2.0 ORGANIZATION AND ADMINISTRATION
2.1 ORGANIZATIONAL STRUCTURE

2.1.1 Purpose of Review

The purpose of this review is to ensure that management systems and structures are in place that provide reasonable assurance that the certificate holder plans, implements, and controls site activities in a manner that ensures the safety of workers, the public, and the environment. Its purpose is also to ensure that the corporate management is involved with, informed about, and dedicated to the safe operation of the facility and that sufficient technical resources have been provided to adequately accomplish this objective.

2.1.2 Responsibility for Review

Primary: Certification Project Manager

Secondary: Specialists in safety-related organizational and administrative requirements for gaseous diffusion plants (GDPs), including nuclear criticality safety, radiation protection, fire safety, emergency management, chemical safety, etc.

Supporting: Gaseous Diffusion Plant Inspector

2.1.3 Areas of Review

The staff should review the corporate-level management and technical organizations of the applicant and its major contractors for the project, including the technical resources to support operations. The review should include the applicant's management, engineering, and technical support organization(s) and organizational charts reflecting the applicant's current headquarters and site management structure. The application should address planned modifications and additions reflecting any added functional responsibilities.

2.1.4 Review Procedures

2.1.4.1 Acceptance Review

The staff review should start with the primary reviewer's determination that sufficient information has been provided in the contents of the application to satisfy the requirements in 10 CFR 76.35, "Contents of Application," and 10 CFR 76.36, "Renewals," with respect to organizational structure for GDP facilities—see Standard Review Plan (SRP) Section 2.1.5.1, "Regulatory Requirements"—and that topics discussed in SRP Section 2.1.3, "Areas of Review," have been addressed.

If significant deficiencies are identified in the application, the applicant should be requested to submit additional material before the staff resumes the application review.

2.1.4.2 Evaluation

The primary reviewer should ensure that the corporate-level management and technical support structure, as demonstrated by organizational charts and descriptions of functions and responsibilities, is free of ambiguous assignments of primary responsibility.

The primary reviewer should consult with the secondary reviewers in their areas of expertise to verify that other positions and responsibilities are reasonably well defined in terms of both numbers of persons and experience required to carry out their responsibilities. The staff must recognize that there are many acceptable ways to define and delegate job responsibilities.

The appropriate reviewers (with support from the onsite resident) should visit the site and corporate headquarters to review, discuss, and verify implementation of the management structure and technical resources. With respect to site visits, review teams may also include inspection and enforcement personnel.

Clear assignment of responsibility should be described for:

1. Systems, structures, and components (SSCs) important to safety;

2. An effective safety review system;

3. A training program for proper operation and proper conduct of the safety components;

4. Clear and accurate procedures;

5. Determining compliance with procedures, policies, and regulatory requirements; and

6. An investigation process adequate to (a) enable understanding of the root cause of significant conditions adverse to quality and reportable events for which a 30-day follow-up written report is required, and (b) promote rectification of significant institutional problems.

A corporate officer should clearly be responsible for radiological safety activities, without having ancillary responsibilities that might detract from his/her attention to radiological safety matters.

The staff should then determine, on the basis of the foregoing, the overall acceptability of the applicant's management and technical support organization and staffing plans.

On the basis of its review, the staff may request that the applicant provide additional information or modify the submittal to meet the acceptance criteria in Section 2.1.5 of this SRP.

The final step in the review is the primary staff reviewer's writing of a Compliance Evaluation Report (CER) that summarizes the conduct of the review, identifies what material in the application forms the basis for a finding of reasonable assurance with respect to the

acceptance criteria, and presents the bases for certificate conditions that may be necessary to conclude that reasonable assurance is achieved.

2.1.5 Acceptance Criteria

The regulatory requirements, regulatory guidance, and regulatory review criteria applicable to this Standard Review Plan (SRP) are listed in the following sections.

2.1.5.1 Regulatory Requirements

Section 76.35(a)(7) requires applicants to provide a description of the management controls and oversight program to ensure that activities directly relevant to nuclear safety, safeguards, and security are conducted in an appropriately controlled manner that ensures protection of employee and public health and safety and security of the national interests.

2.1.5.2 Regulatory Guidance

No regulatory guidance has been developed in this area.

2.1.5.3 Regulatory Review Criteria

The staff should use the following regulatory review criteria or information demonstrating acceptable alternatives in its review of the application. Acceptability should be based on the following:

1. The applicant has adequately identified and functionally described the specific organizational groups and has provided organization charts.

2. The applicant has adequately described the method of implementing its responsibilities for dealing with the safety-related aspects of the operation of the plant, including control of major contractors.

3. Clear, unambiguous management control and communications exist between the organizational units involved in the operation of the plant.

4. Substantive breadth and level of experience and availability of personnel exist to operate the plant safely.

5. The organizational structure provides for the integrated management of activities that support the operation and maintenance of the facility.

6. In the organizational hierarchy, the health, safety, and environmental protection organization(s) are independent of the operations organization(s), allowing them to provide objective health, safety, and environmental protection audit, review, or control activities.

"Independent" means that neither organization reports to the other in an administrative sense. Both may report to a common manager.

7. The qualifications, responsibilities, and authorities for each position assigned a function related to health, safety, and environmental protection are clearly defined in position descriptions that are accessible to all affected personnel, and to the NRC, on request.

8. The number of personnel and their availability within the health, safety, and environmental protection organization(s) are adequate to carry out the health, safety, and environmental protection function.

9. The individual delegated overall responsibility for the health, safety, and environmental protection programs has the authority to shut down operations if they appear to be unsafe. Typically this individual should be at as high a management level as the production manager and have direct line responsibility to the plant manager.

10. The functions essential for effective implementation of the health, safety, and environmental protection program(s) are documented in formally approved, written procedures, prepared in compliance with a formal document control program. (This includes considerations regarding persons possibly impaired by drugs or alcohol, mental state, etc.)

11. The qualifications, responsibilities, and authorities for each supervisory and management function listed in SRP Section 2.1.3 are clearly defined in position descriptions that are accessible to all affected personnel, and to the NRC, on request.

2.1.6 Evaluation Findings

The staff's review should verify that sufficient information has been provided in the application to satisfy the intent of requirements in 10 CFR 76.35, "Contents of Application," and 10 CFR 76.36, "Renewals," with respect to the organizational structure and that the information provided is consistent with the guidance in this SRP. On the basis of this information, the staff should be able to conclude that this evaluation is complete.

The staff could document the evaluation of the application as follows:

The staff has reviewed the organizational structure for [name of facility] according to SRP Sections 2.1.3, 2.1.4, and 2.1.5. On the basis of that review and evaluation of the health, safety, and environmental protection organization(s) described in the application for recertification for [facility name], the staff concludes the following:

1. The applicant has described its organization and management of its means for providing technical support for the facility. The staff has reviewed these measures and concludes that the applicant has an acceptable organization and adequate resources to

provide technical support for operation of the facility under both normal and abnormal conditions.

2. *The organizational hierarchy is such that the organizations charged with administration of the health, safety, and environmental protection programs are at a sufficiently high level and are independent from production management, and there is a high probability of effective programs in these areas.*

3. *Organization charts adequately reflect the organizational structure, and the responsibilities and authorities of each management, supervisory, and health, safety, and environmental protection position are clearly identified.*

4. *Commitments are included for the preparation and timely revision of procedures crucial to effective implementation of the health, safety, and environmental protection programs.*

On the basis of its review, the staff has concluded that the description of the organizational structure is adequate to support the recertification.

2.1.7 Reference

Code of Federal Regulations, *Title 10, Energy,* Part 76, “Certification of Gaseous Diffusion Plants.”

2.0 ORGANIZATION AND ADMINISTRATION
2.2 Safety Review Systems

2.2.1 Purpose of Review

The purpose of this Standard Review Plan (SRP) section on safety committees is to present the regulatory requirements and regulatory guidance and to establish the acceptance criteria and review procedures to be used by reviewers. The U.S. Nuclear Regulatory Commission (NRC) review should establish that the applicant has an acceptable safety system as part of its management controls that includes the use of safety committees.

2.2.2 Responsibility for Review

Primary: Certification Project Manager

Secondary: None

Supporting: GDP Inspector

2.2.3 Areas of Review

The staff will review the process the applicant has defined for the use of safety committees. The description should include the function, responsibilities, frequency of meetings, quorum requirements, membership, qualifications, and reporting and recordkeeping requirements. The review will include applicable Safety Analysis Report (SAR) sections as well as any technical safety requirement(s) by the safety committee.

