference.

2052.215-80 Travel reimbursement.

2052.215-81 Travel approvals.

2052.215-82 Contract award and evaluation of proposals—technical merit more important than cost.

2052.215-83 Contract award and evaluation of proposals—cost most important than technical merit.

2052.216-84 Contract award and evaluation of proposals—cost and technical merit of equal value.

2052.216-70 Level of effort.

2052.216-71 Indirect cost rates.

2052.216-72 Indirect cost rates—Alternate 1.

2052.216-73 Indirect cost rates—Alternate 2.

2052.216-74 Task order procedures.

2052.216-75 Accelerated task order procedures.

2052.222-70 Nondiscrimination because of age.

2052.231-70 Precontract costs.

2052.235-70 Publication of research results.

2052.235-71 Publication of research results—universities.

2052.235-72 Safety, health, and fire protection.

Authority: 42 U.S.C. 2201; 42 U.S.C. 5841; and 41 U.S.C. 418(b).

Subpart 2052.2—Text of Provisions and Clauses

2052.200 Authority.

2052.204-70 Security.

As prescribed at 204.404(a), insert the following clause in applicable solicitations and contracts:

Security

(a) Security/Classification Requirements Form. The attached NRC Form 187 (See Section J for List of Attachments) furnishes the basis for providing security and classification requirements to prime contractors, subcontractors, or others (e.g., bidders) who have or may have an NRC contractual relationship that requires access to classified information or matter, access on a continuing basis (in excess of 90 or more days) to NRC Headquarters controlled buildings, or otherwise requires NRC photo identification or card-key badges.

(b) It is the contractor's duty to safeguard National Security Information, Restricted Data, and Formerly Restricted Data. The contractor shall, in accordance with the Commission's security regulations and requirements, be responsible for safeguarding National Security Information, Restricted Data, and Formerly Restricted Data, and for protecting against sabotage, espionage, loss, and theft, the classified documents and material in the contractor's possession in connection with the performance of work

under this contract. Except as otherwise expressly provided in this contract, the contractor shall, upon completion or termination of this contract, transmit to the Commission any classified matter in the possession of the contractor or any person under the contractor's control in connection with performance of this contract. If retention by the contractor of any classified matter is required after the completion or termination of the contract and the retention is approved by the contracting officer, the contractor shall complete a certificate of possession to be furnished to the Commission specifying the classified matter to be retained. The certificate must identify the items and types or categories of matter retained, the conditions governing the retention of the matter and their period of retention, if known. If the retention is approved by the contracting officer, the security provisions of the contract continue to be applicable to the matter retained.

(c) In connection with the performance of the work under this contract, the contractor may be furnished, or may develop or acquire, proprietary data (trade secrets) or confidential or privileged technical, business, or financial information, including Commission plans, policies, reports, financial plans, internal data protected by the Privacy Act of 1974 (Pub. L. 93-579), or other information which has not been released to the public or has been determined by the Commission to be otherwise exempt from disclosure to the public. The contractor agrees to hold the information in confidence and not to directly or indirectly duplicate, disseminate, or disclose the information in whole or in part to any other person or organization except as may be necessary to perform the work under this contract. The contractor agrees to return the information to the Commission or otherwise dispose of it at the direction of the contracting officer.

Failure to comply with this clause is grounds for termination of this contract.

(d) Regulations. The contractor agrees to conform to all security regulations and requirements of the Commission.

(e) Definition of National Security Information. The term National Security Information, as used in this clause, means information that has been determined pursuant to Executive Order 12356 or any predecessor order to require protection against unauthorized disclosure and that is so designated.

(f) Definition of Restricted Data. The term Restricted Data, as used in this clause, means all data concerning:

(1) design, manufacture, or utilization of atomic weapons;

(2) the production of special nuclear material; or

(3) the use of special nuclear material in the production of energy, but does not include data declassified or removed from the Restricted Data category pursuant to section 142 of the Atomic Energy Act of 1954, as amended.

(g) Definition of Formerly Restricted Data. The term Formerly Restricted Data, as used in this clause, means all data removed from the Restricted Data category under section 142-d of the Atomic Energy Act of 1954, as amended.

(h) Security clearance personnel. The contractor may not permit any individual to have access to Restricted Data, Formerly Restricted Data, or other classified information, except in accordance with the Atomic Energy Act of 1954, as amended, and the Commission's regulations or requirements applicable to the particular type or category of classified information to which access is required. The contractor shall also execute a Standard Form 312, Classified Information Nondisclosure Agreement, when access to classified information is required.

(i) Criminal liabilities. It is understood that disclosure of National Security Information, Restricted Data, and Formerly Restricted Data, relating to the work or services ordered hereunder to any person not entitled to receive it, or failure to safeguard any Restricted Data, Formerly Restricted Data, or any other classified matter that may come to the contractor or any person under the contractor's control in connection with work under this contract, may subject the contractor, its agents, employees, or subcontractors to criminal liability under the laws of the United States. (See the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011 et seq.; 18 U.S.C. 793 and 794; and Executive Order 12356.)

(j) Subcontracts and purchase orders. Except as otherwise authorized in writing by the contracting officer, the contractor shall insert provisions similar to the foregoing in all subcontracts and purchase orders under this contract.

(k) In performing the contract work, the contractor shall classify all documents, material, and equipment originated or generated by the contractor in accordance with guidance issued by the Commission. Every subcontract and purchase order issued hereunder involving the origination or generation of classified documents, material, and equipment must provide that the subcontractor or supplier assign classification to all documents, material, and equipment in accordance with guidance furnished by the contractor.

(End of Clause)

2052.204-71 Site access badge requirements.

As prescribed at 2004.404(b), insert the following clause in applicable solicitations and contracts:

Site Access Badge Requirement

During the life of this contract, the rights of ingress and egress for contractor personnel must be made available as required. In this regard, all contractor personnel whose duties under this contract require their presence on-site shall be clearly identifiable by a distinctive badge furnished by the Government. The Project Officer shall assist the contractor in obtaining the badges for the contractor personnel. It is the sole responsibility of the contractor to ensure that each employee has proper identification at all times. All prescribed identification must be immediately delivered to the Security Office for cancellation or disposition upon the termination of employment of any contractor personnel. Contractor personnel

must have this identification in their possession during on-site performance under this contract. It is the contractor's duty to assure that contractor personnel enter only those work areas necessary for performance of contract work, and to assure the safeguarding of any Government records or data that contractor personnel may come into contact with.

(End of Clause)

2052.209-70 Qualifications of contract employees.

As prescribed at 2009.105-70, insert the following provision in applicable solicitations:

Qualifications of Contract Employees

The offeror hereby certifies by submission of this offer that all representations made regarding its employees, proposed subcontractor personnel, and consultants are accurate.

(End of Provision)

2052.209-71 Current/former agency employee involvement.

As prescribed at 2009.105-70, insert the following provision in applicable solicitations:

Current/Former Agency Employee Involvement

(a) The following representation is required by the NRC Acquisition Regulation 2009.105-70(b). It is not NRC policy to encourage offerors and contractors to propose current/former agency employees to perform work under NRC contracts, and as set forth in the above cited provision, the use of such employees may, under certain conditions, adversely affect NRC's consideration of non-competitive proposals and task orders.

(b) The offeror hereby certifies that there () are () are no current/former NRC employees (including special Government employees performing services as experts, advisors, consultants, or members of advisory committees) who have been or will be involved, directly or indirectly, in developing the offer, or in negotiating on behalf of the offeror, or in managing, administering, or performing any contract, consultant agreement, or subcontract resulting from this offer. For each individual so identified, the Technical and Management proposal must contain, as a separate attachment, the name of the individual, the individual's title while employed by the NRC, the date individual left NRC, and brief description of the individual's role under this proposal.

(End of Provision)

2052.209-72 Contractor organizational conflicts of interest (representation).

As prescribed at 2009.570-4(b) and 2009.570-8, insert the following provision in applicable solicitations:

Contractor Organizational Conflicts of Interest Representation

I represent to the best of my knowledge and belief that:

The award to _____ of a contract or the modification of an existing contract does / / does not / / involve situations or relationships of the type set forth in 48 CFR 2009.570-3(b).

(a) If the representation, as completed, indicates that situations or relationships of the type set forth in 48 CFR 2009.570-3(b) are involved, or the contracting officer otherwise determines that potential organizational conflicts of interest exist, the offeror shall provide a statement in writing which describes in a concise manner all relevant factors bearing on his representation to the contracting officer. If the contracting officer determines that organizational conflicts exist, the following actions may be taken:

(1) Impose appropriate conditions which avoid such conflicts,

(2) Disqualify the offeror, or

(3) Determine that it is otherwise in the best interest of the United States to seek award of the contract under the waiver provisions of 48 CFR 2009-570-9.

(b) The refusal to provide the representation required by 48 CFR 2009.570-4(b), or upon request of the contracting officer, the facts required by 48 CFR 2009.570-3(b), must result in disqualification of the offeror for award.

(End of Provision)

2052.209-73 Contractor organizational conflicts of interest.

As prescribed at 2009.570-5(a) and 2009-570-8, insert the following clause in all applicable solicitations and contracts:

Contractor Organizational Conflicts of Interest

(a) Purpose. The primary purpose of this clause is to aid in ensuring that the contractor:

(1) Is not placed in a conflicting role because of current or planned interests (financial, contractual, organizational, or otherwise) which relate to the work under this contract; and

(2) Does not obtain an unfair competitive advantage over other parties by virtue of its performance of this contract.

(b) Scope. The restrictions described apply to performance or participation by the contractor, as defined in 48 CFR 2009.570-2 in the activities covered by this clause.

(c) Work for others.

(1) Notwithstanding any other provision of this contract, during the term of this contract the contractor agrees to forgo entering into consulting or other contractual arrangements with any firm or organization, the result of which may give rise to a conflict of interest with respect to the work being performed under this contract. The contractor shall ensure that all employees under this contract abide by the provision of this clause. If the contractor has reason to believe with respect to itself or any employee that any proposed consultant or other contractual arrangement with any firm or organization may involve a potential conflict of interest, the contractor shall obtain the written approval of the contracting officer before the execution of such contractual arrangement.

(2) The contractor may not represent, assist, or otherwise support an NRC licensee or applicant undergoing an NRC audit, inspection, or review where the activities that are the subject of the audit, inspection or review are the same as or substantially similar to the services within the scope of this contract (or task order as appropriate), except where the NRC licensee or applicant requires the contractor's support to explain or defend the contractor's prior work for the utility or other entity which NRC questions.

(3) When the contractor performs work for the NRC under this contract at any NRC licensee or applicant site, the contractor shall neither solicit nor perform work in the same or similar technical area for that licensee or applicant organization for a period commencing with the award of the task order or beginning of work on the site (if not a task order contract) and ending one year after completion of all work under the associated task order, or last time at the site (if not a task order contract).

(4) When the contractor performs work for the NRC under this contract at any NRC licensee or applicant site,

(i) The contractor may not solicit work at that site for that licensee or applicant during the period of performance of the task order or the contract, as appropriate.

(ii) The contractor may not perform work at that site for that licensee or applicant during the period of performance of the task order or the contract, as appropriate, and for one year thereafter.

(iii) Notwithstanding the foregoing, the contracting officer may authorize the contractor to solicit or perform this type of work (except work in the same or similar technical area) if the contracting officer determines that the situation will not pose a potential for technical bias or unfair competitive advantage.

(d) Disclosure after award.

(1) The contractor warrants that to the best of its knowledge and belief, and except as otherwise set forth in this contract, it does not have any organizational conflicts of interest as defined in 48 CFR 2009.570-2.

(2) The contractor agrees that, if after award, it discovers organizational conflicts of interest with respect to this contract, it shall make an immediate and full disclosure in writing to the contracting officer. This statement must include a description of the action which the contractor has taken or proposes to take to avoid or mitigate such conflicts. The NRC may, however, terminate the contract if termination is in the best interest of the government.

(3) It is recognized that the scope of work of a task-order-type contract necessarily encompasses a broad spectrum of activities. Consequently, if this is a task-order-type contract, the contractor agrees that it will disclose all proposed new work involving NRC licensees or applicants which comes within the scope of work of the underlying contract. Further, if this contract involves work at a licensee or applicant site, the contractor agrees to exercise diligence to discover and disclose any new work at that licensee or applicant site. This disclosure must be made before the submission of a bid or proposal to the utility or other regulated

entity and must be received by the NRC at least 15 days before the proposed award date in any event, unless a written justification demonstrating urgency and due diligence to discover and disclose is provided by the contractor and approved by the contracting officer. The disclosure must include the statement of work, the dollar value of the proposed contract, and any other documents that are needed to fully describe the proposed work for the regulated utility or other regulated entity. NRC may deny approval of the disclosed work only when the NRC has issued a task order which includes the technical area and, if site-specific, the site, or has plans to issue a task order which includes the technical area and, if site-specific, the site, or when the work violates paragraphs (c)(2), (c)(3) or (c)(4) of this section.

(e) Access to and use of information.

(1) If in the performance of this contract, the contractor obtains access to information, such as NRC plans, policies, reports, studies, financial plans, internal data protected by the Privacy Act of 1974 (5 U.S.C. Section 552a (1988)), or the Freedom of Information Act (5 U.S.C. Section 552 (1986)), the contractor agrees not to:

(i) Use this information for any private purpose until the information has been released to the public;

(ii) Compete for work for the Commission based on the information for a period of six months after either the completion of this contract or the release of the information to the public, whichever is first;

(iii) Submit an unsolicited proposal to the Government based on the information until one year after the release of the information to the public; or

(iv) Release the information without prior written approval by the contracting officer unless the information has previously been released to the public by the NRC.

(2) In addition, the contractor agrees that, to the extent it receives or is given access to proprietary data, data protected by the Privacy Act of 1974 (5 U.S.C. section 552a (1988)), or the Freedom of Information Act (5 U.S.C. section 552 (1986)), or other confidential or privileged technical, business, or financial information under this contract, the contractor shall treat the information in accordance with restrictions placed on use of the information.

(3) Subject to patent and security provisions of this contract, the contractor shall have the right to use technical data it produces under this contract for private purposes provided that all requirements of this contract have been met.

(f) Subcontracts. Except as provided in 48 CFR 2009.570-2, the contractor shall include this clause, including this paragraph, in subcontracts of any tier. The terms *contract*, *contractor*, and *contracting officer*, must be appropriately modified to preserve the Government's rights.

(g) Remedies. For breach of any of the above restrictions, or for intentional nondisclosure or misrepresentation of any relevant interest required to be disclosed concerning this contract or for such erroneous representations that necessarily imply bad faith, the Government may

terminate the contract for default, disqualify the contractor from subsequent contractual efforts, and pursue other remedies permitted by law or this contract.

(h) Waiver. A request for waiver under this clause must be directed in writing to the contracting officer in accordance with the procedures outlined in 48 CFR 2009.570-9.

(i) Follow-on effort. The contractor shall be ineligible to participate in NRC contracts, subcontracts, or proposals therefor (solicited or unsolicited), which stem directly from the contractor's performance of work under this contract. Furthermore, unless so directed in writing by the contracting officer, the contractor may not perform any technical consulting or management support services work or evaluation activities under this contract on any of its products or services or the products or services of another firm if the contractor has been substantially involved in the development or marketing of the products or services.

(1) If the contractor, under this contract, prepares a complete or essentially complete statement of work or specifications, the contractor is not eligible to perform or participate in the initial contractual effort which is based on the statement of work or specifications. The contractor may not incorporate its products or services in the statement of work or specifications unless so directed in writing by the contracting officer, in which case the restrictions in this paragraph do not apply.

(2) Nothing in this paragraph precludes the contractor from offering or selling its standard commercial items to the Government.

(End of Clause)

2052.210-70 Brand name products or equal.

As prescribed at 2010.004, insert the following clause in applicable solicitations and contracts:

Brand Name Products or Equal

Offers (proposers) offering other than brand name items identified herein should furnish with their offers adequate information to ensure that a determination can be made as to quality of the product(s) offered.

2052.210-71 Drawings, designs, specifications, and other data.

As prescribed at 2010.011, the following clause shall be submitted in applicable solicitations and contracts:

Drawings, Designs, Specifications, and Other Data

All drawings, sketches, designs, design data, specifications, notebooks, technical and scientific data, and all photographs, negatives, reports, findings, recommendations, other data and memoranda of every description relating thereto, as well as all copies of the foregoing relating to the work or any part thereof, are subject to inspection by the Commission at all reasonable times. Inspection of the proper facilities must be afforded the Commission by the contractor and its subcontractors. These data are the property of the

Government and may be used by the Government for any purpose whatsoever without any claim on the part of the contractor and its subcontractors and vendors for additional compensation and must, subject to the right of the contractor to retain a copy of the material for its own use, be delivered to the Government, or otherwise disposed of by the contractor as the contracting officer may direct during the progress of the work or upon completion or termination of this contract. The contractor's right of retention and use is subject to the security, patent, and use of information provisions, if any, of this contract.

(End of Clause)

2052.212-70 Preparation of technical reports.

As prescribed at 2012.104-70(a), insert the clause in applicable solicitations and contracts:

Preparation of Technical Reports

All technical reports required by Section C and all Technical Progress Reports required by Section F are to be prepared in accordance with the attached Management Directive 3.8, "Unclassified Contractor and Grantee Publications in the NUREG Series." Management Directive 3.8 is not applicable to any Contractor Spending Plan (CSP) and any Financial Status Report that may be included in this contract. (See Section J for List of Attachments).

(End of Clause)

2052.212-71 Technical progress report.

As prescribed at 2012.104-70(b), insert the following clause in applicable solicitations and contracts:

Technical Progress Report

The contractor shall provide a monthly Technical Progress Report to the project officer and the contracting officer. The report is due within 15 calendar days after the end of the report period and must identify the title of the project, the contract number, Financial Identification Number (FIN), project manager and/or principal investigator, the contract period of performance, and the period covered by the report. Each report must include the following for each discrete task/task order:

(a) A listing of the efforts completed during the period, and milestones reached or, if missed, an explanation provided;

(b) Any problems or delays encountered or anticipated and recommendations for resolution. If the recommended resolution involves a contract modification, e.g., change in work requirements, level of effort (cost) or schedule delay, the contractor shall submit a separate letter to the contracting officer identifying the required change and estimated cost impact.

(c) A summary of progress to date; and
(d) Plans for the next reporting period.

(End of clause)

2052.212-72 Financial status report.

As prescribed at 2012.104-70(c), insert the following clause in applicable solicitations and contracts.

Financial Status Report

The contractor shall provide a monthly Financial Status Report to the project officer and the contracting officer. The report is due within 15 calendar days after the end of the report period and must identify the title of the project, the contract number, Financial Identification Number (FIN), project manager and/or principal investigator, the contract period of performance, and the period covered by the report. Each report must include the following for each discrete task:

(a) Provide total estimated cost (value) of the project as reflected in the contract, the amount of funds available in the contract to date, and the balance of funds required to complete the work as follows:

- (1) Total estimated contract amount.
- (2) Total funds obligated to date.
- (3) Total costs incurred this reporting period.
- (4) Total costs incurred to date.
- (5) Provide a detail of all direct and indirect costs incurred during the reporting period for the entire contract or each task, if it is a task ordering contract.
- (6) Balance of obligations remaining.
- (7) Balance of funds required to complete contract/task order.

(8) Contractor Spending Plan (CSP) status:
(i) Projected percentage of completion cumulative through the report period for the project/task order as reflected in the current CSP.

(ii) Indicate if there has been a significant change in the original CSP projection in either dollars or percentage of completion. Identify the change, the reasons for the change, whether there is any projected overrun, and when additional funds would be required. If there have been no changes to the original NRC-approved CSP projections, a written statement to that effect is sufficient in lieu of submitting a detailed response to item 8.

(9) A revised CSP is required with the Financial Status Report whenever the contractor or the contracting officer has reason to believe that the total cost for performance of this contract will be either greater or substantially less than what had been previously estimated.

(b) If the data in this report indicates a need for additional funding beyond that already obligated, this information may only be used as support to the official request for funding required in accordance with the Limitation of Cost (LOC) Clause (FAR 52.232-20) or the Limitation of Funds (LOF) Clause FAR 52.232-22.

(End of Clause)

2052.212.73 Financial status report—Alternate 1.

Financial Status Report—Alternate 1

As prescribed in § 2012.104-70(c), insert the following provision in applicable solicitations:

The Contractor shall provide a monthly Financial Status Report to the Project Officer and the Contracting Officer. The report is due within 15 calendar days after the end of the report period and shall identify the title of the project, the contract number, project

manager and/or principal investigator, the contract period of performance, and the period covered by the report. Each report shall include the following for each discrete task:

(a) Provide total estimated cost (value) of the project as reflected in the contract, the amount of funds available in the contract to date, and the balance of funds required to complete the work as follows:

- (1) Total Estimated Contract Amount.
- (2) Total Funds Obligated to Date.
- (3) Total Costs Incurred This Reporting Period.
- (4) Total Costs Incurred to Date.
- (5) Balance of Obligations Remaining.
- (6) Balance of Funds Required To Complete Contract.

(b) Detail of all direct and indirect costs incurred during the reporting period for each task.

[End of Clause]

2052.214-70 Prebid conference.

As prescribed at 2014.201-670(a), insert the following provision in applicable solicitations:

Prebid Conference

(a) A prebid conference is scheduled for:
Date: * * *
Location: * * *
Time: * * *

(b) This conference is to afford interested parties an opportunity to present questions and clarify uncertainties regarding this solicitation. You are requested to mail written questions concerning those areas of uncertainty which, in your opinion, require clarification or correction. You are encouraged to submit your questions in writing not later than * working day(s) prior to the conference date. Receipt of late questions may result in the questions not being answered at the conference although they will be considered in preparing any necessary amendment to the solicitation. If you plan to attend the conference, notify * by letter or telephone *, no later than close of business *. Notification of your intention to attend is essential in the event the conference is rescheduled or canceled. (Optional statement: Due to space limitations, each potential bidder is limited to * representatives at the conference.)

(c) Written questions must be submitted to: U.S. Nuclear Regulatory Commission, Division of Contracts and Property Management, Attn: * * *, Mail Stop * * *, Washington, DC 20555.

(d) The envelope must be marked "Solicitation No. * /Prebid Conference."

(e) A transcript of the conference will be furnished to all prospective offerors through the issuance of an amendment to the solicitation.

*To be incorporated into the solicitation.

2052.214-71 Bidder qualifications and past experiences.

As prescribed in 2014.201-670(b), insert the following provision in applicable solicitations:

Bidder Qualifications and Past Experiences

(a) The bidder shall list * previous/current contracts for the same or similar products/services. This information will assist the contracting officer in his/her Determination of Responsibility. Lack of previous/current contracts for same or similar products/services or failure to submit this information will not necessarily result in an unfavorable Determination of Responsibility.

(1) Contract No.: _____
Name and address of Government agency or commercial entity: _____

Point of Contact and Telephone Number: _____

(2) Contract No.: _____
Name and address of Government agency or commercial entity: _____

Point of Contact and Telephone Number: _____

(3) Contract No.: _____
Name and address of Government agency or commercial entity: _____

Point of Contact and Telephone Number: _____

(b) The bidder shall also provide the name, title and full telephone number for its technical representative and contracts/business representative: *

(1) Technical Representative

Name _____
Title _____
Telephone No. () _____

(2) Contracts/Business

Representative Name _____
Title _____
Telephone No. () _____

*To be incorporated into the solicitation
(End of Provision)

2052.214-72 Bid evaluation.

