



Internal Audit Report

Export Controls

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James Dougherty
Principal Auditor

Approved
Barry Long, Director
Internal Audit & Advisory Services

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I. EXECUTIVE SUMMARY

Internal Audit & Advisory Services (IAS) has completed an audit of export controls to determine campus exposure and compliance with applicable federal regulations and compliance with the fundamental research exemption. The university's strategy for managing export control regulation is through limiting its applicability by maintaining an open, basic research environment and thereby qualifying for the regulation's fundamental research exclusion.

Overall, the campus was effectively minimizing its exposure to export control regulation by maintaining an open, basic research environment. Campus offices, such as the Office of Sponsored Projects and the Office for the Management of Intellectual Property were engaged in reviewing awards, material transfer agreements, and nondisclosure agreements; and were on the alert for potential export control applications and were available for assistance to help ensure that campus research continued to qualify for the fundamental research exclusion.

However, the campus does have some exposure to export control regulation, such as shipments of controlled material to foreign countries, laptop computers with controlled technology or data carried to foreign countries, etc. While occurrences may be infrequent, campus shipments of materiel are initiated by campus units, departments, and labs without benefit of a central campus shipping office or locally designated export resource and without an adequate awareness of export control protocol.

In addition, the University Affiliated Research Center (UARC) engages in tasks that do not qualify for the fundamental research exclusion. UARC has a dedicated compliance and export control officer and has implemented specific procedures and systems to help ensure sufficient consideration and management of export control issues. Our review of task orders and protocols confirmed the existence of controls at UARC in providing reasonable assurance of compliance with export control requirements.

The following issue requiring management corrective action was identified during the review:

A. Awareness of Resources for Compliance with Export Controls

Information about export control requirements, strategies for compliance and subject area expert contacts was not clearly communicated, and on-line content was cumbersome and not easy to follow.

Management agreed to all corrective actions recommended to address risks identified in these areas. Observations and related management corrective actions are described in greater detail in section III of this report.

II. INTRODUCTION

Purpose

The purpose of this audit was to determine campus exposure and compliance with applicable federal regulations, including: Export Administration Regulations, International Traffic in Arms Regulations, and country-specific sanctions and regulations; and compliance with the use of the fundamental research exemption.

Background

Export controls are federal regulations that control access to specified items by foreign entities or individuals, control communication of information, such as in publications, and control travel to embargoed countries to protect US commercial interests, military interests or honor US foreign policy trade sanctions. Export controls are mainly administered by the following federal departments:

- Department of Commerce with its Export Administration Regulations (EAR) and Commerce Control List, enforced by the Bureau of Industry and Security;
- Department of State with its International Traffic in Arms Regulations (ITAR) and US Munitions List, enforced by the Directorate of Defense Trade Controls; and
- Department of the Treasury with its country-specific sanctions and regulations and list of specially designated nationals and blocked persons, enforced by the Office of Foreign Assets Control.

Noncompliance with these regulations can result in fines and loss of federal research awards for the university, and fines and imprisonment for individuals, such as principal investigators.

The university has a plan to comply with these export controls through qualifying for their fundamental research exemption. So long as research is fundamental research it is exempt from export controls. Fundamental (a.k.a. basic or pure) research is characterized by unrestricted dissemination of information, such as through publications and presentations at conferences, and unrestricted participation in research on the basis of citizenship. The university has a policy regarding unacceptable restrictions on access to and participation in research activities based on citizenship status. The only exception is for classified research at UC/DOE Laboratories and selected off-campus locations.

Nevertheless, the university must be vigilant to ensure it does not accept contract language that controls publication and participation of foreign nationals in university research. Such contracts include research awards, nondisclosure agreements, material transfer agreements and the purchase of restricted items. Prior to shipments of any commodity out of the U.S., the campus must determine if the commodity requires an export license and secure a license if needed.

Further, researchers must determine if the country they intend to do research in is an embargoed country, and obtain a license to travel there from the Office of Foreign Assets Control, if required.

