

PTI Unbonded Tendon Plant Certification
Program

Quality Management System Manual

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1.0 INTRODUCTION

The Post-Tensioning Institute (PTI) program for Certification of Plants Producing Unbonded Single Strand Tendons has been developed to provide independent certification of a plant's extrusion and/or fabrication capability to produce standard and/or encapsulated unbonded single strand tendons. This certification program also includes evaluation of calibration practices for jacks and gauges used for stressing single strand tendons. The program is applicable to all facilities whether fixed or mobile.

The certification of a plant under this program indicates that the plant and the personnel are capable of producing unbonded single strand tendons in conformance with the Post-Tensioning Institute Specification for Unbonded Single Strand Tendons, latest edition, or as specified in contract document(s) for specific project(s).

2.0 QUALITY POLICY STATEMENT

The Post-Tensioning Institute is recognized as the world-wide authority on post-tensioning. PTI is dedicated to expanding post-tensioning applications through marketing, education, research, teamwork, and code development while advancing the quality, safety, efficiency, profitability, and use of post-tensioning systems. Members of the Institute include major post-tensioning materials fabricators, manufacturers of prestressing materials, and companies supplying materials, services and equipment used in post-tensioned construction. In addition, PTI has more than 500 professional members which include engineers, architects, inspectors, building code officials and educators.

One of the goals of the Institute is to ensure that specifiers and purchasers of post-tensioning materials receive products and services which meet a recognized standard of quality. Working toward this goal, PTI has established a certification programs both for manufacturing plants and for field personnel. One such program is for the Certification of Plants Producing Unbonded Single Strand Tendons (hereafter referred to as the Unbonded Tendon Plant Certification Program.)

PTI has established a Quality Management System (QMS) as set forth in this manual to ensure the quality of the Unbonded Tendon Plant Certification Program. Specific objectives of the QMS are as follows:

- Ensure that program is fair, impartial and non-discriminatory to all stakeholders
- Ensure that program conforms with ANSI, ISO and other relevant certification standards
- Ensure that program conforms to the PTI By-Laws and established Certification Committee procedures.
- Facilitate continuous improvement of the program

3.0 DESCRIPTION OF LEGAL STATUS

PTI was established and incorporated as a 501 c(6) non-profit trade association in the state of Illinois, April 1976. PTI's office is currently located at:

38800 Country Club Drive

Farmington Hills, MI 48331

Phone: (248) 848-3180

Fax: (248) 848-3181

4.0 PTI ORGANIZATION

The bulk of PTI's work is done through its various committees comprised of volunteer members. Currently, PTI committees are listed at <https://www.post-tensioning.org/committees/committeedirectory.aspx> and shown on the organizational charts (Figures 1 – 4) on the following pages. The Board-Level committees report directly to the PTI Board of Directors and are generally responsible for setting the direction and policy of PTI's financial, technical, membership, marketing and certification activities. The lines of authority for staff are shown in Figures 5-7.

PTI technical committees report to the Technical Advisory Board (TAB) and are responsible for developing technical guidance, recommended practices and standards for the design, construction, maintenance and repair/rehabilitation of post-tensioned concrete structures.

PTI's certification committees report to the Certification Advisory Board (CAB) and are responsible for the development, implementation and oversight of PTI's various plant and personnel certification programs.

5.0 CERTIFICATION OF PLANTS PRODUCING UNBONDED SINGLE STRAND TENDONS

The organization and management structure for the Unbonded Tendon Plant Certification Program is comprised of several parts: the Unbonded Tendon Plant Certification Committee, the Certification Advisory Board, the PTI Board of Directors, staff and third party contractors (Independent Inspection Agency.) as shown in Figure 8.

5.1 TERMS OF REFERENCE

The Unbonded Tendon Plant Certification program was first authorized by the PTI Board of Directors in 1989. The Board re-affirmed this authorization in accordance with the requirements outlined in this manual in the PTI By-Laws originally approved October 7, 2011. Visit <https://www.post-tensioning.org/membership/memberresources/by-laws.aspx> for the current version of the PTI By-Laws. The aforementioned management structure and organization was also established by the PTI By-Laws.

PTI Board Level Committees (2021)

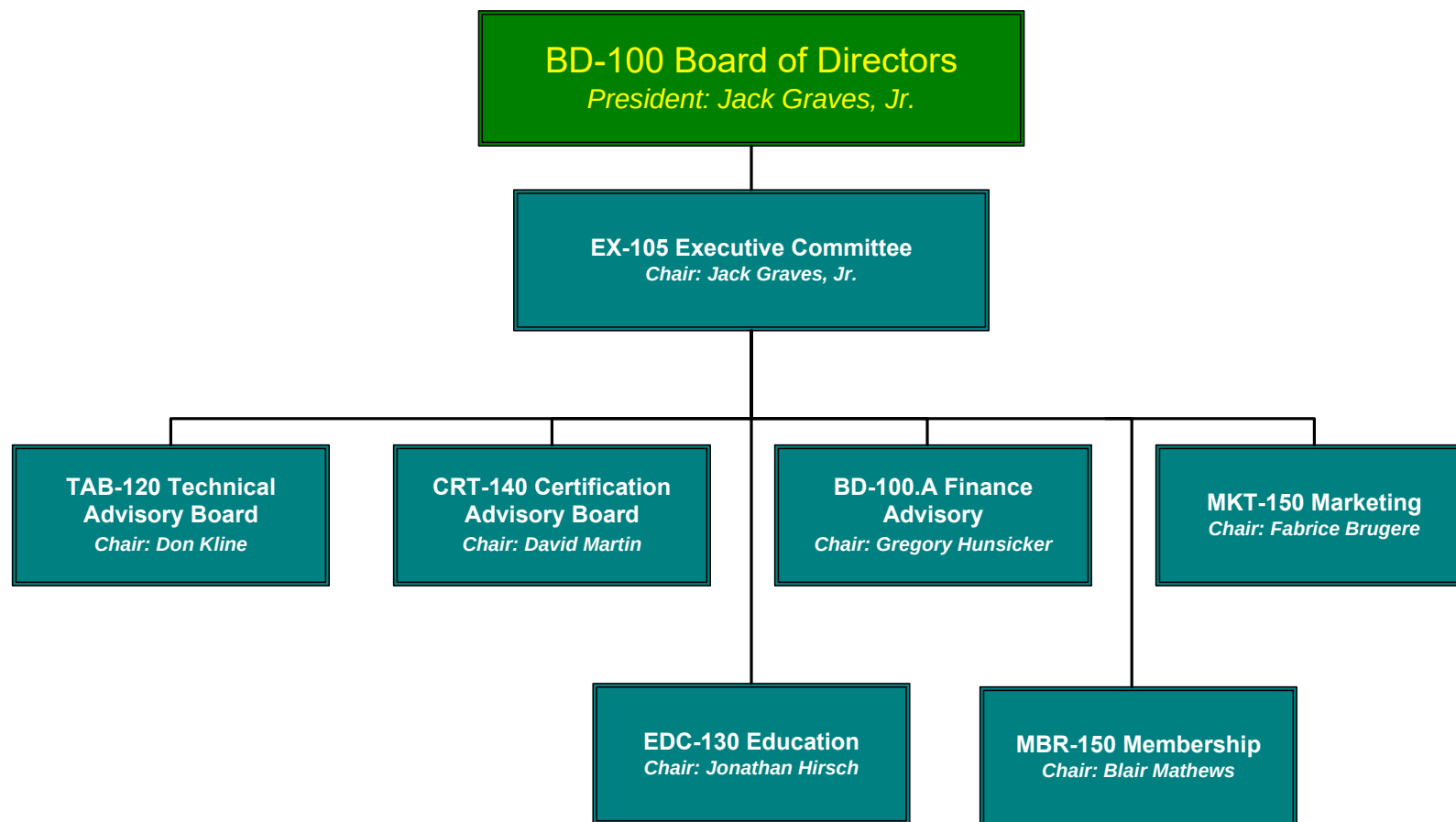


Fig. 1—PTI Board Level Committees.

Green = **Future Committee**

PTI Technical Committees

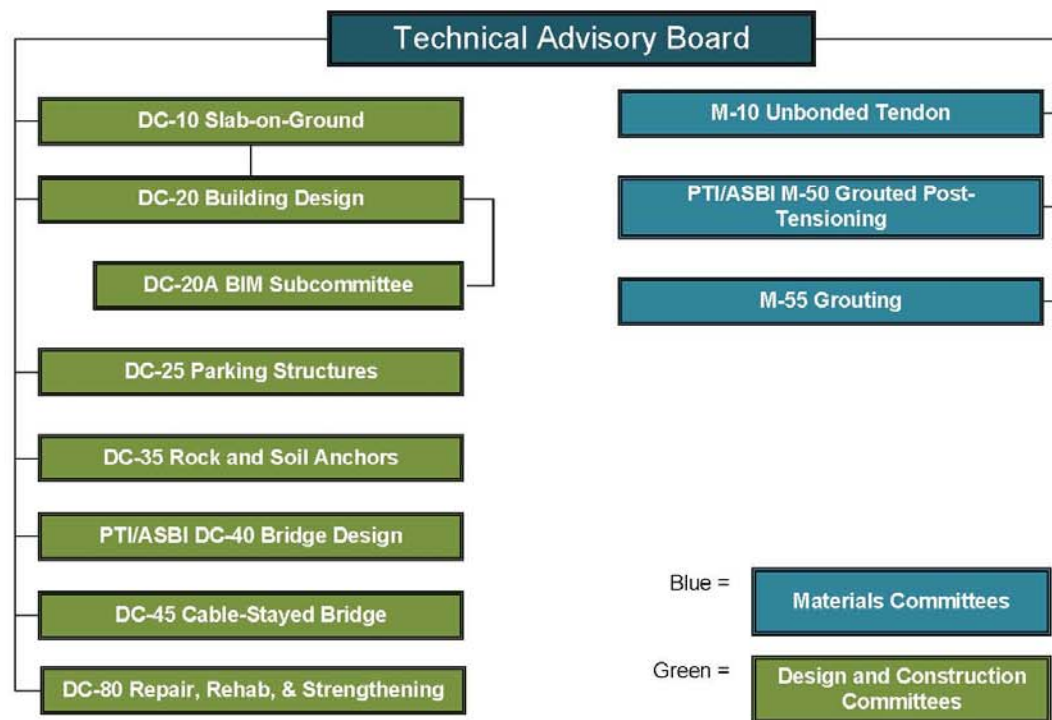


Fig. 2—PTI Technical Committees.

PTI Certification Committees

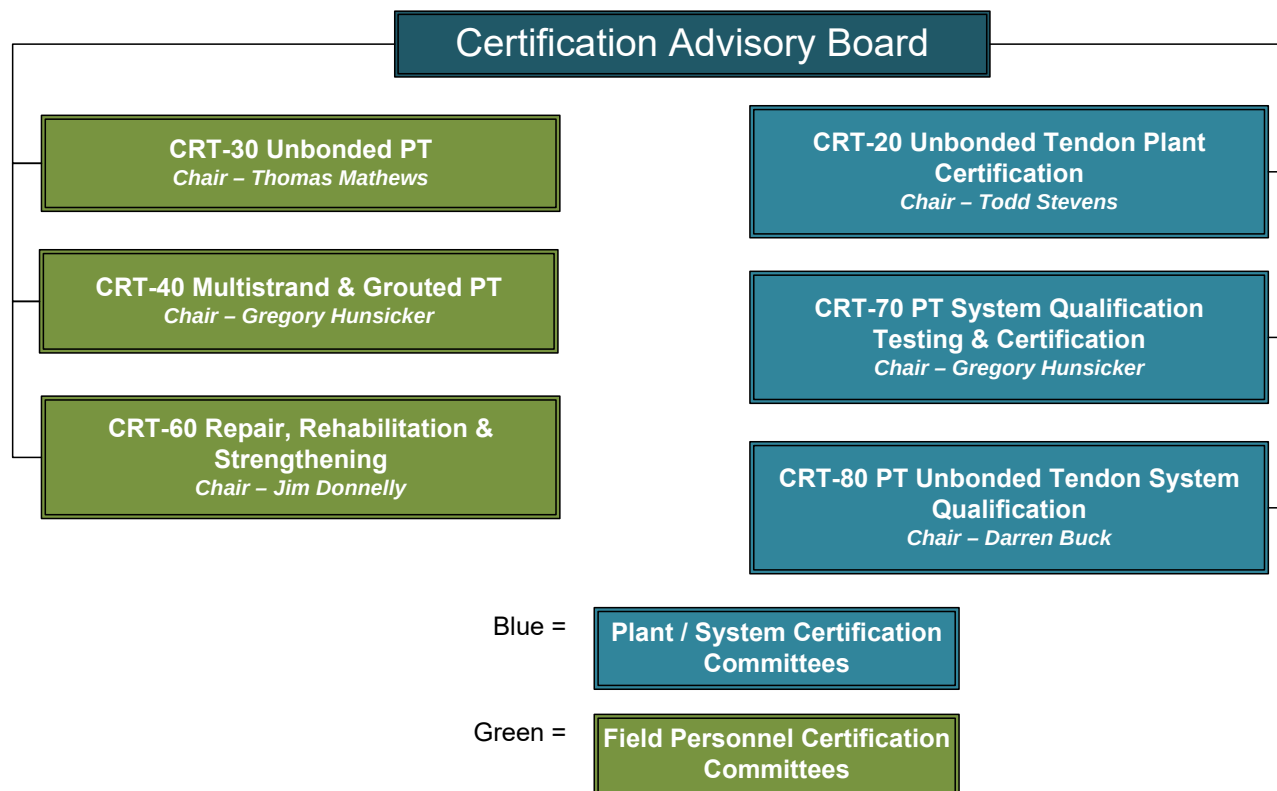


Fig. 3—PTI Certification Committees.

CRT-20 Unbonded Tendon Plant Certification Committee

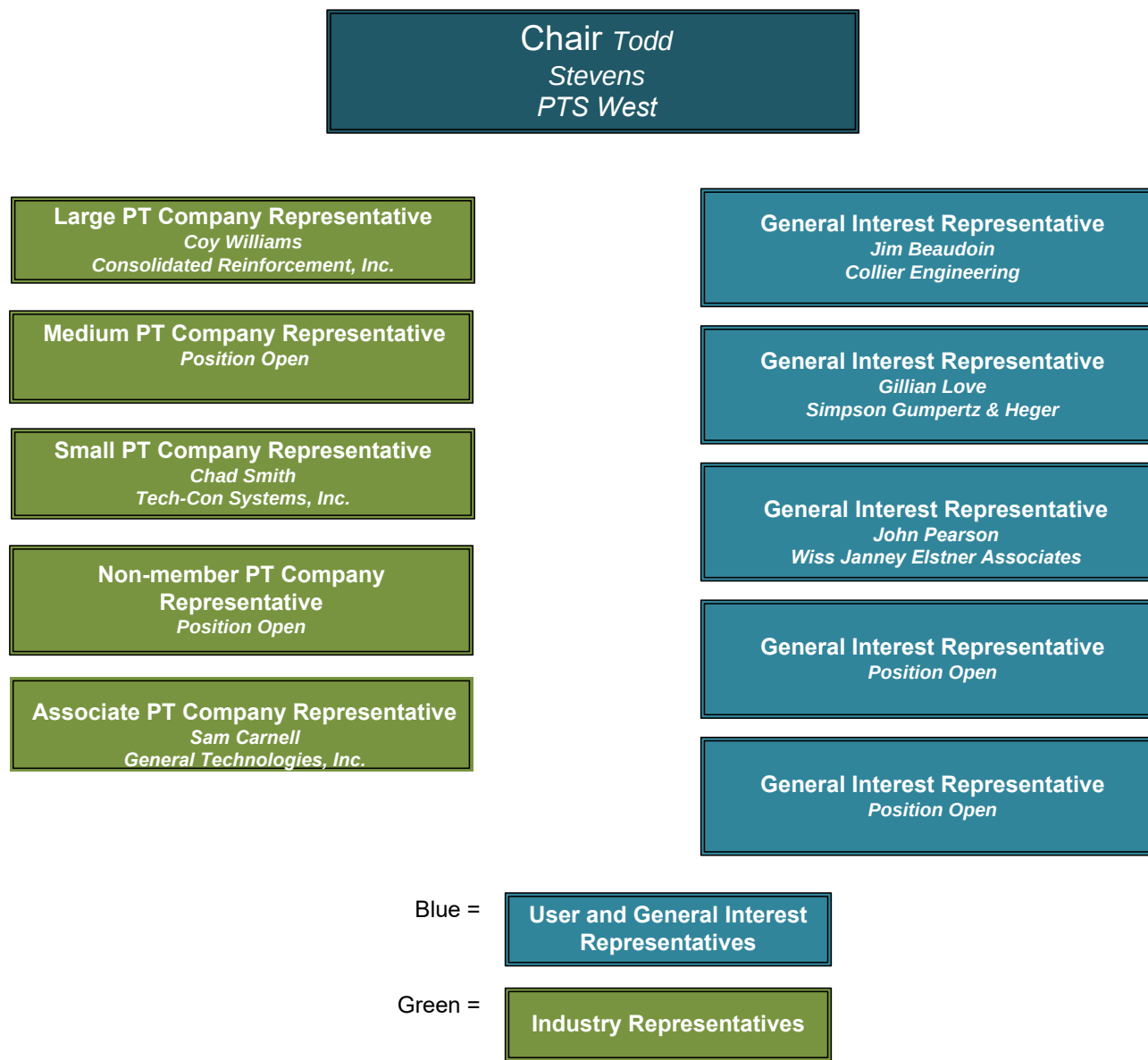


Fig. 4—Unbonded Tendon Plant Certification Committee.

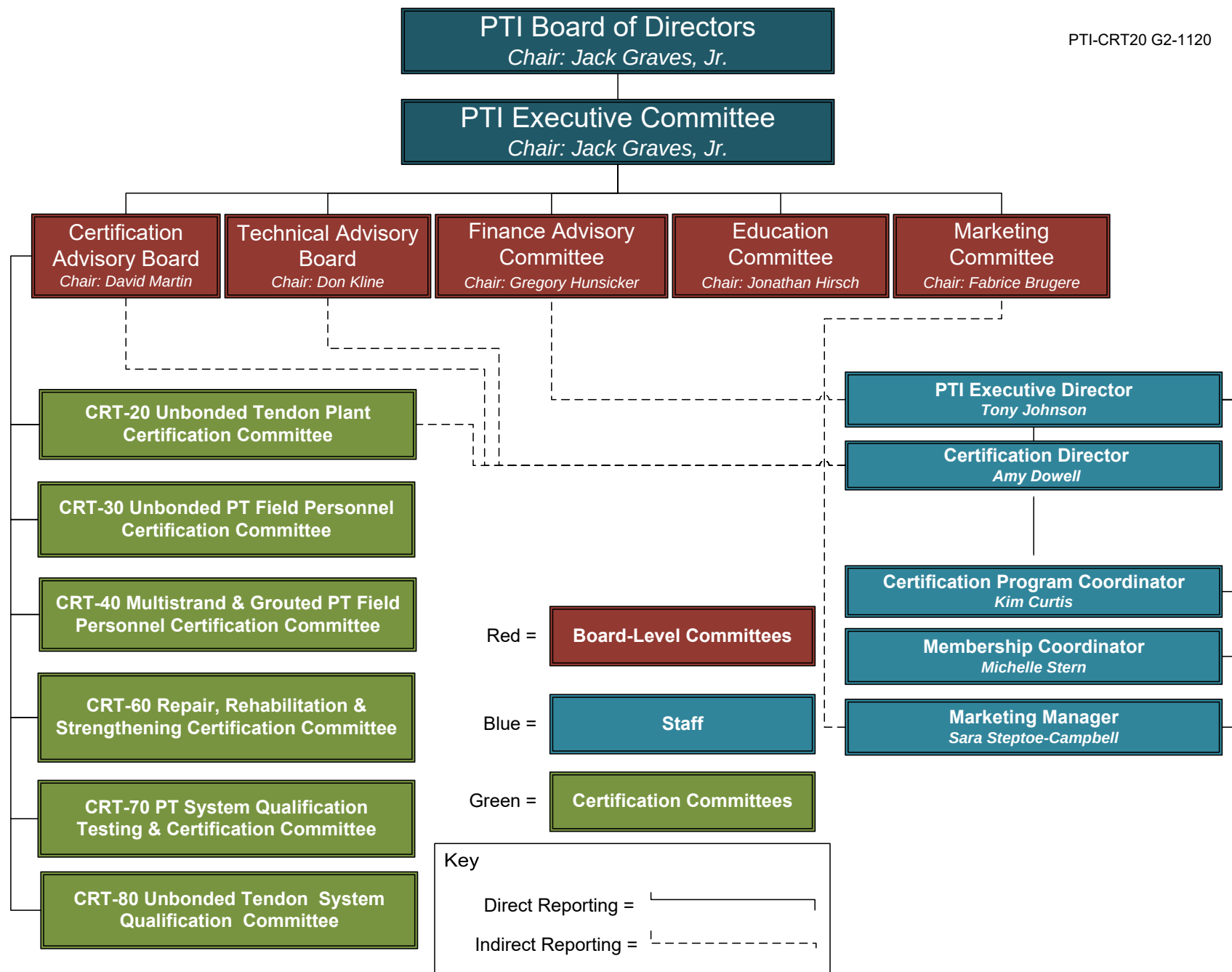


Fig. 5—Lines of Authority: Board Level and Certification Committees.

