

CRADAs!!!
POWERFUL TECHNOLOGY TRANSFER
TOOLS...OR AN EMBARRASSMENT
WAITING TO HAPPEN



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GIB MARGUTH

- Interim ORTA Director, National Renewable Energy Laboratory
- Member, FLC Education and Training (E&T) Committee and National Advisory Council
- Staff Specialist, Innovation Management for CH2M HILL, Inc.
- Served as federal technology transfer specialist in the U.S. Commerce Department's Office of Technology Policy
- Director of Partnerships and Licensing at both Lawrence Livermore and Sandia National Laboratories
- Frequent developer and deliverer of training modules for FLC E&T Committee to federal laboratory technology transfer professionals
- Past President, Association of Federal Technology Transfer Excellence (AFT2E)
- Over 25 years as engineer, entrepreneur, and CTO/CEO for aerospace, computer and telecommunications companies

WHAT IS A CRADA?

- Legal agreement between one or more federal laboratories and one or more nonfederal organizations to conduct specified R&D efforts consistent with laboratory missions
- Not a procurement contract or grant
- Not subject to federal regulations for procurement contracts
- Authorized by federal legislation (see 15 USC 3710a, *Green Book*, pp. 27-35)



CRADA ESSENTIALS

- Federal laboratory may provide (with or without reimbursement):
 - Personnel
 - Services
 - Facilities
 - Equipment
 - Intellectual property
- Federal laboratory may NOT provide funds to nonfederal party
- Nonfederal party may provide
 - Funds
 - Personnel
 - Services
 - Facilities
 - Equipment
 - Intellectual property



A CRADA IS A LEGAL AGREEMENT...READ AND UNDERSTAND YOUR COMMITMENTS/OBLIGATIONS

Place particular emphasis on:

- Avoiding or managing institutional or individual conflicts of interest
- Protecting confidential and proprietary information
- Securing IP rights in laboratory innovations
- Protecting CRADA information of potential value
- Disclosing, reporting, and protecting inventions, which are or may be patentable
- Diligently pursue and complete the deliverables – including an IP rights license to the CRADA partner
- Complete and deliver all reports when due
- Ensure that all publications are reviewed by CRADA partner prior to release

A CRADA IS A LEGAL AGREEMENT...(Cont.)

Remember:

- A CRADA is a legal agreement that obligates the government, the laboratory, the technical staff members, the technical line organization, the Technology Transfer Office, the lab's patent office – oh, and the Lab's Director.
- If anyone in this list doesn't understand the commitments and obligations, there is the potential for a disappointed partner or an embarrassed lab!



SO, WHAT CAN GO WRONG?

This is a true story ...

... Only the names and places have been changed to protect the innocent and the ignorant.

AJAX FEDERAL LABORATORY ...

In the mid-1990s Ajax Federal Laboratory (Alab):

- Had a public domain attitude toward technology and routinely published and reported on progress at conferences
- Had a reputation as a lab with solid, respected electrical engineering staff members with competencies and facilities in areas of thin film technologies (TFT)
- Was looking for CRADA and partnering opportunities

*Act 1:
CRADAs Are Great!!!*



SCENE 1: CHEMCO WANTS TO DO A CRADA WITH ALAB

- ChemCo is a respected U.S. firm with a world class reputation in specialty materials.
- In its industry, competitive advantage through leveraged IP is critical.
- It brings to the table much know-how and know-what (KH/KW).
- It is looking to gain an advantage in the TFT field.

SCENE 1: CHEMCO WANTS TO DO A CRADA WITH ALAB (Cont.)

- As with many large firms, ChemCo wants the right to obtain an exclusive license to all CRADA IP.
- Sharing its proprietary KH/KW with ALab will be done in confidence and is the only price they will pay.
- The Technology Transfer Office (TTO) says no – the public domain Principal Investigator (PI) says let them have it, there won't be any IP.
- The CRADA is signed, everyone celebrates, technical staff members are assigned, and work begins – real collaborative work!