2.2.4 Review Procedures

2.2.4.1 Acceptance Review

The staff review should start with the primary reviewer's determination that sufficient information has been provided in the contents of the application to satisfy the requirements in 10 CFR 76.35, "Contents of Application," and 10 CFR 76.36, "Renewals, with respect to safety review systems for GDP facilities—see SRP Section 2.2.5.1, "Regulatory Requirements"—and that topics discussed in SRP Section 2.2.3, "Areas of Review," have been addressed.

If significant deficiencies are identified in the application, the applicant should be requested to submit additional material before the staff resumes the application review.

2.2.4.2 Evaluation

The primary reviewer should determine that the applicant has committed to establishing a safety committee to perform multidisciplinary reviews of day-to-day and proposed activities to ensure that these activities are/will be conducted in a safe manner. The review should ascertain that the committee reviews and approves operating procedures and design changes. The reviewer should determine that committee membership is composed of qualified staff from a variety of plant operations.

On the basis of its review, the staff may request that the applicant provide additional information or modify the submittal to meet the acceptance criteria in Section 2.2.5 of this SRP.

The final step in the review is the primary staff reviewer's writing of a Compliance Evaluation Report (CER) that summarizes the conduct of the review, identifies what material in the application forms the basis for a finding of reasonable assurance with respect to the acceptance criteria, and presents the bases for certificate conditions that may be necessary to conclude that reasonable assurance is achieved.

2.2.5 Acceptance Criteria

The regulatory requirements, regulatory guidance, and regulatory review criteria applicable to this SRP section are listed in the following sections.

2.2.5.1 Regulatory Requirements

The regulations in 10 CFR 76.68(a) require that plant changes must be approved by a safety review committee. A safety review committee is also considered to be an essential part of the management controls and oversight program required by 10 CFR 76.35(a)(7).

2.2.5.2 Regulatory Guidance

1. Nuclear Regulatory Commission (U.S.) (NRC). Regulatory Guide 3.52, "Standard Format and Content for the Health and Safety Sections of License Applications for Fuel Cycle Facilities." NRC: Washington, D.C. November 1986.

2. Nuclear Regulatory Commission (U.S.), Washington, D.C. "Guidance on Management Controls/Quality Assurance, Requirements for Operation, Chemical Safety, and Fire Protection for Fuel Cycle Facilities." *Federal Register:* Vol. 54, No. 53, pp. 11590–11598. March 21, 1989.

2.2.5.3 Regulatory Review Criteria

The staff should use the following regulatory review criteria or information demonstrating acceptable alternatives in its review of the application. Acceptability should be based on the following:

Organization and Administration

1. A plant safety committee is established; typically this will be a Plant Operations Review Committee (PORC), but it may have different titles.

2. The General Manager approves the procedure implementing the safety committee activities.

3. Membership is multidisciplinary and includes expertise in the following functional areas: cascade and chemical operations, engineering, maintenance, nuclear safety, nuclear criticality safety engineering, radiological safety, quality assurance, safeguards, and chemical, industrial, and environmental safety.

4. Minimum qualifications for members are established.

5. Specifics on the frequency of meetings for the safety committee are provided. In general, the safety committee should meet monthly.

6. Specifics such as what constitutes a quorum are provided. At a minimum, the quorum should include members with technical competence in operations, engineering, nuclear criticality safety engineering, radiological safety, and quality assurance.

7. Specifics on committee functions are provided. This should include advising the General Manager on matters related to nuclear safety and recommending the approval or disapproval of items before the committee.

8. The safety committee reviews, at a minimum, the following activities: new procedures that are required by the procedure section and changes to procedures that involve intent changes,[1] changes requiring a written safety analysis in accordance with 10 CFR 76.68, and changes that result in revisions to the application documents.

9. Provisions to maintain written records of safety committee reviews are established that include at a minimum: results of the activities conducted under the Technical Safety Requirement; recommended approval or disapproval of items considered under item 8; determination of whether each item considered requires NRC approval before implementation per 10 CFR 76.68 and 76.45; minutes of meetings; and appointments of members and alternatives.

10. Auditing and oversight of the committee to the head of the quality assurance program (Safety, Safeguards, and Quality Manager).

11. The safety committee can establish subcommittees to assist in its responsibilities. In those cases, it should clearly state that the committee maintains overall responsibility. The Chairperson approves the procedures, membership, and qualifications of any

[1] Intent changes are defined as change in scope, method, or acceptance criteria that has safety significance.

subcommittee. Subcommittees might include an as low as reasonably achievable (ALARA) committee, which would be discussed in the radiation protection section.

2.2.6 Evaluation Findings

The staff's review should verify that sufficient information has been provided in the application to satisfy the intent of requirements in 10 CFR 76.35, "Contents of Application," and 10 CFR 76.36, "Renewals," with respect to the safety committees and that the information provided is consistent with the guidance in this SRP. On the basis of this information, the staff should be able to conclude that this evaluation is complete.

The staff could document the evaluation of the application as follows:

The staff has reviewed the safety review system for [name of facility] according to SRP Section 2.2.3, 2.2.4. and 2.2.5. The applicant has committed to the creation of a safety committee that advises the General Manager on matters related to nuclear safety. The General Manager approves the committee procedure. The committee includes multidisciplinary representation from organizations with routine access to the operating facility, and the members possess the qualifications, competence, and experience necessary for reviewing the key functional areas. The committee's responsibilities and authorities are clearly identified concerning plant changes that impact nuclear safety. A commitment is also included to maintain a written record of the committee's actions.

On the basis of its review, the NRC staff has concluded that the description of the safety committees is adequate to support the recertification.

2.2.7 References

Code of Federal Regulations, *Title 10, Energy,* Part 76, "Certification of Gaseous Diffusion Plants."

U.S. Nuclear Regulatory Commission (U.S.) (NRC). NUREG–1324, "Proposed Method for Regulating Major Materials Licensees," Section 3.2.2, "Safety Committees." NRC: Washington, D.C. February 1992.

U.S. Nuclear Regulatory Commission (U.S.) (NRC). Regulatory Guide 3.52, "Standard Format and Content for the Health and Safety Sections of License Applications for Fuel Cycle Facilities." NRC: Washington, D.C. November 1986.

2.0 ORGANIZATION AND ADMINISTRATION
2.3 Training and Qualification

2.3.1 Purpose of Review

The purpose of this review is to establish that the proposed training and qualification programs of the applicant provide reasonable assurance that involved personnel will have the knowledge and skills necessary to operate, maintain, and modify the facility in a manner that will protect the health and safety of the public and workers and the environment.

2.3.2 Responsibility for Review

Primary: Training Specialist

Secondary: Certification Project Manager

Supporting: Resident Inspector Staff

2.3.3 Areas of Review

The primary reviewer should review the personnel training and qualification program described in the application. Some of this information may be found in the applicant's response to the guidance in Standard Review Plan (SRP) Chapter 3.0, "Quality Assurance," regarding the qualification of personnel. The information should include the training and qualification of managers, supervisors, technical staff, operators, technicians, maintenance personnel, and others whose level of knowledge is relied on for safety. Subject matter content also should be reviewed. The review of the applicant's personnel training and qualification programs should address the following training elements: (1) organization and management of the training system, (2) trainee selection, (3) conduct of needs/job analysis and identification of tasks for training, (4) development of learning objectives as the basis for training, (5) organization of instruction using lesson plans and other training guides, (6) evaluation of trainee mastery of learning objectives, (7) conduct of on-the-job training, and (8) systematic evaluation of training effectiveness.

2.3.4 Review Procedures

2.3.4.1 Acceptance Review

The staff review should start with the primary reviewer's determination that sufficient information has been provided in the contents of the application to satisfy the requirements in 10 CFR 76.35, "Contents of Application," and 10 CFR 76.36, "Renewals," with respect to training and

qualification for gaseous diffusion plant (GDP) facilities—see SRP Section 2.3.5.1, "Regulatory Requirements"—and that the topics discussed in SRP Section 2.3.3, "Areas of Review," have been addressed.

If significant deficiencies are identified in the application, the applicant should be requested to submit additional material before the staff resumes the application review.