As prescribed at 2014.201-670(b), insert the following provision in applicable solicitations:

Bid Evaluation

(a) Award will be made to that responsive, responsible bidder within the meaning of FAR subpart 9.1 whose total bid amount, as set forth by the bidder in Section B of this Invitation for Bid, constitutes the lowest overall evaluated final contract price to the Government based upon the requirements as set forth in the schedule. Bids will be evaluated for purposes of award by first ascertaining the sum of the total amount for each of the items specified in Section B of this solicitation. This will constitute the bidder's "Total Bid Amount."

(b) Bidders shall insert a definite price or indicate "no charge" in the blank space provided for each item and/or sub-item listed in Section B. Unless expressly provided for herein, no additional charge will be allowed

for work performed under the contract other than the unit prices stipulated for each such item and/or sub-item.

(c) Any bid which is materially unbalanced as to price for the separate items specified in Section B of this IFB may be rejected as nonresponsive. An unbalanced bid is defined as one which is based on prices which, in the opinion of the NRC, are significantly less than cost for some work and/or prices that may be significantly overstated for other work.

(d) Separation charges, in any form, are not solicited. Bids containing charges for discontinuance, termination, failure to exercise an option, or for any other purpose will cause the bid to be rejected as nonresponsive.

(e) A preaward on-site survey of the bidder's facilities, equipment, etc., in accordance with FAR 9.105 and 9.106 may be made by representatives of the Commission for the purpose of determining whether the bidder is responsible within the meaning of FAR 9.1, and whether the bidder possesses qualifications that are conducive to the production of work that will meet the requirements, specifications, and provisions of this contract. Also, if requested by the Commission, the prospective contractor may be required to submit statements within * hours after receiving the request:

(1) Concerning their ability to meet any of the minimum standards set forth in FAR 9.104,

(2) Samples of work, and
(3) Names and addresses of additional clients, Government agencies and/or commercial firms which the bidder is now doing or had done business with.

(f) Notwithstanding paragraph (b) of this section, the award of any contract resulting from this solicitation will be made on an "all or none" basis. Thus, bids submitted on fewer than the items listed in Section B of this IFB, or on fewer than the estimated quantity, will cause the bid to be rejected as nonresponsive.

*To be inserted into solicitation.
(End of Provision)

2052.214-73 Timely receipt of bids.

As prescribed at 2014.670(b), insert the following provision in applicable solicitations:

Timely Receipt of Bids

Because the NRC is a secure facility with perimeter access control, bidders shall allow additional time for hand delivery (including express mail and delivery services) of bids to ensure that they are timely received in the depository at the address shown in Item 9 on the Standard Form 33.

(End of Provision)

2052.214-74 Disposition of bids.

As prescribed at 2014.670(b), insert the following provision in applicable solicitations:

Disposition of Bids

After award of the contract, one copy of each unsuccessful bid will be retained by NRC's Division of Contracts and Property

Management in accordance with the General Records Schedule 3(5)(b). Unless return of the additional copies of the bid is requested by the bidder upon submission of the bid, all other copies will be destroyed. This request should appear in a cover letter accompanying the bid.

(End of Provision)

2052.215-70 Key personnel.

As prescribed at 2015.407-70(a), insert the following clause in applicable solicitations and contracts:

Key Personnel

(a) The following individuals are considered to be essential to the successful performance of the work hereunder:

* * *

The contractor agrees that personnel may not be removed from the contract work or replaced without compliance with paragraphs (b) and (c) of this section.

(b) If one or more of the key personnel, for whatever reason, becomes, or is expected to become, unavailable for work under this contract for a continuous period exceeding 30 work days, or is expected to devote substantially less effort to the work than indicated in the proposal or initially anticipated, the contractor shall immediately notify the contracting officer and shall, subject to the concurrence of the contracting officer, promptly replace the personnel with personnel of at least substantially equal ability and qualifications.

(c) Each request for approval of substitutions must be in writing and contain a detailed explanation of the circumstances necessitating the proposed substitutions. The request must also contain a complete resume for the proposed substitute and other information requested or needed by the contracting officer to evaluate the proposed substitution. The contracting officer or his/her authorized representative shall evaluate the request and promptly notify the contractor of his or her approval or disapproval in writing.

(d) If the contracting officer determines that suitable and timely replacement of key personnel who have been reassigned, terminated, or have otherwise become unavailable for the contract work is not reasonably forthcoming, or that the resultant reduction of productive effort would be so substantial as to impair the successful completion of the contract or the service order, the contract may be terminated by the contracting officer for default or for the convenience of the Government, as appropriate. If the contracting officer finds the contractor at fault for the condition, the contract price or fixed fee may be equitably adjusted downward to compensate the Government for any resultant delay, loss, or damage.

(End of Clause)

*To be incorporated into any resultant contract

2052.215-71 Project officer authority.

As prescribed in 2015.70(a)(2)(i), insert the following clause in applicable solicitations and contracts:

Project Officer Authority

(a) The contracting officer's authorized representative hereinafter referred to as the project officer for this contract is:

Name: * * *

Address: * * *

Telephone Number: * * *

(b) Performance of the work under this contract is subject to the technical direction of the NRC project officer. The term *technical direction* is defined to include the following:

(1) Technical direction to the contractor which shifts work emphasis between areas of work or tasks, fills in details, or otherwise serves to accomplish the contractual statement of work.

(2) Provide advice and guidance to the contractor in the preparation of drawings, specifications, or technical portions of the work description.

(3) Review and, where required by the contract, approval of technical reports, drawings, specifications, and technical information to be delivered by the contractor to the Government under the contract.

(c) Technical direction must be within the general statement of work stated in the contract. The project officer does not have the authority to and may not issue any technical direction which:

(1) Constitutes an assignment of work outside the general scope of the contract.

(2) Constitutes a change as defined in the "Changes" clause of this contract.

(3) In any way cause an increase or decrease in the total estimated contract cost, the fixed fee, if any, or the time required for contract performance.

(4) Changes any of the expressed terms, conditions, or specifications of the contract.

(5) Terminates the contract, settles any claim or dispute arising under the contract, or issues any unilateral directive whatever.

(d) All technical directions must be issued in writing by the project officer or must be confirmed by the project officer in writing within ten (10) working days after verbal issuance. A copy of the written direction must be furnished to the contracting officer.

(e) The contractor shall proceed promptly with the performance of technical directions duly issued by the project officer in the manner prescribed by this clause and within the project officer's authority under the provisions of this clause.

(f) If, in the opinion of the contractor, any instruction or direction issued by the project officer is within one of the categories as defined in paragraph (c) of this section, the contractor may not proceed but shall notify the contracting officer in writing within five (5) working days after the receipt of any instruction or direction and shall request the contracting officer to modify the contract accordingly. Upon receiving the notification from the contractor, the contracting officer shall issue an appropriate contract modification or advise the contractor in writing that, in the contracting officer's opinion, the technical direction is within the scope of this article and does not constitute a change under the "Changes" clause.

(g) Any unauthorized commitment or direction issued by the project officer may result in an unnecessary delay in the contractor's performance and may even result

in the contractor expending funds for unallowable costs under the contract.

(h) A failure of the parties to agree upon the nature of the instruction or direction or upon the contract action to be taken with respect thereto is subject to 52.233-1—Disputes.

(i) In addition to providing technical direction as defined in paragraph (b) of the section, the project officer shall:

(1) Monitor the contractor's technical progress, including surveillance and assessment of performance, and recommend to the contracting officer changes in requirements.

(2) Assist the contractor in the resolution of technical problems encountered during performance.

(3) Review all costs requested for reimbursement by the contractor and submit to the contracting officer recommendations for approval, disapproval, or suspension of payment for supplies and services required under this contract.

*To be incorporated into any resultant contract.

(End of Clause)

2052.215-71 Project officer authority—Alternate 1.

As prescribed at 2015.407-70(2)(ii), insert the following clause in applicable solicitations and contracts:

Project Officer Authority—Alternate 1

(a) The contracting officer's authorized representative, hereinafter referred to as the project officer for this contract is:

Name: * * *

Address: * * *

Telephone Number: * * *

(b) The project officer shall:

(1) Place delivery orders for items required under this contract.

(2) Monitor contractor performance and recommend to the contracting officer changes in requirements.

(3) Inspect and accept products/services provided under the contract.

(4) Review all contractor invoices/vouchers requesting payment for products/services provided under the contract and make recommendations for approval, disapproval, or suspension.

(c) The project officer may not make changes to the express terms and conditions of this contract.

*To be incorporated into any resultant contract

(End of Clause)

2052.215-73 Timely receipt of proposals.

As prescribed in 2015.407-70(a), insert the following provision in applicable solicitations:

Timely Receipt of Proposals

Because NRC is a secure facility with perimeter access control, offerors shall allow additional time for hand delivery (including express mail and delivery services) of proposals to ensure that they are timely received in the depository at the address shown in Item 9 on the Standard Form 33.

(End of Provision)

2052.215-74 Award notification and commitment of public funds.

As prescribed at 2015.407-70(a), insert the following clause in applicable solicitations and contracts:

Award Notification and Commitment of Public Funds

(a) All offerors will be notified of their selection or nonselection as soon as possible. Formal notification of nonselection for unrestricted awards may not be made until a contract has been awarded. Pursuant to requirements of FAR 15.1001(b)(2), preliminary notification will be provided before the award for small business set-aside procurements on negotiated procurements.

(b) It is also brought to your attention that the contracting officer is the only individual who can legally commit the NRC to the expenditure of public funds in connection with this procurement. This means that unless provided in a contract document or specifically authorized by the contracting officer, NRC technical personnel may not issue contract modifications, give informal contractual commitments, or otherwise bind, commit, or obligate the NRC contractually. Informal contractual commitments include:

- (1) Encouraging a potential contractor to incur costs prior to receiving a contract;
- (2) Requesting or requiring a contractor to make changes under a contract without formal contract modifications;
- (3) Encouraging a contractor to incur costs under a cost-reimbursable contract in excess of those costs contractually allowable; and
- (4) Committing the Government to a course of action with regard to a potential contract, contract change, claim, or dispute.

(End of Clause)

2052.215-75 Disposition of proposals.

As prescribed in 2015.407-70(a)(5), insert the following provision in applicable solicitations:

Disposition of Proposals

After award of the contract, one copy of each unsuccessful proposal is retained by the NRC's Division of Contracts and Property Management in accordance with the General Records Schedule 3(5)(b). Unless return of the additional copies of the proposals is requested by the offeror upon submission of proposal, all other copies will be destroyed. This request should appear in a cover letter accompanying the proposal.

(End of Provision)

2052.215-76 Proposal presentation and format.

As prescribed at 2015.407-70(b), insert the following provision in applicable solicitations:

Proposal Presentation and Format

(a) Proposals must be typed, printed, or reproduced on letter-size paper and each copy must be legible.

(b) Proposals in response to this Request for Proposal must be submitted in the following three (3) separate and distinct parts:

(1) Two (2) original signed copies of this solicitation package. All applicable sections must be completed by the offeror.

(2) One (1) original and * copies of the "Cost Proposal."

(3) One (1) original and * copies of the "Technical and Management Proposal."

(c) Correctness of the proposal. *Caution*—offerors are hereby notified that all information provided in its proposals, including all resumes, must be accurate, truthful, and complete to the best of the offeror's knowledge and belief. The Commission will rely upon all representations made by the offeror both in the evaluation process and for the performance of the work by the offeror selected for award. The Commission may require the offeror to substantiate the credentials, education, and employment history of its employees, subcontractor personnel, and consultants, through submission of copies of transcripts, diplomas, licenses, etc.

(d) Cost proposal.

(1) The offeror shall use Standard Form 1411, Contracting Pricing Proposal Cover Sheet, in submitting the Cost Proposal. A copy of the form and instructions are attached to this solicitation. The information must include pertinent details sufficient to show the elements of cost upon which the total cost is predicted. The Cost Proposal must be submitted separately from the Technical and Management Proposal.

(2) When the offeror's estimated cost for the proposed work exceeds \$100,000 and the duration of the contract period exceeds six months, the offeror shall submit a Contractor Spending Plan (CSP) as part of its cost proposal. Guidance for completing the CSP is attached.

(3) For any subcontract discussed under the Technical and Management Proposal, provide supporting documentation on the selection process, i.e. competitive vs. noncompetitive, and the cost evaluation.

(e) Technical and management proposal.

(1) The Technical and Management Proposal may not contain any reference to cost. Resource information, such as data concerning labor hours and categories, materials, subcontracts, travel, computer time, etc., must be included in the Technical and Management Proposal so that the offeror's understanding of the scope of work may be evaluated.

(2) The offeror shall submit with the Technical and Management Proposal full and complete information as set forth below to permit the Government to make a thorough evaluation and a sound determination that the proposed approach will have a reasonable likelihood of meeting the requirements and objectives of this procurement.

(3) Statements which paraphrase the statement of work without communicating the specific approach proposed by the offeror or statements to the effect that the offeror's understanding can or will comply with the statement of work may be construed as an

indication of the offeror's lack of understanding of the statement of work and objectives.

(4) The Technical and Management Proposal must be tailored to assure that all sections reflect a one-to-one relationship to the evaluation criteria. The following are examples of the type of information that should be included in a technical and management proposal.

(i) Discussion of the statement of work to substantiate the offeror's understanding of the requirement.

(ii) Discussion of the proposed method of approach to meet the contract objectives.

(iii) Discussion of potential problem areas and the approach to be taken to resolve these areas.

(iv) Statements of any interpretations, requirements, or assumptions made by the offeror.

(v) Discussion of support personnel and facilities available to assist the professional personnel.

(vi) Identify "Key Personnel," and for the person(s) so identified, specify the percentage of time that will be committed to other projects over the course of the proposed contract period of performance.

(vii) Resumes for all professional personnel, including subcontractors and consultants, to be utilized in the performance of any resulting contract. Include educational background, specific pertinent work experience, and a list of any pertinent publications authored by the individual.

(viii) Description of the source of personnel required for performance of each task, including those not presently employed by the offeror. If any of the personnel are under commitment, describe the terms of the commitment(s). Note specifically the personnel that will be employed at time of contract award.

(ix) If the offeror plans to obtain consultant services, explain the need for the services. List the proposed consultants by name, describe the work they will perform under this contract, and include related past experience. Individuals who are employees of the contractor or of the U.S. Government are prohibited from being paid as a consultant under this contract.

(x) If the offeror plans to subcontract any of the work to be performed, list proposed subcontractors, if known, by name. Provide a detailed description of the work to be performed by the subcontractor, and supporting documentation of technical evaluation leading to the selection.

(xi) Provide a detailed schedule for work to be performed and identification of significant milestones and completion dates for each subpart or task.

(xii) Project scheduling and contingency planning demonstrating a logical progression and integration of the tasks to ensure completion within the performance period and without program slippage.

(xiii) Describe of the management organizational structure delineating areas of responsibility and authority under the proposed effort. Describe the relationship of the project organization to corporate management and to subcontractors, if any. Discuss the functions and authorities of the project manager.

(xiv) Procedures to periodically review in-house organizational functions, program reviews and controls, subsequent coordination with the NRC.

(xv) Management controls expected to be utilized to preclude a contract cost growth.

(xvi) The offeror shall list of any commitments with other organizations, Government and/or commercial, for the same or similar effort.

(xvii) List of * previous contracts for the same or similar services, with the name, title, and full telephone number of a contact for each.

(xviii) List of the name, title, and full telephone number for the proposer's technical representative and contracts/business representative.

(xix) _____
* To be incorporated into the solicitation (End of Provision)

2052.215-77 Proposal presentation and format—Alternate 1 (language for negotiated task order contracts.)

As prescribed at 2015.407-70(b)(1), insert the following language in provision 2052.215-76.

(d) Cost proposal.

(1) The offeror shall provide a cost proposal based on the Estimated Level of Effort. The total estimated cost proposed by the offeror is used for evaluation purposes only. Any resultant contract, except a requirements contract, contains an overall cost ceiling whereby individual task orders may be issued. The cost and fee, if any, for each task order is individually negotiated and also contains a cost ceiling.

2052.215-78 Proposal presentation and format—Alternate 2 (language for negotiated fixed prices, labor hour, or time and materials contracts).

As prescribed at 2015.407-70(b)(2), paragraph (d)(2) shall be deleted from the provision 2052.215-76.

(End of Provision)

2052.215-79 Preproposal conference.

As prescribed at 2015.407-70(c), insert the following provision in applicable solicitations:

(a) A preproposal conference is scheduled for:

Date: *
Location: *
Time: *

(b) This conference is to afford interested parties an opportunity to present questions and clarify uncertainties regarding this solicitation. You are requested to mail written questions concerning those areas of uncertainty which, in your opinion, require clarification or correction. You are encouraged to submit your questions in writing not later than * working day(s) prior to the conference date. Receipt of late questions may result in the questions not being answered at the conference although they will be considered in preparing any necessary amendment to the solicitation. If you plan to attend the conference, notify * by letter or telephone *, no later than close of

business *. Notification of your intention to attend is essential in the event the conference is rescheduled or canceled. (Optional statement: Due to space limitations, each potential proposer is limited to * representatives at the conference.)

(c) Written questions must be submitted to: U.S. Nuclear Regulatory Commission, Division of Contracts and Property Management, ATTN: *, Mail Stop *, Washington, DC 20555.

(d) The envelope must be marked "Solicitation No. */Preproposal Conference."

(e) A transcript of the conference will be furnished to all prospective offerors through the issuance of an amendment to the solicitation.

*To be incorporated into the solicitation. (End of Provision)

2052.215-80 Travel reimbursement.

As prescribed at 2015.407-70(d), insert the clauses or alternate in applicable solicitations and contracts:

Travel Reimbursement

(a) Total expenditure for domestic travel may not exceed * without the prior approval of the contracting officer.

(b) The contractor is encouraged to use Government contract airlines, AMTRAK rail services, and discount hotel/motel properties in order to reduce the cost of travel under this contract. The contracting officer shall, upon request, provide each traveler with a letter of identification which is required in order to participate in this program. The Federal Travel Directory (FTD) identifies carriers, contract fares, schedules, payment conditions, and hotel/motel properties which offer their services and rates to Government contractor personnel traveling on official business under this contract. The FTD, which is issued monthly, may be purchased from the U.S. Government Printing Office, Washington, DC 20402.

(c) The contractor will be reimbursed for reasonable travel costs incurred directly and specifically in the performance of this contract. The cost limitations for travel costs are determined in accordance with the specific travel regulations cited in FAR 31.205-46, as are in effect on the date of the trip. Travel costs for research and related activities performed at State and nonprofit institutions, in accordance with section 12 of Public Law 100-679, shall be charged in accordance with the contractor's institutional policy to the degree that the limitations of Office of Management and Budget (OMB) guidance are not exceeded. Applicable guidance documents include OMB Circular A-87, Cost Principles for State and Local Governments; OMB Circular A-122, Cost principles for Nonprofit Organizations; and OMB Circular A-21, Cost Principles for Educational Institutions.

(d) When the Government changes the Federal Travel Regulations, or other applicable regulations, it is the responsibility of the contractor to notify the contracting officer in accordance with the Limitations of Cost clause of this contract if the contractor will be unable to make all of the approved trips and remain within the cost and fee limitations of this contract due to the changes.

*To be incorporated into any resultant contract.

(End of Clause)

2052.215-81 Travel approvals.

As prescribed in 2015.407-70(d), insert the following clause in applicable solicitations and contracts:

Travel Approvals

(a) All domestic travel requires the prior approval of the project officer.

(b) All foreign travel must be approved in advance by the NRC on NRC Form 445 and must be in compliance with FAR 52.247-63 Preference for U.S. Flag Air Carriers. Foreign travel approval must be communicated in writing through the contracting officer.

(End of Clause)

*To be incorporated into any resultant contract

(End of Clause)

2052.215.82 Contract award and evaluation of proposals technical merit more important than cost.

As prescribed in 2015.670(a), insert the following provision in applicable solicitations:

Contract Award and Evaluation of Proposals

(a) By use of numerical and narrative scoring techniques, proposals are evaluated against the evaluation factors specified in paragraph * below. These factors are listed in their relative order of importance. Award is made to the offeror:

(1) Whose proposal is technically acceptable;

(2) Whose technical/cost relationship is most advantageous to the Government; and

(3) Who is considered to be responsible within the meaning of Federal Acquisition Regulation Part 9.1.

(b) Although cost is a factor in the evaluation of proposals, technical merit in the evaluation criteria set forth below is a more significant factor in the selection of a contractor. Further, to be selected for an award, the proposed cost must be realistic and reasonable.

(c) The Government may:

(1) Reject any or all offers if the action is in the public interest;

(2) Accept other than the lowest offer; and

(3) Waive informalities and minor irregularities in offers received.

(d) The Government may award a contract on the basis of initial offers received, without discussions. Therefore, each initial offer should contain the offeror's best terms from a cost or price and technical standpoints.

(e) A separate cost analysis is performed on each cost proposal. To provide a common base for evaluation of cost proposals, the level of effort data must be expressed in staff hours. Where a Contractor Spending Plan (CSP) is required by other provisions of this solicitation, consideration is given to the Plan for completeness, reasonableness, and as a measure of effective management of the effort.

(f) In making the above determination, an analysis is performed by the Government that takes into consideration the results of the technical evaluation and cost analysis.

* To be incorporated into the solicitation.
(End of Provision)

2052.215-83 Contract award and evaluation of proposals—cost more important than technical merit.

As prescribed in 2015.670(a), substitute the following paragraph for paragraph (b) in the clause at 2052.215.82:

(b) Although technical merit in the evaluation criteria set forth below is a factor in the evaluation of proposals, cost is more a significant factor in the selection of a contractor. Further, to be selected for an award, the proposed cost must be realistic and reasonable.

2052.215-84 Contract award and evaluation of proposals—cost and technical merit of equal value.

As prescribed in 2015.670a(2), substitute the following paragraph for paragraph (b) in the clause at 2052.215.82:

(b) In the selection of a contractor, technical merit in the evaluation criteria set forth below and cost bear equal significance. To be selected for an award, the proposed cost must be realistic and reasonable.

2052.216-70 Level of effort.

As prescribed in 2016.307-70(a), insert the following provision in applicable solicitations:

Level of Effort

The NRC's estimate of the total effort for this project is approximately * professional and * clerical staff-years for the duration of this contract. This information is advisory and is not to be considered as the sole basis for the development of the staffing plan. For the purposes of the Government estimate, 2000 hours constitute a staff year.

* To be incorporated into any resultant contract.

(End of Provision)

2052.216-71 Indirect cost rates.

As prescribed in 2016.307-70(b), insert the following clause in applicable solicitations and contracts:

Indirect Cost Rates

(a) Pending the establishment of final indirect rates which must be negotiated based on audit of actual costs, the contractor shall be reimbursed for allowable indirect costs as follows:

(b) The contracting officer may adjust the above rates as appropriate during the term of the contract upon acceptance of any revisions proposed by the contractor. It is the contractor's responsibility to notify the contracting officer in accordance with FAR 52.232-20, Limitation of Cost, or FAR 52.232-22, Limitation of Funds, as applicable, if these changes affect performance of work within the established cost or funding limitations.

