

UCSB AUDIT AND ADVISORY SERVICES

September 15, 2011

To: Vice Chancellor for Research Michael Witherell

Re: **Export Controls**
Audit Report No. 08-11-00011

As part of the 2010-11 annual audit plan, Audit and Advisory Services performed an audit of export controls. Enclosed is the audit report detailing the results of our review.

The purpose of this review was to assess the internal controls and practices that have been established to ensure compliance with Export Administration Regulations, the International Traffic in Arms Regulations, and Office of Foreign Assets Control Sanctions Programs. The review included discussions with Office of Research and Office of Technology and Industry Alliances staff, as well as limited testing. The scope of the audit included the following areas:

- Compliance with Use of the Fundamental Research Exemption
- Compliance with the UC Export Compliance Plan
- International Travel
- International Shipments
- Material Transfer Agreements

Based on the results of the work performed within the scope of the audit, improvements in campus controls and practices are needed to ensure compliance with export control regulations. Some of the more significant areas include campus export controls educational efforts and outreach, international travel, international shipments, material transfer agreements process, and the delegation of authority for material transfer agreements.

We have included a copy of our detailed observations and management corrective actions with this cover memo. The management corrective actions provided indicate that each audit observation was given thoughtful consideration and that positive measures have been taken or planned to implement the management corrective actions. The cooperation and assistance provided by Office of Research and Office of Technology and Industry Alliances staff during the review was sincerely appreciated. If you have any questions, please feel free to contact me.

Respectfully submitted,



Robert Tarsia
Acting Director
Audit and Advisory Services

Enclosure

cc: Chancellor Henry Yang
Associate Vice Chancellor Ron Cortez
UCSB Audit Committee
Senior Vice President and Chief Compliance and Audit Officer Sheryl Vacca
Assistant Vice Chancellor for Research Karen Hanson
Director Bruce Hanley
Director Sherylle Mills Englander
Director Virginia Anders

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Audit Report No. 08-11-00011

Performed by:

Albert Rojas, Staff Auditor
Daniel Samec, Staff Auditor

Approved by:

Robert Tarsia, Acting Director

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Purpose and Scope

The purpose of this review was to assess the internal controls and practices that have been established to ensure compliance with Export Administration Regulations (EAR), the International Traffic in Arms Regulations (ITAR), and Office of Foreign Assets Control (OFAC) Sanctions Programs. The review included discussions with Office of Research (OR) and Office of Technology and Industry Alliances (TIA) staff, as well as limited testing. The scope of the audit included the following areas:

- Compliance with the Use of the Fundamental Research Exemption
- Compliance with the UC Export Compliance Plan
- International Travel
- International Shipments
- Material Transfer Agreements

Background

Export control regulations are federal laws that restrict the export of specific commodities, technology, information, and software. The regulations are published and enforced by the Department of Commerce (EAR), Department of State (ITAR), and the Department of the Treasury (OFAC). The majority of exports do not require licenses from these agencies; the regulations indicate which types of exports are controlled and require a license. The regulations are frequently updated to reflect changes in the international political and security climate, as well as technological development.

According to the United States Treasury Department website, OFAC is responsible for administering and enforcing economic and trade sanctions, based on U.S. foreign policy and national security goals, against targeted foreign countries and regimes, terrorists, international narcotics traffickers, those engaged in activities related to the proliferation of weapons of mass destruction, and other threats to the national security, foreign policy, or economy of the United States. OFAC sanctions and potential penalties vary from country to country; OFAC details allowable and prohibited types of transactions for each restricted country. Penalties for violations potentially include prison time, fines for individual violators as well as the institutions they represent, and civil penalties. According to the U.S. Treasury website, total OFAC civil penalties and settlements for calendar years 2008, 2009, and 2010 were \$3,504,533, \$772,442,861, and \$200,735,996 respectively.

The Department of Commerce's Bureau of Industry and Security's (BIS) website indicates that the bureau is responsible for implementing and enforcing the EAR, which regulates the export and re-export of most commercial items. Whether a license from BIS is required depends on what is exported, where it is exported to, who it is exported to, and what it will be used for. The Commerce Control List helps determine if export itself is controlled, while the Commerce Country Chart helps determine if

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exporting to a particular country is restricted. The BIS Entity List, BIS Unverified List, BIS Denied Persons List, and Treasury Department Specially Designated Nationals and Blocked Persons List help determine whether the individual or organization receiving the export may be controlled by export regulations. Part 744 of the EAR specifies prohibited exported item end-uses, such as the proliferation of weapons of mass destruction.

