

OFFICE OF SCIENCE POLICY GUIDANCE

Subject: LABORATORY CONTRACTING UNDER QUANTUM
INFORMATION SCIENCE TECHNOLOGIES

Effective Date: This Guidance is effective December 9, 2020

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Applicability

This guidance applies to all lab subcontracts for work related to Funding Opportunity Announcement (FOA) DE-FOA-0002253, entitled “National Quantum Information Science Research Centers”. The Department of Energy (“DOE”) has issued the “Quantum Information Science Technologies Determination of Exceptional Circumstances (DEC)”, dated August 28, 2020. As authorized by the DEC, DOE is requiring the U.S. Competitiveness provision in Appendix A of the DEC be included in all subcontracts for work related FOA DE-FOA-0002253. The Contractor should ensure that the licensing of any subject invention of this work is compliant with the U.S. Competitiveness provision in Appendix A of the DEC. The following guidance has been provided by DOE Patent Counsel to assist Contracting Officers (CO) provide direction to Contractors issuing subcontracts for this work.

Authority

The prime contract patent clause (48 CFR 970.5227-10) covers Contractor patent rights, including the grant of Bayh-Dole rights (35 U.S.C. 202 et seq) to nonprofit organization and small business firms. Additionally, the prime contract patent clause specifically provides an exception to Bayh-Dole rights when a DEC has been issued as authorized by 35 U.S.C. 202(b).

48 CFR 970.5227-10(g)2) covers general subcontracts issued to non-profit organization or small business firm. Section (g)(2) authorizes the Contracting Officer to provide alternative terms . Furthermore, (g)(2) also notes DEC's and specifically excludes the application of the standard patent rights clause at 48 CFR 952.227-11 for subcontracts subject to a DEC.

Regarding subcontractors other than non-profit organizations and small business firms, (g)(3) also gives an exception for subcontracts subject to a DEC stating, “For subcontracts subject to exceptional

circumstances, the contractor must consult with DOE patent counsel with respect to the appropriate patent clause.”

Inclusion of patent rights clause - non-profit organization or small business firm QIS subcontractors

The Contractor shall include the patent rights clause listed in Attachment A, suitably modified to identify the parties, in all subcontracts, at any tier, for experimental, developmental, demonstration or research work to be performed by a small business firm or nonprofit organization related FOA DE-FOA-0002253. The patent rights clause included in Attachment A is the patent clause 48 CFR 952.227-11 modified to remove the instructions and to add the U.S. Competitiveness language required by the DEC added as “(m) U.S. Competitiveness”.

Inclusion of patent rights clause – QIS subcontractors other than non-profit organizations and small business firms.

DOE Field Patent Counsel should be consulted for all other subcontracts related FOA DE-FOA-0002253. DOE Field Patent Counsel should confirm the applicability of the QIS Class Patent Waiver. If a subcontractor does not accept the terms of the QIS Class Patent Waiver or is otherwise ineligible, they may petition for an advanced or identified patent waiver. If the subcontractor does not qualify for a DOE patent waiver, the Contractor should include the patent rights clause at 48 CFR 952.227-13, suitably modified. DOE Field Patent Counsel will need to ensure incorporated terms are consistent with the DEC, including U.S. Manufacturing requirements and proper flow down of the DEC in any further subcontracts.

Attachment A

48 CFR 952.227-11 Patent Rights—Retention by the Contractor (Short Form) (MAR 1995) (QIS DEC – Modifications Shown)

~~As prescribed in 927.303(a), insert the following clause:~~

(a) *Definitions*—(1) *Invention* means any invention or discovery which is or may be patentable or otherwise protectable under title 35 of the United States Code, or any novel variety of plant which is or may be protected under the Plant Variety Protection Act (7 U.S.C. 2321, *et seq.*).

(2) *Made* when used in relation to any invention means the conception of first actual reduction to practice of such invention.

(3) *Nonprofit organization* means a university or other institution of higher education or an organization of the type described in section 501(c)(3) of the Internal Revenue Code of 1954 (26 U.S.C. 501(c)) and exempt from taxation under section 501(a) of the Internal Revenue Code (26 U.S.C. 501(a)) or any nonprofit scientific or educational organization qualified under a state nonprofit organization statute.

(4) *Practical application* means to manufacture, in the case of a composition or product; to practice, in the case of a process or method; or to operate, in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is being utilized and that its benefits are, to the extent permitted by law or Government regulations, available to the public on reasonable terms.