* To be incorporated into any resultant contract.

(End of Clause)

2052.216-72 Indirect cost rates—Alternate 1.

As prescribed in 2016.307-70(b), insert the following clause in applicable solicitations and contracts:

Indirect Cost Rates—Alternate 1

The contractor is reimbursed for allowable indirect costs in accordance with the following predetermined rates:

* To be incorporated into any resultant contract.

(End of Clause)

2052.216-73 Indirect cost rates—Alternate 2.

As prescribed in 2016.307-70(b), insert the following clause in applicable solicitations and contracts:

Indirect Cost Rates—Alternate 1

(a) For this contract, the amount reimbursable for indirect costs is as follows:

(b) In the event that indirect rates developed by the cognizant audit activity on the basis of actual allowable costs are less than the ceiling rates, the rates established by the cognizant audits must apply. The Government may not be obligated to pay any additional amounts for indirect costs above the ceiling rates set forth above for the applicable period.

* To be incorporated into any resultant contract.

(End of Clause)

2052.216-74 Task order procedures.

As prescribed in 2016.506-70(a), insert the following clause in applicable solicitations and contracts:

Task Order Procedures

(a) Task order request for proposal. When a requirement within the scope of work for this contract is identified, the contracting officer shall transmit to the contractor a Task Order Request for Proposal (TORP) which includes the following, as appropriate:

- (1) Scope of work/meetings/travel and deliverables;
- (2) Reporting requirements;
- (3) Period of performance—place of performance;
- (4) Applicable special provisions;
- (5) Technical skills required; and
- (6) Estimated level of effort.

(b) Task order proposal. By the date specified in the TORP, the contractor shall deliver to the contracting officer a written proposal that provides the following technical and cost information, as appropriate:

- (1) Technical proposal content;
 - (i) A discussion of the scope of work requirements to substantiate the contractor's understanding of the requirements of the task order and the contractor's proposed method of approach to meet the objective of the order.

(ii) Resumes for professional personnel proposed to be utilized in the performance of any resulting task order. Include educational background, specific pertinent work

experience, and a list of any pertinent publications authored by the individual.

(iii) Identification of administrative support personnel and/or facilities that are needed to assist the professional personnel in completing work on the task order.

(iv) Identification of "Key Personnel" and the number of staff hours that will be committed to completion of work on the task order.

(2) Cost proposal. The contractor's cost proposal for each task order must be prepared using Standard Form 1411, Contracting Pricing Proposal cover sheet. A copy of the form and instructions are attached to this contract. Each task order cost proposal must be fully supported by cost and pricing data adequate to establish the reasonableness of the proposed amounts. When the contractor's estimated cost for the proposed task order exceeds \$100,000 and the period of performance exceeds six months, the contractor may be required to submit a Contractor Spending Plan (CSP) as part of its cost proposal. The TORP indicates if a CSP is required.

(c) Task order award. The contractor shall perform all work described in definitized task orders issued by the contracting officer. Definitized task orders include the following:

- (1) Statement of work/meetings/travel and deliverables;
- (2) Reporting requirements;
- (3) Period of performance;
- (4) Key personnel;
- (5) Applicable special provisions; and
- (6) Total task order amount including any fixed fee.

(End of Clause)

2052.216-75 Accelerated task order procedures.

As prescribed in 2016.506-70, insert the following clause in applicable solicitations and contracts:

Accelerated Task Order Procedures

(a) The NRC may require the contractor to commence work before receipt of a definitized task order from the contracting officer. Accordingly, when the contracting officer verbally authorizes the work, the contractor shall proceed with performance of the task order subject to the monetary limitation established for the task order by the contracting officer.

(b) When this accelerated procedure is employed by the NRC, the contractor agrees to begin promptly negotiating with the contracting officer the terms of the definitive task order and agrees to submit a cost proposal with supporting cost or pricing data. If agreement on a definitized task order is not reached by the target date mutually agreed upon by the contractor and contracting officer, the contracting officer may determine a reasonable price and/or fee in accordance with Subpart 15.8 and Part 31 of the FAR, subject to contractor appeal as provided in 52.233-1, Disputes. In any event, the contractor shall proceed with completion of the task order, subject only to the monetary limitation established by the contracting officer and the terms and conditions of the basic contract.

(End of Clause)

2052.222-70 Nondiscrimination because of age.

As prescribed at 2022.901-70, insert the following clause in applicable solicitations and contracts:

Nondiscrimination Because of Age

It is the policy of the Executive Branch of the Government that:

(a) Contractors and subcontractors engaged in the performance of Federal contracts may not, in connection with the employment, advancement, or discharge of employees or in connection with the terms, conditions, or privileges of their employment, discriminate against persons because of their age except upon the basis of a bona fide occupational qualification, retirement plan, or statutory requirements; and

(b) That contractors and subcontractors, or person acting on their behalf, may not specify, in solicitations or advertisements for employees to work on Government contracts, a maximum age limit for employment unless the specified maximum age limit is based upon a bona fide occupational qualification, retirement plan, or statutory requirement.

(End of Provision)

2052.231-70 Precontract costs.

As prescribed in § 2031.109-70, insert the following clause in applicable solicitations and contracts:

Precontract Costs

Allowable costs under this contract must include such costs, incurred by the contractor in connection with the work covered by this contract during the period from * and including * to the effective date of this contract, as would have been allowable pursuant to the terms of this contract if this contract had been in effect during that period; provided, however, that the costs may not in aggregate exceed * which is included in the estimated cost of this contract.

*To be incorporated into any resultant contract

(End of Clause)

2052.235-70 Publication of research results.

As prescribed in 2035.70, insert the following clause in applicable solicitations and contracts:

Publication of Research Results

(a) The principal investigator(s)/contractor shall comply with the provisions of NRC Handbook 3.8 (formerly MC 3202) and NRC Manual Chapter 3206 regarding publication in refereed scientific and engineering journals or dissemination to the public of any information, oral or written, concerning the work performed under this contract. Failure to comply with this clause shall be grounds for termination of this contract.

(b) The principal investigator(s)/contractor may publish the results of this work in refereed scientific and engineering journals or in open literature and present papers at public or association meetings at interim stages of work, in addition to submitting to NRC the final reports and other deliverables required under this contract. However, such publication and papers shall focus on advances in science and technology and minimize conclusions and/or recommendations which may have regulatory implications.

(c) Prior to any such publication, the contractor shall submit the proposed publication to the NRC Contracting Officer and Project Officer for review and approval.

(End of Clause)

2052.235-71 Publication of research results—universities

As prescribed at § 2035-70 substitute the following paragraph (c) for paragraph (c) in 2052.235-70.

(c) The principal investigator(s) shall coordinate all such publications with, and transmit a copy of the proposed article or paper to, the NRC Contracting Officer or Project Officer, prior to publication. The NRC agrees to review and provide comments within thirty (30) days after receipt of a proposed publication. However, in those cases where the information to be published is:

(1) subject to Commission approval:

(2) has not been ruled upon, or
(3) disapproved by the Commission, the NRC reserves the right to disapprove or delay the publication. "Further, if the NRC disagrees with the proposed publication for any reason, it reserves the right to require that any publication not identify the NRC's sponsorship of the work and that any associated publication costs shall be borne by the contractor.

(End of Clause)

2052.235-72 Safety, Health, and Fire Protection.

As prescribed in 2035.70, insert the following clause in applicable solicitations and contracts:

Safety, Health, and Fire Protection

The contractor shall take all reasonable precautions in the performance of the work under this contract to protect the health and safety of its employees and of members of the public, including NRC employees and contractor personnel, and to minimize danger from all hazards to life and property and shall comply with all applicable health, safety, and fire protection regulations and requirements (including reporting requirements) of the Commission and the Department of Labor. In the event that the contractor fails to comply with these regulations or requirements, the contracting office may, without prejudice to any other legal or contractual rights of the Commission, issue an order stopping all or any part of the work; thereafter, a start order for resumption of work may be issued at the discretion of the contracting officer. The contractor shall make no claim for an extension of time or for compensation or damages by reason of, or in connection with, this type of work stoppage.

(End of Clause)

Dated at Rockville, Maryland this 9th day of December, 1992.

For the Nuclear Regulatory Commission.

Samuel J. Chilk,

Secretary of the Commission.

[FR Doc. 92-30419 Filed 12-22-92; 8:45 am]

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30 CFR Parts 7 et al.

Wednesday
December 23, 1992

Part III

Department of Labor

Mine Safety and Health Administration

30 CFR Parts 7 et al.

Electric Motor Assemblies; Electric
Cables, Signaling Cables and Cable
Splice Kits; Final Rules

DEPARTMENT OF LABOR

Mine Safety and Health Administration

30 CFR Parts 7 and 18

RIN 1219-AA61

Electric Motor Assemblies

AGENCY: Mine Safety and Health Administration (MSHA), Labor.

ACTION: Final rule.

SUMMARY: This final rule establishes the specific requirements for MSHA approval of certain explosion-proof electric motor assemblies intended for use in approved equipment in underground mines. It will primarily affect manufacturers of equipment intended for use in underground mining. Applications for approval or extensions of approval submitted three years after the effective date of this rule will be required to be in compliance with subpart J of part 7. Those motors that incorporate features not specifically addressed in subpart J of part 7 will continue to be evaluated under part 18.

EFFECTIVE DATE: This regulation is effective February 22, 1993. The incorporation by reference in § 7.304(g) of the final rule is approved by the Director of the Federal Register as of February 22, 1993.

FOR FURTHER INFORMATION CONTACT: Patricia W. Silvey, Director, Office of Standards, Regulations and Variances (703) 235-1910.

SUPPLEMENTARY INFORMATION:**I. Background**

On June 22, 1988, with the promulgation of part 7, MSHA implemented new procedures and requirements for testing and approving certain products used in underground mines (53 FR 23486). As explained in that rulemaking, products approved under part 7 are required to be tested by the applicant or tested by a third party selected by the applicant. All testing is to be conducted using MSHA specified test procedures with certification of test results by the applicant. In addition, the Agency has the right to observe all product testing. When requesting approval, the applicant is required to submit certain product information. This includes, for example, drawings and specifications to document compliance with the technical requirements. Based upon an evaluation of the technical documentation, MSHA observations of product testing, and a review of the certification statements, MSHA will issue an approval or notice denying approval of the product.

Once a product is approved under part 7, an approval holder is required to inspect or test critical characteristics of the product as part of its quality assurance program. Under the provisions of subpart A of part 7, the approval holder must report to MSHA any knowledge that a product has been distributed with critical characteristics not meeting required specifications. Upon receiving such a report, MSHA will work with the approval holder to implement appropriate corrective action. As critical characteristics are features of a product which, if not built to specification, can create a hazard, immediate notification is necessary. MSHA performs periodic audits of products approved under part 7 to ensure that they are being manufactured as approved. If a product fails to meet the technical requirements of part 7 or creates a hazard related to its use, MSHA will take immediate action to address the problem, including revocation of the approval if necessary. Although MSHA's experience with existing subparts to part 7 is limited, primarily due to delayed effective dates, this transition has been positively received by manufacturers and applied without complications.

On March 12, 1991 (56 FR 10464), MSHA published a proposed rule that addressed specific requirements for MSHA approval of certain explosion-proof motor assemblies intended for use in approved equipment in underground mines. Written comments were required to be submitted by June 14, 1991. The agency received written comments from all segments of the mining industry, and the final rule addresses these comments.

As a new subpart J to part 7, this final rule specifies the technical requirements and test procedures for the approval of electric motor assemblies. The rule is derived from existing part 18 and MSHA policies. It provides objective criteria for applicant or third party testing and replaces subjective technical requirements with performance-oriented tests. The tests are based on MSHA's engineering experience with the subjective criteria in the existing approval requirements. They are not intended to introduce more stringent testing methods, but rather to more explicitly state the tests used in MSHA's current testing program which have proven to be effective. Under the rule, manufacturers will use these test procedures to measure, evaluate, and certify compliance of their product with the requirements of subpart J of part 7 in order to receive an MSHA approval.

One commenter suggested that all testing should continue to be performed by MSHA. This commenter believed

that the testing procedures would not be strictly adhered to and that there would be no health and safety benefit from applicant or third-party testing. As stated previously, the applicant must certify to product testing and performance, as required, and meet all of the applicable quality assurance requirements, including inspection or testing of the product's critical characteristics. False certifications are subject to criminal sanctions under section 110(f) of the Federal Mine Safety and Health Act of 1977 (Mine Act). MSHA will take immediate action to address any problems identified during product audits, including revocation of the approval if necessary.

The part 7 approach, when fully implemented, will allow the Agency to reallocate resources to product audit activities and the evaluation of technological improvements in mining products submitted for approval. MSHA continues to believe that implementation will result in improved quality assurance and more rapid introduction of technological improvements into the mines, thereby improving miner safety.

This commenter further expressed the opinion that the protections offered by the Mine Act under section 110(h) would not be guaranteed if the testing occurred outside the United States. The responsibilities of the applicant under this section are not affected by this change in approval procedure. The issue of product testing conducted outside the United States is addressed by 30 CFR 7.4(d), a general provision of part 7 which restricts such testing to where it is specifically required by international agreement.

Commenters also suggested that MSHA use consensus standards as the basis for approval of explosion-proof motors. The intent of part 7 is to provide objective technical subparts based on current MSHA regulations. The testing procedures incorporated into part 7 subparts are procedures that the Agency has used successfully for a number of years and for which objective criteria have been established. While these criteria may be revised and modified to clarify existing subjective requirements, they are not intended to introduce new technological requirements. Consensus standards have not been incorporated in this subpart because their use is inconsistent with this intent and was not an objective of this rulemaking.

This final rule is consistent with the Mine Act, Executive Order 12291, the Regulatory Flexibility Act, and the Paperwork Reduction Act and is issued under the authority of section 508 of the Mine Act (30 U.S.C. 957).

II. Discussion of Final Rule

The following section-by-section analysis discusses each provision of subpart J and each revision to part 18 and addresses comments received in response to the proposed rule.

A. Section-by-Section Discussion of Part 7

Section 7.301 Purpose and Effective Date

This section, derived in part from existing § 18.1, revises and simplifies the statement of purpose and requires that certain electric motor assemblies be approved under part 7. The final rule establishes the specific requirements for approval of explosion-proof motor assemblies intended for use on-board approved equipment. Those motor assembly designs that contain devices not provided for under subpart J, such as devices for ventilation, pressure relief and drainage, will continue to be evaluated under existing part 18. In addition, designs incorporating parts common to explosion-proof enclosures other than conduit boxes and those incorporating new technology will also be addressed under part 18. These designs are not being covered under subpart J because their acceptance by MSHA requires an individual evaluation of design and performance tests. Designs incorporating parts common to explosion-proof enclosures other than conduit boxes and those incorporating new technology would also require evaluation on an individual basis.

MSHA specifies a three-year phase-in period for the implementation of subpart J. This three-year phase-in period will allow industry time to fully develop testing facilities. During the phase-in period, MSHA will accept applications for certification and extension of certification under existing part 18 or applications for approval under subpart J of part 7. After three years, all motor assemblies submitted for approval, except those with designs not covered under subpart J, will be required to be submitted under subpart J and meet its requirements.

One commenter questioned the availability of competent third-party test facilities within the proposed two-year phase-in period. The commenter also suggested the MSHA continue to provide testing for applicants under subpart J until cost-competitive test facilities are available. The Agency has reconsidered the length of time that may be needed for this implementation period and has increased the phase-in period to three years in the final rule. Some facilities are currently available to

provide third-party testing, and the Agency estimates that full implementation can be accomplished within three years.

Section 7.302 Definitions

The following definitions apply to the approval of electric motor assemblies. Most are derived from existing § 18.2, although some are new. In order to address the specific requirements for motor assemblies, some of these definitions have been modified. All of these definitions are designed to clarify the requirements of subpart J.

Afterburning. The combustion of any flammable mixture that is drawn into an enclosure after an internal explosion in the enclosure. This definition clarifies the definition in § 18.2 by stating that afterburning is determined through detection of secondary pressure peaks occurring subsequent to the initial explosion. This phenomenon is characterized by the development of secondary pressure peaks following a negative or zero pressure at the termination of the preceding pressure peak.

Cylindrical joint. This definition is the same as that in § 18.2 and is a joint comprised of two contiguous, concentric, cylindrical surfaces.

Explosion-proof enclosure. The rule modifies the existing definition in § 18.2, which defines an explosion-proof enclosure as a metallic enclosure used as a winding compartment, conduit box, or a combination of both that complies with the applicable requirements of § 7.304 and that is constructed to withstand the explosion tests of § 7.306. This definition is modified to be specific to electric motor assemblies, as their subpart applies only to motor assemblies.

Fastening. This definition includes a bolt, screw or stud used to secure adjoining parts to prevent the escape of flame from an explosion-proof enclosure. Although the definition is new, it reflects the items included as fastenings in existing § 18.32.

Flame-arresting path. This definition identifies two or more adjoining or adjacent surfaces between which the escape of flame is prevented as a flame-arresting path. It is the same as that contained in § 18.2.

Internal free volume (of an empty enclosure). The rule identifies the internal free volume of an empty enclosure as that volume remaining after deducting the volume of any part that is essential to maintaining the explosion-proof integrity of the enclosure or necessary for operation of the motor. Essential parts would include the parts that constitute the flame-

arresting path as well as those necessary to secure the parts that constitute a flame-arresting path. This definition is important because the volume of the enclosure defines the minimum design requirements of the explosion-proof enclosure. While the definition is new, it retains the interpretation of "volume of empty enclosure" currently used for the classification of construction requirements contained in existing § 18.31.

Motor assembly. This new definition defines a motor assembly as the winding compartment including a conduit box when specified. It also clarifies that the motor assembly would be comprised of one or more explosion-proof enclosures. This definition describes the typical arrangement currently used for motor assemblies in underground mines.

Plane joint. This definition identifies a plane joint to be a joint comprised of two adjoining surfaces in parallel planes. It is the same as that contained in § 18.2.

Step (rabbet) joint. This definition is derived from § 18.2. It retains its existing meaning and specifies a step or rabbet joint to be a joint comprised of two adjoining surfaces with one or more changes in direction between the inner and outer edges. Examples of a step joint would be one composed of a cylindrical portion and a plane portion or one composed of two or more plane portions.

Stuffing box. This new definition identifies an entrance that has a recess filled with packing material for cables extending through a wall of an explosion-proof enclosure.

Threaded joint. This definition maintains the definition in existing § 18.2 that a threaded joint is a joint consisting of a male- and a female-threaded member, both of which are the same type and gauge.

General definitions such as "applicant," "approval," and "post-approval product audit" are not included in this subpart. They are defined in the general provisions of subpart A of part 7.

Section 7.303 Application Requirements

Under the final rule, derived from existing § 18.6(a), an application for approval of a subpart J motor assembly is required to contain sufficient information to document compliance with the technical requirements of subpart J. The application must be accompanied by a composite drawing or drawings showing the design specifications for the motor assembly. For clear identification, each drawing is required to be titled, dated, and

numbered and include the latest revision number. A sample of a composite drawing is available upon request from the Approval and Certification Center, RR #1, Box 251, Industrial Park Road, Triadelphia, West Virginia 26059.

A commenter suggested that § 7.303 should include a statement that these application requirements are in addition to the procedures and requirements of existing § 7.3. This commenter was concerned that new applicants would be unfamiliar with the general requirements of part 7 subpart A. This final rule promulgates subpart J within part 7 and as such, all the general provisions of part 7 in subpart A are applicable. Consequently, it is necessary that applicants be familiar with all these general provisions.

Section 7.304 Technical Requirements

This section revises and updates the existing technical requirements for the approval of motor assemblies. The technical requirements for the approval of motor assemblies are derived from the existing requirements of part 18.

Paragraph (a) is derived from existing § 18.47 and specifies the maximum voltage rating as 4160 volts, which is the voltage limitation for machines approved under part 18. Paragraph (b) is derived from existing § 18.23 and limits the maximum temperature of the external surfaces of the motor assembly to 150°C (302°F) when operated at the manufacturer's specified ratings, which would be considered the normal operating conditions referred to in § 18.23. This is to prevent the thermal ignition of coal dust. A commenter suggested that the external motor surface temperature limitation of § 7.304(b) be applied when the motor is blanketed with dust. It was also suggested that because motors can be overloaded or have other abnormal operating conditions, additional tests should be conducted to verify that surface temperatures do not exceed 200°C under these conditions.

The motors approved under this subpart are intended for incorporation into permissible equipment approved under part 18 and used in gassy mines. Existing part 18 requirements limit the external surface temperature of motors to 150°C under normal operating conditions. Other requirements in part 18 address protection against motors running in overload or faulted conditions for prolonged periods. Part 75 prohibits excessive accumulations of coal dust and other combustibles on equipment. Therefore, the Agency believes that the limitation of 150°C, as specified in part 18 and incorporated in

this subpart, provides adequate protection.

Paragraph (c) is derived from existing § 18.24 which requires the clearance between live parts and casings to be sufficient to minimize the possibility of arcs striking the casings. The rule establishes specific minimum clearance distances based upon the circuit voltage of the live parts. These minimum clearances are listed in table J-1. The minimums are applicable to the distance between uninsulated electrical conductor surfaces or between uninsulated electrical conductor surfaces and grounded metal surfaces within the enclosure. These minimum clearances are the result of an engineering study performed in conjunction with high voltage studies at MSHA's Approval and Certification Center.

One commenter suggested that reduced clearances for voltage ratings of 0-250 volts and 251-600 volts would be appropriate. The proposed rule addressed a voltage classification of 0-999 volts. Evaluation by the Agency of a further breakdown of voltage classifications as suggested has resulted in lesser clearances, consistent with the comment, for these voltage ranges. The final rule incorporates this modification. These clearances clarify existing requirements and will not result in additional costs to manufacturers nor impose new requirements.

Paragraph (d) of § 7.304, derived from existing § 18.34(a)(4), does not allow the use of parts such as bearings and seals for flame-arresting paths because they can become worn during the motor operation and therefore cause the explosion-proof integrity of the enclosure to be lost. Paragraph (e), derived from existing § 18.34(a)(6), adds o-ring grooves to the types of grooves to be deducted when determining the width of the flame-arresting paths. This change is consistent with existing MSHA policy that addresses the use of o-ring grooves.

Paragraph (f), derived from existing § 18.34(a)(8), allows an outer bearing cap to form part of a flame-arresting path only if it houses the bearing. A commenter suggested that this provision be modified to allow outer bearing caps that are not part of a bearing cartridge to form part of a flame-arresting path. A bearing cap that does not house the bearing is not essential for the motor operation and could inadvertently be removed from the motor assembly. If the bearing cap were part of the flame-arresting path, its removal would cause the motor assembly to lose its explosion-proof integrity. It is the Agency's experience that nonessential

parts are sometimes inadvertently omitted; therefore, the final rule has not been modified.