At UCSC, contract & grant officers and the special agreements officer at the Office of Sponsored Projects, and the director of the Office for the Management of Intellectual Property review contract language to ensure its acceptability; the Office of Campus Counsel also has provided advice concerning contract language both for academic divisions and Procurement & Business Contracts.

There is no single campus office that handles all shipments of items out of the U.S. Therefore, faculty seeking to ship such items and associated divisional administration offices approached to help with such shipments are relied on to be aware of the export requirements and make the appropriate determinations. There is also no single campus office that advises researchers on travel to embargoed countries. One faculty member traveling to an embargoed country identified during the scope of our review followed the advice of fellow UC faculty members who had conducted research in that country.

Other campuses in the UC system may have a single point of contact, the export compliance manager, to address export control questions and help ensure their campuses comply with these regulations. During FY2006, UCSC had an export compliance manager in the Environmental Health & Safety (EH&S) unit who facilitated all foreign shipments, advised on U.S. Customs documentation for import and export shipments, and processed hazardous materials domestic and international shipments.

Management objectives for this position were the management of international trade compliance including import/export and dangerous goods shipment that required compliance with EAR and ITAR, implement an export management plan, perform denied parties screening, provide licensing consultation and assist researchers with imports and dangerous goods shipments. Funding for this position was provided on an interim basis as a result of an investigation in FY2005 by the Bureau of Industry and Security because of our shipping of an item on the Commerce Control List without obtaining a license.

Due to uncertainty of continued funding, this person accepted a similar position at UC San Diego and efforts to recruit and retain qualified individuals in this position were unsuccessful. EH&S continues to process the shipment of hazardous materials for the campus, which rarely may include export controlled items. The shipment of other items that may be subject to export controls, such as equipment, would not trigger the attention of EH&S.

Currently, the campus relies on the system-wide export control officer in the Office of Ethics, Compliance and Audit Services at the Office of the President, to address export control questions and help ensure the campus complies with these regulations. Campus management we asked was aware of this resource.

Audit report SC-12-05 observed that principal investigators may not be sufficiently aware of the risks associated with deemed export control regulation when considering the use of foreign nationals in their research and when completing certification requirements for H-1B international scholar petitions. Although the majority of research on campus is basic research and therefore excluded from export controls, PIs could be engaged in activities that are not protected by the fundamental research exclusion, e.g. when a PI is consulting with a private company, participating in research centers or conducting their own start-up companies.

Consequently, The vice provost/dean of Undergraduate Education has made information available on deemed export control issues and risks for PIs considering the use of foreign nationals in their research or signing the I-129 Export Control Compliance Certification form.

UARC

The University Affiliated Research Center (UARC) has a full-time compliance & subcontracts officer to help ensure compliance with various requirements including the UARC contract export clause, which states:

NASA FAR SUPPLEMENT CLAUSE: 1852.225-70 Export Licenses.

- a) The Contractor shall comply with all U.S. export control laws and regulations, including the International Traffic in Arms Regulations (ITAR), 22 CFR Parts 120 through 130, and the Export Administration Regulations (EAR), 15 CFR Parts 730 through 799, in the performance of this contract. In the absence of available license exemptions/exceptions, the Contractor shall be responsible for obtaining the appropriate licenses or other approvals, if required, for exports of hardware, technical data, and software, or for the provision of technical assistance.*
- b) The Contractor shall be responsible for obtaining export licenses, if required, before utilizing foreign persons in the performance of this contract, including instances where the work is to be performed on-site at [insert name of NASA installation], where the foreign person will have access to export-controlled technical data or software.*
- c) The Contractor shall be responsible for all regulatory record keeping requirements associated with the use of licenses and license exemptions/exceptions.*
- d) The Contractor shall be responsible for ensuring that the provisions of this clause apply to its subcontractors.*

The UARC has the following two types of task orders

Alt I: Fundamental research with no restrictions on foreign national access or dissemination of information.

Alt II: Research may be subject to export control, national security restrictions, or other restrictions designated by NASA.