2.3.4.2 Evaluation

The primary staff reviewer should review the training and qualification program description to verify that the applicant has addressed each of the training elements listed in SRP Section 2.3.3, "Areas of Review." For evaluating adequacy, the reviewer should consider the guidance in SRP Section 2.3.5, "Acceptance Criteria," recognizing that the rigor and formality of the training and qualification may be adjusted to correspond to the hazard potential and to the complexity of the training needed. The review should determine if the applicant has adequately planned for the training and qualification to be accomplished and whether necessary policies, procedures, and instructions will be in place and appropriate training and qualification will be accomplished before personnel begin activities relied on for safety. The review should result in a determination that there is reasonable assurance that the applicant's training and qualification program will ensure that only properly trained and qualified personnel will perform activities relied on for safety.

When an applicant's training and qualification program references other sections of the application, the primary reviewer should review those other sections to determine the applicant's commitment to the overall training and qualification program and the proposed method for implementation. The primary reviewer should focus on the training and qualification of personnel who will perform activities relied on for safety.

The secondary staff reviewer should become familiar with the applicant's training and qualification programs and determine whether ongoing activities are in agreement with them.

Supporting staff reviewers should review the training and qualification programs to ensure there are no contradictions between the training and qualification plan descriptions in the Organization and Administration Chapter of the SRP and other areas of the application that are related to the reviewers' specialty areas. They should also ensure that the scope of the training and qualification programs includes the personnel who perform activities relied on for safety in their primary review areas of the application.

On the basis of its review, the staff may request that the applicant provide additional information or modify the submittal to meet the acceptance criteria in Section 2.3.5 of this SRP.

The final step in the review is the primary staff reviewer's writing of a Compliance Evaluation Report (CER) that summarizes the conduct of the review, identifies what material in the application forms the basis for a finding of reasonable assurance with respect to the regulatory requirements, and presents any recommendations for certificate conditions that are necessary to conclude that reasonable assurance is achieved.

2.3.5 Acceptance Criteria

The regulatory requirements, regulatory guidance, and regulatory review criteria applicable to this SRP are listed in the following sections.

2.3.5.1 Regulatory Requirements

1. Section 76.35(a)(5) requires that the application include a training program that meets the requirements of 10 CFR 76.95.

2. Section 76.95 requires that a training program must be established, implemented, and maintained for individuals relied upon to operate, maintain, or modify the GDPs in a safe manner. The training program shall be based on a systems approach to training that includes the following:

   a. Systematic analysis of the jobs to be performed;

   b. Learning objectives, derived from the analysis, that describe desired performance after training;

   c. Training design and implementation, based on the learning objectives;

   d. Evaluation of trainee mastery of the objectives during training; and

   e. Evaluation and revision of the training based on the performance of trained personnel in the job setting.

2.3.5.2 Regulatory Guidance

No regulatory guidance has been developed in this area.

2.3.5.3 Regulatory Review Criteria

The staff should use the following regulatory review criteria or information demonstrating acceptable alternatives in its review of the application. Acceptability should be based on the following:

1. Organization and Management of the Training System

   The organization and management of the training system is acceptable if the operation, maintenance, and modification of the facility are organized, staffed, and managed to facilitate planning, directing, evaluating, and controlling a systematic training process that fulfills job-related training needs. Formal training should be provided for each position or activity for which the required performance is relied upon for worker or public safety or protection of the environment. The application should state what training will be conducted

and what personnel will be provided this training. For operations, the positions or activities for which formal training is provided includes at least the following:

a. Radiological, chemical, criticality, and industrial safety personnel;
b. Process operators;
c. Technicians;
d. Maintenance staff;
e. Emergency response staff;
f. Supervisors and managers;
g. Visitors allowed unescorted access;
h. Auditors and other quality assurance/quality control (QA/QC) personnel; and
i. Nuclear criticality safety analysts.

The training program includes recurrent training of previously trained and qualified personnel based on specified criteria.

The following commitments are contained in the application regarding organization and management of training:

a. Line management is responsible for the content and effective conduct of the training and qualification programs.

b. The job function, responsibilities, authority, and accountability of personnel involved in managing, supervising, and implementing training are clearly defined.

c. A performance-based training system is implemented as the primary management tool for analyzing, designing, developing, conducting, and evaluating training.

d. Procedures are documented and implemented to ensure that all phases of training can be conducted reliably and consistently. Training documents are linked to the configuration management system to ensure that design changes are accounted for in the training given to constructors, operators, and other personnel.

e. Training is completed before qualification. Trainee and incumbent exceptions from training may be granted when justified and approved by management.

f. Auditable training records are maintained. Training records, both programmatic and individual, should support management information needs and provide required data on each individual's training, job performance, and fitness for intended duty. (Refer to Section 2.6 of this SRP for detailed guidance on records management.)

2. Trainee Selection

Trainee selection is acceptable if minimum requirements for selection as trainee candidates are specified for candidates who perform actions that prevent/mitigate accident sequences.

Organization and Administration

a. Trainee candidates meet entry-level criteria defined for the position including minimum educational, technical, experience, and physical fitness (if necessary) requirements.

b. Candidates for job functions other than process operators meet minimum qualifications for selection for training, but these minimum requirements need not be described in the application.

3. Conduct of Needs/Job Analysis and Identification of Tasks for Training

The conduct of needs/job analysis and identification of tasks for training is acceptable if the tasks required for competent and safe job performance are identified, documented, and included in the training.

a. Operations facility personnel, training staff, and other subject matter experts, as appropriate, have conducted or should conduct a needs/job analysis to develop a valid facility-specific task list for specific jobs. The jobs treated in this manner should include, at a minimum, jobs including the activities specified in the accident analysis as necessary to prevent or mitigate accident sequences.

b. Each task selected for training (initial or continuing) from the facility-specific task list is matrixed to supporting procedures and training materials.

c. The facility-specific list of tasks selected for training and the comparison with training materials is reviewed on an established schedule and updated as necessitated by changes in procedures, facility systems/equipment, or job scope.

4. Development of Learning Objectives as the Basis for Training

The development of learning objectives as the basis for training is acceptable if learning objectives that identify training content and define satisfactory trainee performance are derived from job performance requirements.

a. Learning objectives state the knowledge, skills, and abilities the trainee should demonstrate, the conditions under which required actions will take place, and the standards of performance the trainee should achieve upon completion of the training activity.

b. Learning objectives are sequenced based on their relationship to one another.

5. Organization of Instruction Using Lesson Plans and Other Training Guides

The organization of instruction using lesson plans and other training guides is acceptable if lesson plans and other training guides that provide guidance and structure to ensure the consistent conduct of training activities are based on the required learning objectives derived from specific job performance requirements.

a. Lesson plans or equivalent training guides are used for in-class training and on-the-job training and include standards for evaluating proper trainee performance.

b. Review and approval requirements are established for all lesson plans, training guides, and other training materials before their issue and use.

6. Evaluation of Trainee Mastery of Learning Objectives

The evaluation of trainee mastery of learning objectives is acceptable if trainees are evaluated periodically during training to determine their progress toward mastery of job performance requirements.

7. Conduct of On-the-Job Training

The conduct of on-the-job training is acceptable if such training used for activities required for safe operation of the plant is fully described.

a. On-the-job training is conducted using well-organized and current performance-based training materials.

b. On-the-job training is conducted by designated personnel who are competent in the program standards and methods of conducting the training.

c. Completion of on-the-job training and task qualification is by actual task performance. When the actual task cannot be performed and is therefore simulated, the conditions of task performance, references, tools, and equipment reflect the actual task to the extent possible.

8. Systematic Evaluation of Training Effectiveness

A systematic evaluation of training effectiveness and its relation to on-the-job performance is acceptable if it ensures that the training program conveys all required skills and knowledge and is used to revise the training, where necessary, based on the performance of trained personnel in the job setting.

a. A comprehensive evaluation of individual training programs is conducted periodically by qualified individuals to identify program strengths and weaknesses.

b. Feedback from trainee performance during training is used to evaluate and refine the training program.
c. Feedback from former trainees and their supervisors is used to evaluate and refine the training program.

d. Change actions (e.g., procedure changes, equipment changes, facility modifications) are monitored and evaluated for their impact on the development or modification of initial and continuing training programs and should be incorporated in a timely manner. This is accomplished through the configuration management system.

e. Improvements and changes to initial and continuing training are systematically initiated, evaluated, tracked, and incorporated to correct training deficiencies and performance problems.