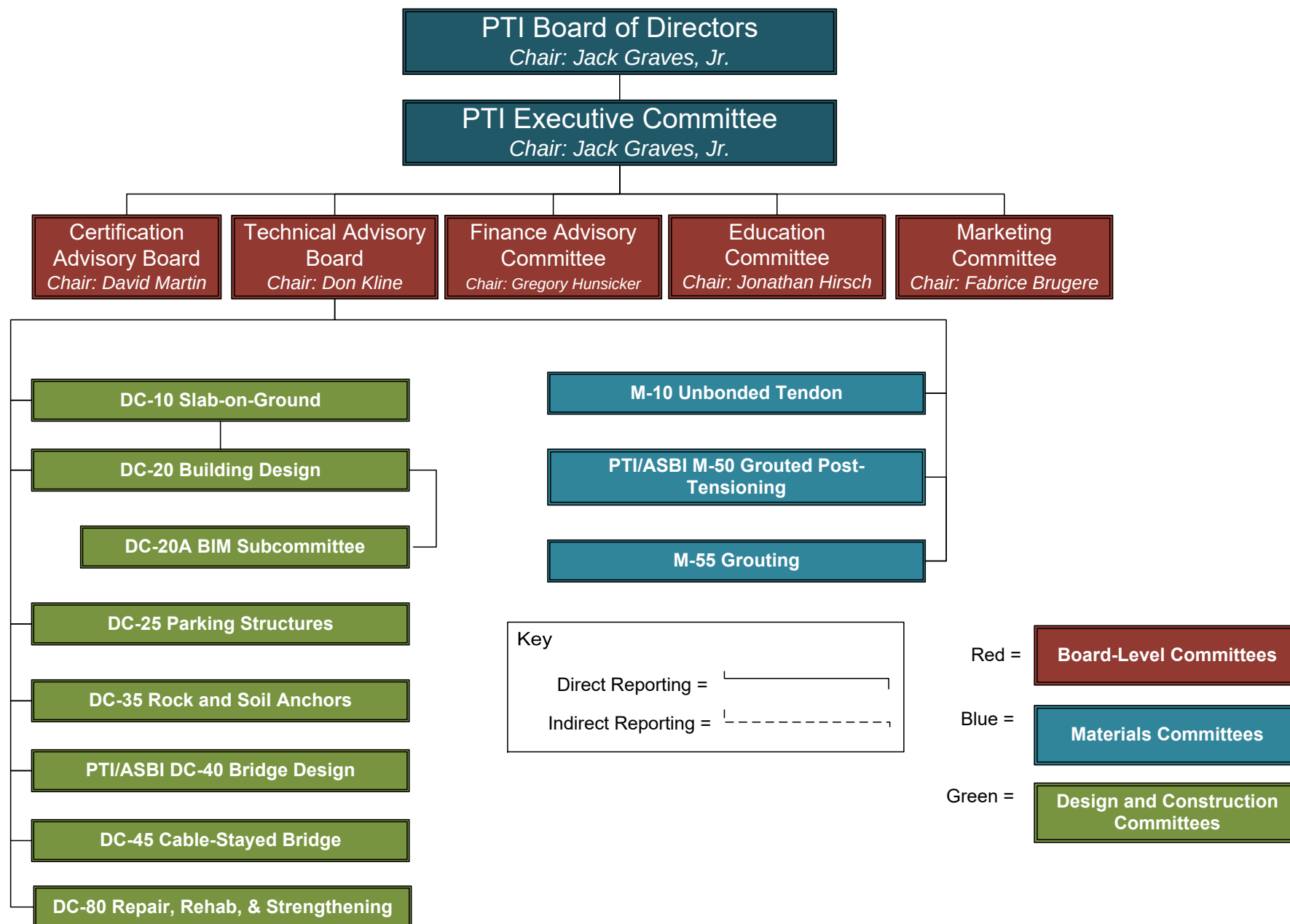


Fig. 6—Lines of Authority: Board-Level and Technical Committees.

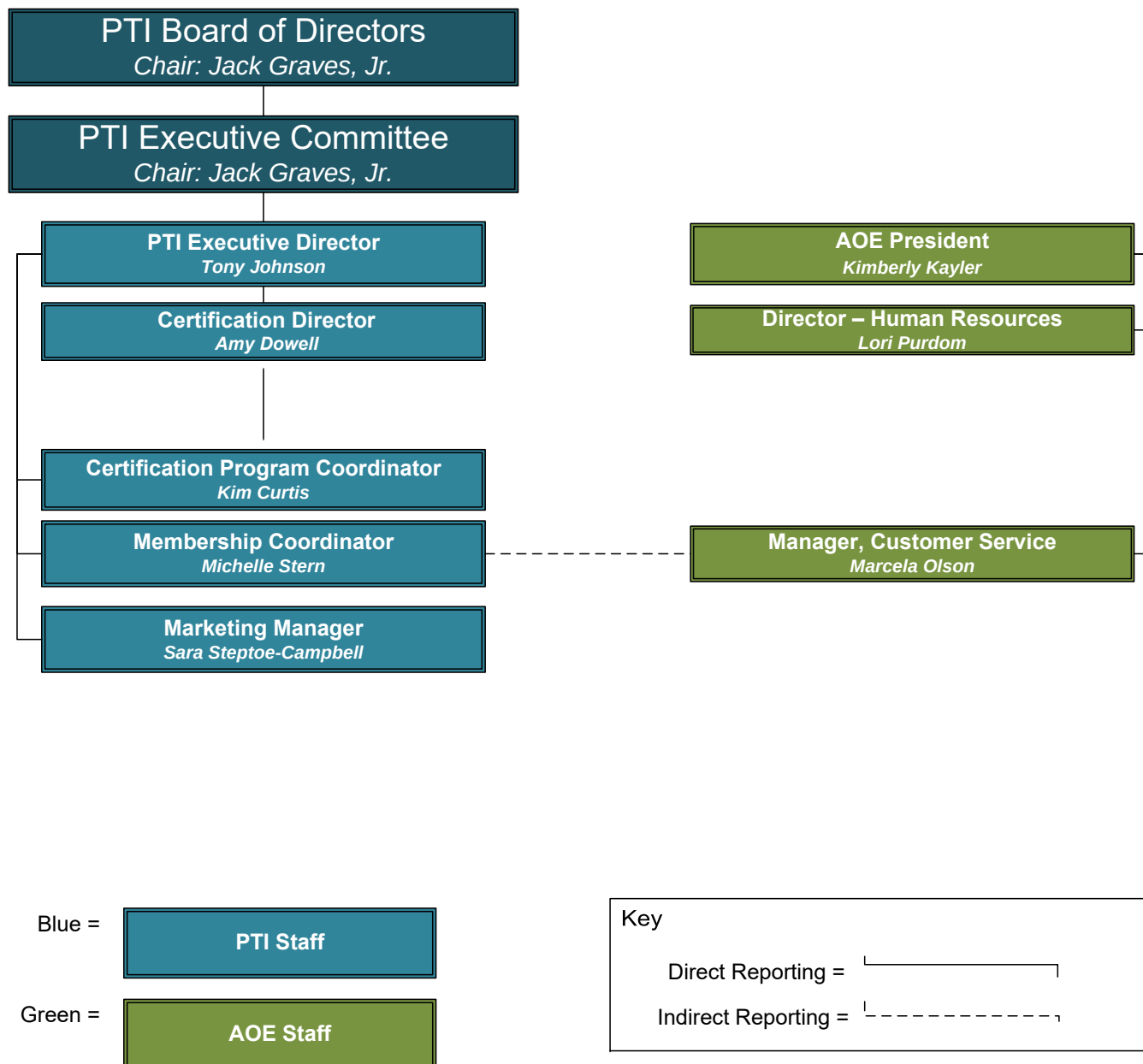


Fig. 7—Lines of Authority: PTI & AOE Staff.

PTI Unbonded Tendon Plant Certification Program
Management Organization

Management Responsibilities

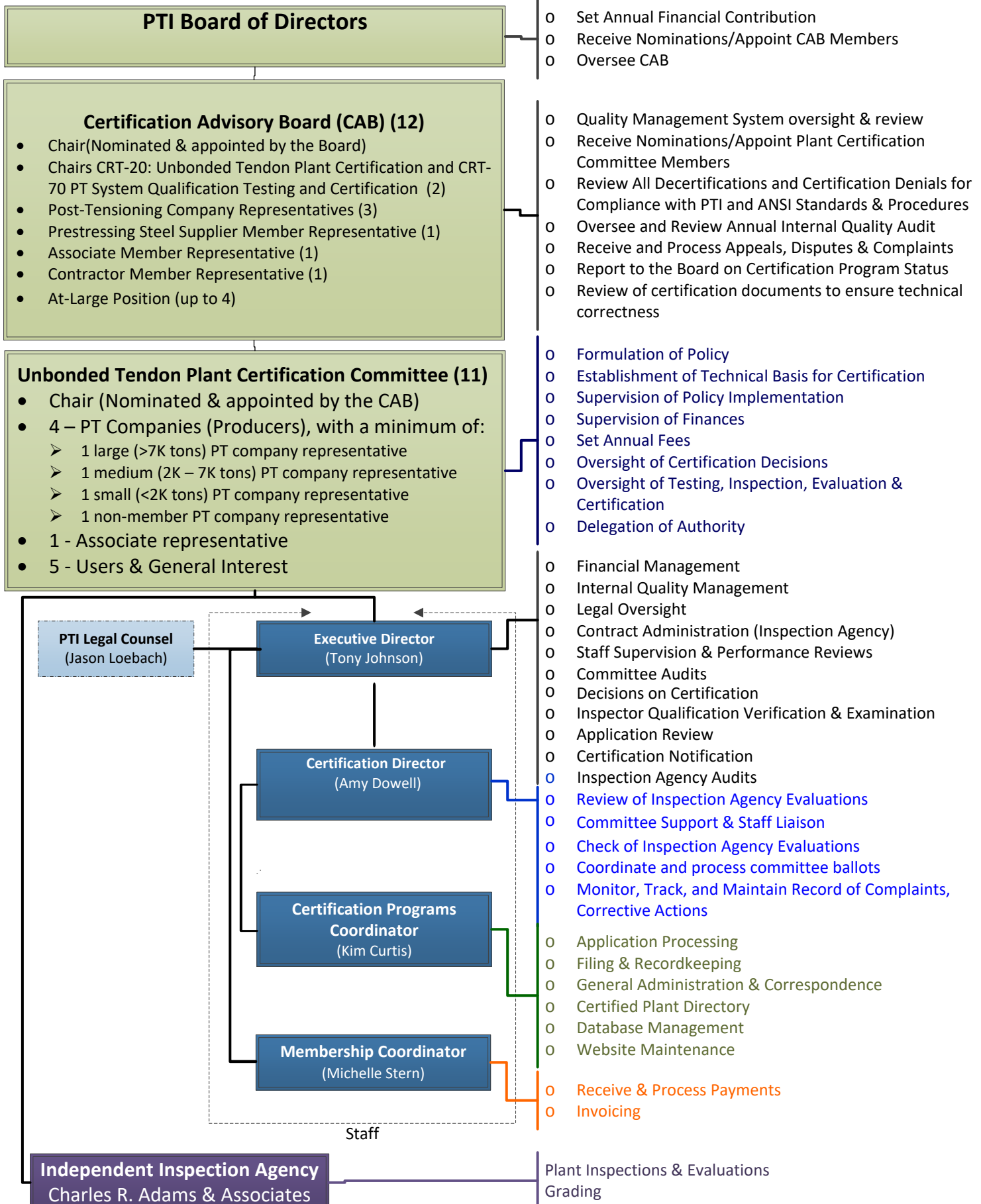


Fig. 8-Certification Management Responsibilities.

5.2 MANAGEMENT STRUCTURE AND ORGANIZATION

5.2.1 Certification Program Personnel

5.2.1.1 General

5.2.1.1.1 PTI shall employ, or have access to, a sufficient number of personnel to cover its operations related to the UTPC Certification Program and to the applicable standards and other normative documents. The personnel include employees and committee members, as well as persons working under an individual contract or a formal agreement that places them within the management control and systems/procedures of the UTPC Certification Program.

5.2.1.1.2 The personnel shall be competent for the functions they perform, including making required technical judgments, defining policies and implementing them. Personnel, including any committee members, personnel of external bodies, or personnel acting on the certification body's behalf, shall keep confidential all information obtained or created during the performance of the certification activities, except as required by law or by the certification scheme.

5.2.1.1.3 The personnel shall not be used to review or make a certification decision for a product for which they have provided consultancy for a period of two years after they have provided such consultancy.

5.2.1.2 Management of competence for personnel involved in the certification process

5.2.1.2.1 The UTPC Committee shall implement and maintain the procedure for management of competencies of personnel involved in the certification process as set forth in Appendix I. The procedure shall require the UTPC Committee to annually:

- a) Review and update as needed the criteria for the competence of personnel for each function in the certification process, taking into account the requirements of the UTPC program;
- b) Identify training needs and provide, as necessary, training programs on certification processes, requirements, methodologies, activities and other relevant certification requirements;
- c) Demonstrate that the personnel have the required competencies for the duties and responsibilities they undertake;
- d) Formally authorize personnel for functions in the certification process;
- e) Monitor the performance of the personnel.

5.2.1.2.2 PTI shall maintain the following records on the personnel involved in the certification process:

- a) Name and address;
- b) Employer(s) and position held (entire work resume of the individual);

- c) Educational qualification and professional status;
- d) Experience and training;
- e) The assessment of competence;
- f) Performance monitoring;
- g) Authorizations for functions held within the certification program;
- h) Date of most recent updating of each record.

5.2.2 PTI CRT-20 Unbonded Tendon Plant Certification Committee (UTPC Committee)

The Unbonded Tendon Plant Certification Committee (UTPC Committee) is the management group that is responsible for decisions relating to the granting, maintaining, extending, suspending and withdrawing of certification for facilities that fabricate unbonded, single strand post-tensioning tendons. The UTPC Committee has overall responsibility for the following:

- Performance of the testing, inspection and evaluation as defined in the Unbonded Single Strand Tendon Plant Certification Manual.
- Formulation of policies and procedures related to the Unbonded Tendon Plant Certification Program
- Oversight of decisions on certification
- Development of the technical basis for certification
- Delegation of authority to undertake certification activities
- Oversight of the certification program implementation.

In addition, the UTPC Committee shall be responsible for supervision of the Unbonded Tendon Plant Certification Program's finances and budgeting. As part of this responsibility, the UTPC Committee shall annually set the program fees in accordance the policies and procedures set forth in Section 5.5 of this manual.

The UTPC Committee shall prepare a semi-annual report on the status of the Unbonded Tendon Plant Certification Program. At a minimum, the report should include the following:

- Summary of certification actions during the period (i.e. number of plants certified, re-certified or de-certified)
- Summary of the disposition of all appeals, complaints and disputes received during the period
- Financial status
- Independent Inspection Agency Observations and Recommendations

The semi-annual status reports shall be submitted to the Certification Advisory Board no later than April 15, and September 15 of each year.

Membership: As specified in the PTI By-Laws, membership in the Unbonded Tendon Plant Certification Committee is open to any interested party, including but not limited to post-tensioning and associate company representatives; contractors; engineers; government officials; and users of post-tensioning. The Committee shall consist of no more than eleven (11) members selected from nominations received from interested stakeholders. The Committee shall include the Chair; a minimum of three (3) representatives of Post-Tensioning Company Members; one (1) representative of a non-member post-tensioning company; one (1) representative of Associate Members; and a minimum of five (5) general interest or user representatives. Committee members shall be appointed for a three (3) year term with one possible reappointment. Current members of the committee are listed in Appendix A.

5.2.3 PTI CRT-140 Certification Advisory Board (CAB)

The Certification Advisory Board is a Board-level committee that is responsible for overseeing all of PTI's certification committees. With respect to the Unbonded Tendon Plant Certification Program, CAB shall be responsible for the following:

- Appointment of the Chair and members of the Unbonded Tendon Plant Certification Committee
- Review of all de-certifications and certification denials to ensure compliance with PTI and ANSI certification requirements and procedures
- Oversight of PTI's Quality Management System, including the annual internal audit, for the Unbonded Tendon Plant Certification Program
- Processing of all appeals, disputes and complaints regarding the UBT Plant Certification Program
- Review of certification documents to ensure technical correctness and editorial quality

CAB shall not be responsible for the development of the technical basis for certification, and the formulation of policies and procedures related to the Unbonded Tendon Plant Certification Program, which are solely the purview of the Unbonded Tendon Plant Certification Committee.

Current members of CAB are listed in Appendix B.

5.2.4 PTI Board of Directors

The PTI Board of Directors is responsible for directing and overseeing all activities of PTI. With respect to the Unbonded Tendon Plant Certification Program, the Board is responsible for overseeing the Certification Advisory Board and appointing its members. In addition, the Board shall annually set PTI's financial contribution to the UBT Plant Certification Program as defined in Section 5.5.1 of this manual.

Current members of the PTI Board of Directors are listed in Appendix C.

5.2.5 PTI Certification Staff

In addition to the aforementioned groups, PTI has staff that supports the committees and carries out the administration and day-to-day implementation of the certification program. These staff employees include:

5.2.5.1 Executive Director

The Executive Director is the chief executive officer of the Institute, responsible to the Board of Directors for the effective conduct of the affairs of the Institute. Key responsibilities related to the Unbonded Tendon Plant Certification Program include:

- Financial management
- Staff supervision and performance reviews
- Internal quality management and audit
- Legal oversight (in consultation with PTI's Legal Counsel)
- Contract administration (Independent Inspection Agency and other 3rd party contractors)
- Staff Liaison to the Board of Directors
- Review of certification applications
- Issuing notifications of certification actions to applicants/participating plants

Requisite Qualifications

In order to fulfill the above responsibilities, the Executive Director shall have the following minimum qualifications:

- 5 years or more experience in managing a non-profit trade association,
- Working knowledge of and competence in financial management and budgeting
- Working knowledge of and competence in staff management and supervision
- Working knowledge of association and contract law
- Working knowledge of and competence in contract administration and specifically in managing professional services contracts

Current Position-Holder

Tony Johnson is the current PTI Executive Director, and has held this position since 2019. He is a licensed professional engineer previously worked for the Concrete Reinforcing Steel Institute where he was responsible for providing technical assistance, outreach, and education to engineers, architects, owners, contractors, as well as student groups.

Additional information regarding Mr. Johnson's experience and training are on file in PTI's Human Resource department.

5.2.5.2 Certification Director

The Certification Director is responsible for overseeing the day-to-day administration of PTI's certification programs. Key responsibilities related to the Unbonded Tendon Plant Certification Program include:

- Serving as staff liaison to and provide support to the Unbonded Tendon Plant Certification Committee
- Examination of inspectors, and verification of their qualifications
- Audit review of Independent Inspection Agency
- Review of Independent Inspection Agency evaluation and a plant's compliance with program requirements
- Decisions on a plant's certification status

Requisite Qualifications

In order to fulfill the above responsibilities, the Certification Director shall have the following minimum qualifications:

- Licensed professional engineer
- Extensive knowledge of post-tensioned concrete design and construction
- Working knowledge of and competence in committee management
- Working knowledge of and competence in standards and specification development
- Check of Independent Inspection Agency evaluation reports for conformance with PTI and ANSI requirements
- Coordination and processing of committee ballots
- Monitoring and maintaining a record of corrective actions taken by plants, by staff and by committees

Current Position-Holder

Amy Dowell is the current Director, Certification, and has been at PTI since 2013. She is a licensed professional engineer, and has Bachelors and Masters of Science in Civil Engineering. Ms. Dowell has experience in field investigation of structures and condition assessment. In her prior work, she was a project manager responsible for construction observation and quality control. As a student, she did cooperative work

with concrete technicians to conduct standardized concrete and masonry testing protocols and conducted concrete material testing research.