According to the Department of State's Directorate of Defense Trade Controls' (DDTC) website, in accordance with ITAR, the DDTC is charged with controlling the export and temporary import of defense articles and defense services covered by the U.S. Munitions List (USML). Items on the USML are primarily for military-related application, but also include other items such as research satellites. Violations of ITAR can result in civil and criminal charges to both the individual responsible and the institution. Civil penalties include fines up to \$500,000 for each violation, potentially to both the institution and the individual. Criminal penalties include fines up to \$1,000,000 to the individual and institution and/or up to ten years in prison for the individual per violation.

UC Compliance Initiatives

The University of California's (UC) Export Compliance Plan outlines the UC strategy for complying with export control regulations. One main component of the plan is to "maintain an open, fundamental research environment" in which the research results fall under the "public domain" section of ITAR and applicable sections of the EAR such as the "publicly available technology", "published information and software", "information resulting from fundamental research", and "educational information" sections. By satisfying this component of the plan, the University is exempt from the "deemed export" regulations, which restrict involvement of foreign nationals on research awards. To accomplish this part of the plan, UC personnel do not accept publication controls or, with very limited exceptions, any information marked, "Export Controlled". The plan also requires UC personnel not to accept foreign national restrictions on research awards as they are contrary to UC policy, as well as potential violations of Immigration and Naturalization Service regulations, the federal Privacy Act, and the California Information Practices Act. To comply with OFAC regulations, the plan proscribes travel to conduct research or educational activities to embargoed countries, currently listed as Cuba, Iran, North Korea, Sudan, or Syria, without checking with the campus Vice Chancellor for Research to determine whether a license is necessary. The plan also addresses determining if licenses are required prior to shipment of items and materials.

University of California Office of the President (UCOP) has recently hired an Export Control Officer (ECO) for the UC system. The ECO is responsible for assessing export control risks systemwide and developing tools, monitoring, and training in order to mitigate those risks. The ECO is in the process of

developing a more comprehensive export control program to ensure compliance with export control regulations.

Material Transfer Agreements

Material transfer agreements (MTAs) were identified by the UCSB OR and TIA as a control for compliance with export control regulations. An MTA is an agreement in which one party agrees to provide physical materials or samples to another party for testing, evaluation, or experimentation. MTAs are used to transfer a broad array of materials, including biological materials, chemical compounds, engineering components, software, and data. There are two forms of MTAs: incoming MTAs and outgoing MTAs. When materials are sent from the University (outgoing MTAs) to third parties, the University's standard terms and conditions are typically used as a condition of receiving the materials. However, when materials are sent by a third party to the University (incoming MTAs), the third party may attempt to require unreasonable or inappropriate terms and conditions as part of its standard agreement. This results in negotiations between the University and the third party to address issues regarding publication restrictions, onerous intellectual property terms, or terms that conflict with the contracts or grants that fund the project. TIA is responsible for reviewing, negotiating, and contractually binding the Regents of the University of California to the MTAs.

Summary Opinion

Based on the results of the work performed within the scope of the audit, improvements in campus practices are needed to ensure compliance with export control regulations. Some of the more significant areas include campus export control educational efforts and outreach, international travel, international shipments, material transfer agreements process, and the delegation of authority for material transfer agreements.

The audit observations and management corrective actions are detailed in the remainder of the audit report.

Detailed Observations and Management Corrective Actions

A. Compliance with Fundamental Research Exemption Requirements

UC's Export Compliance Plan details what the University needs to do to "maintain an open, fundamental research environment" as part of ensuring compliance with federal export control regulations. In order to verify that UCSB practices are consistent with these requirements, we reviewed a sample of five non-disclosure agreements (NDAs), five research award agreements, and five incoming MTAs. The five NDAs, five research award agreements, and five MTAs were reviewed to ensure that no publication or foreign national restrictions mentioned in the UC Export Compliance Plan were included in these documents. Based on the testwork performed, the NDAs, research awards, and MTAs did not contain any publication or personnel restrictions that violate UC's Export Compliance Plan.

B. Improving UCSB's Export Control Compliance Efforts

The audit found that campus departments may not be familiar enough with export control regulations to properly partner with OR in ensuring compliance. We found that most departments and researchers who were sampled for testing were unaware of export controls regulations, who to contact for assistance, and when materials need to be reviewed by the Director of Research Compliance to ensure compliance with export control regulations. Current training for staff is conducted during the Sponsored Projects Training for Administrators in Research (STAR) and Contract and Grant Liaison meetings, while training for faculty is only for select departments, for limited time periods, during faculty department meetings. These efforts do not appear to be sufficient to properly inform UCSB personnel in this critical area.