2.3.6 Evaluation Findings

The staff's review should verify that sufficient information has been provided in the application to satisfy the intent of requirements in 10 CFR 76.35, "Contents of Application," and 10 CFR 76.36, "Renewals," with respect to the training and qualification and that the information provided is consistent with the guidance in this SRP. On the basis of this information, the staff should be able to conclude that this evaluation is complete.

The staff could document the evaluation of the application as follows:

The staff has reviewed the [subject area] for [name of facility] according to SRP Sections 2.3.3, 2.3.4, and 2.3.5. The applicant and its principal contractors have committed to personnel training and qualification programs that satisfy regulatory requirements, are consistent with the guidance in this SRP, and are acceptable. The staff finds that there is reasonable assurance that implementation of the described training programs will result in personnel who are qualified and competent to operate, maintain, and modify the facility safely.

On the basis of its review, the NRC staff has concluded that the personnel training and qualification programs are adequate to support the recertification.

2.3.7 Reference

Code of Federal Regulations, *Title 10, Energy,* Part 76, "Certification of Gaseous Diffusion Plants."

2.0 ORGANIZATION AND ADMINISTRATION
2.4 Procedures

2.4.1 Purpose of Review

The purpose of this Standard Review Plan (SRP) section on procedures is to present the regulatory requirements and regulatory guidance and to establish the acceptance criteria and review procedures to be used by reviewers. The U.S. Nuclear Regulatory Commission (NRC) review should establish that the applicant has an adequate management controls program that includes procedure development, review, approval, and control.

2.4.2 Responsibility for Review

Primary: Certification Project Manager

Secondary: None

Supporting: Resident and Specialty Inspectors

2.4.3 Areas of Review

The staff will review the process the applicant has defined for the development, review, approval, and control of procedures. This will include the basic elements of identification, development, verification, review, comment resolution, approval, validation, issuance, change control, and periodic review. The staff will review the commitment to a procedures program. The review will include the Safety Analysis Report (SAR) section on procedures as well as any Technical Safety Requirements (TSRs) related to the procedure program.

2.4.4 Review Procedures

2.4.4.1 Acceptance Review

The staff review should start with the primary reviewer's determination that sufficient information has been provided in the contents of the application to satisfy the requirements in 10 CFR 76.35, "Contents of Application," and 10 CFR 76.36, "Renewals," with respect to procedures for gaseous diffusion plant facilities—see SRP Section 2.4.5.1, "Regulatory Requirements"—and that the topics discussed in SRP Section 2.4.3, "Areas of Review," have been addressed.

If significant deficiencies are identified in the application, the applicant should be requested to submit additional material before the staff resumes the application review.

2.4.4.2 Evaluation

The primary reviewer should review the application portions related to the procedures program by comparing them to the acceptance criteria contained in Section 2.4.5 of this SRP.

On the basis of its review, the staff may request that the applicant provide additional information or modify the submittal to meet the acceptance criteria in SRP Section 2.4.5.

The final step in the review is the primary staff reviewer's writing of a Compliance Evaluation Report (CER) that summarizes the conduct of the review, identifies what material in the application forms the basis for a finding of reasonable assurance with respect to the acceptance criteria, and presents the bases for certificate conditions that may be necessary to conclude that reasonable assurance is achieved.

2.4.5 Acceptance Criteria

The regulatory requirements, regulatory guidance, and regulatory review criteria applicable to this SRP section are listed in the following sections.

2.4.5.1 Regulatory Requirements

A procedures program is considered an essential part of the management controls and oversight program required by 10 CFR 76.35(a)(7).

2.4.5.2 Regulatory Guidance

Although no regulatory guidance document specific to the gaseous diffusion plants (GDPs) has been developed by NRC, portions of the following industry document may be used as guidance: American Nuclear Society (ANS) 3.2–1994, "Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants."

2.4.5.3 Regulatory Review Criteria

The staff should use the following regulatory review criteria or information demonstrating acceptable alternatives in its review of the application. Acceptability should be based on the following:

1. The applicant commits to the guidance contained in the subsections of ANS 3.2–1994 that deal with procedures programs. Note that the applicant will need to take exception to some of the subsections, particularly those that clearly apply to reactors. The extent of the commitment should be captured in the application section on procedures; a separate

appendix is acceptable. If an alternative to the ANS 3.2–1994 guidance is used, it must be fully described so that its adequacy can be assessed.

2. The applicant describes the types of procedures used by the facility. These will typically include administrative, operations, alarm response, and emergency operating procedures. The applicant should state the types of procedures captured by each type.

3. The applicant commits to a formal process to accomplish procedure development, review, approval, and control. The process is acceptable if each of the following elements is adequately described: identification, development, verification, review and comment resolution, approval, validation, issuance, change control, and periodic review.

4. The identification discussion is acceptable if it clearly states areas for which a procedure is required. Procedures must be required for operator actions that are necessary to prevent or mitigate the consequences of accidents described in the accident analysis contained in the application. The applicant provides a listing (in an appendix) of the types of activities that should be covered by written procedures. The listing is acceptable if it includes the topics of administrative procedures; system procedures that address startup, operation, and shutdown; abnormal operation/alarm response; maintenance activities that address system repair, calibration, inspection, and testing; and emergency procedures. Appendix A provides an acceptable listing of the items to be included under each topic.

5. There is a commitment to review procedures following unusual incidents, such as an accident, unexpected transient, significant operator error, or equipment malfunction, or following any modification to a system.

6. The discussion on procedure development is acceptable if it contains a commitment to have procedure guidance. A commitment to ANS 3.2–1994, Subsections 5.3.1 through 5.4.10, is acceptable.

7. The verification process is to ensure the technical accuracy of the procedure and to make sure it can be performed as written. The discussion identifies who is responsible for verification. The verification process ensures that the technical information is included and correct, including formulas, set points, and acceptance criteria. The verification process includes either a walkdown of the procedure in the field or a table-top walk-through. The process also includes a check for format and style.

8. The review process is acceptable if it includes technical, cross-discipline reviews by affected organizations and a process for new procedures and procedure changes. There is a commitment to resolve the comments and, if the resolution of the comments changes the intent of the original, a commitment to redistribute a revised draft for review. The reviews ensure that the operating limits and controls identified in the SAR and TSRs are specified in the procedures and that quality assurance (QA) requirements are identified and included in operating procedures.

9. The approval discussion states who can approve procedures. The section indicates the types of procedures that require Plant Operations Review Committee (PORC) approval.

Note that this information may be included in the TSRs. At a minimum, PORC reviews new procedures that are required by the procedure section and changes to procedures that involve intent changes[2], changes requiring a written safety analysis in accordance with 10 CFR 76.68, and changes that result in revisions to the application documents.

10. Validation is required for new or revised procedures that require PORC review and is performed by qualified personnel. There is a commitment to document the procedure validation.

11. Documents are distributed in accordance with current distribution lists. A process is established to limit the use of outdated procedures. Copies are available to appropriate members of plant staff. Commitments relative to issuance and distribution will be contained in discussion on Records Management and Document Control.

12. The procedure program includes a section on temporary changes. A temporary change can be made if the temporary change does not require a written safety analysis in accordance with 10 CFR 76.68; the change does not result in a change to the application documents; the change is not an intent change; the change is approved by two members of the plant management staff, at least one of whom is the Plant Shift Superintendent; and the change is documented and reviewed in accordance with the normal process within 14 days of implementation.

13. Temporary procedures may be issued only when permanent procedures do not exist to: (a) direct operations during testing, maintenance, and modifications; (b) provide guidance in unusual situations not within the scope of permanent procedures; and (c) ensure orderly and uniform operations for short periods when the plant, a system, or a component of a system is performing in such a manner not covered by existing permanent procedures, or has been modified or extended in such a manner that portions of existing procedures do not apply. The discussion includes establishment of a time frame for use of the temporary procedure. There is a commitment that the same level of review and approval will be utilized as for permanent procedures.

14. There is a commitment to conduct periodic reviews of all procedures to ensure their continued accuracy and usefulness. The section establishes the time frame for reviews of the various types of procedures. At a minimum, all procedures are reviewed every 5 years, and emergency procedures should be reviewed every year.

15. The applicant describes the use and control of procedures. There is a commitment to stop work and place the system in a safe condition if a step of a procedure cannot be performed as written. Guidance is provided to identify the manner in which procedures are to be implemented. Routine procedural actions that are frequently repeated might not require the procedure to be present. However, for extensive or complex jobs where reliance on

[2] Intent changes are defined as change in scope, method, or acceptance criteria that has safety significance.

memory cannot be trusted, procedures should be present and referenced directly when the job is conducted.