(5) *Small business firm* means a small business concern as defined at section 2 of Public Law 85-536 (15 U.S.C. 632) and implementing regulations of the Administrator of the Small Business Administration. For the purpose of this clause, the size standards for small business concerns involved in Government procurement and subcontracting at 13 CFR 121.3-8 and 13 CFR 121.3-12, respectively, will be used.

(6) *Subject invention* means any invention of the contractor conceived or first actually reduced to practice in the performance of work under this contract, provided that in the case of a variety of plant, the date of determination (as defined in section 41(d) of the Plant Variety Protection Act, 7 U.S.C. 2401(d)) must also occur during the period of contract performance.

(7) *Agency licensing regulations* and *agency regulations concerning the licensing of Government-owned inventions* mean the Department of Energy patent licensing regulations at 10 CFR part 781.

(b) *Allocation of principal rights*. The Contractor may retain the entire right, title, and interest throughout the world to each subject invention subject to the provisions of this clause and 35 U.S.C. 203. With respect to any subject invention in which the Contractor retains title, the Federal Government shall have a nonexclusive, nontransferable, irrevocable, paid-up license to

practice or have practiced for or on behalf of the United States the subject invention throughout the world.

(c) Invention disclosure, election of title, and filing of patent application by Contractor. (1) The Contractor will disclose each subject invention to the Department of Energy (DOE) within 2 months after the inventor discloses it in writing to Contractor personnel responsible for patent matters. The disclosure to DOE shall be in the form of a written report and shall identify the contract under which the invention was made and the inventor(s). It shall be sufficiently complete in technical detail to convey a clear understanding to the extent known at the time of the disclosure, of the nature, purpose, operation, and the physical, chemical, biological or electrical characteristics of the invention. The disclosure shall also identify any publication, on sale or public use of the invention and whether a manuscript describing the invention has been submitted for publication and, if so, whether it has been accepted for publication at the time of disclosure. In addition, after disclosure to the DOE, the Contractor will promptly notify that agency of the acceptance of any manuscript describing the invention for publication or of any on sale or public use planned by the Contractor.

(2) The Contractor will elect in writing whether or not to retain title to any such invention by notifying DOE within 2 years of disclosure to DOE. However, in any case where publication, on sale or public use has initiated the 1-year statutory period wherein valid patent protection can still be obtained in the United States, the period for election of title may be shortened by DOE to a date that is no more than 60 days prior to the end of the statutory period.

(3) The Contractor will file its initial patent application on a subject invention to which it elects to retain title within 1 year after election of title or, if earlier, prior to the end of any statutory period wherein valid patent protection can be obtained in the United States after a publication, on sale, or public use. The Contractor will file patent applications in additional countries or international patent offices within either 10 months of the corresponding initial patent application or 6 months from the date permission is granted by the Commissioner of Patents and Trademarks to file foreign patent applications where such filing has been prohibited by a Secrecy Order.

(4) Requests for extension of the time for disclosure, election, and filing under subparagraphs (c)(1), (2), and (3) of this clause may, at the discretion of the agency, be granted.

(d) Conditions when the Government may obtain title. The Contractor will convey to the Federal agency, upon written request, title to any subject invention—

(1) If the Contractor fails to disclose or elect title to the subject invention within the times specified in paragraph (c) of this clause, or elects not to retain title; provided, that DOE may only request title within 60 days after learning of the failure of the Contractor to disclose or elect within the specified times.

(2) In those countries in which the Contractor fails to file patent applications within the times specified in paragraph (c) of this clause; provided, however, that if the Contractor has filed a patent application in a country after the times specified in paragraph (c) of this clause, but prior

to its receipt of the written request of the Federal agency, the Contractor shall continue to retain title in that country.

(3) In any country in which the Contractor decides not to continue the prosecution of any application for, to pay the maintenance fees on, or defend in reexamination or opposition proceeding on, a patent on a subject invention.

(e) Minimum rights to Contractor and protection of the Contractor right to file. (1) The Contractor will retain a nonexclusive royalty-free license throughout the world in each subject invention to which the Government obtains title, except if the Contractor fails to disclose the invention within the times specified in paragraph (c) of this clause. The Contractor's license extends to its domestic subsidiary and affiliates, if any, within the corporate structure of which the Contractor is a party and includes the right to grant sublicenses of the same scope to the extent the Contractor was legally obligated to do so at the time the contract was awarded. The license is transferable only with the approval of the Federal agency, except when transferred to the successor of that part of the Contractor's business to which the invention pertains.