It should be noted that sufficient campus training is especially important because UCSB does not have a centralized shipping center, and OR relies on departments to contact them when materials are about to be shipped internationally.

To improve internal controls and compliance with export control regulations, OR should expand available training to increase awareness of export controls. Efforts could also include a campus-wide email informing faculty, staff, and students about export control regulations and who to contact; and updating the OR website to include PowerPoint presentations and webinars that are listed on UCOP's Export Controls website, links to outside training resources such as the BIS Online Training, Essentials of Export Controls, and adaptations of export compliance education tools from other institutions¹. In addition to training, OR should develop guidance related to export

¹ Good examples of export compliance education tools from other institutions include Vanderbilt's "Red Flags When Considering Export Controls" and Stanford's "Export Control Roadmap."

controls that may include policies, procedures, desktop instructions, and checklists that addresses all the necessary elements of export control compliance.

Management Corrective Actions

General Improvements for Export Control Outreach to Researchers and Staff

In-Person Outreach

OR will continue to offer training in export control basics to staff who attend the STAR class series on an annual basis. The UCOP ECO has committed to assist with general training in export controls on the UCSB campus on a periodic basis. Faculty and department liaisons will be given advance notice of these training opportunities. The ECO has not yet been able to determine the frequency of these campus outreach efforts. If this is less than once per year, the Director of Research Compliance will offer these classes to supplement the training by the ECO. The Director of Research Compliance will continue to provide export control orientation and regulatory updates in faculty meetings where possible. The training conducted by the ECO will begin in the 2012 calendar year.

Website Resources

OR will improve the resources available on the Research Compliance/Export Controls website before January 1, 2012. These resources will include (at a minimum):

- Guidance specific to international shipments.
- Guidance regarding classification under existing export regulations.
- Deemed exports.
- Unacceptable clauses in research agreements.
- General travel abroad.
- License requirements and prohibitions regarding travel to OFAC Sanctioned Nations.

Reminders to Faculty

OR will send annual notices signed by the Vice Chancellor for Research intended to remind faculty of their responsibilities under export control regulations, and to direct them to available resources. These notices will go to UCSB ladder track faculty via the faculty listserv.

Audit and Advisory Services will follow-up on the status of the management corrective action by July 1, 2012.

C. International Travel

In order to ensure compliance with OFAC regulations, the Sponsored Projects Office reviews proposal budgets for foreign travel and flags travel to OFAC embargoed countries for the Director of Research Compliance to follow up on to determine if a license is necessary. This control is helpful for identifying travel on sponsored project funding, but does not cover all travel on these funds, as some awards allow re-budgeting without prior approval of the sponsor. Also, this control does not cover travel expenses on other funding sources such as donations and state funding, though export control regulations apply regardless of the funding type. To determine the volume of UCSB travel to OFAC embargoed countries, Audit and Advisory Services ran a query of UCSB's Data Warehouse of travel payments from July 2009 to December 2010. From review of approximately 18,300 travel reimbursement line items, we identified six payments for trips to OFAC embargoed countries and followed up with personnel at UCOP, UCSB OR, and UCSB departments to determine the circumstances of the travel, whether a license was required, and whether a license was obtained.

Although there were no legal violations identified by this review, it appears that UCSB's internal controls over travel to OFAC embargoed countries should be tightened to ensure compliance with export control regulations. In all six cases, it appears that the Director of Research Compliance was not consulted regarding the need for a license, although the OR's website instructs faculty and staff, "Do not travel to conduct research or educational activities without first checking with Bruce Hanley (Director of Research Compliance) in the Office of Research to secure a license from the Department of the Treasury, Office of Foreign Control." Also, in two cases, licenses were obtained by external parties, and copies of the licenses were not obtained by UCSB staff prior to the audit.

Travel is currently booked through a variety of methods, making it difficult to develop and implement effective controls over foreign travel. However, the UC system is planning to centralize travel booking through the systemwide travel program called Connexus, and there may be an opportunity to implement export control procedures for travel booked through Connexus. As this issue is a systemwide issue as well as campus issue, OR should consult with UCOP in this matter. In the meantime, OR should ensure that faculty are aware that all research-related travel to OFAC embargoed nations can only take place after required federal licenses have been secured.