2.4.6 Evaluation Findings

The staff's review should verify that sufficient information has been provided, in the application to satisfy the intent of requirements in 10 CFR 76.35, “Contents of Application,” and 10 CFR 76.36, “Renewals,” with respect to the procedures and that the information provided is consistent with the guidance in this SRP. On the basis of this information, the staff should be able to conclude that this evaluation is complete.

The staff could document the evaluation of the application as follows:

The staff has reviewed the procedure program for [name of facility] according to SRP Sections 2.4.3, 2.4.4, and 2.4.5. The applicant has adequately described and documented a program for the development, approval, and implementation of procedures, as committed to and described in the application. Special attention has been paid to systems important to safety, as well as to systems important to the health of plant workers, the public, and the environment.

On the basis of its review, the NRC has staff concluded that the procedure program is adequate to support the recertification.

2.4.7 References

American Nuclear Society (ANS). ANS 3.2–1994, “Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants.” ANS: La Grange Park, Illinois. 1994.

Code of Federal Regulations, *Title 10, Energy,* Part 76, “Certification of Gaseous Diffusion Plants.”

2.0 ORGANIZATION AND ADMINISTRATION
2.5 Incident Investigation

2.5.1 Purpose of Review

Abnormal events should be investigated and corrective action taken to prevent (or minimize) these from occurring again or leading to more serious consequences. The purpose of this review is to determine that a system is in place with the organizational structure and the procedures for the systematic investigation of abnormal events, assignment of corrective actions, and follow-up to ensure completion of the actions.

2.5.2 Responsibility for Review

Primary: Certification Project Manager

Secondary: Gaseous Diffusion Plant Inspectors

Supporting: None

2.5.3 Areas of Review

The staff will review the applicant's method and procedures for investigating abnormal events. The review will include the provisions for establishing investigating teams, the methods for determining root causes, and procedures for tracking and completing corrective actions and for documenting the process, for the purpose of applying the "lessons learned" to other operations.

2.5.4 Review Procedures

2.5.4.1 Acceptance Review

The staff review should start with the primary reviewer's determination that sufficient information has been provided in the contents of the application to satisfy the requirements in 10 CFR Part 76.35, "Contents of Application," and 10 CFR 76.36, "Renewals," with respect to incident investigation for gaseous diffusion plant (GDP) facilities—see SRP Section 2.5.5.1, "Regulatory Requirements"—and that the topics discussed in SRP Section 2.5.3, "Areas of Review," have been addressed.

If significant deficiencies are identified in the application, the applicant should be requested to submit additional material before the staff resumes the application review.

2.5.4.2 Evaluation

The primary reviewer should ensure that the applicant has in place:

1. A documented method in the applicant's submittal for investigating an abnormal event. This plan is separate from any required emergency plan. The investigation of an abnormal event should begin as soon as possible, commensurate with the safety of the investigative team, after the event has been brought under control.

2. Assurance of the team's authority to obtain all the information considered necessary, and of independence from responsibility for, or to, the functional area involved in the incident under investigation.

3. Procedures requiring maintenance of all documentation relating to reportable events for 2 years or for the life of the operation, whichever is longer.

4. Guidance for the team conducting the investigation on how to apply a reasonable systematic, structured approach to determine the root cause(s) of the problem. The level of investigation should be based on a graded approach relative to the severity of the incident.

5. Requirements to make available to the U.S. Nuclear Regulatory Commission (NRC) original reports of investigative teams, on request.

6. A system for monitoring to ensure completion of any corrective measures specified.

On the basis of its review, the staff may request that the applicant provide additional information or modify the submittal to meet the acceptance criteria in SRP Section 2.5.5.

The final step in the review is the primary staff reviewer's writing of a Compliance Evaluation Report (CER) that summarizes the conduct of the review, identifies what material in the application forms the basis for a finding of reasonable assurance with respect to the acceptance criteria, and presents the bases for certificate conditions that may be necessary to conclude that reasonable assurance is achieved.

2.5.5 Acceptance Criteria

The regulatory requirements, regulatory guidance, and regulatory review criteria applicable to this Standard Review Plan (SRP) are listed in the following sections.

2.5.5.1 Regulatory Requirements

1. Section 76.60 of 10 CFR requires that the applicant comply with all applicable portions of 10 CFR Part 20.

2. Section 20.2202 of 10 CFR requires the applicant to notify the NRC after specified events, including overexposures, effluent releases in excess of specified values, certain specified equipment failures, etc.

3. Section 76.120 of 10 CFR requires the applicant to notify the NRC after other incidents, including criticality accidents, loss or theft of special nuclear material, declared emergencies, failure of specified equipment, etc. It further requires that the applicant report the direct, contributing, and root causes for the event; corrective actions taken or planned; exposures received as a result of the event; and lessons learned.

2.5.5.2 Regulatory Guidance

No regulatory guidance has been developed in this area.

2.5.5.3 Regulatory Review Criteria

The staff should use the following regulatory review criteria or information demonstrating acceptable alternatives in its review of the incident investigation program. Acceptability should be based on the following:

1. The reviewer should expect to find commitments to the prompt investigation of abnormal events, including the following:

    a. The establishment of teams to investigate abnormal events that may occur during operation of the facility; determination of the direct, contributing, and root cause(s); and recommendation of corrective actions. These teams should be independent from the line function(s) involved with the incident under investigation.

    b. The monitoring and documenting of corrective actions, through completion.

    c. The maintenance of documentation so that “lessons learned” may be applied to future operations of the facility.

2. The assessment of the adequacy of the applicant’s commitments to establish and use a plan for the investigation of abnormal events will be based on the following acceptance criteria:

    a. The certificate holder has described the overall plan and method for investigating abnormal events.

    b. The functions, responsibilities, and scope of authority of investigating teams are documented in the plan.

    c. Qualified internal and/or external investigators are appointed to serve on investigating teams.

    d. Prompt investigation of any abnormal events is ensured.

e. The investigation process and investigating team are independent of the line management and participants are assured of no retribution for participating in investigations.

f. A reasonable, systematic, structured approach is used to determine the root cause(s) of unusual or abnormal events.

g. Auditable records and documentation related to abnormal events, investigations, and root cause analysis are required.

h. Documented corrective actions are taken to resolve findings from abnormal event investigations.

2.5.6 Evaluation Findings

The staff's review should verify that sufficient information has been provided in the application to satisfy the intent of requirements in 10 CFR 76.35, "Contents of Application," and 10 CFR 76.36, "Renewals," with respect to the incident investigation and that the information provided is consistent with the guidance in this SRP. On the basis of this information, the staff should be able to conclude that this evaluation is complete.

The staff could document the evaluation of the application as follows:

The staff has reviewed the incident investigation program for [name of facility], according to SRP Sections 2.5.3, 2.5.4, and 2.5.5. The applicant has committed to the investigation of abnormal events through the preparation of a plan and procedures outlining the function, responsibility, and scope of authority of the responsible management personnel and of the team members involved in the investigation of abnormal events. The applicant has demonstrated a commitment to each of the acceptance criteria of Section 2.5.4 of this SRP. [The reviewer should address each criterion in the Compliance Evaluation Report.]

On the basis of its review, the NRC staff has concluded that the incident investigation program is adequate to support the recertification.

2.5.7 Reference

Code of Federal Regulations, *Title 10, Energy,* Part 76, "Certification of Gaseous Diffusion Plants."

2.0 ORGANIZATION AND ADMINISTRATION
2.6 Records Management

2.6.1 Purpose of Review

The purpose of the review is to identify and determine that the applicant has established and maintains a facility records management system. The review should provide reasonable assurance that the applicant has committed to a system that adequately ensures the maintenance of records relating to the health and safety of the public and facility workers and the protection of the environment during the life span of the plant.

2.6.2 Responsibility for Review

Primary: Certification Project Manager

Secondary: Staff Reviewers for SRP Chapter 3.0

Supporting: None

2.6.3 Areas of Review

This section of the Standard Review Plan (SRP) is written to direct the review to areas related to the handling and storing of records documenting the health and safety aspects of the gaseous diffusion plants (GDPs) and the records generated or needed in the operation of the facility.

The processes used may be linked with a part of the facility configuration management and quality assurance (QA) systems. The primary reviewer should coordinate this review with the person(s) reviewing the Configuration Management and QA systems (SRP Section 2.8 and Chapter 3.0).