Additional information regarding Ms. Dowell's experience and training are on file in PTI's Human Resource department.

5.2.5.3 Certification Engineer

The Certification Engineer is responsible for assisting the Certification Director in overseeing the day-to-day administration of PTI's certification programs. Key responsibilities related to the Unbonded Tendon Plant Certification Program include:

In order to fulfill the above responsibilities, the Manager: Certification shall have the following minimum qualifications:

- Licensed professional engineer, or working toward licensing in the next 5 years
- Basic knowledge of post-tensioned concrete design and construction
- Working knowledge of and competence in committee management, and of PTI's certification committee policies and procedures
- Working knowledge of and competence in applying the UTPC procedures and standards

Current Position-Holder

Position currently vacant

5.2.5.4 Certification Programs Coordinator

The Certification Programs Coordinator is responsible for providing the day-to-day administrative support of PTI's certification programs. Key responsibilities related to the Unbonded Tendon Plant Certification Program include:

- Processing of certification applications
- Filing and recordkeeping
- Maintenance of certification databases
- Maintenance of certified plant directories and listings
- Maintenance of PTI's certification web pages
- Overseeing general administration of the certification program
- Preparing correspondence

Requisite Qualifications

In order to fulfill the above responsibilities, the Certification Programs Coordinator shall have the following minimum qualifications:

- Working knowledge of and competence in the use of computers and administrative software (e.g. Word, Excel, Access etc.)

- High school degree with at least two years experience as an administrative assistant, or equivalent
- Competence in composing and formatting business letters and reports

Current Position-Holder

Kim Curtis is the current PTI Certification Programs Coordinator, and has held this position since 2018.

She has experience in administrative support and her training includes numerous courses in the use of computers and administrative software.

Additional information regarding Ms. Curtis' experience and training are on file in PTI's Human Resource department.

5.2.5.5 Member Services Coordinator

The Member Services Coordinator is responsible for processing membership applications and for providing support to PTI members. Key responsibilities related to the Unbonded Tendon Plant Certification Program include:

- Processing of certification fee payments
- Invoicing and following up on accounts receivable

Requisite Qualifications

In order to fulfill the above responsibilities, the Member Services Coordinator shall have the following minimum qualifications:

- Working knowledge of and competence in the use of computers and administrative software (e.g. Word, Excel, Access etc.)
- High school degree with at least two years experience as an administrative assistant, or equivalent
- Competence in composing and formatting business letters and reports

Current Position-Holder

Michelle Stern is the current PTI Member Services Coordinator, and has held this position since 2009.

Her training includes numerous courses in the use of computers and administrative software, and in membership administration.

Additional information regarding Ms. Stern's experience and training are on file in PTI's Human Resource department.

5.2.5.6 Certification Staff Selection & Training

As required, PTI will hire new staff as either replacements for, or additions to the above staff. New hires will be selected on the basis of their experience and

qualifications (keeping the aforementioned requisite qualifications in mind), performance in job interviews and personal references.

Training will be provided to all staff as needed to strengthen needed skills and to improve their overall efficiency and effectiveness. Records of all training will be maintained by PTI Human Resources department.

5.2.5.7 Monitoring of Performance

Close to the end of each calendar year, an evaluation of all employees is performed. Its purpose is to pinpoint strengths and weaknesses, and to agree to an improvement program if necessary. Performance evaluations are kept on file by PTI's Human Resource department.

5.2.6 INDEPENDENT INSPECTION AGENCY

The Unbonded Tendon Plant Certification Committee shall select an inspection firm (Independent Inspection Agency) to perform the certification reviews of individual plants, and shall be responsible for all of the inspection firm's contracted activities. The Independent Inspection Agency shall be an independent contractor and shall not be an employee of PTI. The Independent Inspection Agency shall be appointed for a minimum initial term of three (3) years. The Independent Inspection Agency's activities shall terminate at the close of the contract term unless renewed by mutual agreement.

The Independent Inspection Agency shall be staffed by competent personnel experienced and familiar with unbonded post-tensioning materials, components, and production processes; as well as unbonded post-tensioning design and construction. The Independent Inspection Agency shall have a minimum of one licensed professional engineer on staff responsible for overseeing the firm's certification inspection activities.

Unless otherwise approved by the Unbonded Tendon Plant Certification Committee, the inspection personnel shall individually meet the minimum qualifications set forth in Appendix D. As noted in this exhibit, each inspector shall pass the PTI Plant Certification Inspector examination as approved by the UTPC Committee.

The Independent Inspection Agency shall be responsible for conducting plant inspections, preparing an evaluation report, and sending copies of the evaluation report to the Post-Tensioning Institute within 15-days of any inspection. All inspection reports shall be signed by the inspector and a licensed professional engineer (if the inspector is not so qualified.)

5.2.6.1 Conflict of Interest

The Independent Inspection Agency shall not be affiliated in any manner with any company or individual who has an ownership stake in a facility that participates in, or is eligible to participate in, the Plant Certification Program. The Independent Inspection Agency and its employees shall not be employed by any company or individual who has an ownership stake in a facility that is eligible to participate in the Certification Program. An individual who was previously employed by a company

eligible to participate in the Certification Program shall not serve in the capacity of an inspector for a period of two (2) years following his/her separation from the company.

5.2.6.2 Confidentiality

Independent Inspection Agency will not at any time or in any manner, either directly or indirectly, use for its personal benefit, or divulge, disclose, or communicate in any manner any information that is proprietary to PTI or participating plants. The Independent Inspection Agency will protect such information and treat it as strictly confidential.

The Independent Inspection Agency shall be required to sign a confidentiality agreement with each participating plant to protect all confidential, proprietary or trade secret information of the participating plants. In addition, all project records, communications and committee deliberations shall also be considered strictly confidential and shall not be released to anyone without the express written approval of PTI. Further, the Independent Inspection Agency shall maintain the anonymity of the participants, while keeping an accurate confidential record. Upon termination of its agreement with PTI, the Independent Inspection Agency will return to PTI all records, notes, documentation and other items that were used, created, or controlled by the Independent Inspection Agency during the term of the agreement.

5.2.6.3 Impartiality

The Independent Inspection Agency, and the personnel that it uses, shall not be involved, either directly or through any other employer, in such a way that the credibility of the results of the Unbonded Tendon Plant Certification Program could be compromised.

5.2.6.4 Corrective Action

Should the Independent Inspection Agency fail to comply with its contractual agreement with PTI or other requirements of 5.2.6, the Unbonded Tendon Plant Certification Committee and PTI shall take appropriate corrective actions.

5.2.6.5 Current Independent Inspection Agency/Personnel

Charles R. Adams & Associates, Inc., 820 E. 10th Avenue, New Smyrna Beach, Florida 32169 is the current Independent Inspection Agency for the PTI Unbonded Tendon Plant Certification Program. The firm has served in this capacity since 2005. Presently, the company has three employees who are qualified and have been approved to be inspectors:

CHARLES R. ADAMS, P.E.

Key Qualifications:

- Consulting Structural Engineer specializing in post-tensioned construction -- licensed in the states of California, Florida, New Jersey, Maryland and Massachusetts
- Over 40 years experience in post-tensioning industry
- Worked as southeast regional manager for Atlas Prestressing from 1969 – 1977
- Past owner of a post-tensioning fabrication company (PTSI) 1977 – 1993
- Has provided engineering oversight of PTI Unbonded Tendon Program inspections since 2005.

CHARLES SKARBREVIK

Key Qualifications:

- Over 30 years experience in the post-tensioning industry
- Previously worked for Post Tensioning Systems, Inc. --a post-tensioning fabrication company. In this capacity, he trained and managed personnel for unbonded tendon fabrication at four fabrication facilities.
- Has served as a PTI Unbonded Tendon Program inspector since 2001.

RICK D. COOLER

Key Qualifications:

- Over 20 years experience in the construction industry
- In his previous positions, worked as a quality control manager, and as a consultant responsible for ensuring ISO 9000 and ITIL certification compliance.
- Has served as a PTI Unbonded Tendon Program inspector since 2006.

More detailed information regarding the qualifications and experience of the above inspectors can be found in Appendix E.

5.3 PROCEDURES FOR ASSESSING, RECORDING AND MONITORING OF PERFORMANCE

The PTI Unbonded Tendon Plant Certification Program is based on a review of materials, test data, and fabrication procedures during two or more plant inspections by the Independent Inspection Agency each year that the plant is involved in the program. During the plant's first year in the program, there will be one in-depth announced inspection and one unannounced inspection. During the second and following years, a minimum of two unannounced inspections will be made of each plant.

Inspections by the Independent Inspection Agency shall include detailed review of records, previously reported nonconformities, test data, fabrication procedures, materials,

equipment, and Quality Control Program as outlined in the PTI Unbonded Tendon Plant Certification Program Manual.

5.3.1 Review of evaluation reports

Each evaluation report prepared and submitted by the Independent Inspection Agency shall be reviewed for compliance with established program standards and criteria by the PTI Managing Director. Areas of non-compliance shall be identified and reported to the Independent Inspection Agency and the Unbonded Tendon Plant Certification Committee.

5.3.2 Audit Review of Independent Inspection Agency

In accordance with Section 5.4.12.2.3 of this manual, an internal audit review of the Independent Inspection Agency's activities shall be conducted a minimum of once per year.

5.3.3 Year-end Performance Evaluation

At the end of each year, the Chair of the Unbonded Tendon Plant Certification Committee and the PTI Managing Director shall meet with the Independent Inspection Agency to discuss any identified non-conformities, and other recommended improvements to enhance the quality and efficiency of the program. Minutes of the meeting shall be prepared and distributed to the full committee and the Chair of the Certification Advisory Board. Within 30 days of this meeting, the Independent Inspection Agency shall formally respond in writing to the recommendations and document what action has, or will be taken.

5.4 QUALITY MANAGEMENT PROCEDURES

PTI's Quality Management System for the Unbonded Tendon Plant Certification Program is comprised of several inter-related policies and procedures designed to provide multiple levels of review, and checks and balances to facilitate and ensure the effectiveness and continuous improvement of the program.

5.4.1 Management of Impartiality

5.4.1.1 All certification activities shall be undertaken impartially. The PTI CRT20 UTPC Committee shall be responsible for the impartiality of the UTPC Certification Program activities and shall not allow commercial, financial or other pressures to compromise impartiality. All certification body personnel (either internal or external) or committees who could influence the certification activities shall act impartially.

5.4.1.2 The UTPC Committee shall identify risks to impartiality on an ongoing basis in accordance with the procedure set forth in Appendix J. The PTI CRT20 UTPC Committee shall take action to respond to any risks to the impartiality of the UTPC Program, arising from the actions of other persons, bodies or organizations, of which it becomes aware. If a risk to impartiality is identified, the PTI CRT20 UTPC Committee

shall be able to demonstrate how it eliminates or minimizes such risk. This information shall be made available to the Certification Advisory Board as specified in 5.4.2.

5.4.2 Mechanism for Safeguarding Impartiality

5.4.2.1 The Certification Advisory Board (CAB) shall be responsible for safeguarding the impartiality of the UTPC Program. CAB shall provide input to the UTPC Committee and the PTI Board of Directors on the following:

- a) the policies and principles relating to the impartiality of the UTPC certification activities;
- b) any tendency on the part of the UTPC Committee to allow commercial or other considerations to prevent the consistent impartial provision of certification activities;
- c) matters affecting impartiality and confidence in certification, including openness.

CAB shall be provided access to all the information necessary to enable it to fulfill its risk-safeguarding functions. Risks to impartiality that have been identified by the UTPC Committee along with any corrective actions taken shall be reported to CAB and incorporated in the Annual Quality Management Review report.

5.4.2.2 If PTI does not follow the recommendations of CAB, CAB shall have the right to take independent action (e.g. informing authorities, accreditation bodies, stakeholders). In taking appropriate action, the confidentiality requirements of the UTPC Program shall be respected. PTI management shall document the reasoning behind the decision to not follow the recommendations of CAB and shall maintain the document for review by appropriate personnel.

5.4.3 Administrative Procedures including Document Control

Appendix F includes figures that outline the step-by-step procedures for key administrative processes of the program. Additional information regarding PTI certification administrative procedures can be found in the ***PTI-CRT20 G4 Certification Administration and Operations Guide***. Appendix G lists the UTPC Program record-keeping organization and structure. The management review team(s) will examine a representative sampling of various staff and committee actions to check for conformance with these procedures and to verify that the required records/documentation has been generated and filed. Records shall be retained in accordance with the ***PTI-CRT20 P2 Certification Document Retention and Destruction Policy*** included as Appendix H.

5.4.4 Due Notice of Changes

PTI shall give due notice of any changes it intends to make in the requirements for certification. All proposed changes and certification documents will be available to the general public for review and comment at the PTI Web site. Discussions are open for 45 days. In addition, PTI will distribute proposed documents to interested stakeholders for

review and comment. PTI will maintain a database of interested parties for review and distribution. Any person interested in being included on this distribution list, may contact PTI at any time.

Comments returned to PTI staff within the discussion period shall be considered by the UTPC Committee for closure in accordance with the ***PTI-CRT140 G3 Certification Committee Manual***.

5.4.5 Procedure for Evaluating a Plant's Quality Control Process

A minimum of two inspections will be performed by the Independent Inspection Agency in accordance with the procedures and criteria set forth in the PTI Unbonded Tendon Plant Certification Manual. In a plant's first year in the program, the first inspection will be scheduled at a mutually convenient time. However, all subsequent inspections will be random and unannounced.

5.4.6 Conditions for Issue, Retention & Withdrawal of Certification Documents

In order to become and remain certified, a plant must satisfy all of the following requirements as set forth in the PTI Unbonded Tendon Plant Certification Manual and the PTI Plant Certification Contract:

- Receive a grade score of 75% or greater on the Independent Inspection Agency's evaluation of the plant
- Be in good financial standing with PTI
- Abide by the terms and conditions of the PTI Certification Contract at all times
- Have all of its facilities either certified, or in the process of being certified
- Notify PTI of any materially-changed condition within 30 days of the change
- Failure to comply with any of these obligations will result in withdrawal of the certification.

5.4.7 Procedure for Reviewing Changed Conditions

Upon receipt of a notification from a certified plant of a material change in their ownership, operations, manufacturing process, equipment, etc., the PTI staff will forward the notification to the UTPC Committee for review, whereupon the Committee will determine whether an additional inspection is warranted to ensure the plant's conformance with program requirements. This determination shall be made as quickly as possible, but no more than 21 days after PTI's receipt of the notification.

If an additional inspection is deemed necessary, PTI staff will notify the Independent Inspection Agency, who in turn will schedule an unannounced inspection of the plant.

5.4.8 Controls over the Use and Application of Documents used in the Certification Program

As set forth in Section 3.7 of the ***PTI-CRT20 G1 Unbonded Tendon Certification Program Manual***, qualifying plants are registered with PTI and are awarded the right to display the PTI Certification Certificate designating them as PTI Certified Plants and are added to the PTI's published list of certified plants. In addition, PTI will provide each plant with a mountable wall plaque suitable for office display.

Plants may reference their certified status in company literature and correspondence for as long as the certification is in effect and provided the reference is to the specific plant(s) certified and not the company as a whole.

PTI will monitor a company's use of the PTI Plant Certification Mark for compliance. Each year as part of the annual certification renewal, a company with one or more qualifying plants must submit samples of the use of the PTI certification mark on correspondence, marketing literature, advertising and its website to PTI. A company with more than one certified plant only need submit one set of samples unless there are different usages of the PTI certification mark between certified plant locations. PTI staff will review the samples for compliance with the PTI Plant Certification Contract requirements. The plant and CRT-20 Committee will be formally notified in writing of any areas of nonconformance. Failure of the plant to correct any cited nonconformities will jeopardize the plant's certification status. Per Section 12 of the PTI Plant Certification Contract, any misrepresentation by Participant or misuse of the Certification Mark, constitutes grounds for PTI to withdraw Participant's privilege to participate in the Certification Program.

Plants which fail to pass future inspections or which choose to discontinue their participation in the Certification Program shall not be permitted to display any previously awarded certified plant plaques or certificates. Additionally, they may not reference prior certified plant status in company literature or correspondence including the use of PTI Certified Plant Tags on shipments.

In the event of a change in certification such as the following:

- A change in the plant's type and/or category of certification
- A change in the plant's certification status (e.g. fully, conditional, or suspended)
- A change in location of the plant
- A change in the company name of the plant

PTI will notify the plant in writing that it must discontinue the use of any previously awarded certified plant plaques or certificates, and not reference prior certified plant status in company literature, advertising materials or correspondence including the use of PTI Certified Plant Tags on shipments. In addition, PTI shall issue a new certified plant plaque and certificate reflecting the change.

5.4.9 Procedure for Dealing with Appeals, Complaints and Disputes

An applicant may file an appeal, dispute or complaint with PTI within the guidelines set forth within. Typically an appeal or dispute will relate to the evaluation and inspection of the plant by the Independent Inspection Agency. Complaints typically will relate to procedural matters or the conduct of inspectors or PTI staff. A party wishing to file either should clearly define whether the matter relates to an evaluation and PTI's subsequent certification decision (i.e. an Appeal/Dispute), or whether it relates to another issue.

5.4.10 Appeals and Disputes

In the event a dispute arises between an applicant and PTI concerning the applicant's evaluation report, applicant may appeal the decision. An appeal shall be made in writing to the Post-Tensioning Institute and received by the PTI within 21 days of receiving the PTI's Certification decision and the Independent Inspection Agency's evaluation report. The applicant shall state in writing its position to PTI.

An appeal shall be sent by certified mail or other delivery methods such that the time and date of delivery can be verified. If the appeal is not received by PTI within the required 21-day period, the plant loses its ability to appeal and the applicant's evaluation report stands.

Upon receipt, the PTI staff shall acknowledge receipt of the appeal in writing, and shall refer the matter to the Certification Advisory Board (CAB). CAB will then establish an Appeal Board to review the matter.

5.4.10.1 Appeal Board

The Appeal Board shall consist of five members. The CAB Chair shall serve as Chair of Appeal Board; if CAB Chair has a conflict of interest on the matter, then the Vice-Chair of CAB shall serve as Chair. If the Vice-Chair of CAB has a conflict of interest on this matter, the CAB Chair shall appoint another CAB member without a conflict of interest as Chair of the Appeal Board. The CAB Chair will appoint three members of the Appeal Board selected from the current Unbonded Tendon Plant Certification Committee as follows:

- Two (2) General Interest/User representatives
- One (1) Post-Tensioning Company representative

The Applicant shall designate one (1) representative who is not an officer, employee, or is otherwise affiliated with the Applicant as the fifth member of the Appeal Board. Any person who has been involved in the certification evaluation and decision that is being appealed shall not be eligible to serve on the Appeal Board.

5.4.10.2 Appeal Board Review

The Appeal Board will forward the Applicant's written appeal to the Independent Inspection Agency for review and comment. The Independent Inspection Agency will then submit a written statement either re-affirming and/or clarifying its position on

the matter within 7 days to the Appeal Board, with a copy to the applicant. Based on the Independent Inspection Agency's response, the Applicant may then decide whether a formal meeting with the Appeal Board is desired. If so, the Applicant must submit a formal meeting request in writing to PTI. This written request must be accompanied by an appeal board meeting fee deposit of \$7,500, which will be refunded to the Applicant if the Appeal Board decides that the Applicant should be certified. If not, PTI will retain the deposit to defray the cost of the meeting.

The meeting will be scheduled by PTI within the next two to four weeks, with the meeting to be held at PTI's office in Farmington Hills, Michigan. The Applicant shall be afforded a full opportunity, in person and by counsel if desired, to be heard by and to present any relevant additional evidence to the Appeal Board. In addition, a representative of the Independent Inspection Agency shall also attend if so directed by the Appeal Board.