***SCENE 2:
FLAT PANEL TECHNOLOGIES, INC. (FPT)
WANTS TESTS RUN ON A
PROPRIETARY PRODUCT***

- FPT is a startup company with a preproduction prototype flat panel display product that needs to be tested and validated against specs.
- FPT has identified ALab as the lab of choice with the necessary capabilities to evaluate TFT to be used in its flat panel displays.
- There is a commercial testing agreement (CTA) available that will protect the results of the tests and FPT's proprietary product information.



ALAB ACCEPTS THE OPPORTUNITY

- ALab sees no problem performing the tests since CTA-type agreements are not collaborative in nature.
- The agency responsible for the lab is accustomed to having its labs undertake such tasks for others that lack needed capabilities.
- Private funds will cover all of the costs of the testing, and the lab will learn from the work.
- The work begins.

***SCENE 3:
THIN FILM SEMICONDUCTOR, INC. (TFS)
KNOWS AN ALAB TFT ENGINEER AND
WANTS A CRADA***

- TFS is a leading manufacturer of semiconductors and sees an emerging market for new TFT products.
- TFS does not plan to closely collaborate with ALab, but rather systematically exchange development information and share knowledge about technical problems.
- TFS does not want to have “subject inventions” to deal with, but wants a nonexclusive license to ALab inventions that may arise.
- The CRADA is quietly signed, and work begins.

Act 2: From Smiles to Frowns



ALAB HAS AN ALMOST PERFECT SET OF PARTNERS TO ADVANCE THE TECHNOLOGY

- A chip maker
- A materials science firm
- A want-to-be end product startup
- Partners don't compete with one another
- What ALab learns from one will benefit the others, and ALab stands to become a leader in the advancement of TFTs

COLLABORATION WITH CHEMCO AND THE WORK WITH FPD AND TFS BEGINS TO PAY OFF

- A Lab's knowledge of the TFT field grows rapidly.
- ChemCo CRADA lab engineers make a subject invention! ChemCo is advised.
- Then another!! ChemCo is advised.
- Then another!!! ChemCo is advised.
- Then an engineer working on all three deals makes a subject invention. Whoops!!!!

THE “PERFECT” SET OF AGREEMENTS BEGINS TO LOOK LIKE THE PERFECT MESS

- Two ALab engineers are invited to present at a major TFT conference, and a presentation is prepared.
- A TFT scientist at ChemCo is also a presenter at the conference.
- The ALab presentations are not preapproved for presentation by any of the outside parties to the deals.
- AND...

The A Lab Presentation
Contains ChemCo
Proprietary Information!!!!

A Big-Time WHOOPS!

Act 3: Assessing the Damage

THE INQUISITION BEGINS

- A ChemCo team visits ALab – in a very bad mood.
- ALab staff have a pre-meeting with the TTO to review the facts concerning the three deals—no smiles there either.
- ALab chooses the path of full disclosure.
- ChemCo asks questions, listens a lot, and leaves to digest the facts.

REVIEWING THE FACTS

- The CTA-type agreement was done outside the TTO.
- The two CRADAs were solicited by technical staff who had never worked with industry, negotiated by inexperienced TTO staff, and drafted by contract staff.
- Not one of them really knew what they were doing.
- ... But ignorance is a very poor excuse.

WHAT WENT WRONG???

- Avoiding or managing institutional or individual conflicts of interest
- Protecting confidential and proprietary information
- Securing IP rights in laboratory innovations
- Protecting CRADA information of potential value

WHAT WENT WRONG??? (Cont.)

- Ensuring that all publications are reviewed by CRADA partner prior to release
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Epilogue: Lessons Learned

A CRADA IS A LEGAL AGREEMENT ... READ AND UNDERSTAND YOUR COMMITMENTS/ OBLIGATIONS

Roles and responsibilities:

- The Responsible Authority: The Lab Director—
Leads the lab
- The Deal Maker: The technically savvy staff
members involved in the project
- The Deal Doer: The ORTA staff who must know
the laws, the regulations, and the lab's technology
transfer policies and procedures. Responsible for
seeing that the others are informed of the critical
issues and trained in the appropriate and ethical
actions

If you are ignorant of what you must know – get trained, educated, and mentored by tech transfer professionals.

If you aren't educated, you shouldn't be doing deals!