2.6.4 Review Procedures

2.6.4.1 Acceptance Review

The staff review should start with the primary reviewer's determination that sufficient information has been prvided in the contents of the application to satisfy the requirements in 10 CFR Part 76.35, "Contents of Application," and 10 CFR 76.36, "Renewals," with respect to records management for GDP facilities—see SRP Section 2.6.5.1, "Regulatory Requirements"—and that the topics discussed in SRP Section 2.6.3, "Areas of Review," have been addressed.

If significant deficiencies are identified in the application, the applicant should be requested to submit additional material before the staff resumes the application review.

2.6.4.2 Evaluation

A review should be conducted of the applicant's records management system to examine the adequacy of the policies, procedures, and practices. Examples of records that should be included in the system are listed in Appendix B. In general, the records management procedures should address the creation and verification of records; categorizing of records; indexing, inventorying, maintaining, and distributing of records; storage, retrieval, and disposal of records; and guidance for handling selected records and record types. Records should be categorized by relative safety importance to identify record protection and storage needs and to designate the retention period for individual kinds of records. Typically, storage media include paper, microforms, optical disks, magnetic media, and audiovisual media (including photographic film and prints). The procedures should assign responsibilities for records management; specify the authority needed for records retention or disposal; specify which records must have controlled access and provide the controls needed; provide for the protection of records from loss, tampering, or theft, or during an emergency; and specify procedures for ensuring that the records management system remains effective (that is, that deficiencies are discovered and corrected in a timely manner).

The staff should review the physical characteristics of the records storage area(s), as described in the application, to determine the area's ability to protect and preserve the records that are stored there during the mandated periods, including protecting the stored records from damage, deterioration, or theft, or during and after emergencies. Certain documents may be retained or stored at a site other than the plant (for example, master drawings for structures might be kept in the engineering department of the headquarters of the parent company). The reviewer should review the physical characteristics of these offsite record storage areas, as well.

The reviewer should examine the facility's method(s) for controlling the records management system. This includes generating or obtaining the necessary records and approving, verifying, categorizing, inventorying, maintaining, protecting against tampering or loss, storing, retrieving, distributing, and preserving them to assure retrievability and legibility during the designated retention period. For computer codes and computerized data relied upon for safety, the reviewer should examine the procedure(s) for maintaining readability and usability of older codes and data, as computing technology changes. This could include transcribing older forms of information (e.g., punched cards or paper tapes) and codes for older computing equipment to contemporary computing media and equipment.

The reviewer should examine the procedures for ensuring that the records management system remains effective (that deficiencies are discovered and corrected in a timely manner).

On the basis of its review, the staff may request that the applicant provide additional information or modify the submittal to meet the acceptance criteria in SRP Section 2.6.5.

The final step in the review is the primary staff reviewer's writing of a Compliance Evaluation Report (CER) that summarizes the conduct of the review, identifies what material in the application forms the basis for a finding of reasonable assurance with respect to the acceptance criteria, and presents the bases for certificate conditions that may be necessary to conclude that reasonable assurance is achieved.

2.6.5 Acceptance Criteria

The regulatory requirements, regulatory guidance, and regulatory review criteria applicable to this SRP are listed in the following sections.

2.6.5.1 Regulatory Requirements

A records management program is considered part of the management controls and oversight program required by 10 CFR 76.35(a)(7) and a necessary part of the QA program required in 10 CFR 76.35(d).

2.6.5.2 Regulatory Guidance

No regulatory guidance has been developed in this area.

2.6.5.3 Regulatory Review Criteria

The staff should use the following regulatory review criteria or information demonstrating acceptable alternatives in its review of the application. Acceptability should be based on the following:

1. The reviewer should expect to find in the certificate application a commitment to a records management system for records that are important to health, safety, and the protection of the environment, as follows:

   a. Records are specified, prepared, verified, characterized, and maintained.

   b. Records are legible, identifiable, and retrievable for their designated lifetimes.

   c. Records are protected against tampering, theft, loss, unauthorized access, damage, or deterioration for the time they are in storage.

   d. Procedures are established and documented specifying the requirements and responsibilities for record selection, verification, protection, transmittal, distribution, retention, maintenance, and disposition.

2. The staff should determine whether the applicant has a records management system that meets the requirements of regulations and guidelines for safe plant operation. A records

management system is acceptable if it is determined that implementation of the GDP records management system and procedures:

a. Ensures that the records management system remains effective in obtaining, validating, protecting, and storing information about the health and safety aspects of the GDP and its operations and can retrieve these records in readable form for the designated lifetime of the information.

b. Provides a records storage area(s) with the capability to protect and preserve records during the mandated periods, including protection of the stored records from loss, theft, or tampering, or during and after emergencies.

c. Ensures that any deficiencies in the records management system or its implementation will be detected and corrected in a timely manner.

2.6.6 Evaluation Findings

The staff's review should verify that sufficient information has been provided in the application to satisfy the intent of requirements in 10 CFR 76.35, "Contents of Application," and 10 CFR 76.36, "Renewals," with respect to the records management and that the information provided is consistent with the guidance in this SRP. On the basis of this information, the staff should be able to conclude that this evaluation is complete.

The staff could document the evaluation of the application as follows:

The staff has reviewed the applicant's records management system and concluded that there is reasonable assurance that the system will: (1) be effective in validating, protecting, and storing information about the health and safety aspects of the GDP and its operations and will be able to retrieve the information in readable form for the designated lifetimes of the records, (2) provide records storage area(s) with the capability to protect and preserve records that are stored there during the mandated periods, including protection of the stored records against loss, theft, or tampering or during and after emergencies, and (3) ensure that any deficiencies in the records management system or its implementation will be detected and corrected in a timely manner.

On the basis of its review, the NRC staff has concluded that the description of the records management system is adequate to support the recertification.

2.6.7 Reference

Code of Federal Regulations, *Title 10, Energy,* Part 76, "Certification of Gaseous Diffusion Plants."

2.0 ORGANIZATION AND ADMINISTRATION
2.7 Maintenance

2.7.1 Purpose of Review

An effective maintenance program directed to all items[3] relied upon for safety is essential to ensure the reliable, safe operation of the plant. The purpose of this review is to ensure that the applicant has committed to an adequate maintenance program that encompasses all items identified as being relied on for the safe operation of the plant.

2.7.2 Responsibility for Review

Primary: Certification Project Manager

Secondary: Site Representative

Supporting: Quality Assurance and Maintenance Reviewers

2.7.3 Areas of Review

The staff should establish that the applicant has addressed the task of identifying all items relied on for safety for inclusion in the maintenance program. These will include items of varying risk.

The staff should also verify that the applicant used an appropriate methodology for the assignment of risk significance to each item to be included in the maintenance program. The differing risk levels among safety features may warrant varying treatment of the features within the program.

The applicant's description of the maintenance program is reviewed to establish that there is reasonable assurance that items relied on for safety are available and will function when needed. The review should include the following components: (1) corrective maintenance, (2) preventive maintenance, and (3) surveillance (monitoring). Procedures, records, and training, as they apply to the maintenance of items relied on for safety, will be addressed in their respective Standard Review Plan (SRP) sections.

[3] Items include systems, structures, and components; materials (including consumable materials); parts; measuring and test equipment; computers; computer programs (software and firmware); etc., as appropriate.

2.7.4 Review Procedures

2.7.4.1 Acceptance Review

The staff review should start with the primary reviewer's determination that sufficient information has been provided in the contents of the application to satisfy the requirements in 10 CFR Part 76.35, "Contents of Application," and 10 CFR 76.36, "Renewals," with respect to maintenance for gaseous diffusion plant (GDP) facilities—see SRP Section 2.7.5.1, "Regulatory Requirements"—and that the topics discussed in SRP Section 2.7.3, "Areas of Review," have been addressed.

If significant deficiencies are identified in the application, the applicant should be requested to submit additional material before the staff resumes the application review.

2.7.4.2 Evaluation

The primary staff reviewer should review the maintenance program description with respect to each of the acceptance criteria in SRP Section 2.7.5. The review should determine if the applicant has adequately planned the work to be accomplished and whether necessary policies, procedures, and instructions either are in place or will be in place before work starts. The review should result in a determination that there is reasonable assurance that the applicant's maintenance, configuration management, and quality assurance (QA) programs are coordinated.