5.4.10.3 Appeal Board Decision

The Appeal Board will review the testimony, written statements and other supporting documentation and decide the matter within 14 days. The Applicant will be notified in writing of the Appeal Board's decision. The Appeal Board's decision shall be final, and binding upon both parties.

5.4.11 Complaints

An applicant or other interested party may also file a complaint with PTI. A complaint will typically involve an administrative matter of some sort. Examples of instances that might generate a complaint include: an inspector not following good safety practices, staff not responding to an inquiry in a timely manner, a competitor misusing the PTI certification mark, etc.

PTI staff shall acknowledge receipt of the complaint in writing, and will forward the complaint to the Certification Advisory Board for review within 7 days of receipt. If a person files a complaint by telephone, they will be asked to submit a written summary of the complaint (i.e. by letter, fax or e-mail). As needed, CAB will request additional information from the submitter, staff and/or the Independent Inspection Agency. Based on the information provided, CAB will decide what action, if any, is warranted.

The submitter will be notified in writing of CAB's decision as well as any follow-up action that is directed. Follow-up actions will be documented in PTI's certification files; the effectiveness of those actions will be evaluated as part of future quality management reviews as provided for in Section 5.4.12 of this manual.

5.4.12 Policies and Procedures for Conducting Management Reviews

The Certification Advisory Board and the PTI Executive Director shall be jointly responsible for implementing the quality management review. The review shall be performed at least once per year and should include the following elements:

- Internal Audit of:
 - Committee operations
 - Staff administration
 - Independent Inspection Agency
- Review of external audits (ANSI)
- Review of all appeals, complaints and disputes received during the review period
- Review and assessment of public comments received during the review period
- Performance reviews of staff
- Review of nonconformities previously identified in past quality management reviews, and the related status of preventive and corrective actions taken
- Review of risks to impartiality as identified by the UTPC Committee
- Review and the evaluation of the effectiveness of follow-up actions from previous management reviews
- Review of changes that could affect the management system
- Assessment of the fulfilment of program objectives

Specific procedures for each quality review element are detailed below. The general process to be followed in a management review is detailed in Figures 9 - 20.

5.4.12.1 Internal Audits

PTI shall conduct internal audits of its certification processes to ensure that the quality management system is implemented and is effective. (See Figure 10.) The principal objectives of these audits are to:

- Meet requirements for certification to a management system standard;
- Verify conformance with PTI and ANSI requirements;
- Contribute to the improvement of the management system.

5.4.12.1.1 Selection & Training of Auditors

Auditors for internal management reviews shall be selected per 5.4.12.1.3.1, 5.4.12.1.3.2 and 5.4.12.1.3.3, and as shown on Figure 11. Training shall be provided for the auditors as needed. At a minimum, a webinar shall be held presenting the pertinent requirements of the UTPC Program and ISO/IEC 17065.

5.4.12.1.2 Timing & Frequency of Reviews

Internal audit review shall be performed a minimum of once per year. If warranted by the findings of the previous-year audit, CAB may elect to direct that an additional audit be performed.

The committee audit review shall be initiated prior to the committee's normally scheduled fall meeting (typically in October.) The Headquarters/Staff and Inspection Agency audits shall be conducted during the fourth quarter of each year.

5.4.12.1.3 Responsibilities & Procedures

5.4.12.1.3.1 Committee Review & Assessment

PTI's annual internal audit shall assess the operations of the Unbonded Tendon Plant Certification Committee. Figure 12 illustrates the process that shall be followed in performing the committee audit.

The Certification Advisory Board will designate a representative to work with the PTI Executive Director who together will serve as the committee auditor team. The CAB representative shall not be the Chair or a member of the Unbonded Tendon Plant Certification Committee, and should have knowledge of ANSI criteria for accreditation, due process and consensus procedures.

The committee audit will be comprised of three parts:

1. Select surveys of committee members to assess their knowledge of procedures and certification requirements, and to obtain their observations regarding committee operations. CAB may identify survey topics as needed.
2. Committee meeting observation to evaluate conformance with CCM
3. Review of committee documents and records to determine completeness and accuracy of minutes, voting summaries, ballot resolutions, etc.

The committee auditor will prepare a final report outlining its findings and recommendations. The report shall be submitted to CAB for inclusion in the overall annual quality management review. CAB will review the report and make recommendations for improving UTPC Committee operations.

A copy of the committee audit report and CAB's recommendations will be provided to the UTPC Committee for implementation.

5.4.12.1.3.2 PTI Staff/Headquarters Review & Assessment

PTI's annual internal audit shall also assess the administrative activities of the PTI certification staff. Figure 13 illustrates the process that shall be followed in performing the staff audit.

In alternate years, the Certification Advisory Board and the UTPC Committee will designate a representative to serve as the staff auditor. CAB will conduct the review one year and the UTPC Committee the next. The audit will be comprised of three parts:

1. Interviews of certification staff members to assess their knowledge of procedures and certification requirements, and to obtain their observations regarding implementation of the program.

2. Observation of the staff handling typical certification transactions such as application processing, inspection report review, complaint handling, record filing of records, etc...
3. Review of certification documents and records.

The auditor will prepare a final report outlining its findings and recommendations. The report shall be submitted to CAB for inclusion in the overall annual quality management review. CAB will review the report and make recommendations for improving staff operations.

A copy of the committee audit report and CAB's recommendations will be provided to the UTPC Committee and the Executive Director for implementation.

5.4.12.1.3.3 Independent Inspection Agency Review & Assessment

The final component of PTI's annual internal audit shall be a review and assessment of the Independent Inspection Agency. Figure 14 illustrates the process that shall be followed in performing the Independent Inspection Agency audit.

The inspection agency review will be conducted by either a representative of the UTPC Committee or by PTI staff (either the Managing Director or the Manager of Certification.) Every other year, the UTPC Committee will designate a representative to serve as the Independent Inspection Agency auditor. The UTPC Committee representative shall not be a post-tensioning company member of the Unbonded Tendon Plant Certification Committee, and should not have a real or apparent conflict of interest. The representative should be experienced in and have knowledge of PTI's technical certification criteria and procedures.

The Independent Inspection Agency audit will be comprised of four parts:

1. Interviews of certified plant personnel to obtain their observations and views regarding recent inspections performed by the Independent Inspection Agency.
2. Interviews of inspectors to assess their knowledge of program requirements and to evaluate their respective inspection practices.
3. On-site visits accompanying an inspector on 1 – 2 plant inspections to evaluate the adequacy of inspection procedures
4. Review of inspection documents and records to determine completeness and accuracy.

The auditor will prepare a final report outlining its findings and recommendations. The report shall be submitted to CAB and the UTPC Committee for inclusion in the overall annual quality management review. UTPC Committee will review the report and make recommendations for improving the Independent Inspection Agency's operations.

A copy of the Independent Inspection Agency audit report and CAB's recommendations will be provided to the Independent Inspection Agency and the UTPC Committee for implementation.

5.4.12.1.3.4 Audit Criteria

The internal audits shall use the following references as the criteria for the evaluation:

- ANSI Accreditation Criteria as set forth in ISO/IEC 17065 and ANSI Form PRO-FR-105
- Approved PTI certification policies and procedures in effect at the time of the audit as set forth in this manual (Appendices F, G, and H).
- PTI-CRT20 G1 PTI Unbonded Tendon Plant Certification Manual
- Approved committee procedures as set forth in the *PTI-CRT140 G3 Certification Committee Manual*
- PTI By-Laws

Any conflict between these references shall be referred to the PTI CRT20 UTPC Committee for consideration.

5.4.12.1.3.5 Reporting

The auditors shall each prepare an audit report outlining their findings and recommendations. The report shall be submitted to CAB no later than December 31st of each year. At a minimum, the reports shall identify:

- Needed corrective action and/or suggested Improvements
- Areas where policies and procedures are not in conformance with specified audit standards.

CAB will incorporate the various audit reports into the overall quality management review report. Copies of the report shall be made available to the PTI Board of Directors, the UTPC Committee and the PTI Executive Director.

5.4.12.1.3.6 Auditor Confidentiality

Auditors shall re-affirm in writing their agreement to comply with PTI's confidentiality provisions prior to conducting the audit. These written commitments shall be retained in PTI's certification files and included in the final audit report. In addition, the identity of plants visited as part of the on-site assessment of the Independent Inspection Agency shall not be revealed and shall be kept confidential.

5.4.12.1.3.7 Reimbursement for Travel and other Related Expenses

PTI will reimburse auditors for reasonable travel and other related expenses associated with the performance of internal quality audits in accordance with approved PTI Travel policies in effect at the time.

5.4.12.1.3.8 Evaluate the Effectiveness of the Audits

As the final component of the annual quality management review, CAB shall evaluate the effectiveness of the internal audits and develop recommendations for improving the audit program. These recommendations should be implemented in subsequent audits.

5.4.12.2 Review of External Audits

The Certification Advisory Board shall review the findings of external audits (ANSI and others if applicable) along with any preventive or corrective actions taken. CAB shall evaluate the progress and effectiveness of these actions, and shall document its assessment in the Annual Management Review Report. (See Figure 10.)

5.4.12.3 Review Procedure for Handling of Public Comments, Appeals, Complaints and Disputes

For the annual Quality Management Review, staff will compile records of the following:

- All public comments received along with documentation of the PTI CRT20 UTPC Committee's resolution of those comments
- All appeals, complaints and disputes along with documentation of corrective and/or preventative action taken

The Certification Advisory Board will designate a team, who along with the Executive Director will review the extent, nature and validity of comments, appeals, complaints and disputes received. The team will also evaluate the sufficiency of PTI's follow-up actions. The review team will summarize its findings in a report to be submitted to CAB. (See Figure 15.)

5.4.12.4 Performance Reviews of Staff

Each year, the respective supervisors shall conduct performance evaluations for each certification staff member to determine if they are competent to perform their respective certification functions. The employee evaluations shall be maintained on file in PTI's Human Resources department. In addition, the supervisor shall provide an affidavit attesting that the staff person has the required competencies for the certification duties and responsibilities they undertake. If the employee is not deemed to be fully competent, the supervisor shall identify required training and/or corrective action necessary to bring the employee to a full competence level. The supervisor affidavits and any identified training needs should be included in the Annual Management Review Report. (See Figure 16.) Appropriate training will be provided as required.

5.4.12.5 Procedure for Handling Non-conformities

CAB's final management review report shall identify any areas that do not conform to established PTI procedures and standards. The PTI CRT20 UTPC Committee shall formally respond to each identified non-conformity and propose corrective or preventative action if appropriate. (See Figure 17.)

5.4.12.6 Review of Risks to Impartiality

The Certification Advisory Board shall review risks to impartiality that have been identified by the PTI CRT20 UTPC Committee along with any corrective actions taken. CAB shall evaluate the progress and effectiveness of these actions, and shall provide input to the PTI CRT20 UTPC Committee and the PTI Board of Directors in accordance with 5.4.12.1.3.5 CAB's review and related input shall be noted in the Annual Management Review Report. (See Figure 16.)

5.4.12.7 Procedure for Assuring Effectiveness of Corrective/Preventative Actions

In the subsequent year, the management review will examine the previously-identified areas of nonconformity and risks to impartiality to verify that appropriate action was taken. Findings will be reported in the subsequent year management review report along with the team's assessment regarding the effectiveness of the action. Figure F-7 in Appendix F outlines the step-by-step procedure for evaluating actions taken to prevent/correct non-conformities. (See Figure 17.)

5.4.12.8 Review of Follow-up Actions from Previous Management Reviews

The Certification Advisory Board shall be responsible for reviewing the findings and recommendations of the annual quality management review (including internal audits). On the basis of this review, CAB will identify the need for corrective and preventative actions, and opportunities for improvement, and determine recommended follow-up.

CAB will forward these recommendations to the Unbonded Tendon Plant Certification Committee for consideration and implementation. The UTPC Committee shall consider and document its actions (or reasons for not taking action) with respect to each CAB recommendation. (See Figure 18.)

5.4.12.9 Review of Changes that could affect the Management System

The Certification Advisory Board should identify changes in personnel, the industry, related standards, government regulations and laws, and other developments that could affect the UTPC Quality Management System. These changes and any related recommendations should be noted in the Annual Management Review Report for the consideration of the PTI CRT20 Unbonded Tendon Committee and the PTI Board of Directors. (See Figure 18.)

5.4.12.10 Assessment of the Fulfillment of Program Objectives

Based on the above reviews, the Certification Advisory Board should make an assessment as to whether the Unbonded Tendon Plant Certification Program has fulfilled its program objectives over the past year. CAB's findings and recommendations in this regards shall be noted in the Annual Management Review Report. (See Figure 19.)

5.4.12.11 Annual Management Review Report

The PTI Executive Director shall compile the inputs from the aforementioned reviews and shall draft the annual management review report for the Certification Advisory Board's review and approval. The draft shall be submitted to CAB no later than February 28 of each year. CAB shall approve the report and provide recommendations for follow-up action to the PTI CRT20 Unbonded Tendon Plant Certification (UTPC) Committee and the PTI Board of Directors. (Figure 20)

The UTPC Committee shall review the CAB recommendations and shall decide on appropriate follow-up action.

5.5 PROCEDURES FOR FINANCIAL MANAGEMENT AND BUDGETING

The Unbonded Tendon Plant Certification Program shall be managed as an independent cost center within PTI. The UTPC Committee shall be responsible for the direct financial management and budgeting of the program in cooperation with the PTI Board of Directors and the PTI Finance Advisory Committee.

5.5.1 Program Budgeting

As shown in Figure 21, each year prior to the PTI Fall Board meeting, the PTI Finance Advisory Committee (FAC) will develop cost estimates for the certification program. Based on these estimates, the PTI Board of Directors will establish PTI's financial contribution to the Unbonded Tendon Plant Certification Program for the following fiscal year (Jan. 1 – December 31.) This contribution will cover PTI's anticipated administrative expenses (e.g. staff salary, overhead, meeting space, storage and shipping, travel etc.), legal services, insurance, website and marketing associated with the program. In addition, the contribution will include a research and development charge to reflect PTI's ongoing efforts to develop technical standards used by the Unbonded Tendon Plant Certification Program.

The UTPC Committee will be notified of PTI's annual contribution following the Board's Fall meeting (typically in October.) The UTPC Committee will then set the program fees and budget to result in a break-even position (i.e. no significant loss or surplus) at year-end based on anticipated plant participation.

If the actual year-end financial performance should vary significantly from the budget, then the subsequent year's budget and fees should be adjusted to move the program back to a break-even basis.

5.5.2 Member Dues Credit

Through payment of membership dues and other member assessments, PTI member companies help finance PTI's annual financial contribution to the Unbonded Tendon Plant Certification Program. In addition, PTI member companies have financed the development of the program for the last 22 years. To reflect these contributions to the program and to avoid member companies having to make duplicate contributions, PTI member plants will receive an annual credit on their plant certification fees. The credit will be set by the UTPC Committee and will be based on the sum of the PTI annual contribution and the annual development recovery charge divided by the estimated number of member plants participating in the program.

The credit will be paid at the beginning of each year. Only companies that are members and are in good financial standing will be eligible to receive the credit. Companies that join PTI during the year and that maintain their membership through the end of the year will also be eligible for the credit. Any company who begins the year as a member but later drops its membership will have to re-pay to PTI the pro-rated share of the annual member credit for the balance of the year, in order to maintain its certification(s).

Figures 22 and 23 contain the analyses of the current year PTI annual contribution, and the PTI Certification Fees, respectively.

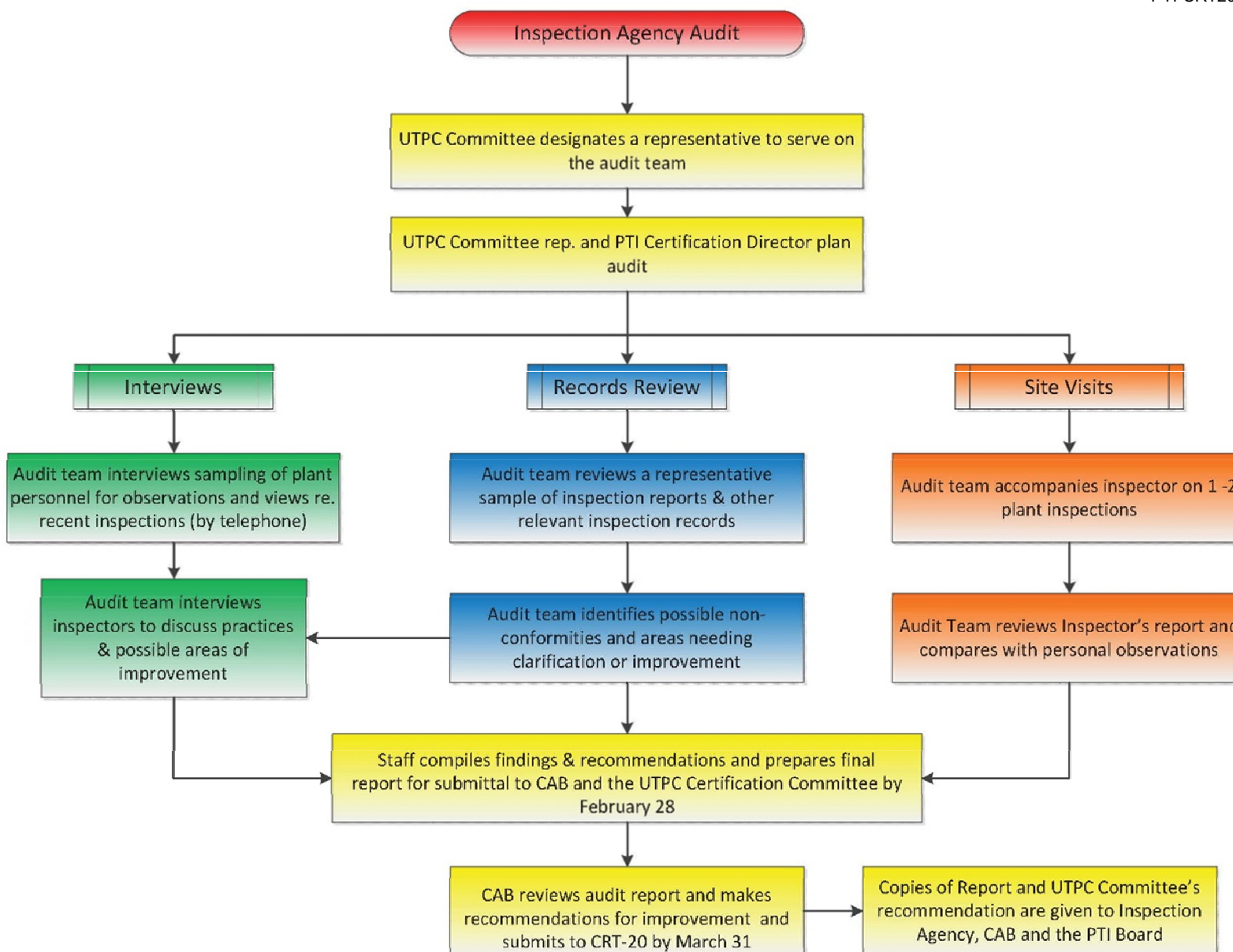


Fig. 14—Independent Inspection Agency Audit Procedure.

