Jefferson Science Associates, LLC (JSA)

Internal Audit Charter

Statement of Authority and Responsibility

Purpose and Mission

The purpose of JSA's internal audit activity is to provide independent, objective assurance and consulting services designed to add value and improve JSA's operations. The mission of internal audit is to enhance and protect organizational value by providing risk-based and objective assurance, advice, and insight. The internal audit activity helps JSA accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of governance, risk management, and control processes.

Standards for the Professional Practice of Internal Auditing

The internal audit activity will govern itself by adherence to the mandatory elements of The Institute of Internal Auditors' International Professional Practices Framework, including the Core Principles for the Professional Practice of Internal Auditing, the Code of Ethics, the International Standards for the Professional Practice of Internal Auditing, and the Definition of Internal Auditing. The chief audit executive will report periodically to senior management and the JSA Finance and Audit Committee regarding the internal audit activity's conformance to the Code of Ethics and the Standards.

Authority

The chief audit executive will report functionally to the JSA Finance and Audit Committee and administratively (i.e., day-to-day operations) to the Thomas Jefferson National Accelerator Facility (Jefferson Lab) Director. To establish, maintain, and assure that JSA's internal audit activity has sufficient authority to fulfill its duties, the JSA Finance and Audit Committee will:

- Approve the internal audit activity's charter.
- Approve the risk-based internal audit plan.
- Recommend to the JSA Board of Directors the approval of the internal audit activity's budget and resource plan.
- Receive communications from the chief audit executive on the internal audit activity's performance relative to its plan and other matters.
- Approve decisions regarding the appointment and removal of the chief audit executive.
- Recommend to the JSA Compensation Committee the approval of the remuneration of the chief audit executive.
- Make appropriate inquiries of management and the chief audit executive to determine whether there is inappropriate scope or resource limitations.

The chief audit executive will have unrestricted access to, and communicate and interact directly with, the JSA Finance and Audit Committee, including in private meetings without management present.

The JSA Finance and Audit Committee authorizes the internal audit activity to:

- Have full, free, and unrestricted access to all functions, records, property, and personnel pertinent to carrying out any engagement, subject to accountability for confidentiality and safeguarding of records and information.
- Allocate resources, set frequencies, select subjects, determine scopes of work, apply techniques required to accomplish audit objectives, and issue reports.

Page 1 of 4 December 2018

• Obtain assistance from the necessary personnel of JSA, as well as other specialized services from within or outside JSA, in order to complete the engagement.

Independence and Objectivity

The chief audit executive will ensure that the internal audit activity remains free from all conditions that threaten the ability of internal auditors to carry out their responsibilities in an unbiased manner, including matters of audit selection, scope, procedures, frequency, timing, and report content. If the chief audit executive determines that independence or objectivity may be impaired in fact or appearance, the details of impairment will be disclosed to appropriate parties.

Internal auditors will maintain an unbiased mental attitude that allows them to perform engagements objectively and in such a manner that they believe in their work product, that no quality compromises are made, and that they do not subordinate their judgment on audit matters to others.

Internal auditors will have no direct operational responsibility or authority over any of the activities audited. Accordingly, internal auditors will not implement internal controls, develop procedures, install systems, prepare records, or engage in any other activity that may impair their judgment, including:

- Assessing specific operations for which they had responsibility within the previous year.
- Performing any operational duties for JSA or its affiliates.
- Initiating or approving transactions external to the internal audit activity.
- Directing the activities of any JSA employee not employed by the internal audit activity, except to the extent that such employees have been appropriately assigned to auditing teams or to otherwise assist internal auditors.

Where the chief audit executive has or is expected to have roles and/or responsibilities that fall outside of internal auditing, safeguards will be established to limit impairments to independence or objectivity.

Internal auditors will:

- Disclose any impairment of independence or objectivity, in fact or appearance, to appropriate parties.
- Exhibit professional objectivity in gathering, evaluating, and communicating information about the activity or process being examined.
- Make balanced assessments of all available and relevant facts and circumstances.
- Take necessary precautions to avoid being unduly influenced by their own interests or by others in forming judgments.

The chief audit executive will confirm to the JSA Finance and Audit Committee, at least annually, the organizational independence of the internal audit activity.

The chief audit executive will disclose to the JSA Finance and Audit Committee any interference and related implications in determining the scope of internal auditing, performing work, and/or communicating results.

Scope of Internal Audit Activities

The scope of internal audit activities encompasses, but is not limited to, objective examinations of evidence for the purpose of providing independent assessments to the JSA Finance and Audit Committee, management, and outside parties on the adequacy and effectiveness of governance, risk management, and control processes for JSA. Internal audit assessments include evaluating whether:

• Risks relating to the achievement of JSA's strategic objectives are appropriately identified and managed.