The design requirements of paragraph (g) are derived from existing §§ 18.26, 18.29, 18.31 through 18.34, and current policy. Paragraph (g)(1), derived from existing § 18.31(a)(1), requires the motor assemblies to be constructed of metal, designed to withstand a minimum internal pressure of 150 pounds per square inch gauge (psig), to have castings free from blow holes and to be explosion-proof as determined by the tests of § 7.306. These requirements ensure that a motor assembly will withstand an internal methane explosion.

Paragraph (g)(2) of § 7.304, derived from existing § 18.31(a)(2), establishes the static pressure test requirements of § 7.307 as the minimum performance level for welded joints forming an enclosure. Submitting an enclosure to this performance test would be an alternative to welding in accordance with, or exceeding, American Welding Society (AWS) standard D14.4-77, which is incorporated by reference. This provides an objective requirement to replace the part 18 requirement that each application be evaluated individually as to the adequacy of the welding standards used. Existing § 18.31(a)(2) states that these welds are to be made in accordance with AWS standards, with no specific standard identified. MSHA policy has been to accept welds made in accordance with AWS D14-77. MSHA's experience with explosion-tested designs indicates that these minimum requirements provide a design adequate to maintain the explosion-proof integrity of the enclosure.

Paragraph (g)(3), derived from existing § 18.31(a)(3), limits the magnesium content of external rotating parts constructed of aluminum alloys to 0.6 percent. Existing § 18.31(a)(3) specifies this magnesium limit to be 0.5 percent. The Agency developed a policy approximately 20 years ago allowing a 0.6 percent magnesium content based upon experimental data demonstrating this value to be within the range of permissible safety limits. Paragraph (g)(3) is also derived from existing § 18.26 and requires that all nonmetallic rotating parts be provided with a means to prevent an accumulation of static electricity. This is to prevent a buildup of a static charge that could produce an incendive spark or arc. A commenter suggested that the requirements of this paragraph be applied to nonmetallic fan guards to evaluate their ability to dissipate static electricity. This comment was not adopted because

MSHA has not evaluated and certified any motors with nonmetallic fan guards. Future applications specifying these fan guards could be addressed as new technology under part 18.

Section 7.304(g)(4), derived from existing § 18.31(a)(5), requires threaded covers and mating parts to be designed with Class 1A and 1B coarse, loose-fitting threads. These are thread classifications from the American National Standard, ANSI B1.1-1982, "Unified Inch Screw Threads (UN and UNR Thread Form)". This provision retains the requirement contained in existing § 18.31(a)(5); however, the classification terms (Class 1A and 1B) are updated to reflect current terminology. The rule is still designed to minimize binding of threads. In addition, as in § 18.31(a)(5), the cover is required to be secured against loosening.

Paragraph (g)(5), derived from existing § 18.33, specifies requirements for the planarity, surface finish, and preparation of all flame-arresting path surfaces. These requirements are important because they relate to maintaining the maximum clearance between flame-arresting path surfaces to prevent the escape of flames and/or hot gases resulting from an internal explosion. One commenter suggested that the test method specified in a consensus standard be required for use to measure the surface finish. The maximum finish of the surface is critical, not the method of measurement. The final rule allows the applicant to determine the specific method, as long as the technical requirements are satisfied.

A second commenter recommended the following wording regarding rust inhibitors: " * * * so long as the final surface may be readily wiped free of any foreign materials." Because this was the intent of the requirement, the final rule includes this wording.

Paragraph (g)(6), derived from existing § 18.34(c), specifies clearance requirements between laminations and end rings for laminated stator frames. This also addresses hazards associated with the escape of flames and/or hot gases resulting from an internal explosion.

Paragraph (g)(7) of § 7.304 is derived from existing § 18.32(b) and requires locking devices to be provided for all fastenings securing parts which form flame-arresting path fits. The rule allows alternatives to lockwashers that meet the lockwasher equivalency test in § 7.308. The lockwasher equivalency test of § 7.308 provides an objective means of evaluating devices as currently permitted under existing § 18.32(b). One

commenter suggested that lockwashers should not be required. As previously stated, the intent of part 7 subpart J is to objectively state the technical criteria presently required under part 18, not to introduce new or modified requirements. Therefore, the suggested modification is not included in this final rule.

Paragraph (g)(8), which is derived from existing § 18.32(c), requires all fastenings that hold a flame-arresting path part to be of uniform size, if practicable. This is intended to preclude improper assembly that may result in insufficient thread engagement or bottoming of the fastening. One commenter suggested that proposed § 7.304(g)(8) would change the requirement for uniformity of fasteners and would permit the use of nonuniform sized fasteners. However, the wording of this provision is identical to existing § 18.32(c), and it has been applied successfully. Therefore, this comment was not incorporated into the final rule.

Paragraph (g)(9), derived from § 18.32(d), requires that holes be threaded deeply enough so the fastenings would not bottom if the locking device is omitted. Paragraph (g)(10), which is also derived from existing § 18.32(d) and § 18.34(a)(9), requires that holes for fastenings not penetrate to the interior of the enclosure except as specified. This will prevent the existence of a through hole from the interior of the enclosure to the exterior through which flames and/or hot gases could escape in the event that a fastening were inadvertently omitted. Holes made through motor casings for bolts, studs or screws to hold parts that are essential for the motor operation are allowed.

Paragraph (g)(11) of § 7.304, derived from existing § 18.34(b), specifies requirements for the assembly of pole pieces to the frame of direct current motor assemblies, including the use of shims during assembly of the pole pieces. The pole bolts are necessary to maintain the pole pieces in the frame. The rule requires the total thickness of the shims to be specified, if used. This specification is required to determine the adequacy of the bolt engagement in the pole pieces. The rule also requires the shim assembly to meet the same requirements as the pole piece when mounted to the frame.

Paragraph (g)(12) allows for the use of coil-threaded inserts in holes for fastenings, provided they have conventional screw threads, the holes for the inserts are drilled and tapped consistent with the insert manufacturer's specifications, and the

insert is long enough to ensure the required minimum thread engagement of the fastening in the insert. Although not addressed in existing part 18 requirements, current policy, based upon field experience, evaluation and testing by MSHA, permits their use. This provision allows correction of damaged threads for fastenings securing flame-arresting path parts that could lead to the expulsion of flames and/or hot gases due to an internal explosion. One commenter recommended that paragraph (g)(12)(ii) include the provision that the inserts be installed according to the manufacturer's specifications. This was specified in paragraph (g)(12)(iii) of the proposal and is addressed in the final rule.

Paragraph (g)(13) of § 7.304, derived from existing § 18.32 (e), clarifies the requirement for a minimum of 1/8 inch of stock at the bottom of each blind hole by identifying the subject holes as those that could penetrate into the interior of the explosion-proof enclosure. This requirement provides protection against failure of the enclosure surface beneath the blind hole in case fastenings are not present in the holes. One commenter suggested that under certain conditions a minimum of 1/16 inch be allowed in the bottom of blind holes. As previously stated, the intent of part 7 subpart J is to objectively state the established technical criteria presently required and successfully applied by MSHA under part 18, not to introduce new or modified requirements. Therefore, the suggested modification is not included in this final rule.

Paragraph (g)(14), derived from existing § 18.32(f), clarifies the requirement that fastenings hold only parts that are essential for maintaining the explosion-proof integrity of the motor or necessary for the operation of the motor. This ensures the proper thread engagement necessary to maintain the explosion-proof integrity of the enclosure. The rule also retains the requirement that the same fastenings not be used for making electrical connections. This addresses the concern that electrical energy could cause the connection to loosen or the hardware to deteriorate.

Paragraph (g)(15), derived from existing § 18.29(c), clarifies the requirements for through holes in explosion-proof enclosures. Although all through holes are required to be plugged, the plug for holes where future access is necessary only have to be spot welded or brazed, allowing for removal. However, plugs in through holes not requiring future access have to be continuously welded all around for permanent assembly. The rule also

requires removable plugs to meet the flame-arresting path requirements of § 7.304(g)(19). Figure J-1 in the appendix illustrates the alternate methods of securing the plug.

One commenter, concerned that spot welding or brazing can result in unnecessary damage, recommended that other means of securing plugs be allowed. Another commenter suggested alternate methods of securing plugs for holes where future access is not required. These methods that are accepted in some consensus standards include tack welding as a secondary securing measure. The methods specified in this paragraph provide the protection necessary to ensure the explosion-proof integrity of enclosures. Alternate methods would require an evaluation of the type of protection provided and therefore would be required to be evaluated under part 18.

Paragraph (g)(16) is new and specifies the acceptable location of o-rings in a flame-arresting path. Although not addressed in existing part 18, current policy specifies these locations when o-rings are installed to permit checking of flame-arresting path fits without interference from o-rings. This requirement is based upon the Agency's field experience and reflects proven methods needed for field inspection. Figures J-2, J-3, J-4 and J-5 in the appendix are included to clarify the required locations for o-rings.

One commenter expressed concern that the placement of o-rings specified in the proposed rule would result in trapped moisture, causing problems with rust, and suggested that alternate locations be allowed. The introduction of an o-ring does not increase the likelihood of rusting occurring on flame-arresting paths. Rust inhibitors may be used to protect against rust in these areas.

The commenter further suggested that the intent of the requirement of 1/2 inch in paragraph (g)(16)(ii) was for the o-ring to be located "at least one-half of the acceptable flame-arresting path in by the outer edge of the plane portion * * *". The intent of this requirement is, as stated in the final rule, for the o-ring to be located 1/2 inch within the outer edge of the plane portion.

Paragraph (g)(17) is new and sets requirements for the mating parts of a pressed fit. Although not addressed in existing part 18, these requirements are current policy developed to define pressed fits. A pressed fit must meet minimum interference and length requirements. These requirements are intended to ensure that the fit is sufficient to maintain the explosion-proof integrity of the motor assembly.

Paragraph (g)(18) of § 7.304, derived from existing § 18.31(a)(5), requires threaded joints to meet the applicable flame-arresting path requirements of § 7.304(g)(19). This addresses the hazards associated with the expulsion of flames and/or hot gases along these surfaces. One commenter suggested that threaded joints as specified under this paragraph must comply with the "minimum thread engagement of fastening" specified in Table J-2 of § 7.304(g)(19) and that an alternative construction based on the number of threads per inch be offered. The referenced minimum thread engagement requirement does not apply to the threaded joints addressed in this paragraph, but rather to hardware used to ensure the integrity of explosion-proof enclosures.

Paragraph (g)(19) references Table J-2 and footnotes that specify the design requirements for flame-arresting paths based on the volume of the empty enclosure. These provisions repeat requirements derived from existing § 18.31(a)(6), with a few clarifications and alternatives explained below.

One commenter requested clarification of the minimum requirements listed in the table concerning the tolerances in standard steel plate thicknesses. The minimum thicknesses included in the table apply to walls, covers, and flanges. While these dimensions are minimum values for flanges and covers, except where noted, they are intended to be the minimum nominal thickness of standard plate used for walls. The final rule includes a new Footnote 1 to clarify this requirement. The proposed footnotes have been renumbered accordingly in the final rule.

Under the maximum fastening spacing for joints, portions of which are in different planes, the specification of 8 inches with a minimum of 4 fastenings is added. This provides an objective requirement to replace the part 18 requirement that each application be evaluated individually. MSHA's experience with explosion-tested designs indicates that these minimum requirements provide a design adequate to maintain the explosion-proof integrity of the enclosure. The corresponding existing part 18 requirement has been retained to allow the continued individual evaluation of designs.

Footnote 5 of table J-2, derived from existing § 18.34(d), specifies alternate flame-arresting path dimension requirements for rabbet (step) joints on small motor assemblies having internal free volume not exceeding 350 cubic inches and joints not exceeding 32

inches in outer circumference. The requirements allow minimum total widths of rabbet (step) joints to be shorter than those specified in table J-2, provided the corresponding tighter clearances are maintained. Figure J-6 in the appendix is included to provide an illustration of a rabbet (step) joint.

Footnote 6 to the table in part 7, which is the same wording as Footnote 4 to the table specified in existing § 18.31, specifies the clearance requirements based on the length of flame-arresting path fits. One commenter questioned the need for this footnote. However, it provides additional clarification of the design requirements pertaining to these specific flame-arresting path fits and has been retained in the final rule.

Footnote 7 clarifies requirements pertaining to the use of studs as fasteners. One commenter requested clarification of the intent of this footnote. In response to this commenter, studs are included in the definition of fastening, and it is MSHA's intent that this footnote provide the basis for which studs are acceptable in lieu of mounting bolts.

Footnote 8 specifies clearance and location requirements for steel dowel pins. These pins are generally used in cover flanges to aid in aligning the covers. Although not addressed in existing part 18, these requirements are consistent with current policy. One commenter requested information on the need to reduce the spacing requirement from 6 inches to 5 inches for steel dowel pins. Where a steel dowel pin is located, an extra hole is created. Since a pin does not secure the cover, a reduction of bolt spacing is necessary to decrease the possibility of flame being admitted. This spacing requirement is based on MSHA's explosion-testing experience and has proven to be a safe design.

Footnotes 9 and 10 contain new performance-oriented criteria to evaluate fastenings not meeting the minimum diameter and thread engagement dimensions specified. Again, these footnotes provide an objective requirement to replace the part 18 requirements that each application be evaluated individually. MSHA's experience with explosion-tested designs indicates that these minimum requirements provide a design adequate to maintain the explosion-proof integrity of the enclosure. The corresponding existing part 18 requirement has been retained to allow the continued individual evaluation of designs. Footnote 9 allows the use of fastenings with diameters smaller than those specified in the table, provided

that the enclosure is first tested to meet the requirements of § 7.307 (static pressure test) and then § 7.306 (explosion-test). This new provision provides performance criteria upon which fastenings with smaller diameters will be evaluated. Footnote 10 allows minimum thread engagement less than the diameter of the fastening specified provided the enclosure meets these same test requirements. The criteria ensure adequate strength of the fastenings and threads for the motor design.

Footnote 11 of table J-2, which is new, specifies that the maximum clearance applies only when the fastening is located within the flame-arresting path. It clarifies when the requirement in the table is applicable. One commenter questioned whether the maximum diametrical clearance between fastening body and unthreaded holes through which it passes applied only when the fastening is located in the flame-arresting path. Footnote 11 specifically clarifies this concern.

Footnote 12, which addresses the deburring of holes, was inadvertently excluded from the proposal to this part 7 section. However, it is a footnote in existing § 18.31 and was proposed as a footnote to the revision of this section. For purposes of consistency, it is included in the final rule.

Footnote 13 states that the edge of the fastening hole must include the edge of any machining done to the fastening hole, such as chamfering. This is consistent with existing policy and is added for clarification.

Footnote 15 provides that shafts or operating rods not be less than 1/4 inch in diameter. This provision has been changed in the final rule to be consistent with the comparable footnote published in proposed § 18.31(a)(6). This provision is also contained in existing part 18. The Agency's experience is that the 1/4-inch minimum diameter provision for shafts and operating rods provides adequate strength for proper performance.

Commenters suggested that explosion-proof joint constructions specified in consensus standards be accepted as alternatives to the requirements of paragraph (g)(19). As previously stated, the intent of part 7 subpart J is to objectively state the established technical criteria presently required and successfully applied by MSHA under part 18, not to introduce new or modified requirements. Therefore, the suggested modification is not included in this final rule.

Paragraph (h) of § 7.304, derived from existing § 18.37, specifies the requirements for lead entrances. Except

as explained below, the requirements are the same as those contained in existing § 18.37. Paragraph (h)(1) requires each cable extending through an outside wall of the motor assembly to pass through a stuffing-box lead entrance. This new provision reflects the Agency's belief that this is the only type of lead entrance for which objective criteria can be developed at this time.

Paragraph (h)(2) addresses the requirements for the proper packing of gland assemblies. Paragraph (h)(2)(i) specifies the minimum clearance distance for gland nuts. One commenter suggested that this provision clarify that there is no limitation on the maximum clearance distance as long as three effective engagement threads are maintained. It was MSHA's intent that the rule be applied in this way. Therefore, this clarification has been included in the final rule.

Paragraph (h)(2)(ii) provides for a minimum of three effective engagement threads for the packing gland nut. Although not contained in existing part 18, this minimum engagement is addressed by current policy. It was developed to define the minimum thread engagement for adequate mechanical strength.

Paragraph (h)(4) specifies a minimum of 1/2-inch contact distance for compressed packing material. One commenter requested that o-rings be allowed to be used to form a gas tight seal and further stated that if an appropriate o-ring were used it would not be necessary to maintain a minimum contact length of 1/2 inch. Such use of o-rings would constitute new technology and would not be subject to approval under this subpart. This category of design can be evaluated under part 18.

Paragraph (h)(5) replaces the term "asbestos packing material" with "MSHA accepted rope packing material" in order to address acceptable asbestos substitute materials. For clarification, Figures J-7 through J-14 in the appendix are included for use with the lead entrance requirements of paragraph (h).

Paragraph (i) specifies requirements for insulating material, with respect to combustible gases. These requirements are derived from existing § 18.25. Paragraph (i)(1) includes the existing part 18 requirement prohibiting the use of insulating materials that give off volatile gases when subjected to destructive electrical action. Paragraph (i)(2) allows any method of treatment to remove combustible solvents, instead of only heat as provided under existing § 18.25(b). As the desired result is

removal of any combustible solvents, the method of removal is not critical.

Section 7.305 Critical Characteristics

This section is new and lists the critical characteristics that are required to be inspected on each motor assembly that has an approval marking. As defined in subpart A of part 7, a critical characteristic is a feature of a product that, if not manufactured as approved, could have an adverse effect on safety. This rule will assure the explosion-proof integrity of the motor assembly prior to use by requiring inspection of the critical characteristics of an approved motor assembly. This list of critical characteristics was developed using the applicable technical requirements in § 7.304 of this final rule. The same commenter who suggested that § 7.304(g)(7) omit the requirement for lockwashers also recommended that the critical characteristic pertaining to lockwashers be omitted. This suggestion was not incorporated into this provision for the reasons stated in the preamble discussion accompanying § 7.304 of this final rule.

Section 7.306 Explosion Tests

Section 7.306, derived from existing § 18.62, sets forth the equipment, test procedures, and acceptable performance criteria for the testing of a motor assembly to withstand an internal explosion of a combustible gas mixture. The provisions of this section provide objective criteria to evaluate the explosion-proof performance of a motor assembly.

Paragraph (a) requires the use of an explosion test chamber, methane gas supply, electric ignition source and a pressure recording system when conducting explosion tests. Factors that would affect the accuracy, reliability and repeatability of the testing procedures are specified.

The explosion test chamber is defined in paragraph (a)(1) as being designed and constructed to contain an explosive gas mixture. The gas mixture, as described in the testing procedures, would surround and fill the motor assembly being tested. The explosive gas contained within the chamber must envelop the motor assembly during testing. The amount of leakage from the chamber must be controlled so that the gas mixture is maintained within the specified tolerances for the duration of the testing. Therefore, a gas-tight chamber is not required. The chamber would be darkened and have flame-arresting path viewing capabilities enabling the testing personnel to discern the discharge of flame along flame-

arresting paths as well as the ignition of the explosive mixture surrounding the motor assembly being tested.

As specified in paragraph (a)(2) the methane gas supply must be composed of at least 98 percent of combustible hydrocarbons with inert products comprising the remainder. A minimum of 80 percent of the gas, by volume, is required to be methane. This composition of gas, which is specified to provide reliable and repeatable test results, is typical for commercial natural gas (methane) supplies.

Paragraph (a)(3) defines the coal dust to be used in the explosion tests. The existing identification of "Pittsburgh bed coal dust" in § 18.62(a) is replaced by a minimum volatile matter and BTU content. This change allows equivalent coal from other coal seams to be used in the tests. The requirement that the coal be ground to a fineness of minus 200 mesh is retained.

Paragraph (a)(4) establishes the minimum energy level for the electric spark ignition source as 100 millijoules. This minimum energy level ensures that there is sufficient energy available to ignite the explosive gas mixture within the motor assembly during each test. This provision retains the requirement in existing § 18.62(a) that an electric spark ignition source be used for the testing.

Paragraph (a)(5) is derived from § 18.62(a) and retains the existing requirement that the explosion pressure developed during testing be recorded. The rule clarifies this requirement by specifying that the pressure recording system must indicate the pressure peaks within the tested motor assembly as described in the test procedures.

Paragraph (b) of § 7.306 describes the general test procedures for conducting the explosion tests. The preparation of the motor for testing is described in paragraph (b)(1). This paragraph requires motor assemblies being tested to be equipped with unshielded bearings and have all parts not contributing to the operation or assuring the explosion-proof integrity of the enclosure removed. Examples of those parts to be removed include oil seals, grease fittings, hose conduit, cable clamps and outer bearing caps that do not house the bearings. Preparation of the motor assembly in this manner is consistent with existing MSHA policy.

The types of parts identified in paragraph (b)(1) could obstruct the observation of flame-arresting paths during testing and possibly inhibit the expulsion of flames and hot gases. Additionally, since these parts do not contribute to the operation or explosion-proof integrity of the motor, they can be

omitted with no reduction in operational capabilities. Testing with these parts not present ensures that no reduction in safety results in such instances.

Paragraph (b)(2) addresses the general procedures of filling the chamber and motor assembly with explosive mixtures, the locations for pressure measurements, and the number of tests permitted before the chamber is purged and recharged. The motor assembly must be observed for discharge of flames during each test. In order to provide adequate observation of any discharge of flames, each externally visible flame-arresting path fit must be observed for discharge of flame for at least two tests, one with coal dust added.

The motor assembly must be filled with and surrounded by explosive methane mixtures for each test. Just before ignition, the gas concentration within the test chamber must be between 6.0 percent and the concentration within the motor assembly. This is specified in paragraph (c), which sets out test procedures. To ensure the accuracy of the test, the gas mixtures must be adequately mixed so that homogeneous gas concentrations within the explosive limits are present.

The rule also specifies that a single spark source is to be used for all testing, with test holes of sufficient quantity and location to permit ignition and pressure recording in each enclosure, as required in paragraph (c).

Finally, paragraph (b) also requires the motor assembly to be completely purged and recharged with a fresh explosive gas mixture from the chamber or by injection after each test. The chamber is required to be completely purged and recharged as necessary. The oxygen level will be maintained at no less than 18 percent. In the absence of oxygen monitoring equipment, the rule includes an alternative method for ensuring that this level is maintained. This method will limit the maximum number of tests between purgings to no more than the number obtained by dividing the chamber volume by forty times the motor assembly volume. This requirement for purging and recharging of the chamber is the result of testing and analysis of data obtained by MSHA.

The purging and recharging sequences are required in order to provide appropriate concentration levels of the combustion gases and the combustion by-products within the motor assembly chamber. The concentration levels of these various gases must be maintained within proper limits to ensure reliable and repeatable ignition and combustion of the explosive gas.

Paragraph (c) provides the specific testing procedures to be followed for each series of tests conducted on a motor assembly. The number of tests, methane concentration levels, stationary or rotating rotor, location of ignition source, and use of coal dust are specified. Existing § 18.62(a) requires testing under these various conditions; however, specific values are not stated. The values that are required under this rule have been developed from the Agency's testing experience and existing policy. The rule provides an objective testing procedure to evaluate all designs foreseen to be explosion tested under this subpart.