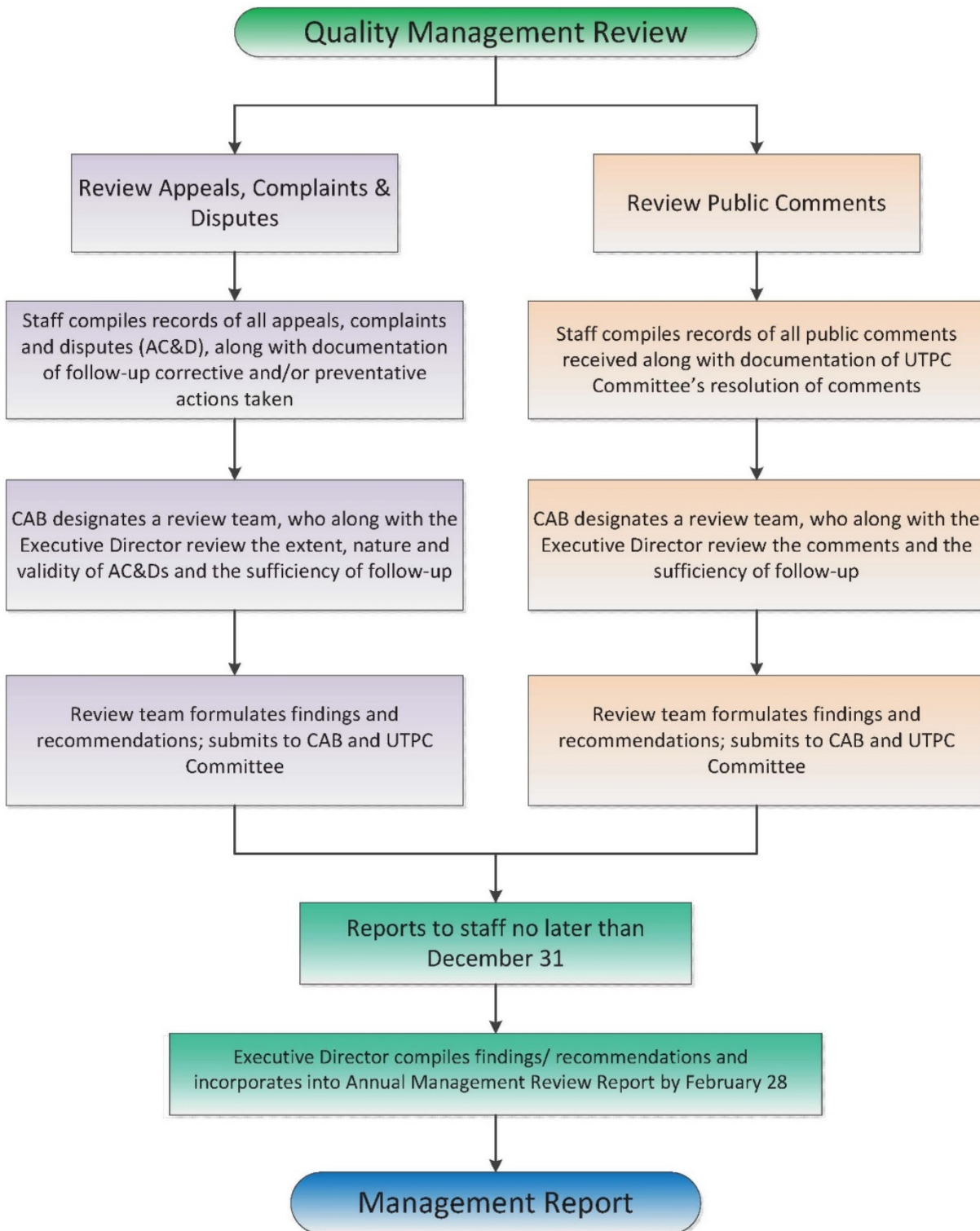


Fig. 15—Process for Review of Appeals, Disputes, Complaints, and Public Comments.

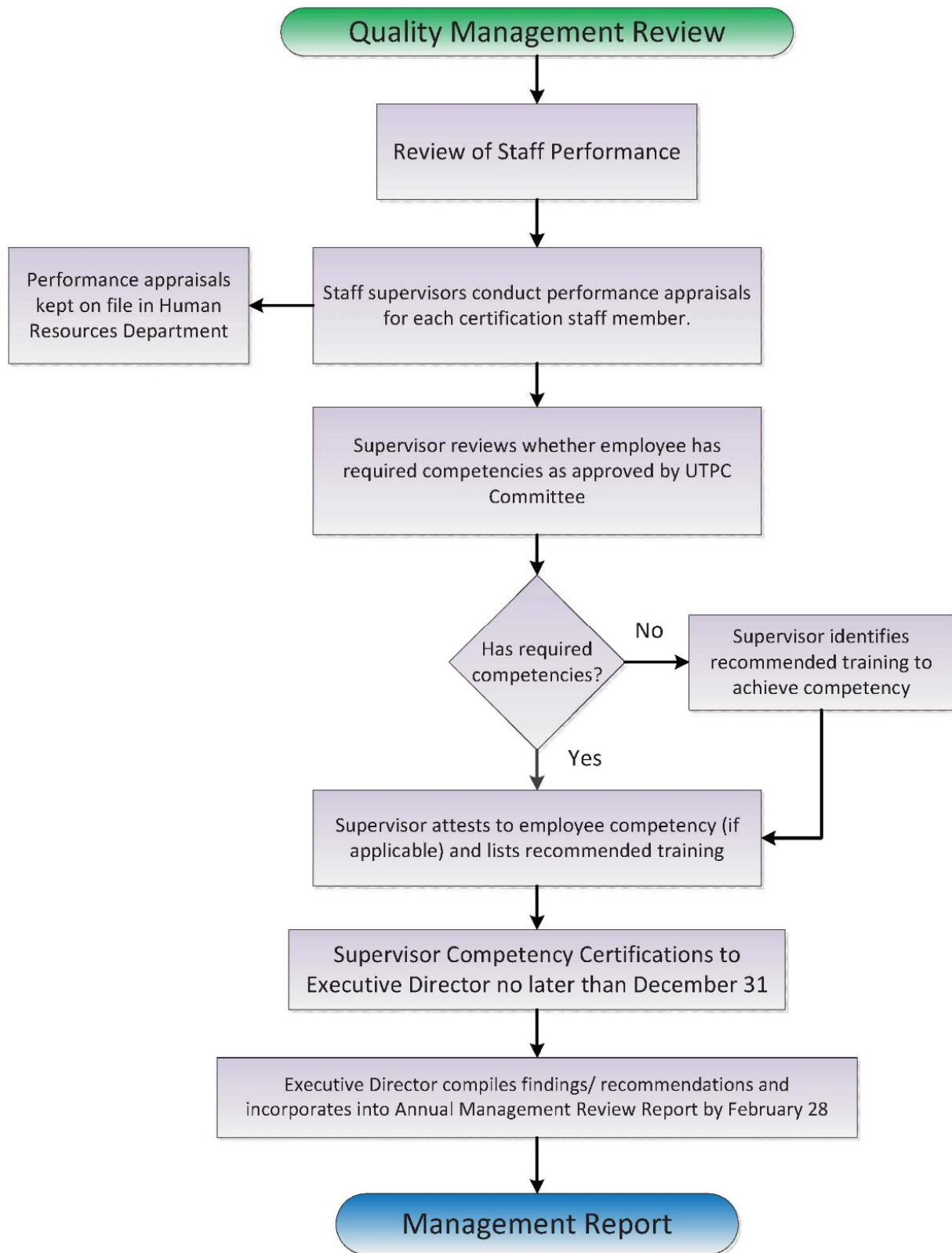


Fig. 16-Staff Review Process

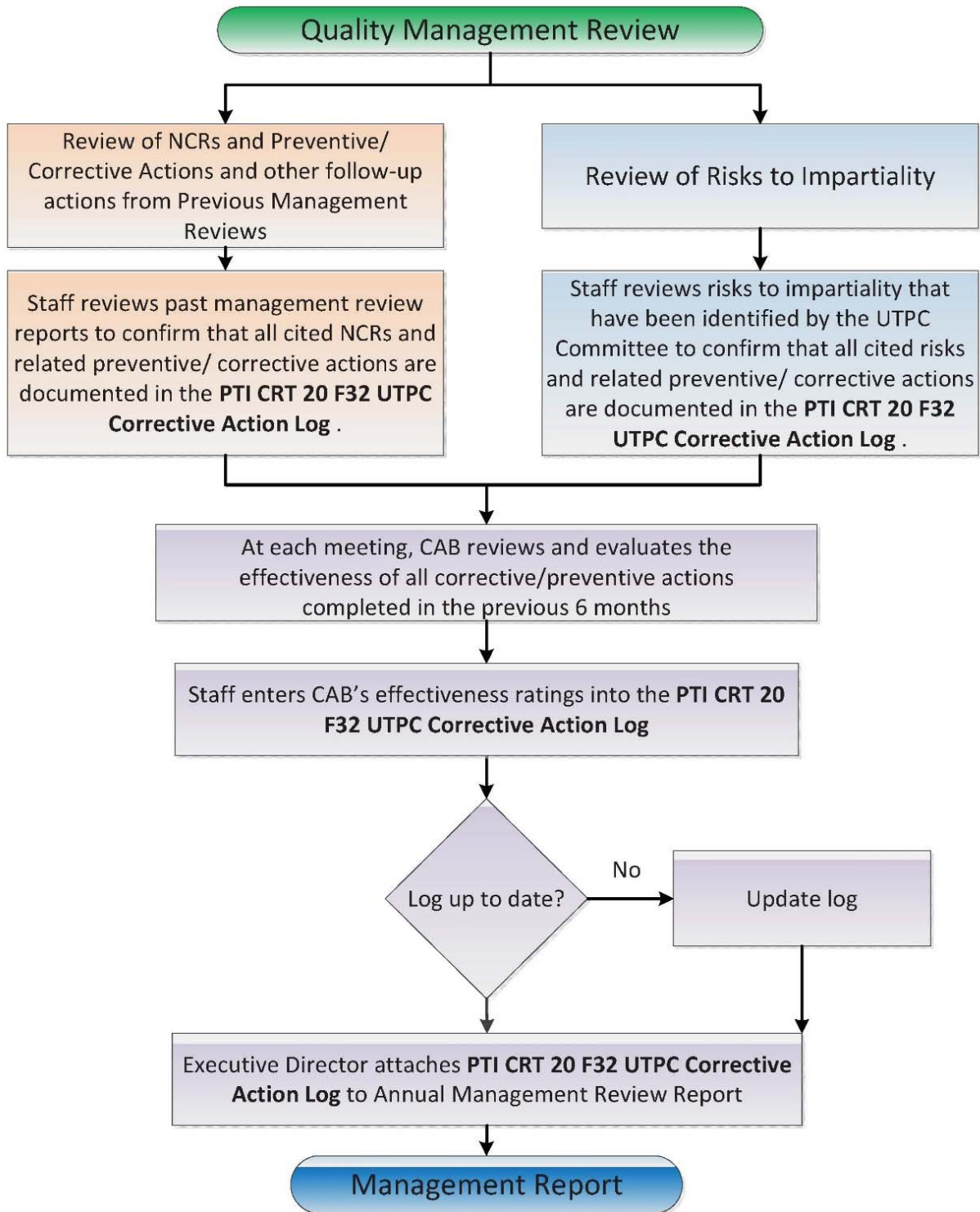


Fig. 17-Process for Review of Nonconformities, Risks to Impartiality, and Related Preventive and Corrective Actions

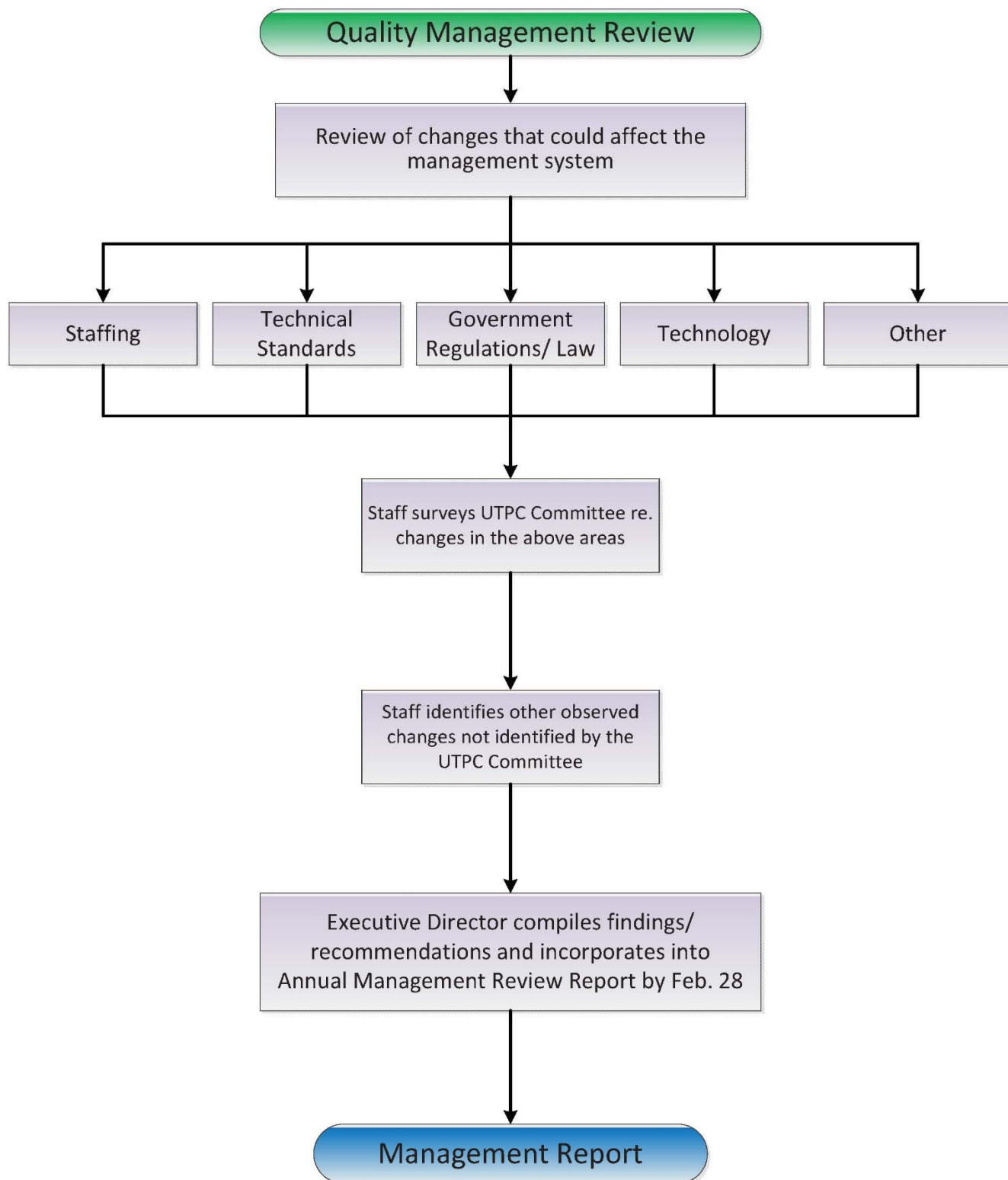


Fig. 18-Process for Review of Changes that could Affect the Management System

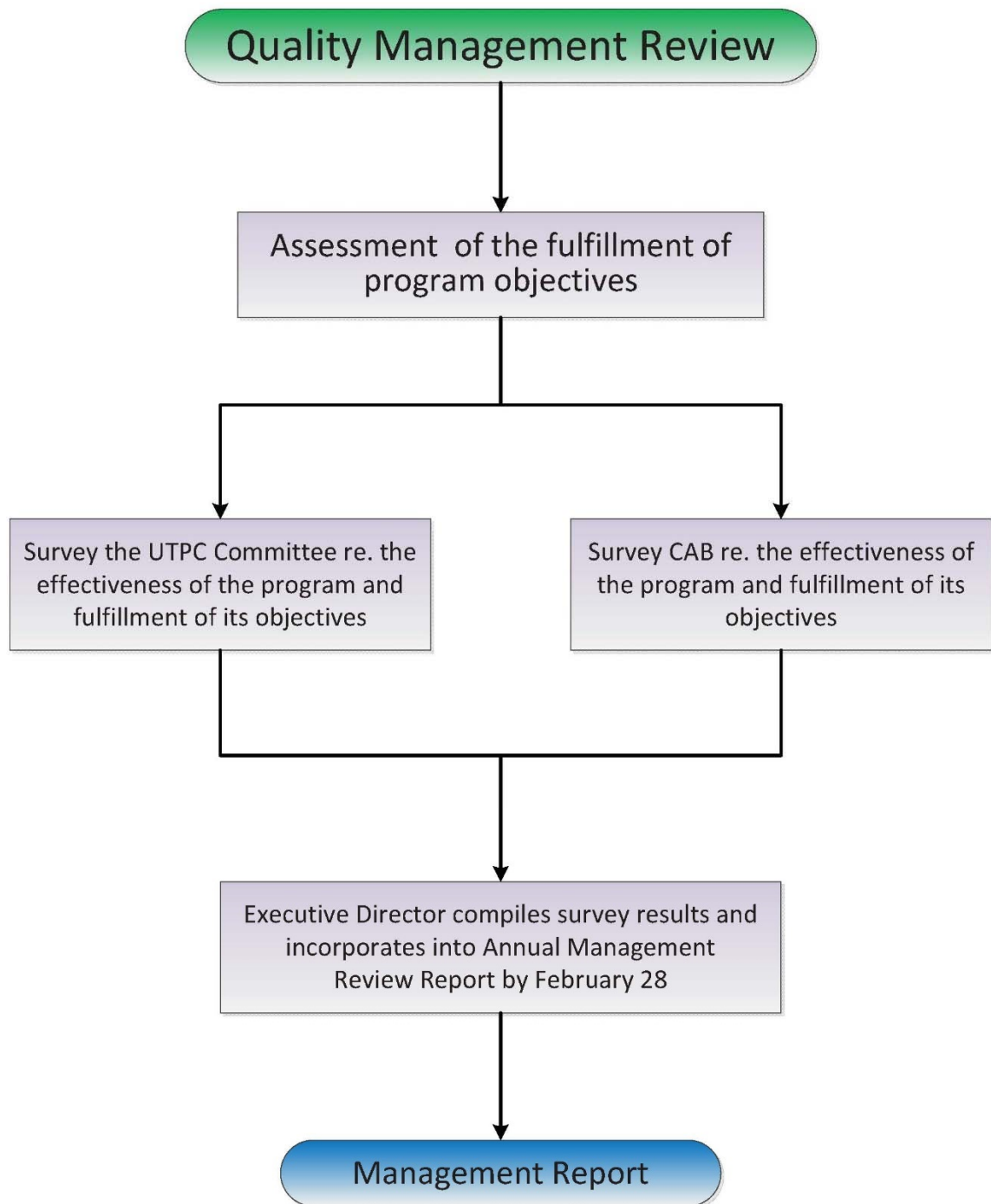


Fig. 19-Process for Assessment of the Fulfillment of Program Objectives

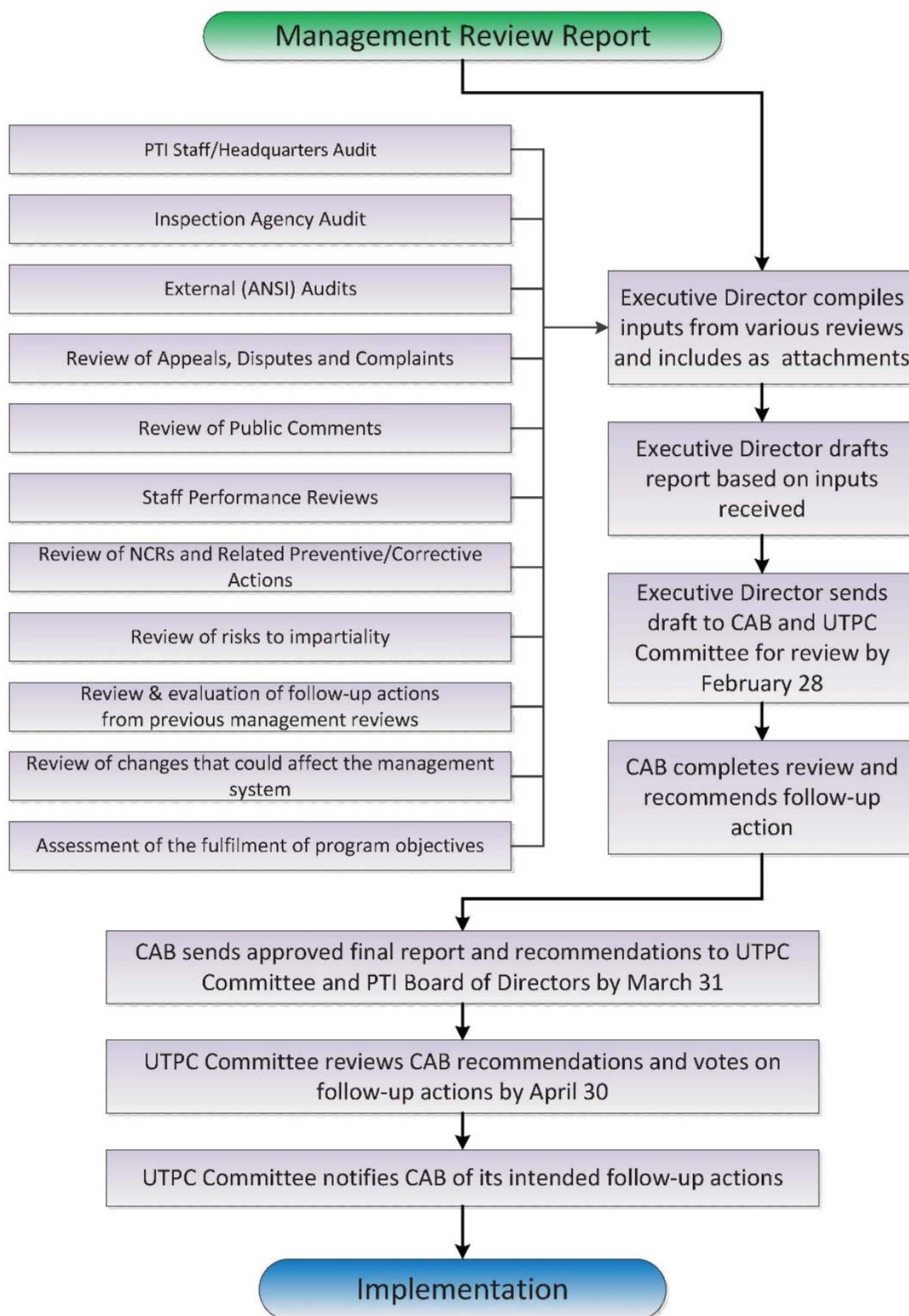


Fig. 20-Management Review Report Process

5.5 Procedures for Financial Management and Budgeting

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5.5.1 Program Budgeting

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The UTPC Committee will be notified of PTI's annual contribution following the Board's Fall meeting (typically in October.) The UTPC Committee will then set the program fees and budget to result in a break-even position (i.e. no significant loss or surplus) at year-end based on anticipated plant participation.