During our review, the UARC had 12 Alt I tasks and 22 Alt II tasks. We reviewed documentation for all these tasks and found management for compliance with export controls adequate.

Safeguards in place to prevent violation of export controls of Alt II task orders include excluding faculty and student participation in Alt II tasks and restricting such work to a dedicated secure area “behind the fence” at the NASA Ames Research Center.

In addition, all export control considerations are required to operate under a UARC decision tree protocol to ensure the campus is appropriately included and has oversight of export control activities. The UARC task planning process includes the engagement of the campus Office of Sponsored Projects (OSP) early in the process, and OSP provides a review and final UCSC approval. The UARC decision tree to determine if export licenses are needed includes a step as of last year to consult with the VCR/OSP to request approval to proceed with tasks requiring export license(s).

The decision tree’s last two steps are the UARC meets with OSP to present draft tasks and identified export issues; and the UARC and OSP coordinate with UCOP to determine the university course of action, namely: 1) apply for export license, or 2) execute a technical assistance agreement (a TAA allows a broader access, such as to anything involved in the task; consequently, the TAA is preferable). Campuses rely on UCOP to request ITAR export licenses, which it has done, for example, for UC Berkeley and the Scripps Institution of Oceanography at UC San Diego. EAR licenses are applied for by campuses, although UCOP may be asked for assistance.

The UARC governance structure includes reporting from the UARC managing director through UCSC senior director for Silicon Valley Initiatives directly to the UCSC Chancellor; while UARC task orders and export control considerations are approved through the UCSC Office of Research and its Office of Sponsored Research. While controls are placed as mentioned above over export control activities, the Vice Chancellor for Research has expressed some concern over the autonomy of the UARC in making decisions and handling of export controls and a lack of campus leadership visibility over export control activity.

Scope

The scope included a review of export control regulations; UC related policies and the UC export compliance plan; interviews with UCOP and campus personnel; formulation of a risk assessment and risk-based audit program; and testing in the following areas:

- International travel;
- Material transfer agreements for outgoing or incoming materials;
- Nondisclosure agreements;
- Research awards from private sponsors; and
- Current UARC tasks.

We chose samples for testing that occurred during FY2012 and FY2013.

III. OBSERVATIONS REQUIRING MANAGEMENT CORRECTIVE ACTION

A. Awareness of Resources for Compliance with Export Controls		
Information about export control requirements, strategies for compliance and persons to contact was not clearly communicated, and on-line content was cumbersome and not easy to follow.		
Risk Statement/Effect		
When information about export controls is not sufficiently prominent and easy to access, a person seeking answers to export control questions may get discouraged or obtain the wrong information, leading to possible noncompliance.		
Recommendations/Agreements		
A.1	The campus Office for Research should/will increase the awareness of export control regulation on campus by issuing a campus-wide communication on existing export control resources, under what circumstances and who to contact to answer questions on export control requirements and what licenses are required, both at the OP and campus level.	Implementation Date
		12/01/2013
		Responsible Manager
		VC for Research
A.2	The campus Office for Research should/will update the Office of Research website to include access to OP’s export control resources; identifying the system-wide export control officer as the principal contact person for questions and assistance with complying with these regulations; and periodically informing the campus of this website.	Implementation Date
		12/01/2013
		Responsible Manager
		VC for Research

A. Awareness of Resources for Compliance with Export Controls – Detailed Description

Aside from certain UARC tasks, campus research qualifies for the fundamental research exclusion from export controls. However, there are export controls that may still apply such as to shipments of controlled material to foreign countries, items with export controls purchased for campus researchers, laptop computers with controlled technology or data carried to foreign countries, etc. Although such controlled exports occur infrequently at UCSC, there needs to be enough awareness of these regulations to raise questions of whether or not export controls apply, and to have easy access to reliable answers to those questions.

For example, aside from the shipment of hazardous materials, the campus does not have a central shipping office that can ensure uniform procedures are implemented to comply with export controls. Instead, individuals rely on their own devices or support from related units and departments to ship

items to foreign destinations. Without a common procedure there is no assurance that export controls are complied with.