The methane concentrations of 7.0 ± 3 and 9.4 ± 4 percent are specified to accomplish testing at easily ignitable and violently explosive values, respectively. Ignitions while the rotor is rotating at rated speed test the motor assembly at maximum internal turbulence. Ignitions with the rotor stationary test the motor assembly with no turbulence along the flame-arresting path. Turbulence along the flame-arresting path might prevent flames from existing. If the motor assembly incorporates a nonisolated conduit box, two additional tests must be conducted with ignitions within the conduit box. These tests are designed to detect pressure piling in the winding compartment resulting from ignitions in the conduit box. Pressure piling from precompression of the gases in the winding compartment due to ignition of the gases in the conduit box could result in higher pressures being attained.

Four tests are then to be conducted with the gas concentration at 9.4 ± 4 percent methane and 0.05 ounces per cubic foot of internal free volume of the motor assembly of finely ground coal dust. The requirement of introducing coal dust is derived from § 18.62(a). The existing standard does not specify the quantity of coal dust to be added. The value of 0.05 ounces per cubic foot volume was established through MSHA's testing experience and engineering analysis to provide sufficient coal dust to coat all internal surfaces of the motor assembly.

These four tests, two with the rotor stationary and two with it rotating at rated speed, require ignitions within the motor assembly at varying locations. These locations were chosen, based on MSHA's testing experience, to produce the greatest potential for development of the highest pressures within the motor assembly upon ignition of the explosive mixture. Paragraph (c)(4) outlines additional testing procedures to be followed for motor assemblies that incorporate a conduit box isolated from

the winding compartment. Examples of isolating barriers would be terminals or potting compound, such as chiko. Paragraph (4)(i) describes the location of ignition and pressure recording positions for the conduit box. Two ignition points are to be used for a conduit box with internal free volume greater than 150 cubic inches, one ignition point as near to the geometric center as practical and the other as far as possible from the isolating barrier between the conduit box and winding compartment. Pressure recording points are to be on the same and opposite sides of the conduit box as the latter ignition point. One ignition point as near to the geometric center as practical and one pressure recording point on a side of the conduit box are to be used for a conduit box with internal free volume equal to or less than 150 cubic inches.

Paragraph (4)(ii) requires the conduit box to be tested separately by performing the tests with the isolating barrier in place. A total of ten explosion tests must be performed on the conduit box, six tests with 9.4 ± 4 percent methane by volume followed by two tests with 7.0 ± 3 percent methane by volume. The remaining two tests must be conducted at 9.4 ± 4 percent methane with coal dust added. The quantity (per cubic foot) and specifications of the coal dust are the same as that provided for in paragraph (c)(3). If the internal free volume of the conduit box exceeds 150 cubic inches, the tests are to be equally divided between the two ignition points.

Paragraph (4)(iii) describes the testing sequence to be followed in removal of the isolating barrier. If the isolating barrier is comprised of multiple assemblies, such as terminals, one assembly is to be removed for the initial series of six explosion tests. Following this initial series of tests, one test will be conducted following the removal of each additional assembly. This procedure will continue until the motor assembly has been tested with all isolated barrier assemblies removed.

Each test conducted under this paragraph must be performed using an explosive gas mixture containing 9.4 ± 4 percent methane by volume within the conduit box and winding compartment. For the initial six tests, the rotor will be stationary for one test and rotating for another for each of three ignition points. The three ignition points must be opposite ends of the winding compartment and the conduit box ignition point which provided the highest pressures during the tests conducted in paragraph (c)(4)(ii). Of these three ignition points, the one that produces the highest recorded pressures

will be used for testing following removal of each additional isolating assembly (sectionalizing terminal).

Paragraph (d) provides additional testing procedures or inclusion of a warning statement for any motor assemblies where recorded pressures exceeding 110 psig result following removal of any or all isolating barriers. The additional testing requires the motor assembly to withstand a static pressure test at a pressure of twice the maximum recorded explosion test pressure. As an alternative to conducting the static pressure testing, a warning statement is required. The warning statement, incorporated on the approval plate, states that the isolating barrier must be maintained to ensure the explosion-proof integrity of the motor assembly.

During maintenance and repair of electric motor assemblies, isolating barriers might not be included in the assembly procedure. Normally there is no evidence to indicate the prior existence of an isolating barrier. Deletion of this barrier could result in development of a hazardous situation with no prior warning. Paragraphs (c)(4)(iii) and (d) address this situation.

Some winding compartment-conduit box combination designs can result in increased explosion pressures due to pressure piling. The provisions of paragraphs (c)(4)(iii) and (d) allow the use of such designs while providing what MSHA believes to be adequate safeguards. A warning statement on the approval plate notifies the user that the integrity of the isolating barrier must be maintained to ensure the explosion-proof integrity of the motor assembly.

Paragraph (e) describes the acceptable performance criteria for explosion tests. These criteria are derived from existing § 18.62 (b) and (c). This rule requires that there be no flame discharge from the motor assembly or ignition of the explosive mixture surrounding the motor assembly. These conditions would indicate that the flame-arresting paths are inadequate to prevent the escape of flame and the enclosure is not constructed to withstand and contain internal explosions of methane-air mixtures. Rupture of any part of or any panel or divider within the motor assembly, clearances along accessible flame-arresting paths in excess of those specified in subpart J, and permanent deformation greater than 0.040 inches per linear foot are all indications of structural deficiencies of the motor assembly.

The criterion which considers development of afterburning as an unacceptable result of explosion tests is derived from § 18.62(b)(3). The term

"afterburning" is applied to combustion, immediately after an internal explosion, of a gaseous mixture that was not in the enclosure at the time of that explosion. Sometimes the external gases are drawn into a motor interior immediately after an explosion as a result of the cooling of the product of the original explosion or otherwise and continue to burn. If prolonged, afterburning may damage the insulation. What is more serious is that the heating may allow flames to pass to the outside of the apparatus along flame-arresting paths that would otherwise be effective in cooling them. This condition reflects deficiencies in the motor assembly and would represent an increased hazard in an explosive atmosphere.

The occurrence of subsequent pressure peaks within an electric motor assembly in conjunction with an internal explosion is not an unusual event. This phenomenon occurs in multiple compartmented enclosures when the explosion is initiated in one compartment and propagates to the others. This occurrence differs from afterburning in that the secondary pressure peaks result from the combustion of the gases already present in the enclosure at the time of ignition. The pressure developed from the initial explosion is not completely dissipated at the time the secondary peaks develop.

Development of pressures exceeding 110 psig during explosion tests is not acceptable, unless the enclosure has met the acceptable performance criteria of the static pressure tests conducted at twice the maximum recorded explosion test pressure or a warning statement in accordance with § 7.306(d) is included on the approval plate. This provision modifies the existing requirements contained in § 18.62(c).

The ignition and pressure recording locations specified in the explosion test procedures are designed to provide the maximum pressure development and sensing for the enclosures. However, variations in enclosure designs may cause the specified locations to differ slightly from the "optimum" locations. To provide for this potential variation, the rule requires additional testing at a pressure indication of 110 psig rather than the 125 psig required in existing § 18.62(d). The rule also requires this testing to be done statically rather than dynamically, as specified in the existing regulations. The Agency believes that static pressure testing at two times the highest recorded explosion test pressure will provide an adequate safety margin to ensure a safe design. The static pressure test at these higher pressures also provides greater safety to the testing personnel since the development and

release of the testing pressure can be controlled.

The Agency received comments recommending alternate test methods, including the use of different gases and different test parameters. The test procedures contained in the final rule and discussed above are based on the current test procedures and part 18 requirements. Subjective areas were clarified and restated in an objective manner in order to formulate tests that can be repeatedly used by third parties. The use of other test procedures and test requirements was not an objective of this rulemaking. Therefore, test methods alternate to MSHA's established procedures were not included in the proposal and are not in the final rule.

Section 7.307 Static Pressure Test

Section 7.307 describes the test procedures and the acceptable performance criteria for conducting static pressure tests. The static pressure test is new and provides an alternative means of satisfying the technical requirements of § 7.304(g)(2) for welded joints, § 7.304(g)(19) (footnote 8) for diameters of fasteners, and § 7.304(g)(19) (footnote 9) for engagement of fasteners. The test will also be used, as specified in § 7.306(d) and (e)(6), for motor assemblies where explosion test pressures exceed 110 psig. The test procedures are based on the static test procedures developed as part of the approval criteria for high-voltage machines containing on-board switching of high-voltage circuits. These criteria resulted from engineering investigation and testing experience. The acceptable performance criteria are the same performance requirements of § 18.62 with regard to physical failure conditions.

The static pressure test provides an alternative means of satisfying the requirements of the above sections because the concern addressed by those sections was that of failure due to physical stress and deformities.

One commenter recommended the use of air as the pressurizing agent for the static pressure test with the inclusion of additional low-pressure tests. MSHA believes that while the suggested test procedures would meet the requirements and would provide acceptable testing, this is not the only means available to satisfy the test requirement. Therefore, the final rule does not require a specific pressurizing agent or test procedure. Additional tests can be conducted if desired by the applicant.

Another commenter suggested alternate test requirements for the static pressure test. As previously stated, the

intent of part 7 subpart J is to objectively state the established technical criteria presently required and successfully applied by MSHA under part 18, not to introduce new or modified requirements. Therefore, the suggested modification is not included in this final rule.

Section 7.308 Lockwasher Equivalency Test

Section 7.308 specifies new test procedures and acceptable performance criteria when conducting tests on locking devices other than lockwashers. The lockwasher equivalency test provides an alternative means of satisfying the technical requirement of § 7.304(g)(7) if a locking device other than a lockwasher is used. The test has been developed based upon testing procedures specified in Society of Automotive Engineers (SAE) recommended practice, Torque-Tension Test Procedure for Steel Threaded Fasteners (SAE J174, 1971) and Military Specification, Inserts, Screw-Thread, Helical Coil (MIL-I-8846B, 1973). The same commenter who suggested that §§ 7.304(g)(7) and 7.305 omit the requirement for lockwashers recommended omitting the lockwasher equivalency test of this section. This suggestion was not incorporated into this provision for the reasons stated in the preamble discussion accompanying § 7.304 of this final rule.

Section 7.309 Approval Marking

Section 7.309, derived from § 18.13, requires a legible and permanent approval plate with the assigned MSHA approval number inscribed. The plate is required to be securely attached to the motor assembly in a manner that does not adversely affect the explosion-proof integrity of the motor assembly. The rule allows identification of approved subpart J motor assemblies in a manner that facilitates field identification of the motor assembly as approved by MSHA.

Section 7.310 Post-Approval Product Audit

Section 7.310 is new and requires an approval holder, upon request, to make available to MSHA at no cost an approved subpart J motor assembly for audit. This request will be made no more than once a year by MSHA, except for cause. The audit will be conducted at a mutually agreeable site and time. This will be in addition to MSHA's ongoing quality assurance program for which the agency can obtain products for audit at any time at MSHA's expense.

Section 7.311 Approval Checklist

Section 7.311 is new and requires the manufacturer to include with each motor assembly bearing an MSHA approval marking a list of items that should be checked by the user to ensure the motor assembly is maintained in approved condition. This is consistent with existing checklist requirements contained in §§ 7.51 and 7.71 of part 7.

B. Section-by-Section Discussion of Part 18

Part 18 includes various provisions by which MSHA can allow variations in design in the evaluation and testing of explosion-proof enclosures. Under these provisions MSHA can evaluate certain variations in designs based upon its experience, engineering judgment and testing results. This flexibility exists in part 18 but is not appropriate in a part 7 subpart. As a result, some specific modifications to part 18 requirements have been incorporated into part 7 requirements, but not part 18. Additionally, modifications judged appropriate for inclusion as part 18 requirements and necessary to make part 18 consistent with subpart J of part 7 are discussed below.

Section 18.4 Equipment for Which Approval Will Be Used

This section is revised to specify that components approved under part 7 will also be acceptable for incorporation in the assembly of a complete machine or accessory.

Section 18.24 Electrical Clearances

This section is revised to establish specific minimum clearance distances based upon the voltage of the energized parts. It specifies these minimum distances to define the adequacy of spacing required under the existing section. The minimums are applicable to the distance between uninsulated electrical conductor surfaces or between uninsulated electrical conductor surfaces and grounded metal surfaces within the enclosure. These minimum clearances are the result of an engineering study performed in conjunction with high voltage studies at MSHA's Approval and Certification Center. The clearances specified in the final rule are consistent with those specified in subpart J, which were modified as discussed earlier in response to a comment.

Section 18.31 Enclosures—Joints and Fastenings

Paragraph (a)(3) is revised to change the maximum allowable magnesium content of external rotating parts constructed of aluminum alloys to 0.6

percent from 0.5 percent. As stated in the preceding preamble discussion for § 7.304(g)(3), this is consistent with MSHA policy.

Paragraph (a)(5) is revised to change the Class 1 thread terminology of the existing requirement to the present Class 1A and 1B terminology, consistent with that of § 7.304(g)(4).

Paragraph (a)(6) is revised for consistency with subpart J of part 7. The introductory paragraph is changed to include an explanation of "internal volume of an empty enclosure." This explanation is expanded to include the parts necessary for use (operation), making it consistent with MSHA's existing policy.

The rule identifies the internal free volume of an empty enclosure as that remaining after the volume of any part that is essential to maintaining the explosion-proof integrity of the enclosure or necessary for operation. Essential parts include the parts that constitute the flame-arresting path, as well as those necessary to secure the parts that constitute the flame-arresting path. This explanation is important because the volume of the enclosure defines the minimum design requirements of the explosion-proof enclosure. The interpretation of "volume of empty enclosure" currently used is retained for the construction requirements in § 18.31.

The tabulated construction requirements are modified in several areas. The requirements for minimum thickness of material for flanges and covers are combined into one category. This change represents a format change only, since the technical requirements are unchanged. The maximum bolt spacing requirements for joints all in one plane are modified to include the requirement for "a minimum of 4 bolts" to be used in the category of "more than 124 cu. ins." of volume. This modification clarifies the Agency's belief and experience that a minimum of 4 bolts is necessary, regardless of the enclosure's volume or the configuration of the parts forming the joints.

The cylindrical joint portion of the table also includes several modifications. The maximum clearance along shafts centered by ball or roller bearings is expressed in terms of diametrical rather than radial dimensions for clarity. The parts that constitute these fits are generally expressed in terms of diametrical rather than radial dimensions.

The categories of "shafts through journal bearings" and "other than shafts" are combined into a single classification of "other cylindrical joints." The clearances specified are the

diametrical equivalent for the radial clearances listed in § 18.31(a)(6) for shafts through journal bearings. Except as discussed below, the contents of the footnotes of § 18.31(a)(6) are retained.

Footnote 4 is derived from § 18.34(a)(6) and includes the requirement to deduct the width of oil grooves and grooves for oil seals in measuring the widths of flame-arresting paths. This provision is expanded to include any groove, because the minimum flame-arresting path length is still required to be met.

Footnote 8 is added to specify clearance and location requirements for steel dowel pins. These pins are generally used in cover flanges to aid in aligning the covers. These requirements are consistent with current policy.

Footnote 12, which is new, specifies that the maximum clearance applies only when the fastening is located within the flame-arresting path. It clarifies when the specification in the table is applicable.

Footnote 13 is added to state that the edge of the fastening hole must include the edge of any machining done to the fastening hole, such as chamfering. This is consistent with existing policy and is added for clarification.

Paragraph (a)(7) of § 18.31 is new and specifies the acceptable location of o-rings in a flame-arresting path. When o-rings are installed, current policy requires these locations to permit checking of flame-arresting path fits without interference from o-rings. This requirement is based upon the Agency's field experience. Figures J-2, J-3, J-4 and J-5 in the appendix to subpart J of part 7 are referenced to clarify the required locations for o-rings.

Section 18.32 Fastenings—Additional Requirements

Paragraph (i) is added to allow for the use of coil-threaded inserts in holes for fastenings, provided they have conventional screw threads, the holes for the inserts are drilled, tapped, and installed consistent with the insert manufacturer's specifications and the insert is long enough to ensure the required minimum thread engagement of the fastening in the insert. Although not addressed in existing part 18, as a result of evaluation and testing by MSHA, current policy permits their use. This provision allows correction of damaged threads for fastenings securing flame-arresting path parts that could lead to the expulsion of flames or hot gases due to an internal explosion.

Section 18.33 Finish of Surface Joints

This section is revised to read that a rust inhibitor is acceptable provided the

final surface may be readily wiped free of any foreign materials. This change is consistent with the one previously discussed under § 7.304(g)(5) and was the intent of the requirement. This clarifies the type of preparation that might be used to inhibit rusting. The addition of foreign particles to a flame-arresting path is not desirable because it could interfere with maintaining the proper clearance to prevent the escape of flame and/or hot gases.

Section 18.34 Motors

This section is revised by adding an introductory paragraph to specify that explosion-proof electric motor assemblies intended for use in approved equipment in underground mines that are addressed by part 7 are to be approved under part 7. Explosion-proof motor assemblies incorporating designs not specifically addressed under part 7 will continue to be submitted for acceptance or certification under part 18. Those motor assembly designs that, for example, contain devices for ventilation, pressure relief and drainage will continue to be evaluated under part 18. In addition, designs incorporating parts common to explosion-proof enclosures other than conduit boxes and those incorporating new technology will also be addressed under part 18. These designs are not being covered under subpart J of part 7 because their acceptance by MSHA requires an individual evaluation of design and performance tests. Designs incorporating parts common to explosion-proof enclosures other than conduit boxes and those incorporating new technology will also require evaluation on an individual basis. Paragraph (a)(6) is revised by deleting the present wording "The widths of oil grooves and grooves for holding oil seals will be deducted in measuring the widths of flame-arresting paths," as this requirement is incorporated into footnote 3 of § 18.31(a)(6). The wording of the present "note" is retained, as removing the oil seals is standard practice on motors submitted for testing.

Section 18.37 Lead Entrances

Paragraph (b) is revised to provide for a minimum of three effective engagement threads for the packing gland nut. This minimum engagement is addressed by current policy. It was developed to define what the minimum thread engagement is for adequate mechanical strength.

Section 18.62 Tests To Determine Explosion-Proof Characteristics

Paragraph (a) of § 18.62 is revised with respect to the definition of coal

dust used in the explosion tests. The identification of "Pittsburgh bed coal dust" in § 18.62(a) is replaced by a minimum volatile matter and BTU content. This change allows equivalent coal from other coal seams to be used in the tests. The requirement that the coal be ground to a fineness of minus 200 mesh is retained.

Derivation Table

The following derivation tables list: (1) Each section number of the final rule (New Section); and (2) The section number of the standard from which the section is derived (Old Section).

DERIVATION TABLE.—PART 7

New section	Old section
7.301	18.1
7.302	18.2
7.303	18.6(a)
7.304(a)	18.47
7.304(b)	18.23
7.304(c)	18.24
7.304(d)	18.34(a)(4)
7.304(e)	18.34(a)(6)
7.304(f)	18.34(a)(8)
7.304(g)(1)	18.31(a)(1)
7.304(g)(2)	18.31(a)(2)
7.304(g)(3)	18.31(a)(3) and 18.26
7.304(g)(4)	18.31(a)(5)
7.304(g)(5)	18.33
7.304(g)(6)	18.34(c)
7.304(g)(7)	18.32(b)
7.304(g)(8)	18.32(c)
7.304(g)(9)	18.32(d) and 18.34(a)(9)
7.304(g)(10)	18.32(d)
7.304(g)(11)	18.34(b)
7.304(g)(12)	New
7.304(g)(13)	18.32(e)
7.304(g)(14)	18.32(f)
7.304(g)(15)	18.29(c)
7.304(g)(16) and (17)	New
7.304(g)(18)	18.31(a)(5)
7.304(g)(19)	18.31(a)(6) and 18.34(d)
7.304(h)	18.37
7.304(i)	18.25
7.305	New
7.306	18.62
7.307	New
7.308	New
7.309	18.13
7.310	New
7.311	New
18.4	18.4
18.24	18.24
18.31(a)(3)	18.31(a)(3)
18.31(a)(5)	18.31(a)(5)
18.31(a)(6)	18.31(a)(6) and 18.34
18.31(a)(7) and 18.32(i)	18.37(b)
18.33	18.62(a)
18.34	
18.37(b)	
18.62(a)	

Distribution Table

The following distribution tables list: (1) Each section number of the part 18 standard (Old Section); and (2) Each section number of the final rule (New Section). Unless indicated in the part 18 Distribution Table, the existing sections of part 18 are retained.

DISTRIBUTION TABLE.—PART 7

Old section	New section
18.1	7.301
18.2	7.302
18.6	7.303
18.13	7.309
18.23	7.304(b)
18.24	7.304(c)
18.25	7.304(f)
18.26	7.304(g)(3)
18.29(c)	7.304(g)(15)
18.31(a)(1)	7.304(g)(1)
18.31(a)(2)	7.304(g)(2)
18.31(a)(3)	7.304(g)(3)
18.31(a)(5)	7.304(g)(4) and (18)
18.31(a)(6)	7.304(g)(19)
18.32(b)	7.304(g)(7)
18.32(c)	7.304(g)(8)
18.32(d)	7.304(g)(9) and (10)
18.32(e)	7.304(g)(13)
18.32(f)	7.304(g)(14)
18.33	7.304(g)(5)
18.34(a)(4)	7.304(d)
18.34(a)(6)	7.304(e)
18.34(a)(8)	7.304(f) and 7.304(g)(10)
18.34(b)	7.304(g)(11)
18.34(c)	7.304(g)(6)
18.34(d)	7.304(g)(19)
18.37	7.304(h)
18.47	7.304(a)
18.62	7.306

DISTRIBUTION TABLE.—PART 18

Old section	New section
18.4	18.4
18.24	18.24
18.31(a)(3)	18.31(a)(3)
18.31(a)(5)	18.31(a)(5)
18.33	18.33
18.34	18.31(a)(6) and 18.34
18.37(b)	18.37(b)
18.62(a)	18.62(a)

III. Executive Order 12291 and Regulatory Flexibility Act

In accordance with Executive Order 12291, MSHA prepared a Regulatory Impact Analysis (RIA). MSHA determined that the final rule will not result in major cost increases nor have an incremental effect of \$100 million or more on the economy. This RIA also formed the basis for the analysis required by the Regulatory Flexibility Act. The Regulatory Flexibility Act requires that, in developing regulatory proposals, agencies evaluate compliance alternatives that minimize any adverse impact on small businesses. Subpart J clarifies the standards that industry must meet for approval of certain explosion-proof electric motor assemblies intended for use in approved equipment in underground mines. MSHA designed its product testing requirements to be as performance oriented as possible to allow manufacturers to choose the most cost effective option. Performance-oriented standards benefit both large and small manufacturers.

The rule will increase private-sector involvement in the approval of mining products. For the first time, instead of testing only by MSHA, the applicant or a third party selected by the applicant will test explosion-proof electric motor assemblies. The Agency anticipates that this new procedure will in some cases reduce associated testing costs and potential delay in product approvals.

MSHA also will be able to shift resources from the more standard approvals covered under part 7 to those approvals covered under part 18 that involve new technology and substantial design changes. MSHA anticipates that the increase in resources devoted to part 18 approvals will reduce the time needed to approve new technology from the current 4 months to 6 months to an expected 2 months to 3 months.