If the actual year-end financial performance should vary significantly from the budget, then the subsequent year's budget and fees should be adjusted to move the program back to a break-even basis.

5.5.2 Member Dues Credit

Through payment of membership dues and other member assessments, PTI member companies help finance PTI's annual financial contribution to the Unbonded Tendon Plant Certification Program. In addition, PTI member companies have financed the development of the program for the last 22 years. To reflect these contributions to the program and to avoid member companies having to make duplicate contributions, PTI member plants will receive an annual credit on their plant certification fees. The credit will be set by the UTPC Committee and will be based on the sum of the PTI annual contribution and the annual development recovery charge divided by the estimated number of member plants participating in the program.

The credit will be paid at the beginning of each year. Only companies that are members and are in good financial standing will be eligible to receive the credit. Companies that join PTI during the year and that maintain their membership through the end of the year will also be eligible for the credit. Any company who begins the year as a member but later drops its membership will have to re-pay to PTI the pro-rated share of the annual member credit for the balance of the year, in order to maintain its certification(s).

Figures 22 and 23 contain the analyses of the current year PTI annual contribution, and the PTI Certification Fees, respectively.

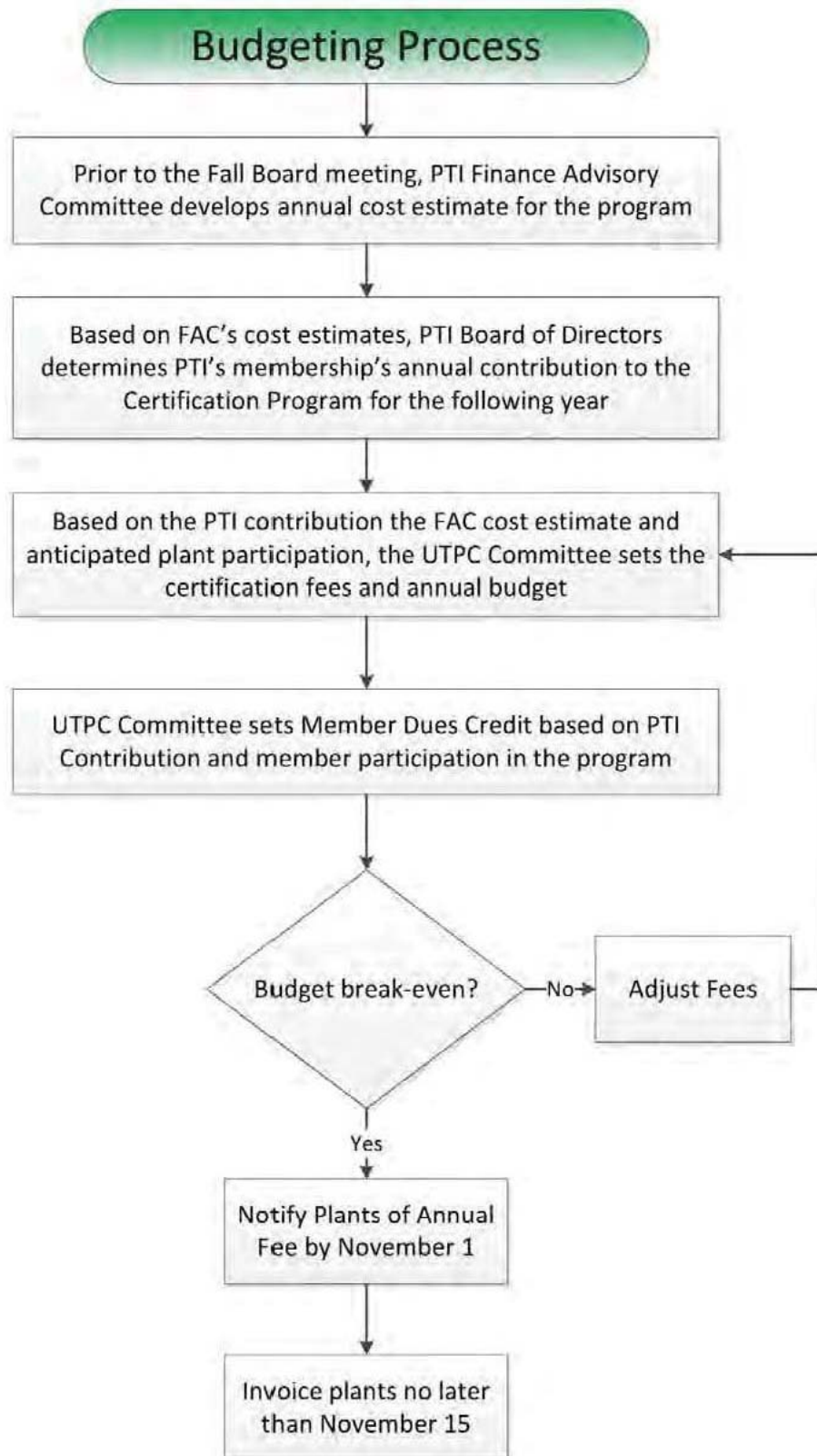


Fig. 21—Certification Program Budgeting Process

2021 PTI Unbonded Tendon Plant Certification Program Budget			
	Proposed 2021 Budget	Projected 2020 Year-end	2021 vs. 2020
Revenue			
Plant Fees			
Fabrication Facilities (61@\$9000)	\$549,000	\$549,000	\$0
Extrusion Facilities (2@\$8,000)	\$16,000	\$16,000	\$0
Reinspections (2)	\$3,500	\$3,500	\$0
Total Revenue	\$568,500	\$568,500	\$0
Expenses			
Inspection Agency			
Fabrication Facility Inspections	\$236,800	\$216,550	\$20,250
Extrusion Facility Inspections	\$14,000	\$9,600	\$4,400
Reinspections	\$3,500	\$4,000	(\$500)
Inspector Meeting attendance/Travel	\$4,300	\$4,100	\$200
Administrative Expense			
Staff Salaries & Overhead	\$124,000	\$145,000	(\$21,000)
Office & warehouse space	\$5,150	\$5,000	\$150
Legal Services	\$6,000	\$4,000	\$2,000
Insurance	\$1,100	\$1,100	\$0
Office Expense	\$1,000	\$1,000	\$0
Website	\$4,200	\$5,450	(\$1,250)
Postage & Shipping	\$1,000	\$800	\$200
Meetings	\$4,000	\$0	\$4,000
Staff Travel	\$4,600	\$0	\$4,600
Marketing	\$1,000	\$0	\$1,000
ANSI Accreditation Expense	\$20,500	\$15,000	\$5,500
Internal Quality Audits	\$5,000	\$0	\$5,000
Prior Year Development Recovery Charge (to PTI)	\$113,400	\$100,800	\$12,600
Research and Development Charge (to PTI)	\$44,100	\$33,600	\$10,500
Total Expense	\$593,650	\$546,000	\$47,650
Carryover Surplus (Loss) from Previous Year	\$22,500	N/A	N/A
Net Surplus (Loss)	(\$2,650)	\$22,500	(\$25,150)

Fig. 22—2021 PTI Contribution to the Unbonded Tendon Plant Certification Program.

2021 UTPC Certification Fee Analysis		
Administrative Expense		
Staff Salaries & Overhead	\$	124,000
Office & warehouse space	\$	5,150
Legal oversight	\$	6,000
Insurance	\$	1,000
Office supplies	\$	1,000
Website	\$	4,200
Postage & Shipping	\$	1,500
Meeting space	\$	4,000
Staff Travel	\$	4,600
Marketing	\$	1,000
Inspector Meeting attendance	\$	5,000
Internal Quality Audits	\$	5,000
Administrative Expense	\$	162,450
ANSI Accreditation Expense		
Annual Fee	\$	20,500
Auditor Travel: 3 trips @\$1500	\$4,000	
Auditor Labor: 10days @\$1200/day	\$4,500	
	\$12,000	
Inspection Costs \$3,700 per fabrication plant, \$3500 per extrusion plant plus 6 additional random inspections (10% of plants)	\$	247,500
Standard Fabrication Facility Inspections (2 per plant for 61 plants)	\$225,700	
Standard Extrusion Facility Inspections (2 per plant for 2 plants)	\$7,000	
Additional random inspections (10% of plants -- 6 inspections)	\$11,100	
Additional costs for international Inspections (2 plants) - paid by plant	\$0	
Reinspections (2)	\$3,700	
Less Prior Year Budget Surplus (Loss)	\$	22,500
Total Estimated Program Expense	\$	407,950
Estimated Cost per Plant (63 Participating Plants)	\$	6,600
Prior Year Development Recovery Charge per plant	\$	1,700
2020 Research & Development Charge per plant	\$	700
Proposed Fee per PT Fabrication plant	\$	9,000
Proposed Fee per Extrusion plant	\$	8,000
Member Credit (pro-rated PTI Member Contribution + Annual Development Recovery Charge)	\$	(4,600)
Net Member Fee per fabrication plant	\$	4,400
Net Member Fee per extrusion plant	\$	3,400

Fig. 23-2021 Certification Fee Analysis (effective January 1, 2021; for the latest fees contact PTI or visit www.post-tensioning.org)

APPENDIX A

Unbonded Tendon Plant Certification Committee Roster (current roster available at:

https://www.post-tensioning.org/committees/committeerooster.aspx?committee_code=CRT20

APPENDIX B

Certification Advisory Board Roster available at: https://www.post-tensioning.org/committees/committeerooster.aspx?committee_code=CRT140

APPENDIX C

2020 BOARD OF DIRECTORS

PTI Board of Directors Roster available at:

https://www.post-tensioning.org/committees/committeeroster.aspx?committee_code=BD-100

Appendix D

Minimum Qualifications for PTI Unbonded Tendon Plant Inspectors

I. Experience

Unless otherwise approved by the PTI Unbonded Tendon Plant Certification Committee, an inspector shall possess the following minimum experience:

- a. One year of working in or managing an unbonded post-tensioning fabrication facility, or
- b. Three years working as a quality assurance inspector of manufacturing processes, preferably in a related field.

II. Conflict of Interest

The inspector shall not be affiliated in any manner with any company or individual who has an ownership stake in a facility that participates in, or is eligible to participate in, the Plant Certification Program. The inspector shall not be employed by any company or individual who has an ownership stake in a facility that is eligible to participate in the Certification Program.

An inspector must disclose all past affiliations and relationships with any company or individual who has an ownership stake in a facility that participates in, or is eligible to participate in, the Plant Certification Program. For example, if an inspector was previously employed by a company participating in the program, this information must be disclosed to PTI.

III. Licensing/Certifications

Unless otherwise approved by the Unbonded Tendon Plant Certification Committee, a PTI Plant inspector shall possess one or more of the following professional licenses or certifications

- Licensed Professional Engineer, or
- Quality Inspector Certification - CQI or equivalent

In addition the inspector shall have field experience and/ or knowledge of unbonded post-tensioning construction. Either of the following would satisfy this requirement:

- PTI Certification as a Level 2 Unbonded PT Inspector, or
- PTI Certification as a Level 2 Unbonded Tendon Field Specialist, or
- 500 hours documented experience working on post-tensioned construction. For this option, submission of an Affidavit of Work Experience is required.

IV. Examination

All proposed inspectors shall take and pass the PTI Unbonded Tendon Plant Certification Inspector Qualification examination as established by the PTI Unbonded Tendon Plant Certification Committee. This examination will be closed-book test with 50 questions designed to test the inspector's knowledge of the unbonded tendon fabrication process of applicable industry standards, and of the PTI Unbonded Tendon Plant Certification Program. A grade score of 80% or greater is required to pass the examination.

V. Trial Inspections

If the proposed inspector has had no previous experience as an inspector in PTI's Unbonded Tendon Plant Certification Program, he/she shall fulfill one of the following prior to conducting an actual plant inspection:

- a. Accompany a currently approved inspector on a minimum of 2 plant inspections,
or
- b. If no current inspector is available, accompany PTI staff on two "mock"
inspections.

Appendix E

Resumes of Current PTI Plant Inspectors

RESUME OF
CHARLES R. ADAMS, P.E.
 820 E. 10th Avenue
 New Smyrna Beach, Florida 32169
 Phone (386) 426-5583 Fax (386) 402-4679

EDUCATION

BS Engineering 1962, MS Engineering (Structural) with honors 1965, both from UCLA

PROFESSIONAL ENGINEERING LICENSES

California, Florida, New Jersey, Maryland, Massachusetts

PROFESSIONAL MEMBERSHIPS

American Society of Civil Engineers
 Post-Tensioning Institute
 American Concrete Institute
 Florida Structural Engineers Association

AWARDS

2005 Named to the PTI Hall of Fame "Legends of Post-Tensioning"

CERTIFIED GENERAL CONTRACTOR

Florida (inactive)

EMPLOYMENT HISTORY

1977-Present Established Charles R. Adams & Associates, Inc. a consulting structural engineering practice. Charles R. Adams & Associates, specializes in the design of post-tensioned concrete structures and as a contractor specialized in the repair of post-tensioned concrete structures. We also provide complete structural design of residential and commercial structures to architects and developers. We provide structural engineering as a consultant to various consulting engineering firms in Florida. We provide value engineering services to contractors. We recommend repair procedures for post-tensioned and conventional reinforced concrete structures to condominium associations, contractors, and consulting engineers. Expert testimony in the area of post-tensioned concrete has been provided in Florida. We have been the certifying agency to PTI for Plants Producing Monostrand Post-Tension Materials since 2004.

1977-92 Established and ran, as President, PTSI, a wholly owned post-tensioning company, with offices and fabrication facilities in Miami, Las Vegas, and Hawaii. Projects were completed in these areas as well as the Bahamas, Puerto Rico, Jamaica, Venezuela, and Panama. Over 50,000,000 square feet of post-tensioned construction was provided during this time. We employed approximately 30 people and had annual sales of \$ 3M to \$ 7M. In addition to fabricating post-tensioning steel cables and hardware, PTSI provided structural engineering services to consulting engineers, value engineering and structural re-designs to contractors. I sold the company in early 1993.

We provided job site technical assistance and, on occasion, installation labor for projects on which we supplied materials. Projects varied from slabs on grade, for the residential market in Las Vegas, to 40 story condominiums in Hawaii. We periodically gave seminars to building departments on inspection of post-tensioned construction. Seminars on design of post-tensioned structures were given in Miami, Puerto Rico and Panama.



1969-77 Southeast Regional Manager - Atlas Prestressing Corp., Miami, FL. I established a regional sales and engineering office, developed the market through design seminars for consulting engineers, construction seminars for general contractors, preliminary design assistance, re-designs, economic analyses, etc. for post-tensioned concrete buildings. Our staff consisted of some 12 employees. Sales reached \$ 3 million annually.

1968-69 Assistant Chief Structural Engineer -Western Precipitation, Los Angeles, CA. Structural design of electrostatic precipitators, bag houses, and other structures related to cleaning of industrial gases. Supervised 3 engineers and 3 draftsmen.

1967-68 Senior Structural Engineer - Holmes & Narver, Los Angeles, CA. Structural design of structural steel structures and foundations for copper mining operation, and components of large antennas for the U. S. Navy. Supervised 2 draftsmen.

1965-67 Amprel, Ltda., Recife, Brazil - Self employed in Northeast Brazil designing, manufacturing, and constructing low cost pre-fabricated one story structures. Employed 20 to 50 factory and construction personnel. I was also a consultant to USAID assisting them in solving various problems of local manufacturing companies.

1962-65 Employed by various consulting engineers in Los Angeles where I designed 3 story wood frame apartments over concrete parking garages, shopping centers, and various masonry structures including design for seismic loads.

Charles Skarbrevik

3379 Hawktree Court
Green Cove Springs, FL 32043

C.SKARBREVIK@COMCAST.NET

Home: 904-435-9766
Cell: 904-403-2798

Professional Summary

Charles R. Adams & Associates, Inc. 1978 to Present

Associate responsible for inspections and post-tension repairs. PTI Unbonded Plant Inspections since 2005

Loris L Gerber, Inc. 2001 to 2005

PTI Unbonded Plant Inspections

Post Tensioned Structures, Inc. 1978 to 1999

Trained and managed personnel for unbonded tendon fabrication at the following fabrication facilities:

Hialeah, FL Las Vegas, NV Honolulu, HI Panama, Republic of Panama

Education

Barry University	1985
Broward Community College	1980
Miami-Dade Community College	1975

Experience

Post-Tensioning Institute Officer / Executive Committee Member

Vice-President 1998 to 1999

Secretary 1997 to 1998

Treasurer 1995 to 1996

Committee Chairman – Certification of Unbonded PT Field Personnel 1990 to 1997

Qualifications

Thirty three years experience with unbonded tendon fabrication facilities

Ten years of Post-Tensioning Institute Unbonded Plants Certifications

Florida State Certified General Contractor

Rick D. Cooler

1353 Holmes Landing Dr.
Orange Park, FL 32003

Mobile(904) 610-2820
RickCooler@mac.com

Experience

Coastal Aqua Care

2003 - 2006

President - Responsible for sales, operational duties and office related activities necessary to run an environmental water Quality Control Company.

Platinum Consulting Group

1999 - 2003

Team Leader / Senior Consultant - Managed a team of eight consultants
ADVO - defined requirements for automation solution that supports 1000+ sales representatives. Primary responsibility was to insure ISO 9000 and ITIL certification standards were being met

Watkins Engineering

1997 -1999

Quality Control Manager – inspected all industrial projects and plant shutdown cycles on a regular basis to insure highest quality levels were maintained throughout the organization. Determined and published guidelines for field quality management teams.

1995 -1997

Lead Planning Engineer – managed planning team and planned all activities related to industrial construction projects. Led effort to build a super-flat floor utilizing the application of post-tensioned slab-on-ground techniques.

1992 -1995

Project Engineer – responsible for all cost and scheduling activities on large-scale industrial construction projects. Projects include: 40M Proctor and Gamble Alexandria, LA Tide plant conversion, 20M Proctor and Gamble Flint River, GA pulp processing enhancement.

Delta Construction

1990 -1992

Construction Superintendent – supervised and inspected all residential subcontractor activities to insure quality and scheduling milestones were satisfactorily achieved.