When an applicant's maintenance program references other sections of the application, the primary reviewer should review these other sections to ensure consistency with the applicant's selection of acceptance criteria and the proposed method for implementation.

The secondary staff reviewer should become familiar with the applicant's maintenance program and determine whether ongoing activities are in agreement with the program. Supporting staff reviewers should review the maintenance program to ensure there is no contradiction between the program and their primary review areas of the application. They should also ensure that the scope of the applicant's maintenance program includes the items relied upon for safety that are in their primary review areas of the application.

On the basis of its review, the staff may request that the applicant provide additional information or modify the submittal to meet the acceptance criteria in SRP Section 2.7.5.

The final step in the review is the primary staff reviewer's writing of a Compliance Evaluation Report (CER) that summarizes the conduct of the review, identifies what material in the application forms the basis for a finding of reasonable assurance with respect to the acceptance criteria, and presents the bases for certificate conditions that may be necessary to conclude that reasonable assurance is achieved.

2.7.5 Acceptance Criteria

The regulatory requirements, regulatory guidance, and regulatory review criteria applicable to this SRP are listed in the following sections.

2.7.5.1 Regulatory Requirements

Section 76.87 requires that the applicant establish Technical Safety Requirements (TSRs) including establishment of procedures and/or equipment to address maintenance. This requirement includes recordkeeping, surveillance, and administrative controls.

2.7.5.2 Regulatory Guidance

No regulatory guidance has been developed in this area.

2.7.5.3 Regulatory Review Criteria

The staff should use the following regulatory review criteria or information demonstrating acceptable alternatives in its review of the application. Acceptability should be based on the following:

1. The maintenance program is acceptable if it includes corrective maintenance, scheduled preventive maintenance, and surveillance for the items that are relied upon for safety.

2. The set of items selected for inclusion in the maintenance program will be acceptable if it includes at least those relied upon for safety to prevent or mitigate accident sequences. The scope of the maintenance program includes items that contribute to one or more of the following functions:

   a. Items that ensure the containment of licensed material within a process.

   b. Items that prevent or mitigate the consequences of accident sequences.

   c. Items specified in plant emergency operating procedures or emergency plans.

   d. Items that are required to assure the availability or reliability of a safety function, as defined in Criteria 2a–c, above.

   In general, items that do not meet Criterion a–d (items that are not relied on for safety), are outside the scope of the required maintenance program.

3. The applicant's selection and description of the method(s) used to establish the risk significance of the items selected for inclusion in the program are acceptable if the method is systematic and documented and/or has been approved by the U.S. Nuclear Regulatory Commission (NRC).

4. The applicant's description of the method used to establish the performance objectives and criteria for each item relied on for safety and the levels used in the maintenance program are acceptable if the performance objectives and criteria are stated in terms of availability, reliability, or condition for the particular item and are established at the structure, system, or component level and if criteria are established commensurate with the safety feature risk significance.

5. The applicant's description of the maintenance program is acceptable if the following essential components are committed to:

   a. Corrective Maintenance: The applicant has a systematic, controlled organization for repair and replacement activities to correct identified failures of items relied upon for safety. The history of identified failures should be used as input into determining the surveillance and preventive maintenance schedules.

   b. Preventive Maintenance: There should be evidence of and commitment to the organization and conduct of preplanned and scheduled periodic refurbishing, partial or complete overhaul, or requalification for the purpose of ensuring that unplanned failure of selected items relied upon for safety do not occur. This activity should be designed, in part, using the results of the surveillance component of the maintenance program. Instrumentation calibration and testing should be addressed by the applicant as part of the maintenance program. The applicant should describe how the program will be designed to ensure that the objective of preventing failures through maintenance is appropriately balanced against the objective of minimizing unavailability of items relied upon for safety because of monitoring or preventive maintenance.

   c. Surveillance (Monitoring): There should be evidence of and commitment to the organization and conduct of periodic surveillance to measure the degree to which engineered and human performance of safety functions meet performance specifications. This activity should be used, in part, to design the preventive maintenance function for specific safety features and to provide an instantaneous verification of the availability of the tested safety function. This activity should also be used to determine performance trends for items.

6. The applicant's maintenance program is acceptable if there is a commitment to the following actions regarding the design and conduct of preventive maintenance, corrective maintenance, and surveillance.

   a. Premaintenance reviews of the work to be performed, including procedure reviews for accuracy and completeness.

   b. Premaintenance and surveillance reviews of training, including scope related to work to be performed.

   c. Notification of, and return confirmation by, all affected operators and supervisors of the maintenance to be performed and its potential effects on ongoing operations. In

addition, notification and confirmation are performed after completion of the planned maintenance and restoration of the affected equipment to service.

d. Records showing a history of failures, the preventive maintenance schedule and activities, and the current surveillance schedule, performance criteria, and test results for all items relied on for safety should be maintained by the applicant consistent with Section 2.6 of this SRP.

e. Control of work by comprehensive procedures to be followed by maintenance and surveillance technicians. The procedures should be controlled within the QA and configuration management programs and should address, at a minimum, the following:

   (1) Qualifications of personnel authorized to perform the maintenance or surveillance.

   (2) Controls on and specification of any replacement items to be used (this should be controlled by the configuration management program treatment of the procedure).

   (3) Post-maintenance testing to be done to verify operability of the equipment affected by the procedure.

   (4) Requirements for notification and documenting the results of the procedure.

2.7.6 Evaluation Findings

The staff's review should verify that sufficient information has been provided in the application to satisfy the intent of requirements of 10 CFR 76.35, "Contents of Application," and 10 CFR 76.36, "Renewals," with respect to maintenance and that the information provided is consistent with the guidance in this SRP. On the basis of this information, the staff should be able to conclude that this evaluation is complete.

The staff could document the evaluation of the application as follows:

The staff has reviewed the maintenance program for [name of facility] according to SRP Sections 2.7.3, 2.7.4, and 2.7.5. The applicant has suitably described and committed to the maintenance program for items relied on for safety in the certificate application. The maintenance program contains the basic components of corrective maintenance, preventive maintenance, and surveillance, and ensures the items relied on for safety are capable of fulfilling their intended functions. The program is proactive, using maintenance records to analyze equipment performance and seeking the root causes of repetitive failures.

In addition, the applicant's maintenance program: (1) is based on approved procedures, (2) employs work control methods that properly consider personnel safety, awareness of facility operating groups, QA, and the rules of configuration management, (3) links components and systems requiring maintenance to risk significance, (4) justifies the

preventive maintenance and surveillance intervals in the terms of equipment reliability goals, and (5) creates documentation that includes detailed records of all maintenance and surveillance activities.

On the basis of its review, the NRC staff has concluded that the maintenance program description is adequate to support the recertification.

2.7.7 Reference

Code of Federal Regulations, *Title 10, Energy,* Part 76, “Certification of Gaseous Diffusion Plants.”

2.0 ORGANIZATION AND ADMINISTRATION
2.8 Configuration Management

2.8.1 Purpose of Review

The review is conducted to ensure that the applicant has implemented an acceptable configuration management (CM) program. The CM program is meant to establish consistency among design requirements, physical configuration, and facility documentation, and to maintain this consistency throughout the operational life of the facility, particularly as changes are being made. The facility documentation, which includes as-built drawings and operating procedures, should accurately reflect both the physical configuration and the design requirements. Changes to design requirements should be reflected in both the physical configuration and the facility documentation. Changes to either the facility physical configuration or facility documentation should also be supported by the design requirements.

2.8.2 Responsibility for Review

Primary: Certification Project Manager

Secondary: Quality Assurance Reviewer

Supporting: Site Representative

2.8.3 Areas of Review

The staff will review the applicant's submittal to ensure that an acceptable CM program is in place and to ensure that changes from a prior approved plant baseline configuration are managed so as to preclude inadvertent degradation of safety or safeguards. The CM program should include descriptions of the organizational structure responsible for CM activities, and the process, procedures, and documentation required by the applicant for modifying the site, structures, systems, and components (SSCs) that are relied on for safety or safeguards. Specific elements to be presented are the development and installation of modifications; the training of affected staff; revision and distribution of operating, test, calibration, surveillance, and maintenance procedures and drawings; selection and control of replacement parts; post-modification testing; and readiness review.

2.8.4 Review Procedures

2.8.4.1 Acceptance Review

The staff review should start with the primary reviewer's determination that sufficient information has been provided in the contents of the application to satisfy the requirements in 10 CFR Part 76.35, "Contents of Application," and 10 CFR 76.36, "Renewals," with respect to configuration management for gaseous diffusion plant (GDP) facilities—see SRP Section 2.8.5.1, "Regulatory Requirements"—and that the topics discussed in SRP Section 2.8.3, "Areas of Review," have been addressed.