MSHA estimates that the total annual compliance cost to electric motor assembly manufacturers under the existing standards is about \$65,700. The total annual compliance cost under the new rule will be about \$78,600 for the first few years after the effective date, gradually decreasing to \$45,800 after manufacturers and MSHA become more familiar with applications under part 7. The cost increase is associated with the requirements for MSHA observation of testing, annual product audits, and quality assurance procedures. These costs, however, are offset by decreased costs for MSHA fees for processing applications and testing products. Even though there are many small firms, MSHA lacks data on them to identify the potential impact on small entities.

MSHA estimates that the incremental cost of the final rule is an increased annual cost of about \$12,900 for the first few years, gradually decreasing to a net annual cost reduction of about \$19,900. Incremental annual cost increases total about \$18,100 and are offset by cost savings of about \$5,200 for the first few years after the effective date of this Subpart J and a savings of about \$38,000 annually thereafter.

This final rule will not significantly alter the existing technical requirement for electric motor assemblies. Any necessary testing of products required by MSHA either is not substantially different from the currently undertaken or does not impose significant costs compared to the sales value of the product. The annual incremental compliance cost, for the 40 firms which may be affected by the final rule, averages about \$322 per firm for the first few years, gradually decreasing to a cost reduction of about \$498 per firm in subsequent years.

IV. Paperwork Reduction Act

This final rule contains information collection requirements subject to the Paperwork Reduction Act of 1980, 44 U.S.C. 3501 et seq. The burden hour estimate includes the time for reviewing instructions, gathering and maintaining the data needed, and completing and reviewing the collected information. The information collection requirements contained in the rule are discussed below.

Section 7.303 requires applicants seeking approval of an electric motor assembly to submit an application for approval. MSHA estimates that there will be 42 applications submitted per year, each requiring 1.5 hours to prepare for a total of 63 burden hours.

Existing § 7.4(a) requires records of test results and procedures to be retained for at least 3 years. Standard testing protocols used by the manufacturing community include the keeping of records of product testing; therefore, no additional burden hours are assigned to this requirement.

Existing § 7.7(d) requires applicants to report to MSHA any knowledge of a product distributed with critical characteristics not in accordance with the approval specifications. MSHA estimates that under subpart J manufacturers will submit 40 reports per year requiring 15 minutes per report for a total of 10 burden hours. The rule requires applicants to maintain records on the distribution of each product bearing an approval marking as set forth in § 7.7(c). This provision does not specify the type of record, and MSHA believes applicants will use existing sales record systems to comply.

In accordance with Section 3504(h) of the Paperwork Reduction Act of 1980, the collection of information requirements contained in § 7.303 of the final rule have been approved by OMB under control No. 1219015.

V. Metric Measurements

In accordance with section 5164 of the Omnibus Trade and Competitiveness Act of 1988, MSHA requested comments on the availability of metric equipment and supplies and metric nominal safety equivalences of the English inch-pound measurements. One commenter recommended issuance of separate metric approval rules, believing that more than a simple conversion of the present dimensions into metric values is required. MSHA agrees that more than a simple direct conversion of dimensions into metric values is appropriate. However, to effectively accomplish this conversion, metric values that establish equivalent

safety would have to be developed for all the technical requirements specified in parts 7 and 18. Such an approach would require a broader rulemaking effort than intended under the establishment of part 7, subject J. Therefore, technical requirements specified in metric units are not included in this final rule. However, current applications under part 7 and part 18 can be and are submitted with metric measurements. The Agency will continue efforts to work towards metric equivalents to ensure the approval of safe products.

List of Subjects in 30 CFR Parts 7 and 18

Approval of equipment, Incorporation by reference, Mine safety and health, Underground mining.

Dated: December 14, 1992.

William J. Tattersall,

Assistant Secretary for Mine Safety and Health.

Accordingly subchapter B, chapter I, title 30 of the Code of Federal Regulations is amended as follows:

PART 7—TESTING BY APPLICANT OR THIRD PARTY [AMENDED]

1. The authority citation for part 7 continues to read as follows:

Authority: 30 U.S.C. 957.

2. A new subpart J is added to part 7 to read as follows:

Subpart J—Electric Motor Assemblies

Sec.

- 7.301 Purpose and effective date.
- 7.302 Definitions.
- 7.303 Application requirements.
- 7.304 Technical requirements.
- 7.305 Critical characteristics.
- 7.306 Explosion tests.
- 7.307 Static pressure test.
- 7.308 Lockwasher equivalency test.
- 7.309 Approval marking.
- 7.310 Post-approval product audit.
- 7.311 Approval checklist.

Appendix I to Subpart J of Part 7

Subpart J—Electric Motor Assemblies

§ 7.301 Purpose and effective date.

This subpart establishes the specific requirements for MSHA approval of certain explosion-proof electric motor assemblies intended for use in approved equipment in underground mines. Applications for approval or extensions of approval submitted after (insert date three years after effective date of this subpart) shall meet the requirements of this part. Those motors that incorporate features not specifically addressed in this subpart will continue to be evaluated under part 18 of this chapter.

§ 7.302 Definitions.

The following definitions apply in this subpart:

Afterburning. The combustion of any flammable mixture that is drawn into an enclosure after an internal explosion in the enclosure. This condition is determined through detection of secondary pressure peaks occurring subsequent to the initial explosion.

Cylindrical joint. A joint comprised of two contiguous, concentric, cylindrical surfaces.

Explosion-proof enclosure. A metallic enclosure used as a winding compartment, conduit box, or a combination of both that complies with the applicable requirements of § 7.304 of this part and is constructed so that it will withstand the explosion tests of § 7.306 of this part.

Fastening. A bolt, screw, or stud used to secure adjoining parts to prevent the escape of flame from an explosion-proof enclosure.

Flame-arresting path. Two or more adjoining or adjacent surfaces between which the escape of flame is prevented.

Internal free volume (of an empty enclosure). The volume remaining after deducting the volume of any part that is essential in maintaining the explosion-proof integrity of the enclosure or necessary for operation of the motor. Essential parts include the parts that constitute the flame-arresting path and those necessary to secure parts that constitute a flame-arresting path.

Motor assembly. The winding compartment including a conduit box when specified. A motor assembly is comprised of one or more explosion-proof enclosures.

Plane joint. A joint comprised of two adjoining surfaces in parallel planes.

Step (rabbet) joint. A joint comprised of two adjoining surfaces with a change or changes in direction between its inner and outer edges. A step joint may be composed of a cylindrical portion and a plane portion or of two or more plane portions.

Stuffing box. An entrance with a recess filled with packing material for cables extending through a wall of an explosion-proof enclosure.

Threaded joint. A joint consisting of a male- and a female-threaded member, both of which are the same type and gauge.

§ 7.303 Application requirements.

(a) An application for approval of a motor assembly shall include a composite drawing or drawings with the following information:

(1) Model (type), frame size, and rating of the motor assembly.

(2) Overall dimensions of the motor assembly, including conduit box if applicable, and internal free volume.

(3) Material and quantity for each of the component parts that form the explosion-proof enclosure or enclosures.

(4) All dimensions (including tolerances) and specifications required to ascertain compliance with the requirements of § 7.304 of this part.

(b) All drawings shall be titled, dated, numbered, and include the latest revision.

§ 7.304 Technical requirements.

(a) Voltage rating of the motor shall not exceed 4160 volts.

(b) The temperature of the external surfaces of the motor assembly shall not exceed 150 °C (302 °F) when operated at the manufacturers' specified ratings.

(c) Minimum clearances between uninsulated electrical conductor surfaces, or between uninsulated conductor surfaces and grounded metal surfaces, within the enclosure shall meet the requirements of table J-1 of this section.

TABLE J-1.—MINIMUM CLEARANCES BETWEEN UNINSULATED SURFACES

Phase-to-phase voltage (rms)	Clearances (inches)	
	Phase-to-phase	Phase-to-ground or control circuit
0 to 250	0.25	0.25
251 to 600	0.28	0.25
601 to 1000	0.61	0.25
1001 to 2400	1.4	0.6
2401 to 4160	3.0	1.4

(d) Parts whose dimensions can change with the motor operation, such as ball and roller bearings and oil seals, shall not be used as flame-arresting paths.

(e) The widths of any grooves, such as grooves for holding oil seals or o-rings, shall be deducted in measuring the widths of flame-arresting paths.

(f) An outer bearing cap shall not be considered as forming any part of a flame-arresting path unless the cap is used as a bearing cartridge.

(g) Requirements for explosion-proof enclosures of motor assemblies.

(1) Enclosures shall be—

(i) Constructed of metal;

(ii) Designed to withstand a minimum internal pressure of 150 pounds per square inch (gauge);

(iii) Free from blowholes when cast; and

(iv) Explosion proof as determined by the tests set out in § 7.306 of this part.

(2) Welded joints forming an enclosure shall be—

(i) Continuous and gas-tight; and

(ii) Made in accordance with or exceed the American Welding Society Standard AWS D14.4-77,

"Classification and Application of Welded Joints for Machinery and Equipment," or meet the test requirements set out in § 7.307 of this part. AWS D14.4-77 is incorporated by reference and has been approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from the American Welding Society, Inc., 2501 NW 7th Street, Miami, FL 33125. Copies may be inspected at the Mine Safety and Health Administration, Department of Labor, Approval and Certification Center, RR 1, Industrial Park Road, Triadelphia, WV 26059, or at the Office of the Federal Register, 800 N. Capitol Street, NW., 7th Floor, Suite 700, Washington, DC 20408.

(3) External rotating parts shall not be constructed of aluminum alloys containing more than 0.6 percent magnesium. Non-metallic rotating parts shall be provided with a means to prevent an accumulation of static electricity.

(4) Threaded covers and mating parts shall be designed with Class 1A and 1B (coarse, loose fitting) threads. The covers shall be secured against loosening.

(5) Flat surfaces between fastening holes that form any part of a flame-arresting path shall be plane to within a maximum deviation of one-half the maximum clearance specified in paragraph (g)(19) of this section. All surfaces forming a flame-arresting path shall be finished during the manufacturing process to not more than 250 microinches. A thin film of nonhardening preparation to inhibit rusting may be applied to these finished metal surfaces as long as the final surface can be readily wiped free of any foreign materials.

(6) For a laminated stator frame, it shall be impossible to insert a 0.0015 inch thickness gauge to a depth exceeding ¼ inch between adjacent laminations or between end rings and laminations.

(7) Lockwashers, or equivalent, shall be provided for all fastenings. Devices other than lockwashers shall meet the requirements of § 7.308 of this part. Equivalent devices shall only be used in the configuration in which they were tested.

(8) Fastenings shall be as uniform in size as practicable to preclude improper installation.

(9) Holes for fastenings in an explosion-proof enclosure shall be threaded to ensure that all specified

bolts or screws will not bottom even if the washers are omitted.

(10) Holes for fastenings shall not penetrate to the interior of an explosion-proof enclosure, except holes made through motor casings for bolts, studs, or screws to hold essential parts, such as pole pieces, brush rigging, and bearing cartridges. The attachments of such parts shall be secured against loosening. The threaded holes in these parts shall be blind unless the fastenings are inserted from the inside, in which case the fastenings shall not be accessible with the rotor in place.

(11) For direct current motor assemblies with narrow interpoles, the distance from the edge of the pole piece to any bolt hole in the frame shall be at least ⅜ inch. If the distance is ⅜ to ½ inch, the diametrical clearance for the pole bolt shall not exceed ⅛ inch for not less than ½ inch through the frame. Furthermore, the pole piece shall have the same radius as the inner surface of the frame. Pole pieces may be shimmed as necessary. If used, the total resulting thickness of the shims shall be specified. The shim assembly shall meet the same requirements as the pole piece.

(12) Coil-thread inserts, if used in holes for fastenings, shall meet the following:

(i) The inserts shall have internal screw threads.

(ii) The holes for the inserts shall be drilled and tapped consistent with the insert manufacturer's specifications.

(iii) The inserts shall be installed consistent with the insert manufacturer's specifications.

(iv) The insert shall be of sufficient length to ensure the minimum thread engagement of fastening specified in paragraph (g)(19) of this section.

(13) A minimum of ⅜ inch of stock shall be left at the center of the bottom of each blind hole that could penetrate into the interior of an explosion-proof enclosure.

(14) Fastenings shall be used only for attaching parts that are essential in maintaining the explosion-proof integrity of the enclosure, or necessary for the operation of the motor. They shall not be used for making electrical connections.

(15) Through holes not in use shall be closed with a metal plug. Plugs, including eyebolts, in through holes where future access is desired shall meet the flame-arresting paths, lengths, and clearances of paragraph (g)(19) of this section and be secured by spot welding or brazing. The spot weld or braze may be on a plug, clamp, or fastening (for example see figure J-1). Plugs for holes where future access is

not desired shall be secured all around by a continuous gas-tight weld.

(16) O-rings, if used in a flame-arresting path, shall meet the following:

(i) When the flame-arresting path is in one plane, the o-ring shall be located at least one-half the acceptable flame-arresting path length specified in paragraph (g)(19) of this section from within the outside edge of the path (see figure J-2).

(ii) When the flame-arresting path is one of the plane-cylindrical type (step

joint), the o-ring shall be located at least 1/2 inch from within the outer edge of the plane portion (see figure J-3), or at the junction of the plane and cylindrical portion of the joint (see figure J-4), or in the cylindrical portion (see figure J-5).

(17) Mating parts comprising a pressed fit shall result in a minimum interference of 0.001 inch between the parts. The minimum length of the pressed fit shall be equal to the minimum thickness requirement of

paragraph (g)(19) of this section for the material in which the fit is made.

(18) The flame-arresting path of threaded joints shall conform to the requirements of paragraph (g)(19) of this section.

(19) Explosion-proof enclosures shall meet the requirements set out in table J-2 of this section, based on the internal free volume of the empty enclosure.

TABLE J-2.—EXPLOSION-PROOF REQUIREMENTS BASED ON VOLUME

	Volume of empty enclosure		
	Less than 45 cu. ins.	45 to 124 cu. ins. inclusive	More than 124 cu. ins.
Minimum thickness of material for walls ¹	1/8"	3/16"	1/4"
Minimum thickness of material for flanges and covers	2 1/4"	3 3/8"	3 1/2"
Minimum width of joint; all in one plane	1/2"	3/4"	1"
Maximum clearance; joint all in one plane	0.002"	0.003"	0.004"
Minimum width of joint, portions of which are in different planes; cylinders or equivalent	4 3/8"	4 5/8"	4 3/4"
Maximum clearances; joint in two or more planes, cylinders or equivalent: ⁵			
(a) Portion perpendicular to plane ⁶	0.008"	0.008"	0.008"
(b) Plane portion	0.006"	0.006"	0.006"
Maximum fastening ^{7,8} spacing; joints all in one plane	(16)	(19)	(19)
Maximum fastening spacing; joints, portions of which are in different planes	(17)	(17)	(17)
Minimum diameter of fastening ⁹ (without regard to type of joint)	1/4"	1/4"	3/8"
Minimum thread engagement of fastening ¹⁰	1/4"	1/4"	3/8"
Maximum diametrical clearance between fastening body and unthreaded holes through which it passes ^{8,11,12}	1/64"	1/32"	1/16"
Minimum distance from interior of enclosure to the edge of a fastening hole: ^{8,13}			
Joint—minimum width 1"			14 7/16"
Joint—less than 1" wide	1/8"	3/16"	

Cylindrical Joints

Shaft centered by ball or roller bearings:			
Minimum length of flame-arresting path	1/2"	3/4"	1"
Maximum diametrical clearance	0.020"	0.025"	0.030"
Other cylindrical joints: ¹⁵			
Minimum length of flame-arresting path	1/2"	3/4"	1"
Maximum diametrical clearance	0.006"	0.008"	0.010"

¹ This is the minimal nominal dimension when applied to standard steel plate.

² 1/2 inch less is allowable for machining rolled plate.

³ 1/8 inch less is allowable for machining rolled plate.

⁴ If only two planes are involved, neither portion of a joint shall be less than 1/2 inch wide, unless the wider portion conforms to the same requirements as those for a joint that is all in one plane. If more than two planes are involved (as in labyrinths or tongue-and-groove joints) the combined lengths of those portions having prescribed clearances are considered.

⁵ For winding compartments having internal free volume not exceeding 350 cubic inches and joints not exceeding 32 inches in outer circumference and provided with step joints between the stator frame and the end bracket the following dimensions shall apply:

DIMENSIONS OF RABBIT (STEP) JOINTS—INCHES

[See figure J-6 in appendix]

Minimum total width	Minimum width of clamped radial portion	Maximum clearance of radial portion	Maximum diametrical clearance at axial portion
3/8"	3/16"	0.0015	0.003
1/2"	3/8"	0.002	0.003
5/8"	3/4"	0.002	0.004

⁶ The allowable diametrical clearance is 0.008 inch when the portion perpendicular to the plane portion is 1/4 inch or greater in length. If the perpendicular portion is more than 1/4 inch but less than 1/2 inch wide, the diametrical clearance shall not exceed 0.006 inch.

⁷ Studs, when provided, shall bottom in blind holes, be completely welded in place, or have the bottom of the hole closed with a plug secured by weld or braze. Fastenings shall be provided at all corners.

⁸ The requirements as to diametrical clearance around the fastening and minimum distance from the fastening hole to the inside of the explosion-proof enclosure apply to steel dowel pins. In addition, when such pins are used, the spacing between centers of the fastenings on either side of the pin shall not exceed 5 inches.

⁹ Fastening diameters smaller than specified may be used if the enclosure meets the test requirements of 30 CFR 7.307 and then 7.308 in that order.

¹⁰ Minimum thread engagement shall be equal to or greater than the diameter of the fastening specified, or the enclosure must meet the test requirements of 30 CFR 7.307 and then 7.308 in that order.

¹¹ This maximum clearance applies only when the fastening is located within the flame-arresting path.

¹² Threaded holes for fastening bolts shall be machined to remove burrs or projections that affect planarity of a surface forming a flame-arresting path.

¹³ Edge of the fastening hole shall include the edge of any machining done to the fastening hole, such as chamfering.

¹⁴ The diametrical clearance for fastenings does not exceed 1/64 inch, then the minimum distance shall be 1/4 inch.

¹⁵ Shafts or operating rods through journal bearings shall be at least 1/2" in diameter. The length of the flame-arresting path shall not be reduced when a pushbutton is depressed. Operating rods shall have a shoulder or head on the portion inside the enclosure. Essential parts riveted or bolted to the inside portion are acceptable in lieu of a head or shoulder, but collar pins and similar devices shall not be used.

¹⁶ "e" with a minimum of 4 fastenings.

¹⁷ "g" with a minimum of 4 fastenings.

(h) *Lead entrances.* (1) Each cable, which extends through an outside wall of the motor assembly, shall pass through a stuffing-box lead entrance (see

figure J-7). All sharp edges shall be removed from stuffing boxes, packing nuts, and other lead entrance (gland)

parts, so that the cable jacket is not damaged.

(2) When the packing is properly compressed, the gland nut shall have—

(i) A clearance distance of $\frac{1}{8}$ inch or more, with no maximum, to travel without interference by parts other than packing; and

(ii) A minimum of three effective threads engaged (see figures J-8, J-9, and J-10).

(3) Packing nuts (see figure J-7) and stuffing boxes shall be secured against loosening (see figure J-11).

(4) Compressed packing material shall be in contact with the cable jacket for a length of not less than $\frac{1}{2}$ inch.

(5) Requirements for lead entrances in which MSHA accepted rope packing material is specified, are:

(i) Rope packing material shall be acceptable under § 18.37(e) of this chapter.

(ii) The width of the space for packing material shall not exceed by more than 50 percent the diameter or width of the uncompressed packing material (see figure J-12).

(iii) The maximum diametrical clearance, using the specified tolerances, between the cable and the through holes in the gland parts adjacent to the packing (stuffing box, packing nut, hose tube, or bushings) shall not exceed 75 percent of the nominal diameter or width of the packing material (see figure J-13).

(6) Requirements for lead entrances in which grommet packing made of compressible material is specified, are:

(i) The grommet packing material shall be accepted by MSHA as flame-resistant material under § 18.37(f)(1) of this chapter.

(ii) The diametrical clearance between the cable jacket and the nominal inside diameter of the grommet shall not exceed $\frac{1}{16}$ inch, based on the nominal specified diameter of the cable (see figure J-14).

(iii) The diametrical clearance between the nominal outside diameter of the grommet and the inside wall of the stuffing box shall not exceed $\frac{1}{16}$ inch (see figure J-14).

(i) Combustible gases from insulating material.

(1) Insulating materials that give off flammable or explosive gases when decomposed electrically shall not be used within explosion-proof enclosures where the materials are subjected to destructive electrical action.

(2) Parts coated or impregnated with insulating materials shall be treated to remove any combustible solvent before assembly in an explosion-proof enclosure.

§ 7.305 Critical characteristics.

The following critical characteristics shall be inspected on each motor assembly to which an approval marking is affixed:

(a) Finish, width, and planarity of surfaces that form any part of a flame-arresting path.

(b) Clearances between mating parts that form flame-arresting paths.

(c) Thickness of walls, flanges, and covers that are essential in maintaining the explosion-proof integrity of the enclosure.

(d) Spacing of fastenings.

(e) Length of thread engagement on fastenings and threaded parts that assure the explosion-proof integrity of the enclosure.

(f) Use of lockwasher or equivalent with all fastenings.

(g) Dimensions which affect compliance with the requirements for packing gland parts in § 7.304 of this part.

§ 7.306 Explosion tests.

(a) The following shall be used for conducting an explosion test:

(1) An explosion test chamber designed and constructed to contain an explosive gas mixture to surround and fill the motor assembly being tested. The chamber must be sufficiently darkened and provide viewing capabilities of the flame-arresting paths to allow observation during testing of any discharge of flame or ignition of the explosive mixture surrounding the motor assembly.

(2) A methane gas supply with at least 98 by volume per centum of combustible hydrocarbons, with the remainder being inert. At least 80 percent by volume of the gas shall be methane.

(3) Coal dust having a minimum of 22 percent dry volatile matter and a minimum heat constant of 11,000 moist BTU (coal containing natural bed moisture but not visible surface water) ground to a fineness of minus 200 mesh U.S. Standard sieve series.

(4) An electric spark ignition source with a minimum of 100 millijoules of energy.

(5) A pressure recording system that will indicate the pressure peaks resulting from the ignition and combustion of explosive gas mixtures within the enclosure being tested.

(b) *General test procedures.* (1) Motor assemblies being tested shall—

(i) Be equipped with unshielded bearings regardless of the type of bearings specified; and

(ii) Have all parts that do not contribute to the operation or assure the explosion-proof integrity of the enclosure, such as oil seals, grease fittings, hose conduit, cable clamps, and outer bearing caps (which do not house the bearings) removed from the motor assembly.

(2) Each motor assembly shall be placed in the explosion test chamber and tested as follows:

(i) The motor assembly shall be filled with and surrounded by an explosive mixture of the natural gas supply and air. The chamber gas concentrations shall be between 6.0 by volume per centum and the motor assembly natural gas concentration just before ignition of each test. Each externally visible flame-arresting path fit shall be observed for discharge of flames for at least two of the tests, including one with coal dust added.

