March 26, 2009

Submitted electronically to GC-62@hq.doe.gov

Office of Assistant General Counsel for Technology Transfer
and Intellectual Property
U.S. Department of Energy
1000 Independence Ave., SW
Washington, DC 20585
Attn: Technology Transfer Questions

Subject: Notice of Inquiry: Technology Transfer Practices at Department of Energy (DOE)
Laboratories (73 FR 72036)

Dear Mr. Gottlieb:

This is in response to the Federal Register Notice of Inquiry: Technology Transfer Practices at Department of Energy (DOE) Laboratories (73 FR 72036) on behalf of the Savannah River National Laboratory (SRNL) at Savannah River Site and operated by Savannah River Nuclear Solutions, LLC in Aiken, SC. SRNL is pleased to provide feedback on our technology transfer activities with the aim of encouraging more effective partnerships between all DOE laboratories and industry.

Thank you for the opportunity to respond to this Request for Information and the specific questions related to technology transfer practices within the DOE.

Existing and Other Agreements

The DOE technology partnering agreements referenced in the Notice of Inquiry are often overly prescriptive, creating a "take it or leave it" interaction with research partners interested in collaborating with the research staff at the DOE laboratories. This is a particular concern in multi-party, multi-disciplinary research projects that involve academic, industry, and federal participants where a certain amount of "give-and-take" is required to successfully negotiate a research agreement that meets the needs of parties with disparate administrative policies.

The terms in the DOE partnering agreements could be less prescriptive by allowing the DOE laboratories greater discretion and authority in negotiating (and approving) the more problematic terms in these agreements. This additional flexibility would assist the DOE laboratories in forging relationships in a timely manner with funding sponsors hoping to collaborate with the laboratories on individual and multi-party research projects.

Based upon SRNL's experience in implementing various types of agreements with the private sector, the most important overriding considerations are: (a) that the agreements have as much flexibility as possible to be adapted to a particular industrial partner's needs while protecting the taxpayers' interest; and (b) that the approval process for the agreements not be too long and drawn out, with as much local control over the approval process as practical. For instance, the requirement for a Joint Work Statement should be eliminated, since it adds an unnecessary layer of review and approvals.

Indemnification – The general indemnity provision in the Work For Others (WFO) agreement template is viewed as one sided and risky for many industry and non-profit institutions providing research funds to the DOE laboratory. The standard practice within the university-industry collaborative research paradigm utilizes a mutual indemnification provision for sponsored research agreements. At the very minimum, DOE should consider a mutual indemnity provision which SRNL has found acceptable in working with its sponsors, and should consider relaxing or waiving indemnification provisions that require more financial protection than is already available under modern comparative negligence principles.

Advance funding requirement – For non-federal sponsors, DOE requires a 90 day advance payment be maintained throughout the life of the project. In order to meet this requirement, DOE laboratories must receive a 4 month advance on funding from the non-federal sponsor before the commencement of any scientific research at the DOE laboratory. This requirement is problematic for universities or small businesses issuing a subaward to the DOE laboratory, particularly under a federal prime award. Federal and state agency

funding only reimburses the award recipient for costs incurred in the performance of the award, but do not provide funds for advance payments. In this situation, universities would have to identify a source of their own internal funding that can be tapped to comply with DOE regulations. Project start dates are delayed while university prime awardees grapple with the requirement to advance a sizeable amount of money to the DOE laboratory.

We recommend that DOE establish an advance funding model for subawards from non-profit and small business entities that better conforms to the funding model used in the prime awardees' agreement with its sponsor. Especially for prime awards from other federal agencies, DOE could modify its advance funding practices for any resulting subawards issued to a DOE laboratory without assuming any additional risk.

Government Rights to Inventions – Many potential industry partners have expressed concerns over the U.S. Preference requirements and government march-in rights imposed as a condition of a sponsor's/user's election of title to a future invention. For many sponsors, the risks associated with accepting these provisions make the WFO or User Facility arrangement unacceptable and thus elect not to collaborate with the DOE laboratory. Many federal agencies offer similar vehicles for collaboration that do not require such obligations from the sponsor/user. Given the lack of any specific statutory requirement for such provisions in a WFO/User Facility arrangement and the DOE's interest in attracting a wider pool of potential industry collaborators, the DOE might reconsider the need for such requirements in the future.