If significant deficiencies are identified in the application, the applicant should be requested to submit additional material before the staff resumes the application review.

2.8.4.2 Evaluation

The primary reviewer should review the CM information and descriptions for completeness against the acceptance criteria in SRP Section 2.8.5.3. The review should determine that the applicant has committed to a formal CM system for establishing design bases and for reviewing proposed changes to SSCs, procedures, and processes that may impact systems relied on for safety.

The reviewer should be able to find, for systems important to safety, a description of how the plant design requirements and design basis were established and documented, and that the CM program controls the design requirements, the physical configuration, and the facility documentation. The reviewer should also be able to determine the scope of the SSCs captured in the design basis and the specific SSCs included in the CM program. The reviewer should determine, with reasonable assurance, that the CM program will ensure that the physical configuration will accurately mirror the design requirements, and that the facility documentation will accurately reflect both. Maintaining these relationships is particularly important when making changes. The reviewer should be able to identify these basic parts in the applicant's submittal.

The reviewer should ensure that the applicant has described a comprehensive CM function based on the five elements discussed in the acceptance criteria (Section 2.8.5.3) of this Standard Review Plan (SRP). Review activities for each element are discussed in the following:

1. Program Management

   The primary reviewer should ensure that the CM program plan states the objectives, management commitments, expected safety benefits, gives the policy directive and program elements, and defines key responsibilities, CM organizational structure, terminology, and equipment scope. The method for initiating immediate corrective actions should be examined. Appropriate interfaces both within the CM program and with external organizations and functions should be examined. In particular, the functional interfaces

with quality assurance (QA), maintenance, and training (including qualification) need to be examined in detail. The reviewer should look for the applicant's identification of required databases and the procedures for their maintenance. The reviewer should examine implementing procedures for the CM program.

2. Control of Items Relating to Technical Safety Requirements (TSRs) and the Safety Analysis Report (SAR)

   The primary reviewer, with support from the secondary reviewer, should be satisfied that a specific group is assigned the responsibility for maintaining the TSR and the SAR. The reviewer should verify that the SSCs to be listed under CM are clearly defined in the requirements documents, along with the assignment of any grades or quality levels. The grades or quality levels, if any, should be based on the qualitative risk assigned to each safety-related function.

3. Document Control Systems

   The primary reviewer should evaluate the applicant's material showing that the CM system will capture documents that are relevant to and relied on for safety. This should include as-built drawings, specifications, all safety-important operating procedures, procedures involving training, QA, maintenance, audits and assessments, emergency operating procedures, emergency response plans, system modification documents, assessment reports, and others, as necessary. The reviewer should determine that a controlled document database is used to control documents and track document change status including the identification, storage, control, distribution, tracking, and retrieval of documents. Rules of storage for originals or master copies of documents within the CM program should follow the guidance discussed in SRP Section 2.6, "Records Management."

4. Change Control

   The primary reviewer should assure that the description of change control within the CM function is sufficient to ensure that methods are in place for: (a) the identification of changes in configurations relied on for safety; (b) technical and management review of changes; (c) tracking and implementing changes, including placement of documentation in a document control center and distribution to affected functions such as training, design, operations, maintenance, and QA; and (d) post-modification testing of hardware (or procedure drills or walk-throughs).

5. Assessments

   The primary reviewer, with assistance from the supporting reviewer, should ensure that both program assessments and physical assessments (system walkdowns) will be conducted periodically to check the CM function. The reviewers should ensure that all assessments and follow-ups are documented. These reports can provide the basis of future changes. The reviewers should assure that assessments will include reviews of safety systems from design requirements through implementation.

On the basis of its review, the staff may request that the applicant provide additional information or modify the submittal to meet the acceptance criteria in SRP Section 2.8.5.

The final step in the review is the primary staff reviewer's writing of a Compliance Evaluation Report (CER) that summarizes the conduct of the review, identifies what material in the application forms the basis for a finding or reasonable assurance with respect to the acceptance criteria, and presents the bases for certificate conditions that may be necessary to conclude that reasonable assurance is achieved.

2.8.5 Acceptance Criteria

The regulatory requirements, regulatory guidance, and regulatory review criteria applicable to this SRP are listed in the following sections.

2.8.5.1 Regulatory Requirements

1. Section 76.35(a)(7) requires that the application include a description of the management controls and oversight program to ensure that activities directly relevant to nuclear safety and safeguards and security are conducted in an appropriately controlled manner that ensures protection of employee and public health and safety and protection of national security interests.

2. Section 76.68 describes the requirements for making changes to the plant or to the plant's operations, as described in the SAR, without prior Commission approval.

2.8.5.2 Regulatory Guidance

No regulatory guidance has been developed in this area.

2.8.5.3 Regulatory Review Criteria

The staff should use the following regulatory review criteria or information demonstrating acceptable alternatives in its review of the application. Acceptability should be based on the following:

1. Program Management

   The applicant's description of CM program management functions contains at least the following topics: (a) the scope of the SSCs to be included in the CM program; (b) objectives of each program activity; (c) description of each program activity; and (d) organizational structure and staffing interfaces. The functional interfaces with QA, maintenance, training, and qualification are of particular importance and should also be addressed individually.

Organization and Administration

2. Control of Items Relating to the TSRs and the SAR

   The applicant demonstrates that the TSRs and the SAR have been established and are maintained by an appropriate organizational unit. The applicant demonstrates that the TSR and SAR are kept current and that suitable hazard/accident analysis methods, including controlled computer codes, if used, are available and are properly used to evaluate safety margins of proposed changes. Technical management review and approval procedures are described. The specific SSCs included in the CM program are identified.

3. Document Control

   The applicant describes the method used to establish and control documents within the CM program, including cataloging of the document database, document maintenance, and document distribution.

. Change Control

   The applicant demonstrates that the CM program maintains strict consistency among the design requirements, the physical configuration, and the facility documentation. The applicant maintains procedures for identifying proposed changes, performing appropriate technical and safety reviews of proposed changes, and approving, implementing, and documenting changes.

5. Assessments

   The applicant confirms that assessments, including initial and periodic examinations of the CM system, are conducted to determine the program's effectiveness and to correct deficiencies.

2.8.6 Evaluation Findings

The staff's review should verify that sufficient information has been provided in the application to satisfy the intent of requirements in 10 CFR 76.35, "Contents of Application," and 10 CFR 76.36, "Renewal," with respect to CM and that the information provided is consistent with the guidance in this SRP. On the basis of this information, the staff should be able to conclude that this evaluation is complete.

The staff could document the evaluation of the application as follows:

The staff has reviewed the configuration management (CM) systems for [name of facility] according to SRP Sections 2.8.3, 2.8.4. and 2.8.5. The applicant has suitably described its commitment to its proposed CM system, including the method for managing changes in procedures, facilities, and equipment for systems relied on for safety. Administrative controls, including an analysis and independent safety review of any proposed activity

regarding systems relied on for safety, are described that will ensure that the relationship between design requirements, physical configuration, and facility documentation is maintained as part of the new activity or change in an existing activity involving licensed material. The administrative control includes the following elements of CM:

1. *Program Management: The organizational structure, procedures, and responsibilities necessary to implement CM are in place or documented;*

2. *Control of Items Relating to TSRs and the SAR: The TSRs and the SAR are documented and supported by analyses and the documentation is kept current;*

3. *Document Control: Documents, including drawings, are appropriately stored and accessible. The set of drawings and related documents adequately describe systems important to safety;*

4. *Change Control: Responsibilities and procedures adequately describe the strict consistency among the design requirements, the physical configuration, and the facility documentation. Methods are in place for suitable analysis, review, approval, and implementation of identified changes to systems important to safety. This includes periodic equipment performance monitoring and post-modification testing of hardware or procedure drills;*

5. *Assessments: Methods or plans are in place to perform initial and periodic examination of the effectiveness of the CM system itself. In the case of existing facilities, assessments and follow-up reports of corrective actions are documented.*

On the basis of its review, the NRC staff has concluded that the description of the configuration management program is acceptable to support the recertification.

2.8.7 Reference

Code of Federal Regulations, *Title 10, Energy,* Part 76, “Certification of Gaseous Diffusion Plants.”