(ii) A single spark source is used for all testing. Pressure shall be measured at each end of the winding compartment simultaneously during all tests. Quantity and location of test holes shall permit ignition on each end of the winding compartment and recording of pressure on the same and opposite ends as the ignition.

(iii) Motor assemblies incorporating a conduit box shall have the pressure in the conduit box recorded simultaneously with the other measured pressures during all tests. Quantity and location of test holes in the conduit box shall permit ignition and recording of pressure as required in paragraphs (c)(1) and (c)(4)(i) of this section.

(iv) The motor assembly shall be completely purged and recharged with a fresh explosive gas mixture from the chamber or by injection after each test. The chamber shall be completely purged and recharged with a fresh explosive gas mixture as necessary. The oxygen level of the chamber gas mixture shall be no less than 18 percent by volume for testing. In the absence of oxygen monitoring equipment, the maximum number of tests conducted before purging shall be less than or equal to the chamber volume divided by forty times the volume occupied by the motor assembly.

(c) *Test procedures.* (1) Eight tests at 9.4 ± 0.4 percent methane by volume within the winding compartment shall be conducted, with the rotor stationary during four tests and rotating at rated speed (rpm) during four tests. The ignition shall be at one end of the winding compartment for two stationary and two rotating tests, and then switched to the opposite end for the remaining four tests. If a nonisolated conduit box is used, then two additional tests, one stationary and one rotating, shall be conducted with ignition in the conduit box at a point furthest away from the opening between the conduit box and the winding compartment.

(2) Four tests at 7.0 ± 0.3 percent methane by volume within the winding compartment shall be conducted with

the rotor stationary, 2 ignitions at each end.

(3) Four tests at 9.4 ± 0.4 percent methane by volume plus coal dust shall be conducted. A quantity of coal dust equal to 0.05 ounces per cubic foot of internal free volume of the winding compartment plus the nonisolated conduit box shall be introduced into each end of the winding compartment and nonisolated conduit box to coat the interior surface before conducting the first of the four tests. The coal dust introduced into the conduit box shall be proportional to its volume. The remaining coal dust shall be equally divided between the winding compartment ends. For two tests, one stationary and one rotating, the ignition shall be either in the conduit box or one end of the connected winding compartment, whichever produced the highest pressure in the previous tests. The two remaining tests, one stationary and one rotating, shall be conducted with the ignition in the winding compartment end furthest away from the conduit box.

(4) For motor assemblies incorporating a conduit box which is isolated from the winding compartment by an isolating barrier the following additional tests shall be conducted—

(i) For conduit boxes with an internal free volume greater than 150 cubic inches, two ignition points shall be used, one as close to the geometric center of the conduit box as practical and the other at the furthest point away from the isolating barrier between the conduit box and the winding compartment. Recording of pressure shall be on the same and opposite sides as the ignition point furthest from the isolating barrier between the conduit box and the winding compartment. Conduit boxes with an internal free volume of 150 cubic inches or less shall have one test hole for ignition located as close to the geometric center of the conduit box as practical and one for recording of pressure located on a side of the conduit box.

(ii) The conduit box shall be tested separately. Six tests at 9.4 ± 0.4 percent methane by volume within the conduit box shall be conducted followed by two tests at 7.0 ± 0.3 percent methane by volume. Then two tests at 9.4 ± 0.4 percent methane by volume with a quantity of coal dust equal to 0.05 ounces per cubic foot of internal free volume of the conduit box and meeting the specifications in paragraph (c)(3) of this section shall be conducted. For conduit boxes with an internal free volume of more than 150 cubic inches, the number of tests shall be evenly divided between each ignition point.

(iii) The motor assembly shall be tested following removal of the isolating barrier or one sectionalizing terminal (as applicable). Six tests at 9.4 ± 0.4 percent methane by volume in the winding compartment and conduit box shall be conducted using three ignition locations. The ignition shall be at one end of the winding compartment for one stationary and one rotating test; the opposite end for one stationary and one rotating test; and at the ignition point that produced the highest pressure on the previous test in paragraph (c)(4)(ii) of this section in the conduit box for one stationary and one rotating test. Motor assemblies that use multiple sectionalizing terminals shall have one test conducted as each additional terminal is removed. Each of these tests shall use the rotor state and ignition location that produced the highest pressure in the previous tests.

(d) A motor assembly incorporating a conduit box that is isolated from the winding compartment that exhibits pressures exceeding 110 psig, while testing during removal of any or all isolating barriers as specified in paragraph (c)(4) of this section, shall have a warning statement on the approval plate. This statement shall warn that the isolating barrier must be maintained to ensure the explosion-proof integrity of the motor assembly. A statement is not required when the motor assembly has withstood a static pressure of twice the maximum pressure recorded in the explosion tests of paragraph (c)(4) of this section. The static pressure test shall be conducted on the motor assembly with all isolating barriers removed, and in accordance with § 7.307 of this part.

(e) *Acceptable performance.* Explosion tests of a motor assembly shall not result in—

- (1) Discharge of flames.
- (2) Ignition of the explosive mixture surrounding the motor assembly in the chamber.
- (3) Development of afterburning.
- (4) Rupture of any part of the motor assembly or any panel or divider within the motor assembly.
- (5) Clearances, in excess of those specified in this subpart, along accessible flame-arresting paths, following any necessary retightening of fastenings.
- (6) Pressure exceeding 110 psig, except as provided in paragraph (d) of this section unless the motor assembly has withstood a static pressure of twice the maximum pressure recorded in the explosion tests of this section following the static pressure test procedures of § 7.307 of this part.

(7) Permanent deformation greater than 0.040 inches per linear foot.

§ 7.307 Static pressure test.

(a) *Test procedure.* (1) The enclosure shall be internally pressurized to a minimum of 150 psig and the pressure maintained for a minimum of 10 seconds.

(2) Following the pressure hold, the pressure shall be removed and the pressurizing agent removed from the enclosure.

(b) *Acceptable performance.* (1) The enclosure during pressurization shall not exhibit—

- (i) Leakage through welds or casting; or
- (ii) Rupture of any part that affects the explosion-proof integrity of the enclosure.

(2) The enclosure following removal of the pressurizing agent shall not exhibit—

- (i) Visible cracks in welds;
- (ii) Permanent deformation exceeding 0.040 inches per linear foot; or
- (iii) Clearances, in excess of those specified in this subpart, along accessible flame-arresting paths, following any necessary retightening of fastenings.

§ 7.308 Lockwasher equivalency test.

(a) *Test procedure.* (1) Each test sample shall be an assembly consisting of a fastening with a locking device. Each standard sample shall be an assembly consisting of a fastening with a lockwasher.

(2) Five standard samples and five test samples shall be tested.

(3) Each standard and test sample shall use a new fastening of the same specifications as being used on the motor assembly.

(4) A new tapped hole shall be used for each standard and test sample. The hole shall be of the same specifications as used on the motor assembly.

(5) Each standard and test sample shall be inserted in the tapped hole and continuously and uniformly tightened at a speed not to exceed 30 rpm until the fastening's proof load is achieved. The torquing device shall not contact the locking device or the threaded portion of the fastening.

(6) Each standard and test sample shall be engaged and disengaged for 15 full cycles.

(b) *Acceptable performance.* The minimum torque value required to start removal of the fastening from the installed position (minimum breakway torque) for any cycle of any test sample shall be greater than or equal to the average breakway torque of each removal cycle of every standard sample.

§ 7.309 Approval marking.

Each approved motor assembly shall be identified by a legible and permanent approval plate inscribed with the assigned MSHA approval number and a warning statement as specified in § 7.306(d) of this part. The plate shall be securely attached to the motor assembly

in a manner that does not impair any explosion-proof characteristics.

§ 7.310 Post-approval product audit.

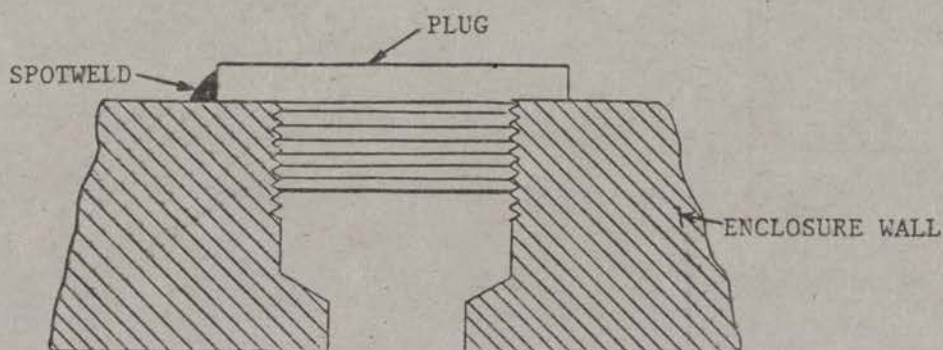
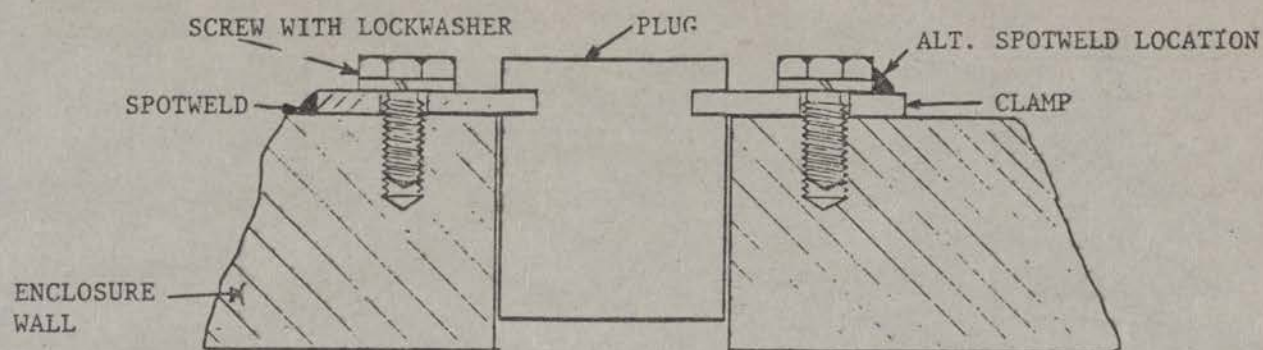
Upon request by MSHA but not more than once a year, except for cause, the approval holder shall make a motor assembly available for audit at no cost.

§ 7.311 Approval checklist.

Each motor assembly bearing an MSHA approval marking shall be accompanied by a list of items necessary for maintenance of the motor assembly as approved.

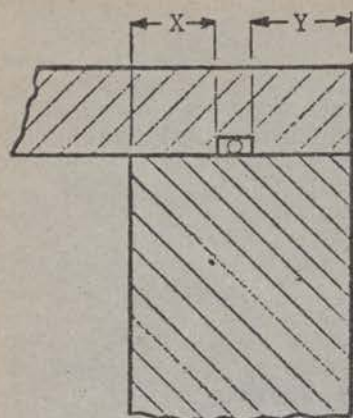
Appendix I to Subpart J of Part 7

Appendix I to Subpart J—Figures J-1 through J-14



WELD (OR BRAZE) MAY BE ON PLUG, CLAMP, OR FASTENING

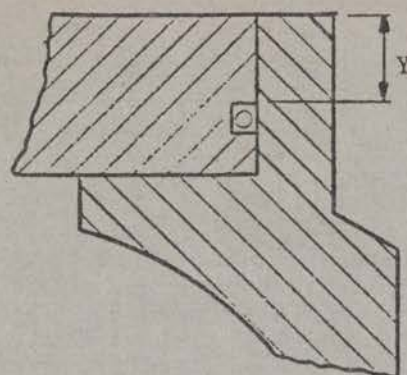
FIGURE J-1



$X + Y = \text{MIN. ACCEPTABLE FLAME-ARRESTING PATH LENGTH}$

$$Y = \frac{X + Y}{2}$$

FIGURE J-2



$Y = 1/2" \text{ MIN.}$

FIGURE J-3

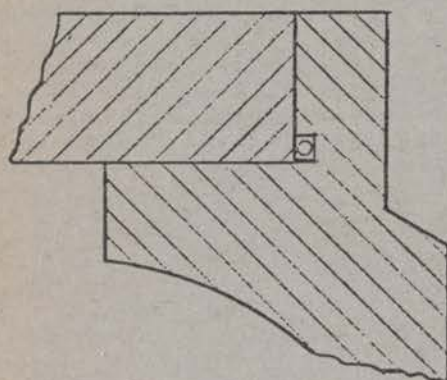
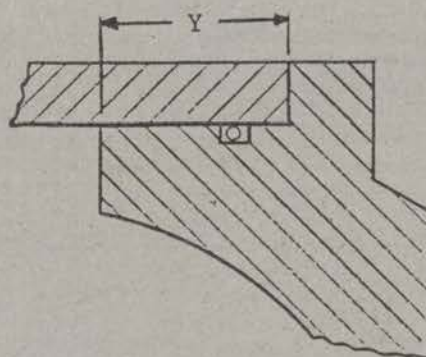
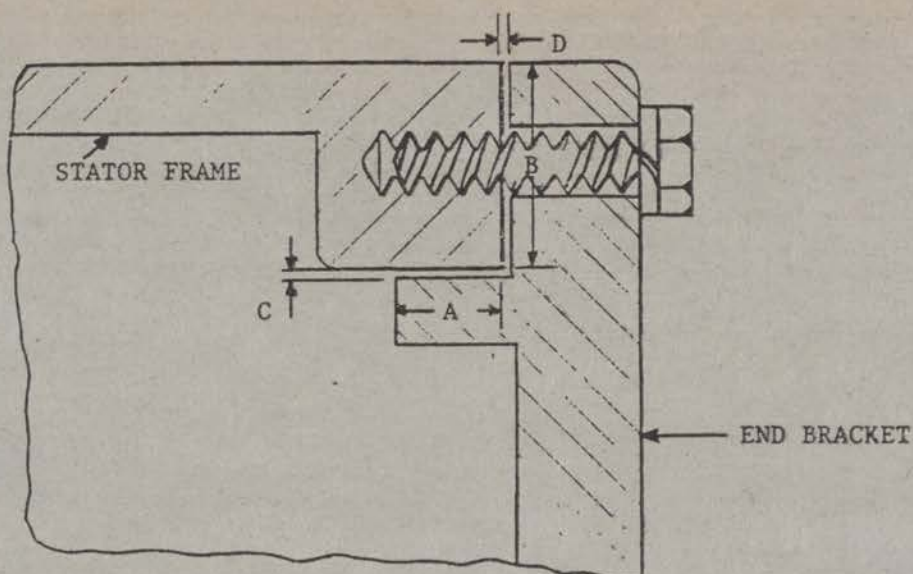


FIGURE J-4



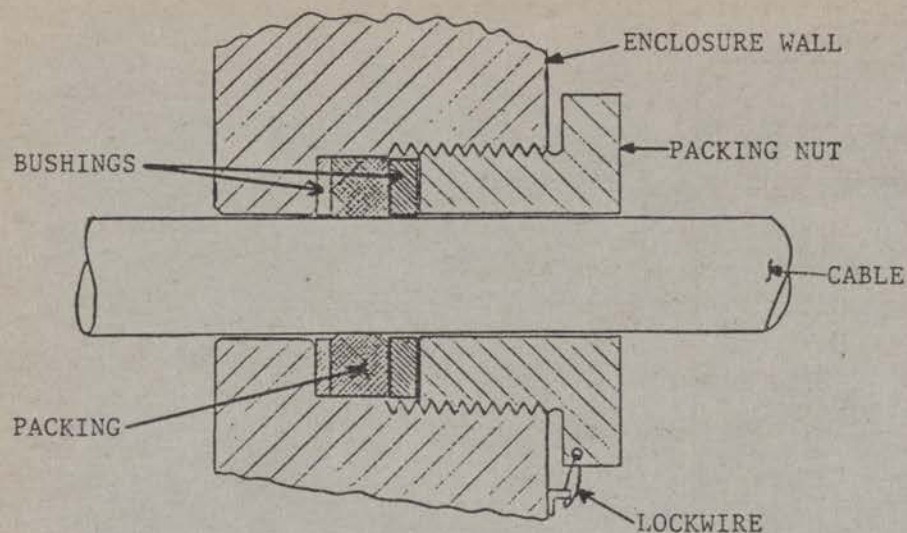
O-RING CAN BE LOCATED ANYWHERE ALONG LENGTH OF (Y).

FIGURE J-5

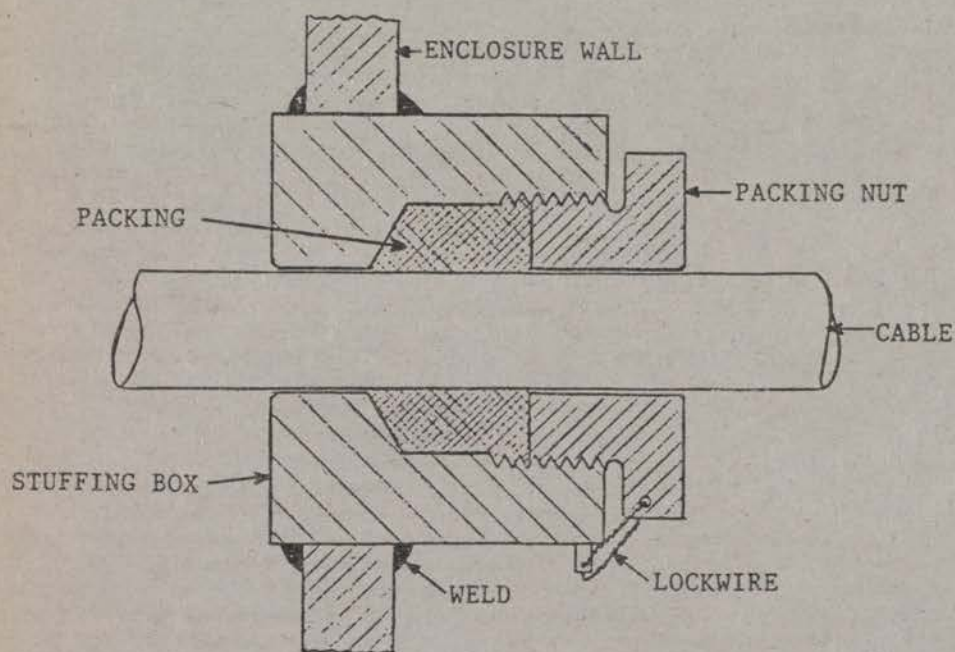


- A = Width of Axial Portion
- B = Width of Clamped Radial Portion
- C = Clearance of Axial Portion
- D = Clearance of Radial Portion
- Total Width of Flamepath = A + B