The non-compete requirement for WFOs (labs cannot compete with the private sector) causes lost business and opportunities for the labs. It is also not well defined and different reviewers have different opinions and interpretations of what it means. DOE should establish a clear and consistent interpretation of the non-compete requirement and what the exact parameters of the requirement are meant to be.

The overly stringent requirements surrounding the working relationships between the labs and Foreign Nationals often pose

difficulty in conducting our technology transfer activities. It appears that all foreign nationals are treated equally as opposed to making distinctions between those countries that are considered "friendly" versus those countries identified as "sensitive." As an example SRNL has some promising technology that could be used in the Oil Sands of Canada to improve hydrocarbon extraction rates, remediate acres of tailing ponds, help to clean, restore and recycle water but the inflexibility of our CRADA language made working with the Canadian company virtually impossible, arriving at a stalemate and eventually severing any relationship to work together.

Non-DOE sponsored research that compliments the DOE laboratories' mission also strengthens the core scientific competencies of the research staff at such facilities. While the WFO agreement is the primary vehicle for conducting non-DOE sponsored work at the DOE laboratories, this does not reflect the fundamental nature of the "partnership" or the mutual benefits derived by the DOE, the laboratories, and the sponsor. In addition, the inherent framework of the WFO agreement does not accommodate the underlying collaborative nature of the "partnership" between the DOE and the sponsor but appears to represent a "work for hire" framework whereby the laboratory staff only serve as a "pair of hands" with little creative input into the design and implementation of the project. The WFO arrangement fails to sufficiently capture and recognize the outstanding work performed at the DOE laboratories under a truly collaborative relationship with non-profits and industry. The DOE should consider a new category of agreement that captures and reflects a collaborative effort between the DOE laboratories and a non-profit or industry sponsor – the "Work With Others" agreement.

DOE should consider developing a "sponsored research" agreement that recognizes that a DOE laboratory can seek funds based upon its own ideas submitted through a proposal to a potential sponsor with the result being a grant, cooperative agreement or other sponsored research vehicle as an alternative to performing contract work for the sponsor. "Acceptance of standard published grant terms or using the DOE contractor's standard contract terms that are in alignment with the DOE contract as the starting position for the negotiation of the

"sponsored research" agreement would greatly aid DOE in its ability to leverage DOE funds with other potential non-federal funding sources.

Best Practices

One of the largest barriers to technology transfer is moving technologies through the so-called "valley of death" from initial development in a research setting to demonstration in a commercial application. At SRNL, we have used a variety of mechanisms to support technology maturation, but the monies for the most promising technologies are limited. We advocate the expansion of such programs as the recently implemented Technology Commercialization Fund (TCF) program. Similar to the TCF program, we believe that, so far as possible, technology maturation funding decisions should be made and program management should be performed at the local level, i.e., at the laboratory. Laboratory staff and management generally have the best view of the potential for a technology maturation effort to actually result in a successful technology transfer. The laboratories can be held accountable for the results that are achieved with the funds through periodic reviews and reporting to DOE.

We have found that technology assistance programs in which laboratory personnel are provided with funds for up to one week of their time to assist a small company is a very effective means of enhancing technology transfer. Projects funded through this mechanism have frequently led to more extensive interactions with the company, including SBIR/STTR projects, CRADAs and technology licenses. Some projects have solved a significant technical problem faced by the company through the provision of SRNL expertise that is not available in the private sector. We support the expansion of technology assistance programs throughout the laboratory complex.

U.S. Competitiveness

Historically, the current U.S. competiveness provisions of CRADAs and other DOE related agreements have not created many problems in executing agreements at SRNL. However, our interactions with industry outside the U.S. have been on the increase, particularly in the area of advanced energy technology. Many discussions and negotiations are underway with Canadian companies for some of our energy related technologies. Therefore, SRNL generally supports modifying the U.S. competitiveness requirements as described in the Federal Register notice, which provides that a national laboratory contractor may forego imposing a legally binding U.S. competitiveness commitment on licensees having a "substantial presence" in the U.S.