(2) The Contractor's domestic license may be revoked or modified by DOE to the extent necessary to achieve expeditious practical application of subject invention pursuant to an application for an exclusive license submitted in accordance with applicable provisions at 37 CFR part 404 and agency licensing regulations. This license will not be revoked in that field of use or the geographical areas in which the Contractor has achieved practical application and continues to make the benefits of the invention reasonably accessible to the public. The license in any foreign country may be revoked or modified at the discretion of DOE to the extent the Contractor, its licensees, or the domestic subsidiaries or affiliates have failed to achieve practical application in that foreign country.

(3) Before revocation or modification of the license, DOE will furnish the Contractor a written notice of its intention to revoke or modify the license, and the Contractor will be allowed 30 days (or such other time as may be authorized by DOE for good cause shown by the Contractor) after the notice to show cause why the license should not be revoked or modified. The Contractor has the right to appeal, in accordance with applicable regulations in 37 CFR part 404 and agency regulations concerning the licensing of Government owned inventions, any decision concerning the revocation or modification of the license.

(f) Contractor action to protect the Government's interest. (1) The Contractor agrees to execute or to have executed and promptly deliver to DOE all instruments necessary to (i) establish or confirm the rights the Government has throughout the world in those subject inventions to which the Contractor elects to retain title, and (ii) convey title to DOE when requested under paragraph (d) of this clause and to enable the government to obtain patent protection throughout the world in that subject invention.

(2) The Contractor agrees to require, by written agreement, its employees, other than clerical and nontechnical employees, to disclose promptly in writing to personnel identified as responsible for the administration of patent matters and in a format suggested by the Contractor each subject invention made under contract in order that the Contractor can comply with the disclosure

provisions of paragraph (c) of this clause, and to execute all papers necessary to file patent applications on subject inventions and to establish the Government's rights in the subject inventions. This disclosure format should require, as a minimum, the information required by subparagraph (c)(1) of this clause. The Contractor shall instruct such employees, through employee agreements or other suitable educational programs, on the importance of reporting inventions in sufficient time to permit the filing of patent applications prior to U.S. or foreign statutory bars.

(3) The Contractor will notify DOE of any decision not to continue the prosecution of a patent application, pay maintenance fees, or defend in a reexamination or opposition proceeding on a patent, in any country, not less than 30 days before the expiration of the response period required by the relevant patent office.

(4) The Contractor agrees to include, within the specification of any United States patent application and any patent issuing thereon covering a subject invention, the following statement, "This invention was made with Government support under (identify the contract) awarded by the United States Department of Energy. The Government has certain rights in the invention."

(g) *Subcontracts.* (1) The Contractor will include this clause, suitably modified to identify the parties, in all subcontracts, regardless of tier, for experimental, developmental, or research work to be performed by a small business firm or domestic nonprofit organization. The subcontractor will retain all rights provided for the Contractor in this clause, and the Contractor will not, as part of the consideration for awarding the subcontract, obtain rights in the subcontractor's subject inventions.

(2) The contractor shall include in all other subcontracts, regardless of tier, for experimental, developmental, demonstration, or research work the patent rights clause at 952.227-13.

(3) In the case of subcontracts, at any tier, DOE, subcontractor, and the Contractor agree that the mutual obligations of the parties created by this clause constitute a contract between the subcontractor and DOE with respect to the matters covered by the clause; provided, however, that nothing in this paragraph is intended to confer any jurisdiction under the Contract Disputes Act in connection with proceedings under paragraph (j) of this clause.

(h) *Reporting on utilization of subject inventions.* The Contractor agrees to submit, on request, periodic reports no more frequently than annually on the utilization of a subject invention or on efforts at obtaining such utilization that are being made by the Contractor or its licensees or assignees. Such reports shall include information regarding the status of development, date of first commercial sale or use, gross royalties received, by the Contractor, and such other data and information as DOE may reasonably specify. The Contractor also agrees to provide additional reports as may be requested by DOE in connection with any march-in proceeding undertaken by that agency in accordance with paragraph (j) of this clause. As required by 35 U.S.C. 202(c)(5), DOE agrees it will not disclose such information to persons outside the Government without permission of the Contractor.

(i) *Preference for United States industry.* Notwithstanding any other provision of this clause, the Contractor agrees that neither it nor any assignee will grant to any person the exclusive right to use or sell any subject invention in the United States unless such person agrees that any product embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the United States. However, in individual cases, the requirement for such an agreement may be waived by DOE upon a showing by the Contractor or its assignee that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that under the circumstances domestic manufacture is not commercially feasible.