Management Corrective Actions

International Travel to OFAC Embargoed Nations

As mentioned in the prior MCA, OR intends to provide clear guidance to UCSB researchers regarding the licensing needs for travel to certain nations in the course of their work. While we will provide notice to the research community via annual notices to researchers and staff and continued

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orientation via the STAR courses, OR is not a central clearinghouse for travel abroad. Our approach to improving awareness and compliance will focus on outreach. If UCOP is able to establish a reasonable method of identifying travel destinations prior to departure, OR will likely adopt that method to ensure compliance with OFAC restrictions.

Audit and Advisory Services will follow-up on the status of the management corrective action by July 1, 2012.

D. International Shipments

Review of International Shipments

In regards to shipments abroad, OR is responsible for informing faculty and staff that research-related items shipped to foreign countries must be in compliance with export control regulations. The audit reviewed FedEx and foreign mail shipment billing records to estimate the volume of international shipments, and identified approximately 1,700 transactions (at a cost of approximately \$85,000) involving international delivery expenses for fiscal year 2009-10. (The UCSB Purchasing Office indicated that all international shipments should be completed using FedEx, and shipments by other delivery carriers that the University uses less frequently were not included in our testing.) OR uses Visual Compliance, an on-line screening software system, to conduct searches of current federal export control regulations and sanctions, determine Export Control Classification Number and U.S. Munitions List categories of specified hardware, determine licensing requirements, and perform other checks.

A sample of 20 international shipments from fiscal year 2009-10 was selected for detailed testing. We reviewed whether:

- International shipments required a license under EAR and ITAR.
- A MTA was completed for the shipment, if required by campus practices.
- If applicable, the shipment was sent within 30 days prior to the researcher conducting research in that foreign nation, as required by EAR.

We found that:

- 19 of the international shipments did not require a license under EAR and ITAR; we were unable to verify if the remaining shipment required a license because the Principal Investigator failed to respond to our inquiries.
- An MTA was completed prior to one shipment, and 17 of the shipments did not require an MTA. In two instances, we were unable to verify if the shipment required an MTA because the Principal Investigator failed to respond to our inquiries.

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- The material was shipped within 30 days of the researcher conducting research in that foreign nation, in the two instances that it was required.

Use of Material Transfer Agreements

The audit reviewed whether TIA and OR have implemented effective internal controls to ensure that items shipped internationally are in compliance with University policy and procedures and federal regulations. TIA began entering MTAs into ORBit, OR's contract and grant database, in February 2010. In addition to the 20 international shipments discussed above, we selected a sample of nine international shipments from the outgoing international MTAs listed in ORBit, and reviewed them to determine whether the:

- Transferred materials required a license under EAR and ITAR.
- Appropriate individuals signed on behalf of the University.
- MTA was prepared and approved before the item was shipped, to facilitate review for export control compliance prior to shipment.
- Researchers received a copy of the signed MTA, to ensure that they are aware of the agreements terms and conditions.

We found the following:

1. Delegation of Authority

The delegation of authority for approving MTAs and contractually binding the Regents of the University of California has not been formally established. As a result, all nine outgoing international MTAs were signed by TIA personnel who may not have had formal authority to bind the Regents.

Our review found that there are not sufficient UC or UCSB policies or procedures that establish who has the authority to approve MTAs. However, UC's draft *Incoming Material Transfer Agreements: Guidelines for University of California MTA Negotiators*, states that, "As with any other contract, incoming and outgoing material transfer agreements must be signed on behalf of the University by a person with written delegation authority to do so." The guidelines also state, "At UC campuses, the delegated authority to sign material transfer agreements resides in the technology licensing office or the contracts and grants office, depending on the campus." The lack of specific, formalized policies and procedures regarding MTA approval increases the risk that agreements will not be held valid, and could expose the individuals who sign MTAs to personal liability for the performance of that agreement, as stated in UC's draft *Incoming Material Transfer Agreements: Guidelines for University of California MTA Negotiators*.

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To ensure that the interests of the University and its personnel are protected, TIA should obtain guidance from UCOP regarding the appropriate delegation of authority for signing MTAs. TIA should then develop and communicate local policies and procedures regarding this issue.

Management Corrective Actions

Physical Export of Materials and Technologies/ MTAs

OR considers outreach to faculty and staff to be the primary means of ensuring compliance with export regulations regarding shipments abroad. Our primary effort in responding to these audit findings will be to strengthen our outreach efforts as described in management corrective action #1. We will continue to use the existing MTA process as an adjunct to bolster our compliance with these regulations, but OR considers export control compliance to be a secondary use of MTAs. The TIA office within OR will send an annual reminder to department liaisons (beginning calendar year 2011) regarding the need to use MTAs in appropriate circumstances. TIA and Compliance offices will participate in providing orientations for department staff about the general MTA process and how it can be used for export control to create a supplementary check for export control compliance. This is only intended to capture those shipments which would ordinarily be subject to the MTA requirement.