SRNL understands and supports the goals of the U.S. Competitiveness provisions, DOE's implementation of this provision creates certain challenges when attempting to persuade a large pool of potential non-federal research partners to collaborate on research projects with DOE laboratories. These requirements can also inhibit SRNL's efforts to include DOE laboratories in multi-party collaborations, particularly those involving industrial partners. DOE's current implementation of the U.S. Competitiveness provision has the unintended consequence of inhibiting research and any resulting innovation that may aid the U.S. economy by limiting the availability of highly desirable research partnerships. The Army, Public Health Service, Environmental Protection Agency, and Bureau of Reclamation CRADAs do not contain a requirement for U.S. Competitiveness. It is highly suggested that DOE review other government CRADAs and reassess the need for and the nature of such provisions.

Intellectual Property Rights disposition in Work For Others (WFO) Agreements

A default position in which national laboratory contractors retain title to IP created by contractor employees at DOE labs while working on behalf of non-federal clients is the best means of ensuring fair access to Federally developed capabilities and enhancing the potential for widespread technology transfer.

Ownership of inventions by the laboratory contractor in non-Federal WFO agreements would bring these agreements into conformance with the IP terms and conditions of CRADAs (including 100% funds-in CRADAs) thus reducing the prospective partner's confusion between these two mechanisms and the potential incentives for contractors to prefer a CRADA approach. The default position that we advocate (lab contractor retains title) is also similar to that taken by most major research universities in their sponsored research agreements.

We support a position that national laboratory contractors grant the non-Federal WFO client: (a) a nonexclusive, royalty-free, non-transferrable, non-sublicensable, worldwide license in a field of use with no requirements concerning U.S. manufacturing, Government use rights, and march-in rights; and (b) an option to negotiate an exclusive license in a designated field-of-use. The national laboratories could be granted latitude to negotiate deviations from the default position depending upon the circumstances applicable to a particular WFO agreement. We would endorse some discretion to best meet the needs of varied sponsors and technologies while supporting the public service mission of the DOE laboratories.

Are there any other issues, concerns, or experiences that could make working with DOE laboratories and facilities more effective and efficient?

Where permissible, the DOE should consider allowing the national laboratory contractor to have more authority to approve and execute technology transfer transactions without the need for case-by-case review by DOE. DOE can provide transactional oversight through periodic reviews of contractor systems, implementation, and performance. Allowing the national laboratory contractor greater latitude in technology transfer agreement negotiation and implementation would speed transaction time and lower the cost of administering these activities; thereby enhancing technology transfer and associated benefits to U.S. taxpayers and our economy.

Summary

The Savannah River National Laboratory appreciates this opportunity to provide input on DOE's technology transfer and partnering practices. We fully support the DOE in its review of its technology transfer partnering mechanisms utilized by DOE laboratories and facilities, and appreciate the opportunity to help identify ways to make such mechanisms stronger and more effective. Additionally, we have included in Appendix A, some comments received by former or current partners that have not otherwise been formally submitted to this RFI. These comments are not to be construed as endorsed by SRNS, but are provided for your consideration.

Again, thank you for undertaking this initiative.

Sincerely,

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APPENDIX A: Miscellaneous comments from current or former partners which were in response to the RFI but not previously submitted to DOE.

These comments are about the model CRADA for use in projects <150K:
-It is too bad when legalese finds its way into these agreements. They are not intended to be well documented commercial transactions, and thus the inclusion of a selective few commercially familiar clauses seems strange, in particular:

-Art V. UCC disclaimer of warranty [in cap letters, yet, as required by UCC] might suggest to some small businesses that the UCC was being applied to this agreement. And I don't think this paragraph adds anything useful to the agreement that wouldn't be done by the more normal statement that the work will be done to reasonable professional standards. The last sentence also has no practical effect, since an agreement between the parties cannot alter the rights of a third party in possession of a tort remedy against one or both of the parties. Again, the more normal disclaimer that the parties will not pursue special or consequential damages against each other would be more appropriate.

-Art VI. Product Liability is even worse. It is an insurance clause, making the participant the insurer of the government. Most participants, especially small businesses, will have no way of calculating the value of this risk and no way of recovering it. No participant would be able to insure against the losses incurred by the US Government. Moreover, the provision purports to change the applicable law as to questions such as whether the government [in exercising its unlimited, GPL or march-in rights] is a licensee of a program patent owned by the participant, or whether the government is liable in tort or what the measure of damages will be. None of these things can be controlled contractually and the inclusion of this clause may give government employees a false sense of security or even lead them to make invalid claims against the participant.