Education

University of Florida

Bachelors of Science, Building Construction 1990

Appendix F

Step-by-Step Administrative Procedures for the PTI Unbonded Tendon Plant Certification Program

Appendix F includes flowcharts that outline the step-by-step procedures for the following key administrative processes of the program:

- Applications
- Initial Evaluation of Plants
- Unannounced Inspections
- Certification of Plants
- De-Certification
- Appeals, Disputes & Complaints
- Evaluation on Non-conformity Corrective Action
- Notice of Program Changes

Additional information regarding these and other PTI certification administrative procedures can be found in ***PTI's Certification Administration and Operations Guide (separate cover)***.

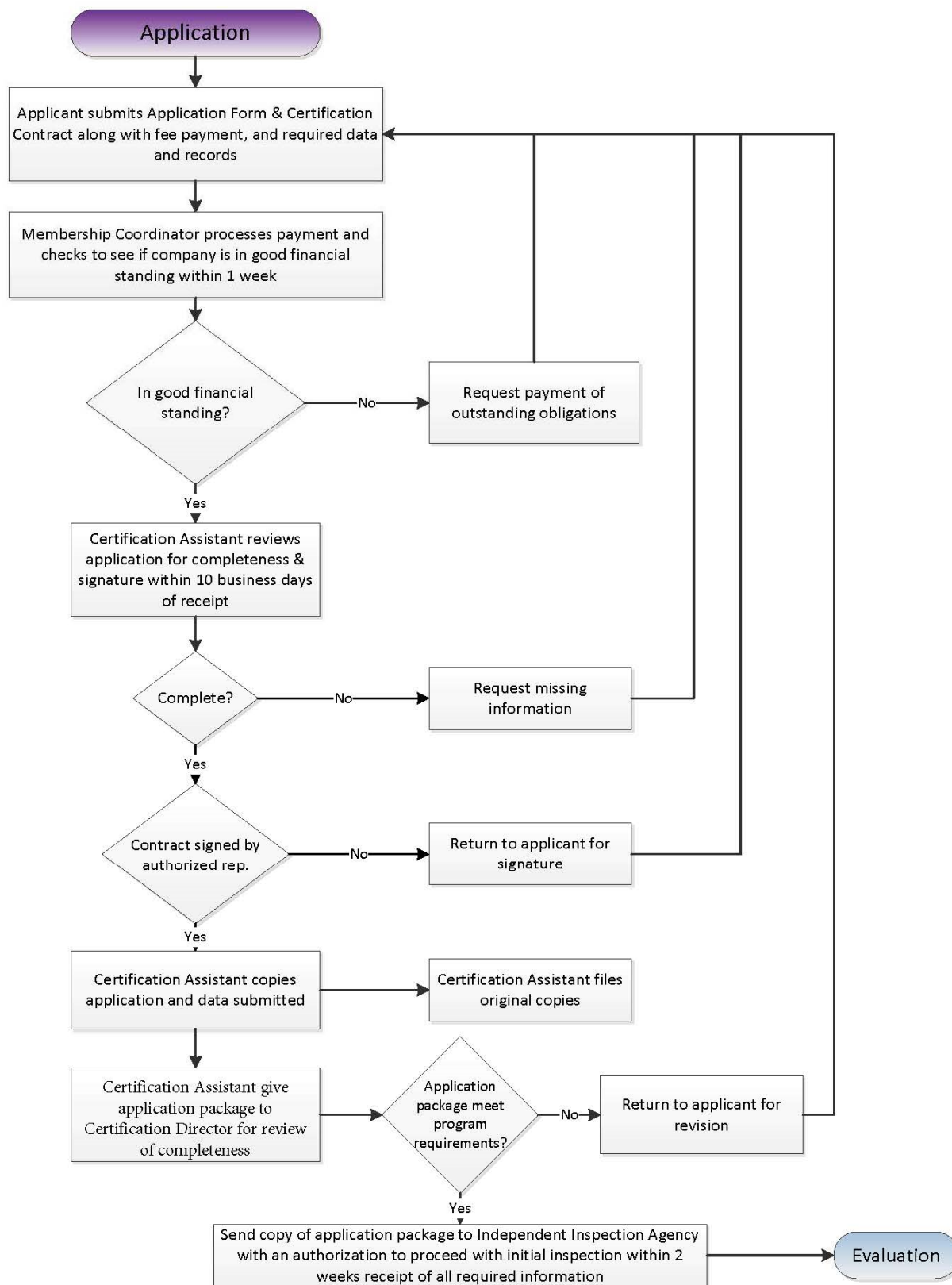


Fig. F-1—PTI Administrative procedure for processing certification applications.

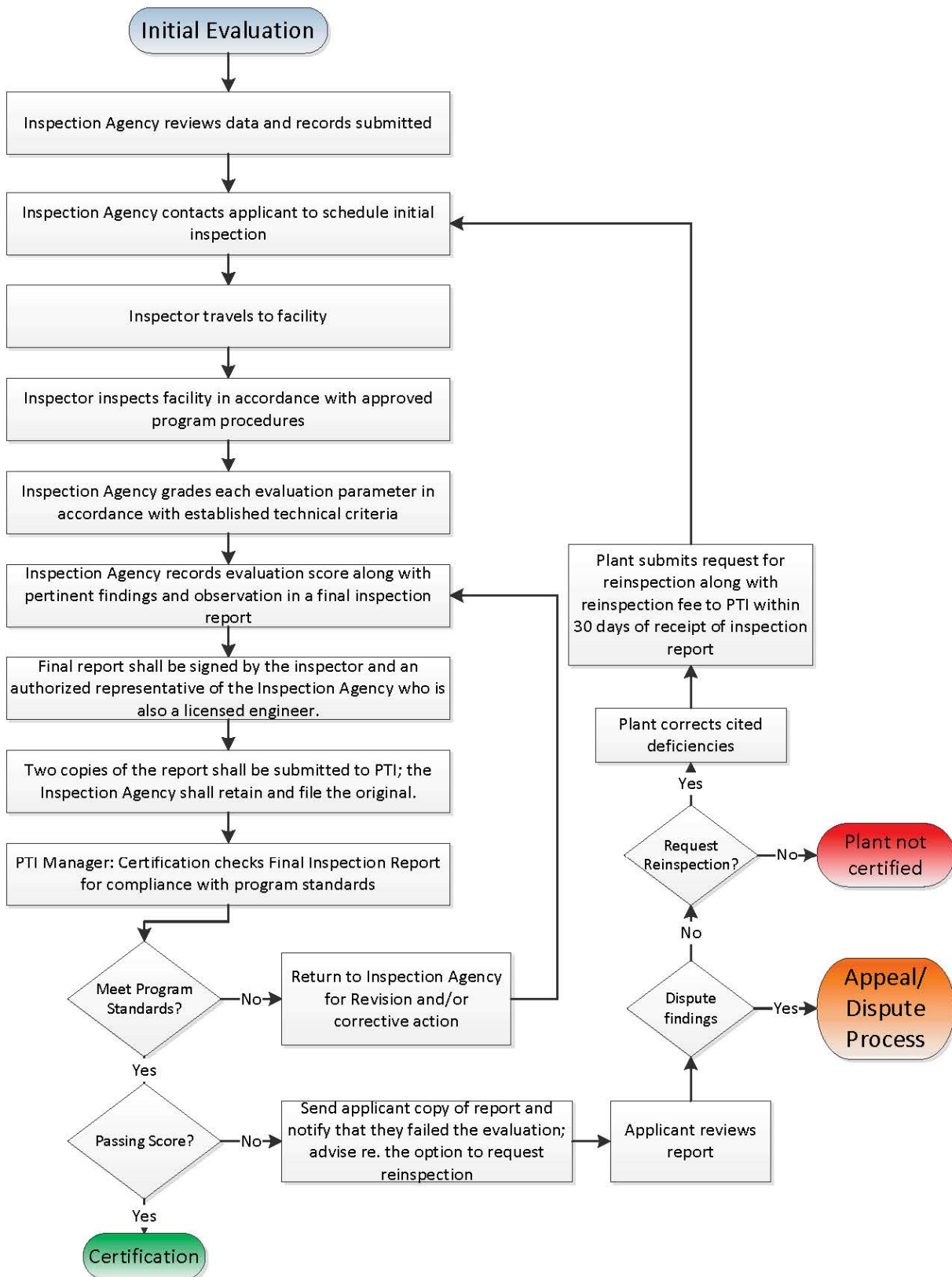


Fig. F-2—PTI Administrative procedure for initial plant inspections.

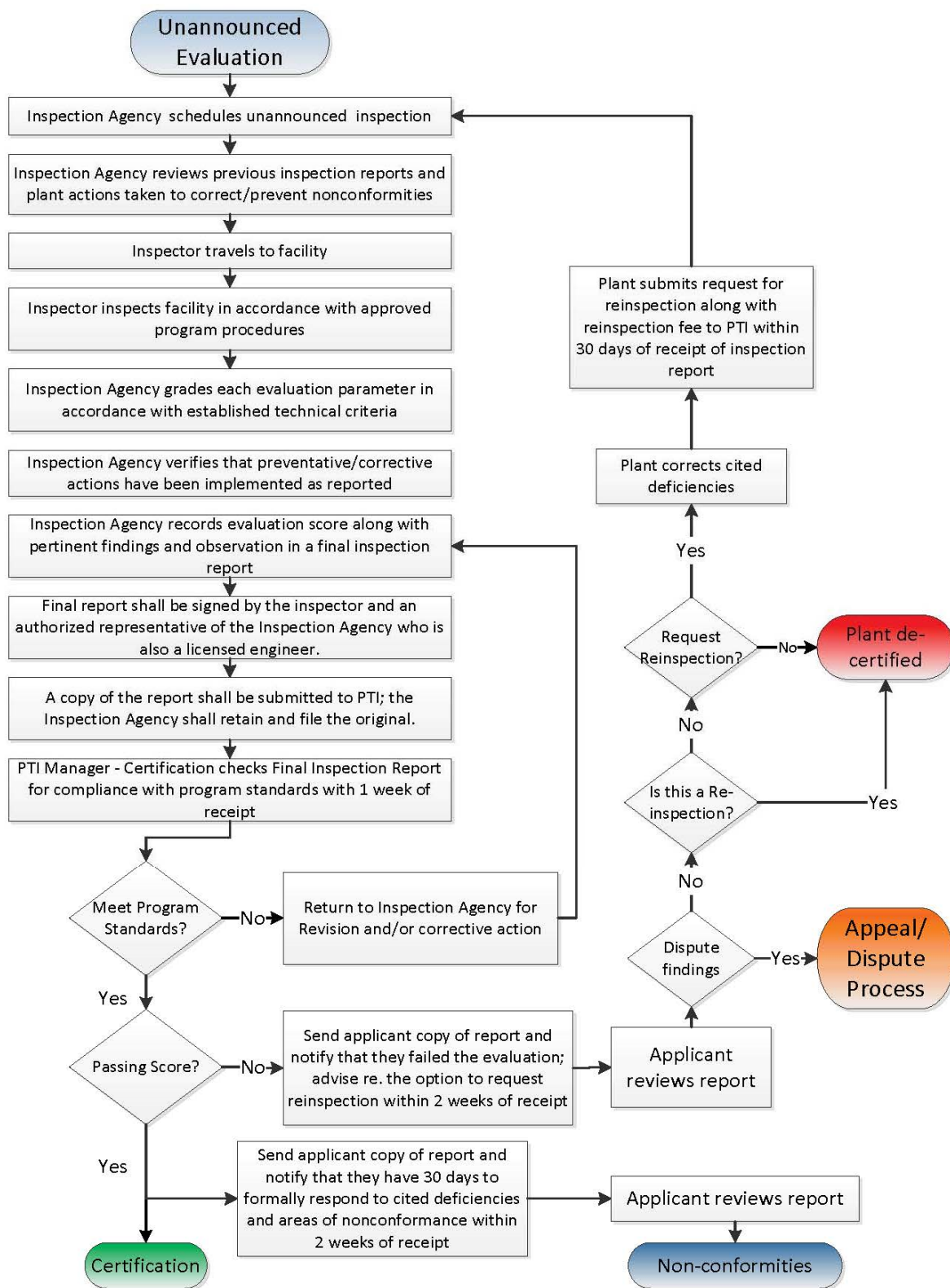


Fig. F-3—PTI Administrative procedure for unannounced plant inspections

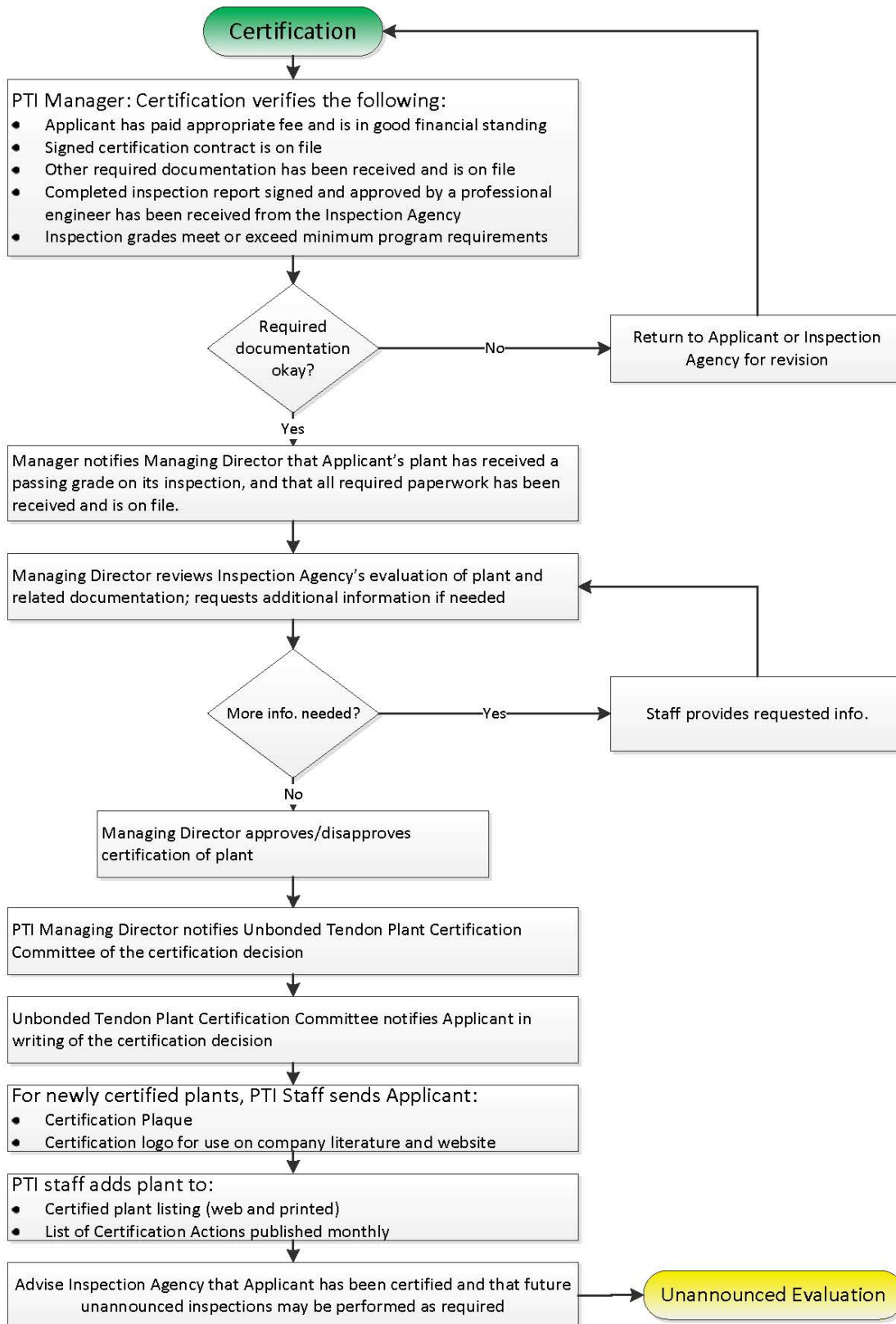


Fig. F-4—PTI Administrative procedure for certifying plants.

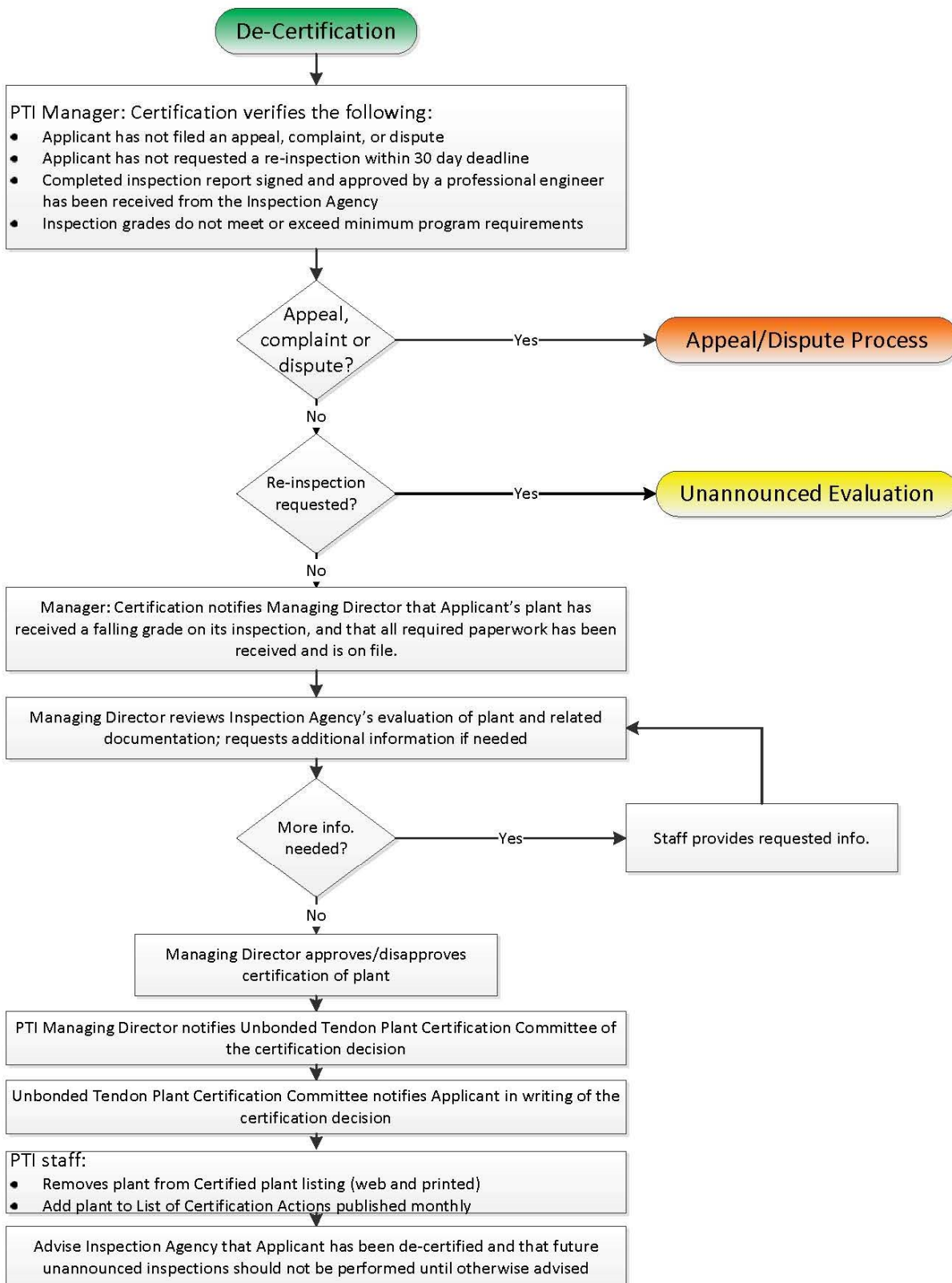


Fig. F-5—PTI de-certification process.