Page 2 of 4 December 2018

- The actions of JSA's officers, directors, employees, and contractors are in compliance with JSA's policies, procedures, and applicable laws, regulations, and governance standards.
- The results of operations or programs are consistent with established goals and objectives.
- Operations or programs are being carried out effectively and efficiently.
- Established processes and systems enable compliance with the policies, procedures, laws, and regulations that could significantly impact JSA.
- Information and the means used to identify, measure, analyze, classify, and report such information are reliable and have integrity.
- Resources and assets are acquired economically, used efficiently, and protected adequately.

The chief audit executive will report periodically to senior management and the JSA Finance and Audit Committee regarding:

- The internal audit activity's purpose, authority, and responsibility.
- The internal audit activity's plan and performance relative to its plan.
- The internal audit activity's conformance with The IIA's Code of Ethics and Standards, and action plans to address any significant conformance issues.
- Significant risk exposures and control issues, including fraud risks, governance issues, and other matters requiring the attention of, or requested by, the JSA Finance and Audit Committee.
- Results of audit engagements or other activities.
- Resource requirements.
- Any response to risk by management that may be unacceptable to JSA.

The chief audit executive also coordinates activities, where possible, and considers relying upon the work of other internal and external assurance and consulting service providers as needed. The internal audit activity may perform advisory and related client service activities, the nature and scope of which will be agreed with the client, provided the internal audit activity does not assume management responsibility.

Opportunities for improving the efficiency of governance, risk management, and control processes may be identified during engagements. These opportunities will be communicated to the appropriate level of management.

Responsibility

The chief audit executive has the responsibility to:

- Submit, at least annually, to senior management and the JSA Finance and Audit Committee a risk-based internal audit plan for review and approval.
- Communicate to senior management and the JSA Finance and Audit Committee the impact of resource limitations on the internal audit plan.
- Review and adjust the internal audit plan, as necessary, in response to changes in JSA's business, risks, operations, programs, systems, and controls.
- Communicate to senior management and the JSA Finance and Audit Committee any significant interim changes to the internal audit plan.
- Ensure each engagement of the internal audit plan is executed, including the establishment of objectives and scope, the assignment of appropriate and adequately supervised resources, the documentation of work programs and testing

Page 3 of 4 December 2018

results, and the communication of engagement results with applicable conclusions and recommendations to appropriate parties.

- Follow up on engagement findings and corrective actions, and report periodically to senior management and the JSA
 Finance and Audit Committee any corrective actions not effectively implemented.
- · Ensure the principles of integrity, objectivity, confidentiality, and competency are applied and upheld.
- Ensure the internal audit activity collectively possesses or obtains the knowledge, skills, and other competencies needed to meet the requirements of the internal audit charter.
- Ensure trends and emerging issues that could impact JSA are considered and communicated to senior management and the JSA Finance and Audit Committee as appropriate.
- · Ensure emerging trends and successful practices in internal auditing are considered.
- · Establish and ensure adherence to policies and procedures designed to guide the internal audit activity.
- Ensure adherence to JSA's relevant policies and procedures, unless such policies and procedures conflict with the
 internal audit charter. Any such conflicts will be resolved or otherwise communicated to senior management and the
 JSA Finance and Audit Committee.
- · Ensure conformance of the internal audit activity with the Standards, with the following qualifications:
 - If the internal audit activity is prohibited by law or regulation from conformance with certain parts of the Standards, the chief audit executive will ensure appropriate disclosures and will ensure conformance with all other parts of the Standards.
 - If the Standards are used in conjunction with requirements issued by other authoritative bodies, the chief audit
 executive will ensure that the internal audit activity conforms with the Standards, even if the internal audit activity
 also conforms with the more restrictive requirements of other authoritative bodies.

Quality Assurance and Improvement Program

The internal audit activity will maintain a quality assurance and improvement program that covers all aspects of the internal audit activity. The program will include an evaluation of the internal audit activity's conformance with the Standards and an evaluation of whether internal auditors apply The IIA's Code of Ethics. The program will also assess the efficiency and effectiveness of the internal audit activity and identify opportunities for improvement.

The chief audit executive will communicate to senior management and the JSA Finance and Audit Committee on the internal audit activity's quality assurance and improvement program, including results of internal assessments (both ongoing and periodic) and external assessments conducted at least once every five years by a qualified, independent assessor or assessment team from outside JSA.

Michael Vil	1/4/19
Michael Fluehr, Chair, JSA Finance and Audit Committee	Date
so Kun	1/4/19
Stuart Henderson, Jefferson Lab Director	Date
Hail Quento	1/2/19
Gail Lucento, Chief Audit Executive	Date

Page 4 of 4