FIGURE J-6

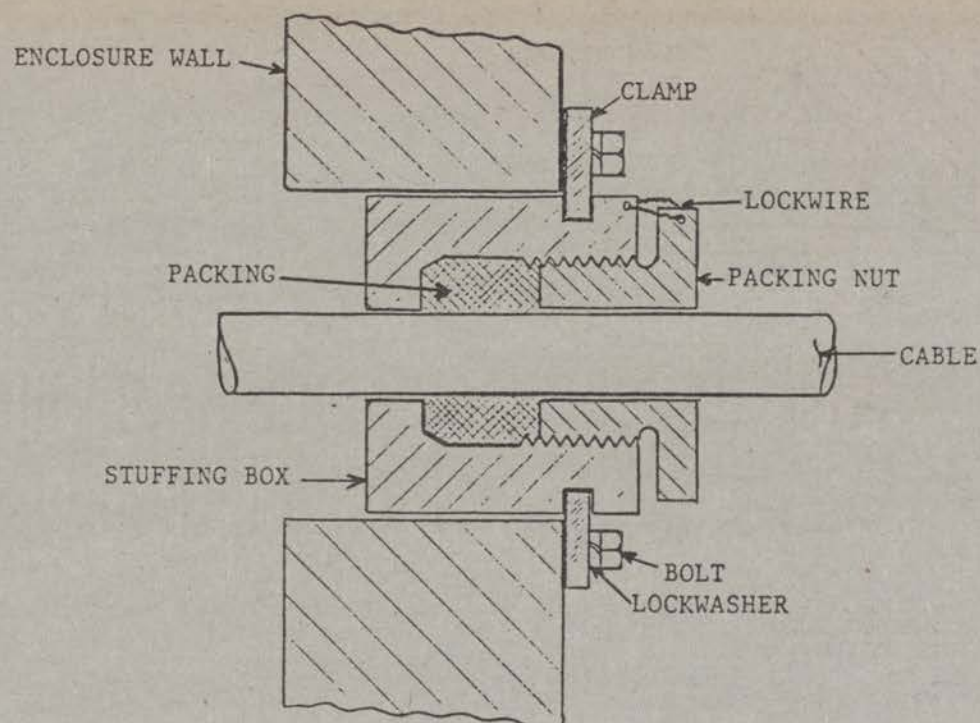


MACHINED-IN STUFFING BOX



WELD-IN STUFFING BOX

FIGURE J-7



SLIP-FIT STUFFING BOX

FIGURE J-7

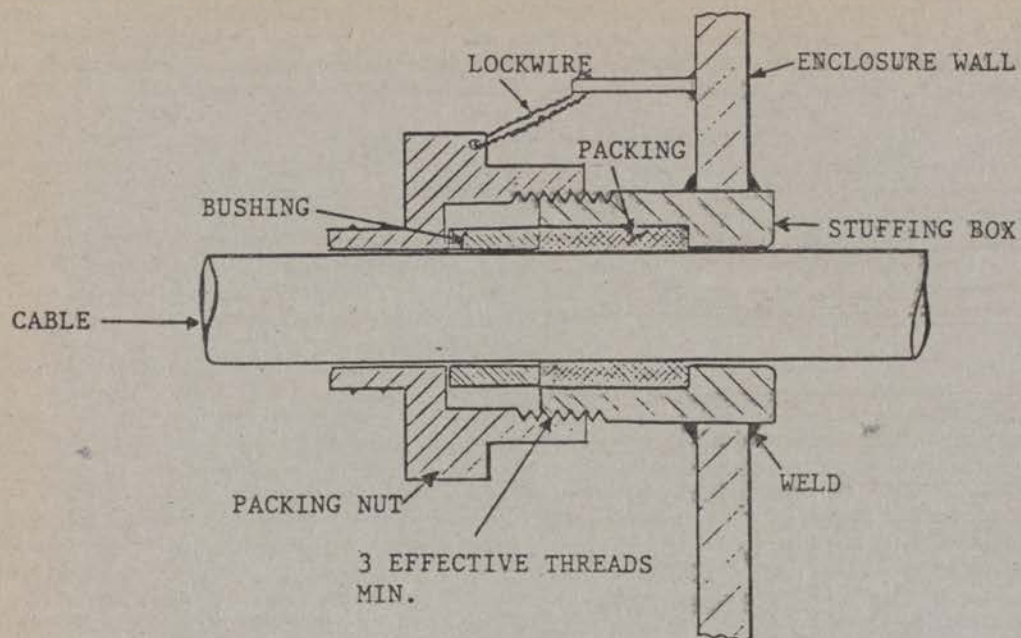


FIGURE J-8

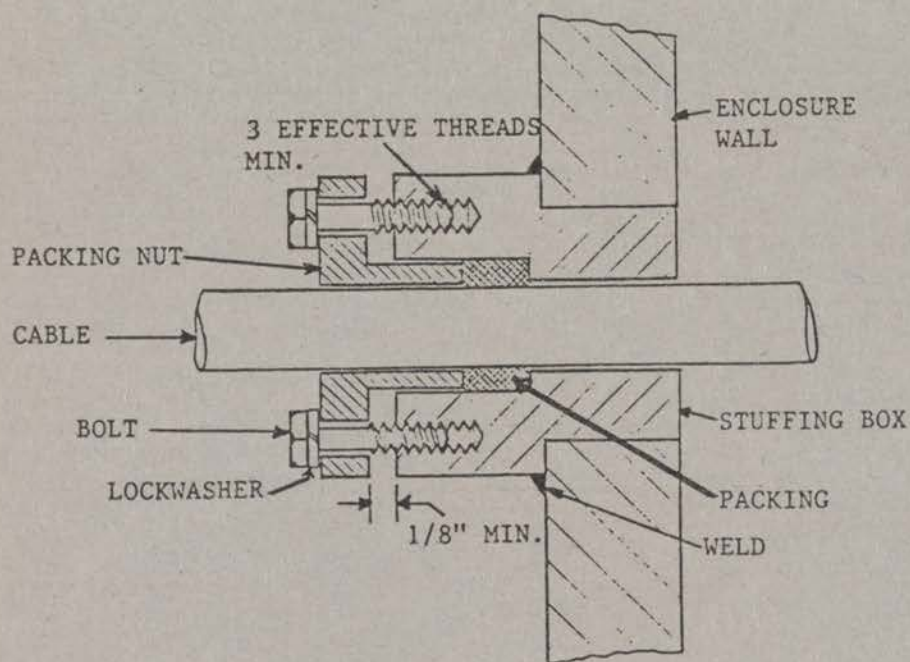


FIGURE J-9

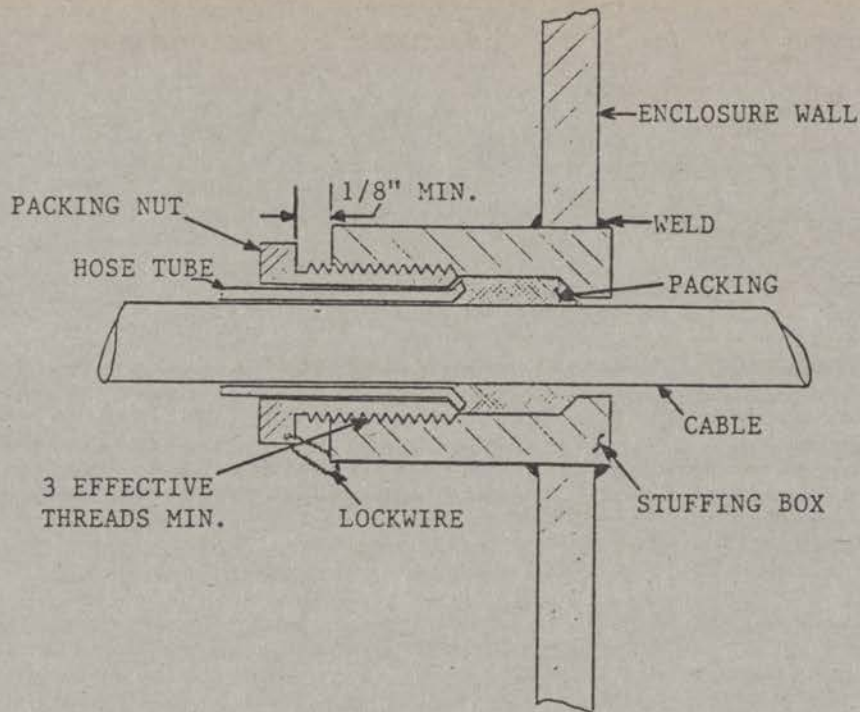


FIGURE J-10

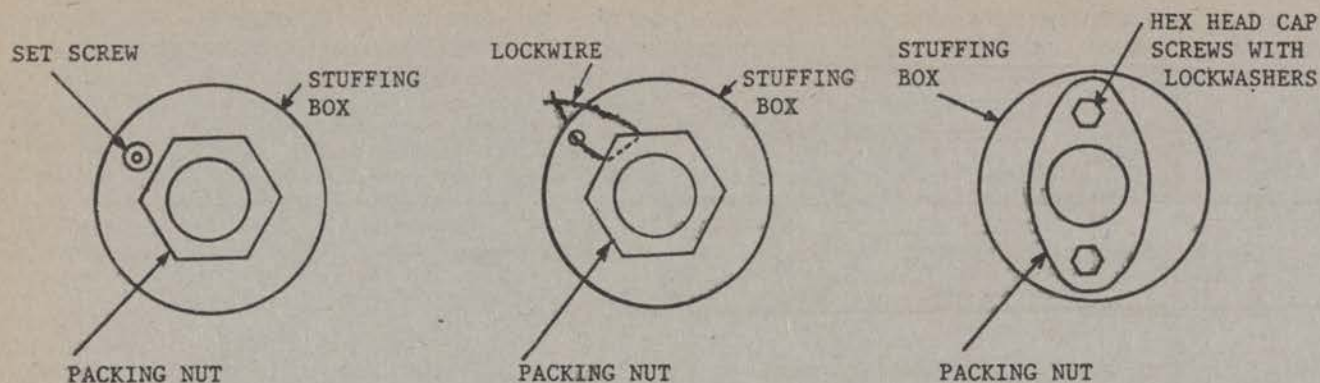
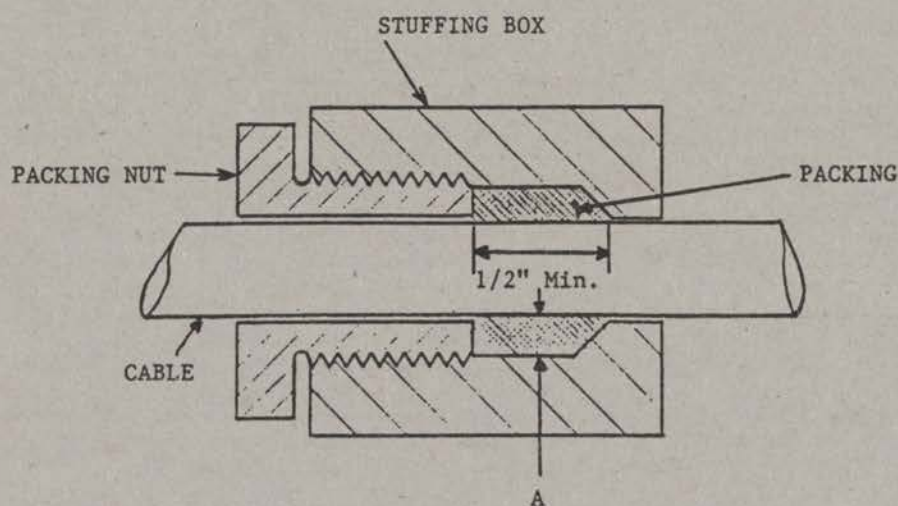
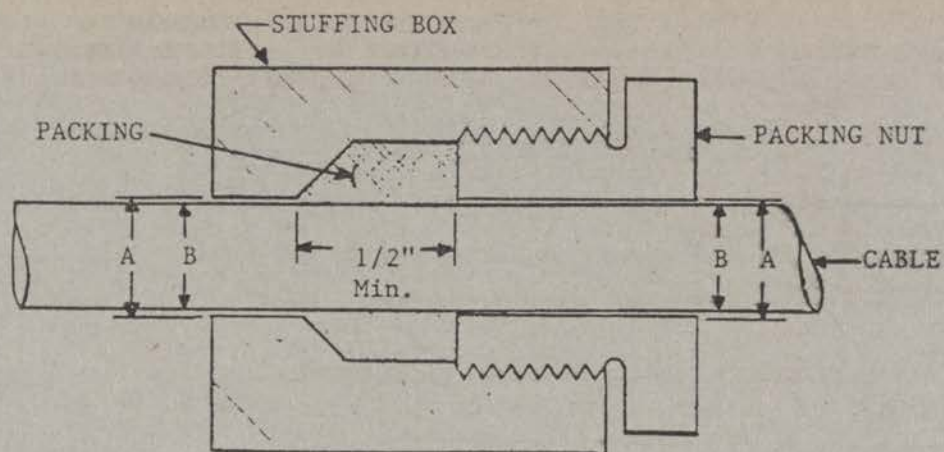


FIGURE J-11



$A \approx 150\%$ of Packing Material Diameter or Width

FIGURE J-12



$A - B \leq 75\%$ of Packing Material Diameter or Width

FIGURE J-13

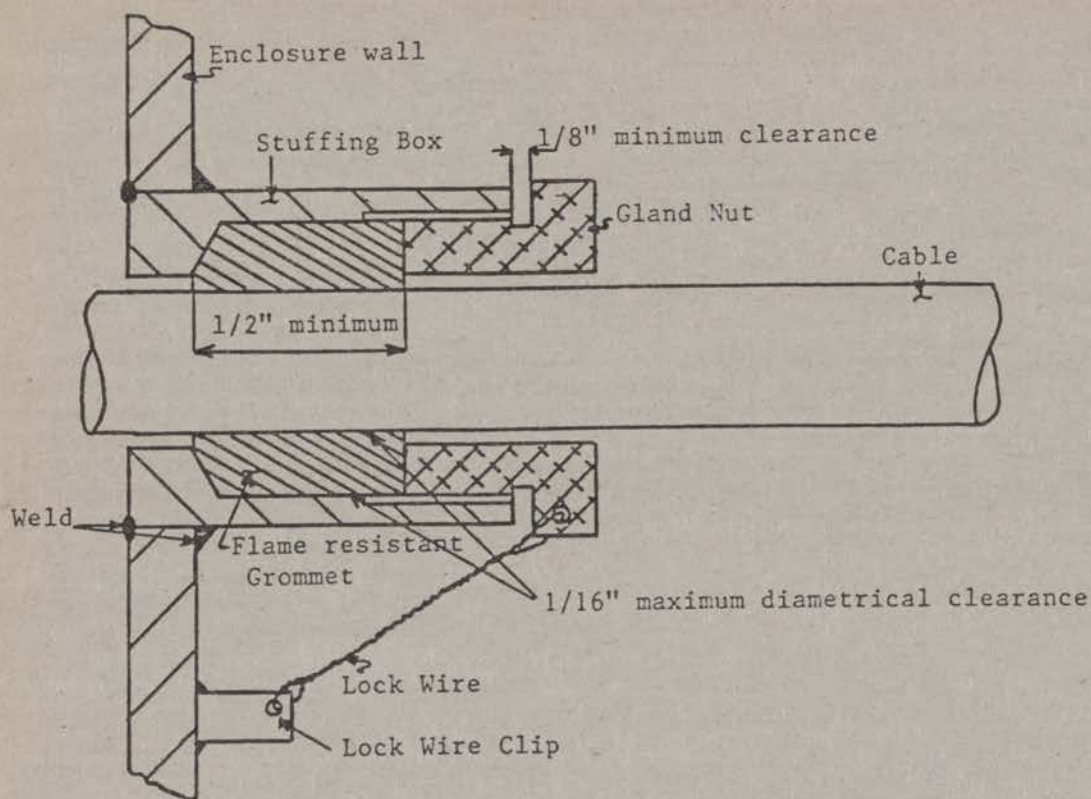


FIGURE J-14

PART 18—ELECTRIC MOTOR-DRIVEN MINE EQUIPMENT AND ACCESSORIES [AMENDED]

1. The authority citation for part 18 continues to read as follows:

Authority: 30 U.S.C. 957 and 961.

2. Section 18.4 is revised to read as follows:

§ 18.4 Electrical equipment for which approval is issued.

An approval will be issued only for a complete electrical machine or accessory. Only components meeting the requirements of subpart B of this part or those approved under part 7 of this chapter, unless they contain intrinsically safe circuits, shall be included in the assemblies.

3. Section 18.24 is revised to read as follows:

§ 18.24 Electrical clearances.

Minimum clearances between uninsulated electrical conductor

surfaces, or between uninsulated conductor surfaces and grounded metal surfaces, within the enclosure shall be as follows:

MINIMUM CLEARANCES BETWEEN UNINSULATED SURFACES

Phase-to-Phase Voltage (rms)	Clearances (inches)	
	Phase-to-Phase	Phase-to-Ground or Control Circuit
0 to 250	0.25	0.25
251 to 600	0.28	0.25
601 to 1000	0.61	0.25
1001 to 2400	1.4	0.6
2401 to 4160	3.0	1.4

4. Section 18.31 is amended by revising paragraphs (a)(3), (a)(5), and (a)(6) and by adding paragraphs (a) (7) and (8) to read as follows:

§ 18.31 Enclosures—joints and fastenings.

(a) * * *

(3) External rotating parts shall not be constructed of aluminum alloys containing more than 0.6 percent magnesium.

(5) Threaded covers and mating parts shall be designed with Class 1A and 1B (coarse, loose-fitting) threads. The flame-arresting path of threaded joints shall conform to the requirements of paragraph (a)(6) of this section.

(6) Enclosure requirements shall be based on the internal volumes of the empty enclosure. The internal volume is the volume remaining after deducting the volume of any part that is essential in maintaining the explosion-proof integrity of the enclosure or necessary for the operation. Essential parts include the parts that constitute the flame-arresting path and those necessary to secure parts that constitute a flame-arresting path. Enclosures shall meet the following requirements:

EXPLOSION-PROOF REQUIREMENTS BASED ON VOLUME

	Volume of empty enclosure		
	Less than 45 cu. in.	45 to 124 cu. in. inclusive	More than 124 cu. in.
Minimum thickness of material for walls ¹	1/8"	3/16"	1/4"
Minimum thickness of material for flanges and covers	2 1/4"	3 3/8"	3 1/2"
Minimum width of joint; all in one plane ²	1/2"	3/4"	1"
Maximum clearance; joint all in one plane	0.002"	0.003"	0.004"
Minimum width of joint; portions of which are in different planes; cylinders or equivalent ^{4,5}	3/8"	5/8"	3/4"
Maximum clearances; joint in two or more planes, cylinders or equivalent:			
(a) Portion perpendicular to plane ⁶	0.008"	0.008"	0.008"
(b) Plane portion	0.006"	0.006"	0.006"
Maximum bolt ^{7,8} spacing; joints all in one plane	(10)	(10)	(10)
Maximum bolt spacing; joints, portions of which are in different planes	(9)	(9)	(9)
Minimum diameter of bolt (without regard to type of joint)	3/4"	1/2"	3/8"
Minimum thread engagement ¹⁰	1/4"	1/4"	3/8"
Maximum diametrical clearance between bolt body and unthreaded holes through which it passes ^{11,12}	1/64"	1/32"	1/16"
Minimum distance from interior of enclosure to the edge of a bolt hole: ¹³			
Joint—minimum width 1"			14 7/16"
Joint—less than 1" wide	1/8"	3/16"	

Cylindrical joints

Shaft centered by ball or roller bearings:			
Minimum length of flame-arresting path	1/2"	3/4"	1"
Maximum diametrical clearance	0.020"	0.025"	0.030"
Other cylindrical joints: ¹⁵			
Minimum length of flame-arresting path	1/2"	3/4"	1"
Maximum diametrical clearance	0.006"	0.008"	0.010"

¹ This is the minimal nominal dimension when applied to standard steel plate.

² 1/8 inch less is allowable for machining rolled plate.

³ 1/16 inch less is allowable for machining rolled plate.

⁴ The widths of any grooves, such as grooves for holding oil seals or O-rings, shall be deducted in measuring the widths of flame-arresting paths.

⁵ If only two planes are involved, neither portion of a joint shall be less than 1/4 inch wide, unless the wider portion conforms to the same requirements as those for a joint that is all in one plane. If more than two planes are involved (as in labyrinths or tongue-and-groove joints) the combined lengths of those portions having prescribed clearances are considered.

⁶ The allowable diametrical clearance is 0.008 inch when the portion perpendicular to the plane portion is 1/4 inch or greater in length. If the perpendicular portion is more than 1/4 inch but less than 1/2 inch wide, the diametrical clearance shall not exceed 0.006 inch.

⁷ Where the term "bolt" is used, it refers to a machine bolt or a cap screw, and for either of these studs may be substituted provided the studs, bottom in blind holes, are completely welded in place, or the bottom of the hole is closed with a plug secured by weld or braze. Bolts shall be provided at all corners.

⁸ The requirements as to diametrical clearance around the bolt and minimum distance from the bolt hole to the inside of the explosion-proof enclosure apply to steel dowel pins. In addition, when such pins are used, the spacing between centers of the bolts on either side of the pin shall not exceed 5 inches.

⁹ Adequacy of bolt spacing will be judged on the basis of size and configuration of the enclosure, strength of materials, and explosion test results.

¹⁰ In general, minimum thread engagement shall be equal to or greater than the diameter of the bolt specified.

¹¹ Threaded holes for fastening bolts shall be machined to remove burrs or projections that affect planarity of a surface forming a flame-arresting path.

¹² This maximum clearance applies only when the bolt is located within the flamepath.

¹³ The edge of the bolt hole shall include the edge of any machining done to the bolt hole, such as chamfering.

¹⁴ Less than 7/16" (1/4" minimum) will be acceptable provided the diametrical clearance for fastening bolts does not exceed 1/32".

¹⁵ Shafts or operating rods through journal bearings shall be at least 1/4" in diameter. The length of fit shall not be reduced when a push button is depressed. Operating rods shall have a shoulder or head on the portion inside the enclosure. Essential parts riveted or bolted to the inside portion are acceptable in lieu of a head or shoulder, but cotter pins and similar devices shall not be used.

¹⁶ 6" with a minimum of 4 bolts.

(7) O-rings, if used in a flame-arresting path, shall meet the following:

(i) When the flame-arresting path is in one plane, the o-ring shall be located at least one-half the acceptable flame-arresting path length specified in paragraph (a)(6) of this section within the outside edge of the path (see figure J-2 in the appendix to subpart J of part 7 of this chapter).

(ii) When the flame-arresting path is one of the plane-cylindrical type (step joint), the o-ring shall be located at least 1/2 inch within the outer edge of the plane portion (see figure J-3 in the appendix to subpart J of part 7 of this chapter), or at the junction of the plane and cylindrical portion of the joint (see figure J-4 in the appendix to subpart J of part 7 of this chapter); or in the cylindrical portion (see figure J-5 in the appendix to subpart J of part 7 of this chapter).

(8) Mating parts comprising a pressed fit shall result in a minimum interference of 0.001 inch between the parts. The minimum length of the pressed fit shall be equal to the minimum thickness requirement of paragraph (a)(6) of this section for the material in which the fit is made.

* * *

5. Section 18.32 is amended by adding paragraph (i) to read as follows:

§ 18.32 Fastenings—additional requirements.

* * *

(i) Coil-thread inserts, if used in holes for fastenings, shall meet the following:

(1) The inserts shall have internal screw threads.

(2) The holes for the inserts shall be drilled and tapped consistent with the insert manufacturer's specifications.

(3) The inserts shall be installed consistent with the insert manufacturer's specifications.

(4) The insert shall be of sufficient length to ensure the minimum thread engagement of fastening specified in § 18.31(a)(6) of this part.

6. Section 18.33 is revised to read as follows:

§ 18.33 Finish of surface joints.

Flat surfaces between bolt holes that form any part of a flame-arresting path shall be plane to within a maximum deviation of one-half the maximum clearance specified in § 18.31(a)(6). All metal surfaces forming a flame-arresting path shall be finished during the manufacturing process to not more than 250 microinches. A thin film of nonhardening preparation to inhibit rusting may be applied to these finished metal surfaces as long as the final

surface can be readily wiped free of any foreign materials.

7. Section 18.34 is amended by adding an introductory paragraph and revising paragraph (a)(6) to read as follows:

§ 18.34 Motors.

Explosion-proof electric motor assemblies intended for use in approved equipment in underground mines that are specifically addressed in part 7 of this chapter shall be approved under part 7 of this chapter after February 22, 1996. Those motor assemblies not specifically addressed under part 7 of this chapter shall be accepted or certified under this part.

(a) * * *

(6) Oil seals shall be removed from motors prior to submission for explosion tests.

* * *

8. Section 18.37 is amended by revising paragraph (b) to read as follows:

§ 18.37 Lead entrances.

* * *

(b) Stuffing boxes shall be so designed, and the amount of packing used shall be such, that with the packing properly compressed, the gland nut still has a clearance distance of 1/8 inch or more to travel without meeting interference by parts other than packing. In addition, the gland nut shall have a minimum of three effective threads engaged. (See Figures 8, 9 and 10 in Appendix II.)

* * *

9. Section 18.62 is amended by revising the fifth sentence of paragraph (a) to read as follows:

§ 18.62 Tests to determine explosion-proof characteristics.

(a) * * * Coal dust having a minimum of 22 percent dry volatile matter and a minimum heat constant of 11,000 moist BTU (coal containing natural bed moisture but not visible surface water) ground to a fineness of minus 200 mesh U.S. Standard sieve series. * * *

* * *

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DEPARTMENT OF LABOR

Mine Safety and Health Administration

30 CFR Parts 7, 18, 57 and 75

RIN 1219-AA57

Electric Cables, Signaling Cables and Cable Splice Kits

AGENCY: Mine Safety and Health Administration (MSHA), Labor.

ACTION: Final rule.

SUMMARY: This final rule implements new procedures for testing and approval of electric cables, signaling cables and cable splice kit designs. The final rule revises the existing requirements for acceptance of cables in 30 CFR part 18, establishes the flame-resistant requirements for approval of cable splice kit designs, and contains the approval requirements for signaling cables, all of which are currently being granted acceptance by MSHA. The final rule also makes conforming changes to 30 CFR parts 57 and 75 to require certain cables and splices to be accepted or approved by MSHA as flame resistant.

EFFECTIVE DATE: Subpart K of part 7 and §§ 7.44(k), 18.35(a)(3), 18.94(a)(2), and conforming amendments to parts 18, 57, and 75 will be effective on February 22, 1993. Sections 18.1, 18.2, 18.6(a), 18.6(b), 18.6(i), 18.9, and 18.64 will be effective on December 23, 1993.

FOR FURTHER INFORMATION CONTACT: Patricia W. Silvey, Director, Office of Standards, Regulations and Variances, MSHA.

SUPPLEMENTARY INFORMATION:

I. Background

This final rule will replace, in one year, the current regulations and acceptance programs covering the testing and approval for flame resistance of electric cables, signaling cables, and cable splice kits found in 30 CFR part 18. These revisions are issued pursuant to section 508 of the Federal Mine Safety and Health Act of 1977 (Mine Act) (30 U.S.C. 957). In addition, pursuant to section 101 of the Mine Act (30 U.S.C. 811), the final rule makes conforming changes to 30 CFR parts 57 and 75 to require certain cables and splices to be accepted or approved by MSHA as flame resistant.

MSHA published a proposed rule in the Federal Register on October 1, 1990 (55 FR 40124). The proposal did not retain the existing regulations and acceptance programs covering the testing and approval for flame resistance of electric cables, signaling cables, and