Delegation of Authority

During the course of this audit, we have confirmed with the UCOP Director of the Research Policy Analysis and Coordination, who manages the delegations of authority related to research agreements, that an MTA Officer can be included in the Redefinition of Contract and Grant Authority delegated to the Chancellor, Vice Chancellor for Research, Sponsored Projects Director, and others to solicit and accept extramural contracts and grants for sponsored research projects. OR will request that the Chancellor include the MTA Officer within the Redefinition of Contract and Grant Authority.

Audit and Advisory Services will follow-up on the status of the management corrective action by July 1, 2012.

2. The MTA Process

Our review found that UCSB does not have a formal, established process to ensure that materials shipped either domestically or internationally are covered by MTAs prior to shipment, when necessary. We found that:

- Some campus departments are unaware of MTAs and their purpose.
- TIA relies on departments to initiate the MTA process, since UCSB does not have a centralized shipping center, increasing the likelihood that required MTAs are not completed.
- There has been at least one instance in which materials were shipped before the MTA was signed. The materials were shipped by FedEx on August 18, 2010, while the MTA was signed on September 1, 2010.
- There are no UC or UCSB policies and procedures that provide guidance about when a MTA is required and, as noted above, who has the authority to approve them on behalf of the University.
- The role of MTAs in export control compliance has apparently not been clearly established and/or communicated. Based on discussions with OR and TIA personnel, there may be a difference of opinion regarding the role of MTAs in export control compliance.

To limit the University's exposure to intellectual property rights issues and to liability arising from recipients' use of materials, and to help ensure compliance with export control regulations, a formal MTA process should be developed to ensure that shipments of materials outside of the University are covered by MTAs, when required. To accomplish this, TIA should obtain guidance from UCOP regarding when MTAs are required and their use in helping to ensure compliance with export control regulations. TIA should then enhance existing policies and procedures regarding this issue. TIA should also provide additional training to campus departments regarding the MTA process.

Management Corrective Actions

General Improvements for MTA Outreach to Researchers and Staff

Consultation with UCOP

TIA will consult with the relevant policyholders at UCOP to determine when MTAs are needed. This consultation will guide future policy development and in-person outreach, as well as our enhanced website materials.

Policy Development

TIA will develop a research circular that addresses the key issues and procedures regarding MTAs. The research circular will be developed and issued by June 30, 2012.

In-Person Outreach

TIA will continue to offer training in MTA basics to staff who attend the STAR class series on an annual basis. TIA will also continue to provide basic training and updates about MTAs at the annual Contract and Grant Liaison meetings and will reach out to science and engineering departments to ask to be included in departmental meetings, as appropriate.

Website Resources

TIA will also enhance the resources available on the TIA website before January 1, 2012. These resources will include (at a minimum):

- Guidance when MTAs are, and are not, needed, to the extent UCOP provides guidance to TIA on this issue.
- Guidance on the variety of roles MTAs serve in protecting the University and its researchers.
- An explanation of how MTAs and export controls are related, with a link to the export control compliance page.
- Reminders that an MTA must be executed before materials can be shipped.

Audit and Advisory Services will follow-up on the status of the management corrective action by July 1, 2012.

3. Proposal Stage Review

Principal Investigators are required to complete OR's Datasheet & Approval form at the proposal stage of an award. This form includes questions about the research that are designed to help identify potential research compliance issues, such as use of animal subjects or stem cells. However, there are currently no questions related to export controls, such as if the researcher plans to ship any items internationally. Covering this subject in this format was identified as a best practice from another research university and could be implemented at UCSB.

Management Corrective Actions

OR had several internal discussions regarding this well intended comment. On the surface, it appeared to be a simple and useful improvement. After looking at various ways to implement this (craft an appropriate question, create an information flow to various offices, determine appropriate actions), OR determined that the problems inherent in this process would yield little productive information.

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The problems are these:

- The datasheet is collected at the proposal stage. Many researchers will not know at this stage whether travel or shipments abroad will be necessary.
- Since this is the proposal stage, a significant majority of the proposals will not be funded, resulting in collection of a large volume of valueless information.

After looking for practical ways to adopt this suggestion, it appears that more robust outreach will be the most effective tool for awareness of these requirements.

Audit and Advisory Services will follow-up by December 31, 2011, to consult with OR regarding this recommendation.