Neither of these clauses would be accepted by parties in commercial transactions, except in circumstances of coercive negotiation situations, or "contracts of adhesion". Accordingly, there is risk they would be held unenforceable in court. If I were still in the government I would delete them from the model altogether.

I have some other comments which are more philosophical, but may be useful in the interest of creating a model which can be readily accepted by most participants without attempted tailoring or renegotiation. I think the goal of

the model should be to protect the important interests of the government without passing undo risk to the participant so that the model can be accepted without comment in most cases. To that end, I would offer these suggestions:
-provisions on CRADA information, proprietary information and confidentiality are somewhat opaque, but have been used for years and are widely understood. I wouldn't change them now. However, the requirement for government/lab agreement for the participant to mark Generated Info as "Protected CRADA Info" may not be appropriate in some cases where the principal intellectual contribution to the project may have come from the industry participant. It should be possible to negotiate specific provisions tailored to circumstances where the government has provided only minor, but essential, contribution. This is related to the issues which arise when the government claims application of all the rules applicable to government funding when in fact the government has paid only a small part of the development cost of something which had been worked on for years in industry. There should be flexibility here.

-Art XII, reports and abstracts, is susceptible of interpretation that all software code developed by either party must be published by DOE. In fact, I think software, like other IP, may be the subject of copyright or may be deemed Protected CRADA Info.

-The definition of "subject invention" used by DOE is more aggressive than often used commercially, in that it includes both "conceived" and "reduced to practice". Some labs have used this in the past to make IP claims that were regarded as unreasonable. A common case is where industry brings an idea to the lab for proof of concept, using special equipment available at the lab. Often, the relative contribution of the lab in a case of that sort does not really support a claim of unlimited rights or march-in rights by the lab.

-The definition of IP is also overbroad and productive of disputes in that it seems to include something "protected by federal law" that is not patented. This is an odd formulation not used in commerce and seems to suggest that unpatented proprietary information might be claimed to fall within the definition if defined as computer software, or trade secrets, or some kind of "technical data". This ambiguity would be a great concern to small businesses bringing or developing unpatented technology in the transaction.

-Art XVI. US Competitiveness. Provision B is excessively detailed and could prevent companies with overseas operations from participating in the CRADA program. The statement in Section A is sufficient to comply with the statute and the agreement would be more suitable [especially for small projects, but even for most large ones] without the added language in item B, which threatens to create compliance burdens in industry disproportional to the benefit gained.

I have experienced difficulty in the past with financial provisions requiring advance payment, but I understand why DOE prefers this. However, I do not understand the logic of charging enormous indirect cost amounts on CRADAs and other lab work. This is logically inconsistent with other requirements concerning public rights to use the developed technology and for documenting findings that the work is in furtherance of the lab mission, etc.etc.etc. And when the indirect charges are excessive [>40% !] this practice may significantly reduce the available program funds and discourage or drive away participants. Since the charge may be waived anyway, it should be waived generally unless it is charged by exception for some strange reason in a particular case.

In the model CRADA >$150K the main differences are in licensing provisions, and the requirement for the participant to pay for an exclusive license limited to his own field of use is very unattractive. Why would an industry participant want to work on a joint project and then have to get in line with the competition to get a license???

-Also in this CRADA, I don't personally favor the detailed list of horrors in the "Force Majeure" clause, because something is always left out, in this case, e.g., strikes and other labor issues. Also, the clause does not clarify what is the effect on the contract of such an event, but suggests that there is no effect. That is almost never the case, but may not make much difference here because of the ease of termination of CRADAs. I guess I wouldn't use the force majeure clause.

-ArtXXII Assignment. Seems to prohibit licensing or assignment by participant of IP obtained under the CRADA. I don't think that is intended but this could be improved.

-XXVI Disputes. Referral of disputes to DOE Board of Contract Appeals is a bit odd and seems overkill, although the ADR recommendation is sound. [Hasn't the DOE BCA been merged into the Civilian agency BCA?]

Finally, I have been asked by USCAR management to mention industry concern with growing DOE policy to offer technology developed with significant US domestic industry participation for licensing by foreign companies. In particular, the location of "venture capitalists" inside national labs with the job of marketing lab technology is seen as problematic. There will be little enthusiasm in US industry for collaboration with labs that patent the joint work product and sell it to their competitors.