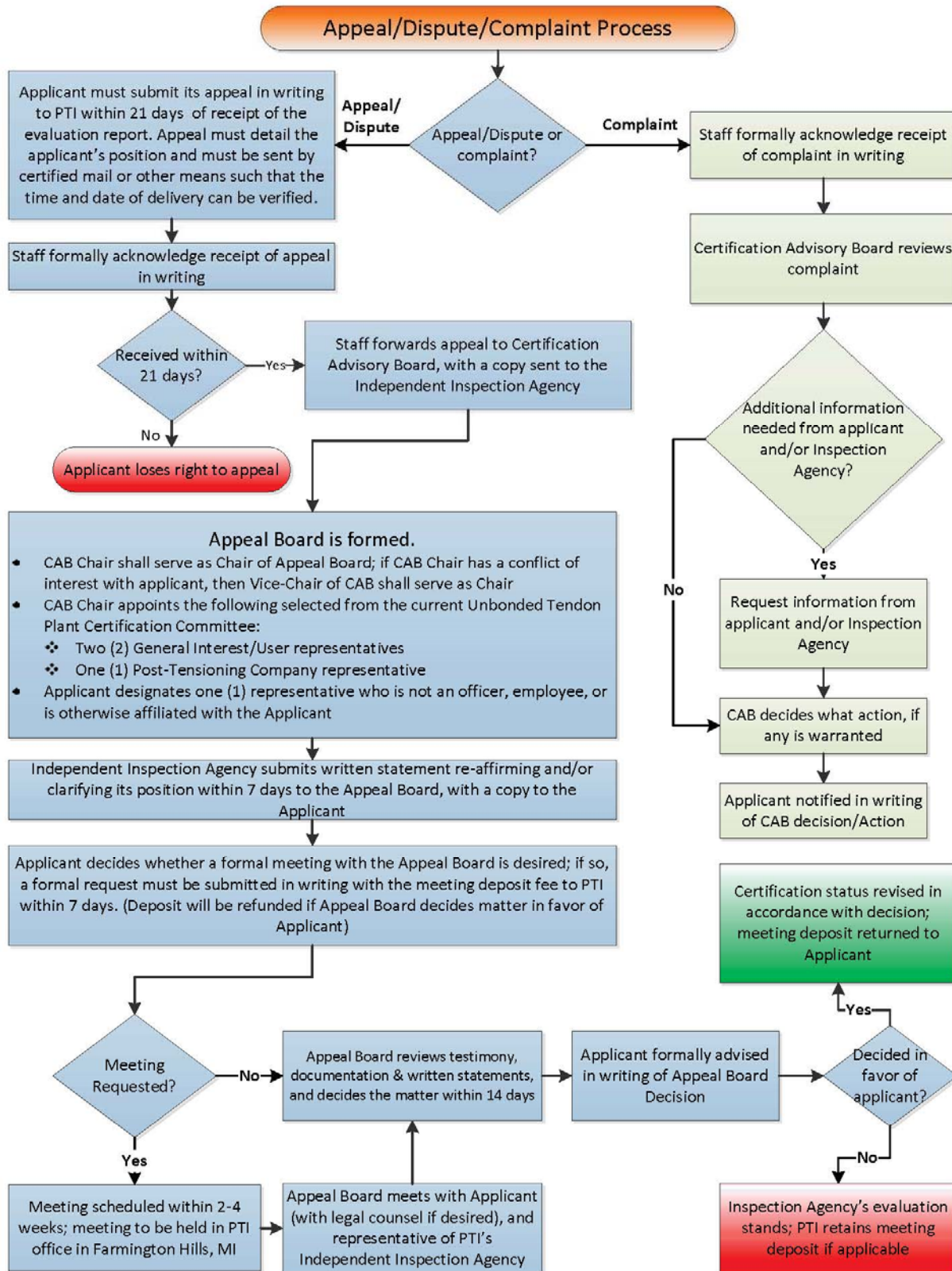


Fig. F-6—PTI administrative procedure for the appeal, dispute, and complaint process.

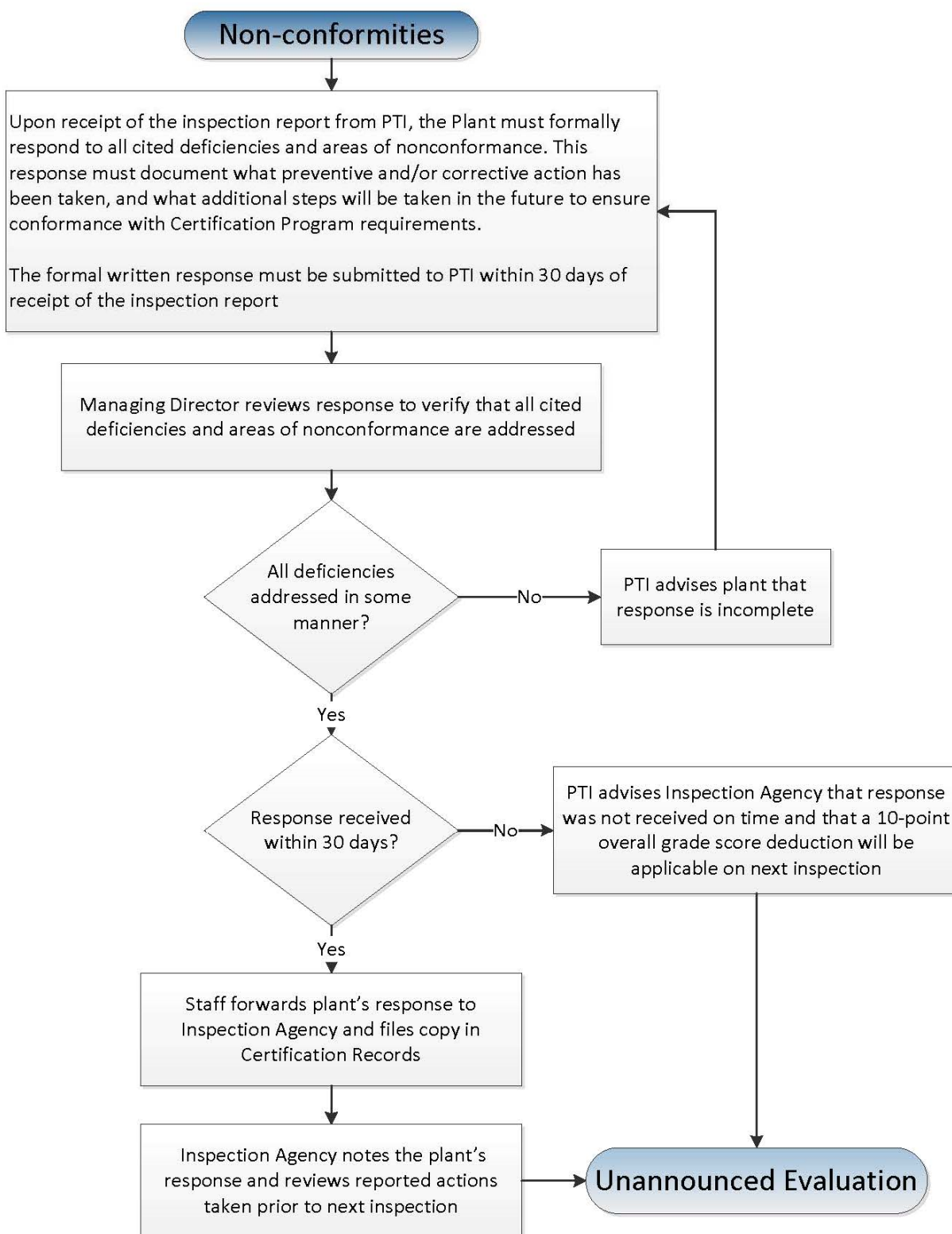


Fig. F-7—PTI procedure for evaluating actions taken to prevent/correct non-conformities.

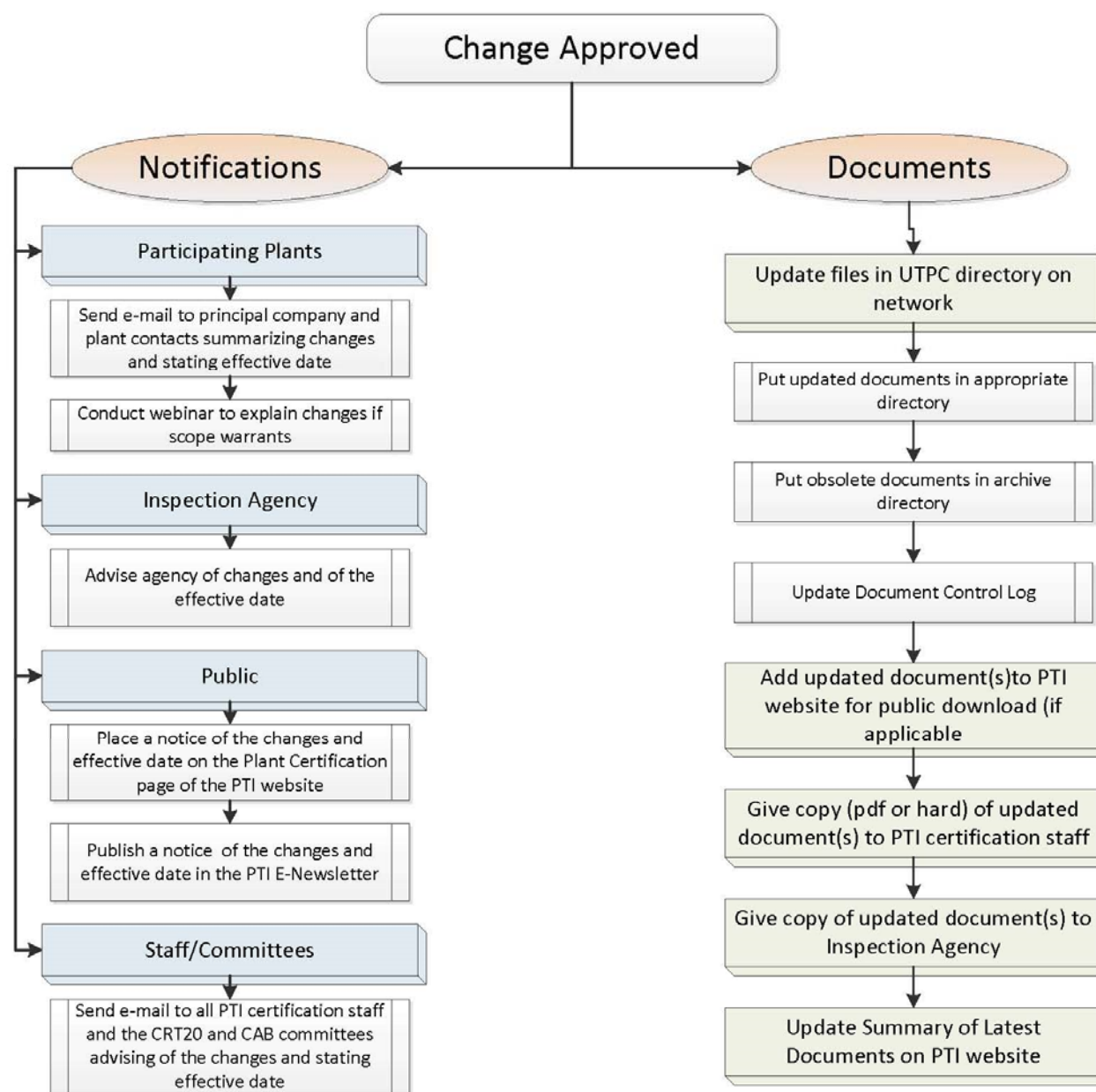


Fig. F-8—Procedure for notifying stakeholders of approved program changes.

Appendix G

PTI Unbonded Tendon Plant Certification Program Recordkeeping Organization & Structure

The following is the general organization of files for the UTPC program. As noted below, various portions of the records and files are maintained by different departments within PTI. With the exception of personnel and financial records maintained by the Human Resources and Finance departments respectively, all certification records are to be maintained in digital format on PTI's network. Only current versions of certification documents are to be stored in the active certification directory; obsolete historical documents will be stored in a separate archive directory and retained in accordance with Appendix H, PTI Certification Document Retention and Destruction Policy.

I. General

- a. Program Requirements
 - i. Plant Certification Manual
 - ii. Related References
- b. Certified Plant Listing
- c. Monthly Summary of Certification Actions
- d. ANSI Accreditation
 - i. Application
 - ii. Supporting Documentation
 - iii. ANSI Reviews & Audits
 - iv. ANSI Communications & Correspondence

II. Committees

- a. Certification Advisory Board
 - i. Roster
 - ii. Committee member bios
 - iii. Meetings
 - 1. Agendas
 - 2. Minutes
 - iv. Ballots
 - 1. Item Description
 - 2. Vote Summary
 - 3. Resolution of Negatives
 - v. Reports
- b. Unbonded Tendon Plant Certification Committee
 - i. Roster
 - ii. Committee member bios
 - iii. Meetings
 - 1. Agendas
 - 2. Minutes
 - iv. Ballots
 - 1. Item Description
 - 2. Vote Summary
 - 3. Resolution of Negatives
 - v. Reports

Appendix G

III. Plants

- a. Companies
 - i. Year
 - 1. Application-Renewal Forms
 - 2. Supporting documentation
 - 3. Contract
 - 4. Correspondence
 - 5. Evaluations & Inspections
 - 6. Plaques-Certificates
 - 7. Miscellaneous (e.g. company literature, etc.)

IV. Inspection Agency

- a. Contracts/RFPs
- b. Inspectors
 - i. Qualifications/Bios
 - ii. Exams

V. PTI Staff

- a. Job Descriptions
- b. Work History & Qualifications
- c. Performance Reviews

VI. Public Comments

- a. Notices
- b. Comments Received
- c. Resolution & Follow-up Action

VII. Appeals, Complaints & Disputes

VIII. Quality Management System

- a. Quality Management Manual
- b. Internal Audits
 - i. Committee
 - ii. Staff
 - iii. Inspection Agency

IX. Financial

- a. Annual Budget
- b. Analysis of PTI Fee Contribution
- c. Plant Invoices
- d. Payment records

Responsible Department Color Code:

Certification Department

Human Resources Department

Finance Department

Appendix H

PTI Certification Document Retention and Destruction Policy

This Certification Document Retention and Destruction Policy of the Post-Tensioning Institute identifies the record retention responsibilities of staff, volunteers, members of the Board of Directors, and outsiders for maintaining and documenting the storage and destruction of the PTI's certification documents and records.

1. **Rules.** The Executive Director's staff, volunteers, members of the Board of Directors and outsiders (i.e., independent contractors via agreements with them) are required to honor these rules: (a) paper or electronic documents indicated under the terms for retention below will be transferred and maintained by the Human Resources, Legal or Administrative staffs/departments or their equivalents; (b) all other paper documents will be destroyed after three years; (c) all other electronic documents will be deleted from all individual computers, data bases, networks, and back-up storage after three years; and (d) **no paper or electronic documents will be destroyed or deleted if pertinent to any ongoing or anticipated government investigation or proceeding or private litigation.**

2. **Terms for retention.**

a. Retain permanently:

Governance records – Charter and amendments, Bylaws, other organizational documents, governing board and board committee minutes.

Tax records – Filed state and federal tax returns/reports and supporting records, tax exemption determination letter and related correspondence, files related to tax audits.

Intellectual property records – Copyright and trademark registrations and samples of protected works.

Financial records – Audited financial statements, attorney contingent liability letters.

b. Retain for ten years:

Pension and benefit records -- Pension (ERISA) plan participant/beneficiary records, actuarial reports, related correspondence with government agencies, and supporting records.

Government relations records – State and federal lobbying and political contribution reports and supporting records.

Certification applications and agreements—contracts and other formal agreements with certification applicants, inspection agencies, internal auditors, etc.

Quality management audits – final internal audit reports

Certification actions – documentation related to a certification, re-certification or de-certification decision

Certification Committee records – minutes, rosters and other records of official committee actions

Accreditation records – supporting documentation related to accreditation by ANSI or other accreditation organization

c. Retain for five years:

Employee/employment records – Employee names, addresses, social security numbers, dates of birth, INS Form I-9, resume/application materials, job descriptions, dates of hire and termination/separation, evaluations, compensation information, promotions, transfers, disciplinary matters, time/payroll records, leave/comp time/FMLA, engagement and discharge correspondence, documentation of basis for independent contractor status (retain for all current employees and independent contractors and for three years after departure of each individual).

Certification inspection reports –final evaluation reports prepared by the Independent Inspection Agency

Certification Examinations – results of certification and inspector examinations

Appeals, complaints and disputes – records pertaining to appeals, complaints and/or disputes filed with PTI with respect to certification.

d. Retain for three years:

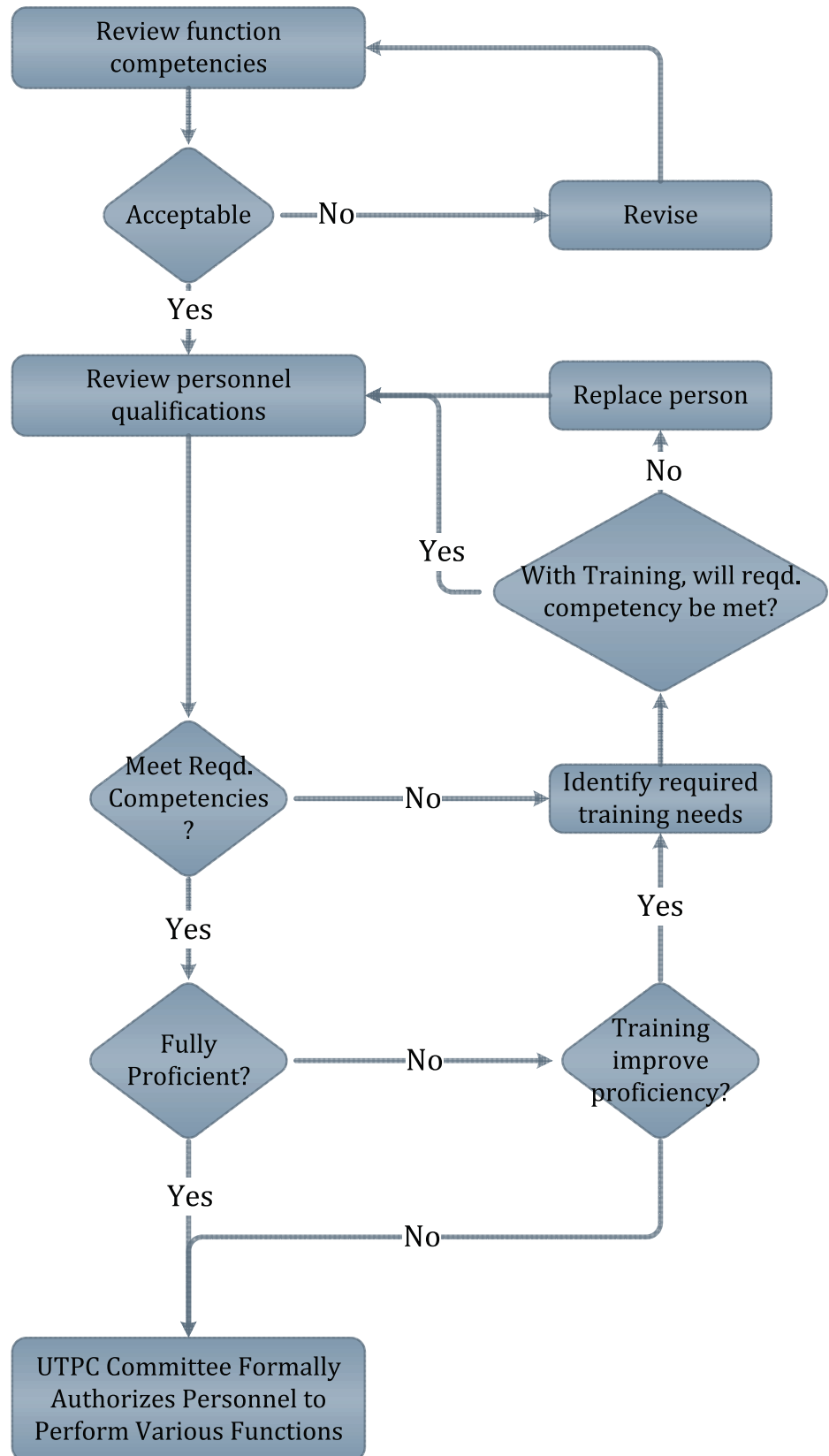
All other electronic records, documents and files – Correspondence files, past budgets, bank statements, publications, employee manuals/policies and procedures, survey information.

3. **Exceptions.** Exceptions to these rules and terms for retention may be granted only by the Executive Director or the President of the Board

Appendix I - Managing UTPC Competencies

Managing UTPC Competencies

September/October



November/December



38800 Country Club Drive
Farmington Hills, MI 48331
(248) 848-3180