(j) *March-in rights.* The Contractor agrees that, with respect to any subject invention in which it has acquired title, DOE has the right in accordance with the procedures in 37 CFR 401.6 and any supplemental regulations of the agency to require the Contractor, an assignee or exclusive licensee of a subject invention to grant a nonexclusive, partially exclusive, or exclusive license in any field of use to a responsible applicant or applicants, upon terms that are reasonable under the circumstances, and, if the Contractor, assignee, or exclusive licensee refuses such a request, DOE has the right to grant such a license itself if DOE determines that—

(1) Such action is necessary because the Contractor or assignee has not taken, or is not expected to take within a reasonable time, effective steps to achieve practical application of the subject invention in such field of use;

(2) Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by the Contractor, assignee, or their licensees;

(3) Such action is necessary to meet requirements for public use specified by Federal regulations and such requirements are not reasonably satisfied by the Contractor, assignee, or licensees; or

(4) Such action is necessary because the agreement required by paragraph (i) of this clause has not been obtained or waived or because a licensee of the exclusive right to use or sell any subject invention in the United States is in breach of such agreement.

(k) *Special provisions for contracts with nonprofit organizations.* If the Contractor is a nonprofit organization, it agrees that—

(1) Rights to a subject invention in the United States may not be assigned without the approval of the Federal agency, except where such assignment is made to an organization which has as one of its primary functions the management of inventions; provided, that such assignee will be subject to the same provisions as the Contractor;

(2) The Contractor will share royalties collected on a subject invention with the inventor, including Federal employee co-inventors (when DOE deems it appropriate) when the subject invention is assigned in accordance with 35 U.S.C. 202(e) and 37 CFR 401.10;

(3) The balance of any royalties or income earned by the Contractor with respect to subject inventions, after payment of expenses (including payments to inventors) incidental to the

administration of subject inventions will be utilized for the support of scientific research or education; and

(4) It will make efforts that are reasonable under the circumstances to attract licensees of subject inventions that are small business firms, and that it will give a preference to a small business firm when licensing a subject invention if the Contractor determines that the small business firm has a plan or proposal for marketing the invention which, if executed, is equally as likely to bring the invention to practical application as any plans or proposals from applicants that are not small business firms; provided, that the Contractor is also satisfied that the small business firm has the capability and resources to carry out its plan or proposal. The decision whether to give a preference in any specific case will be at the discretion of the contractor. However, the Contractor agrees that the Secretary of Commerce may review the Contractor's licensing program and decisions regarding small business applicants, and the Contractor will negotiate changes to its licensing policies, procedures, or practices with the Secretary of Commerce when that Secretary's review discloses that the Contractor could take reasonable steps to more effectively implement the requirements of this subparagraph (k)(4).

(1) *Communications.* (1) The contractor shall direct any notification, disclosure, or request to DOE provided for in this clause to the DOE patent counsel assisting the DOE contracting activity, with a copy of the communication to the Contracting Officer.

(2) Each exercise of discretion or decision provided for in this clause, except subparagraph (k)(4), is reserved for the DOE Patent Counsel and is not a claim or dispute and is not subject to the Contract Disputes Act of 1978.

(3) Upon request of the DOE Patent Counsel or the contracting officer, the contractor shall provide any or all of the following:

(i) A copy of the patent application, filing date, serial number and title, patent number, and issue date for any subject invention in any country in which the contractor has applied for a patent;

(ii) A report, not more often than annually, summarizing all subject inventions which were disclosed to DOE individually during the reporting period specified; or

(iii) A report, prior to closeout of the contract, listing all subject inventions or stating that there were none.

(m) U.S. Competitiveness

The Contractor agrees that any products embodying any subject invention or produced through the use of any subject invention will be manufactured substantially in the United States unless the Contractor can show to the satisfaction of DOE that it is not commercially feasible. In the Event DOE agrees to foreign manufacture, there will be a requirement that the Government's support of the technology be recognized in some appropriate manner, e.g., recoupment of the Government's investment, etc. The Contractor agrees that it will not license, assign or otherwise transfer any waived invention to any entity unless that entity agrees to these same requirements.

Should the Contractor or other such entity receiving rights in the invention(s): (1) undergo a change in ownership amounting to a controlling interest, or (2) sell, assign, or otherwise transfer title or exclusive rights in the inventions(s), then the waiver, assignment, license, or other transfer of rights in the waived inventions(s) is/are suspended until approved in writing by DOE. Notwithstanding the conditions when the government may obtain title provided in paragraph (d) of this clause, the Contractor also shall assign and hereby assigns to DOE, upon written request from DOE, title to any subject inventions, upon a breach of this paragraph.

(End of clause)