The systemwide export control officer at the Office of the President (OP) has a web page dedicated to shipping in compliance with export controls. Existing procedures include a decision tree providing a method to identify whether or not a piece of scientific equipment or a biological material may require an export license. Although the steps in this procedure are clearly laid out, it is not an easy task to determine whether or not an item is on the US Munitions List or the Commerce Control List. The systemwide export control officer is available to provide guidance and answer questions regarding this process, and may be the best person to make the determination on how to ensure requirements are met.

The campus Office for Research has an export controls web page located under “Other Topics” that links to the home page of the Office of Ethics, Compliance and Audit Services at OP. From there the user has to pull down the compliance menu to find the “Export controls” link. The OP export controls web page has many resources on this topic, but it is convoluted.

The first thing a campus user needs to know when dealing with a potential export control issue is who to contact to answer questions and obtain assistance determining if export controls apply and how to obtain licenses if they do; the system-wide export control officer is an appropriate contact for making these determinations.

APPENDIX A – Summary of Work Performed and Results

International Travel	
Work Performed	Results
<ul style="list-style-type: none"> • We obtained the current and comprehensive list of countries identified by the Office of Foreign Assets Control to which U.S. economic sanctions and embargoes apply. • We queried the financial information system to determine the population of foreign travel during the period of July 2012 to March 2013. 	<ul style="list-style-type: none"> • The comprehensive sanctions programs include Cuba, Iran, Sudan, and Syria. • The population of foreign travel during the period reviewed was 1,433 individual trips. • We determined there was only one trip to a country subject to comprehensive sanctions, Cuba. We contacted the traveler to learn how he satisfied the licensing requirements to travel there. • An associate professor in the Division of Art traveled to Cuba for research. He did not know about the Office of Foreign Assets Control, but was directed to UC/Cuba early in his research to find ways to travel to Cuba. UC/Cuba is a group made up of faculty and graduate students throughout the UC system. This group helped him obtain a license and other necessary paperwork, as well as air fare. • Although a country may not be subject to comprehensive sanctions, carrying a lap top overseas may trigger export controls for that country. • As laws change regarding embargoed countries and export controls over items travelers may carry to countries, campus travelers need to be kept informed of these requirements and who to contact with their questions.

Material Transfer Agreements (MTA) - Outgoing	
Work Performed	Results
<ul style="list-style-type: none"> • Interviewed director of Office for the Management of Intellectual Property (OMIP), the campus office that manages MTAs for materials from UCSC to outside destinations. • Obtained copies of MTAs for outgoing materials during period of review. 	<ul style="list-style-type: none"> • The director of OMIP is authorized to sign MTAs on behalf of the UC Regents. • Her office works with the Office of General Counsel at OP to ensure agreement language is acceptable. • Her office is not responsible for the shipment of these materials. • During the period of FY12 to the present, there were only 5 MTAs that involved sending material to other countries. The material was the same in each case: optic phase plates. The countries were the UK (2x), Canada (2x) and Spain (1x). • The director of OMIP said the MTA template for the transfer of optic phase plates was approved by UCOP General Counsel. The director only inserted the names of the recipient, scientist, and investigator. • At the time of negotiating the initial MTA for the phase plates, the director of OMIP, knowing the composition of the plates and their use in fundamental research, and the fact that they were only shipped to research institutions in non-embargoed countries, concluded that they were not export controlled. • University of California Observatories/Lick Observatories (UCO/Lick) Business Office handled the shipment of the optic phase plates. They did not know if the phase plates were subject to EAR, and assumed that determination would have been made when the MTA was negotiated. UCO/Lick did not ship the items until the MTA was completed. UCO/Lick seldom ships material to foreign countries. • I contacted the director of the Laboratory for Adaptive Optics, UCO/Lick, where the phase plates originated and asked for his opinion on whether the optic phase plates were included on the Commerce Control List (CCL). I provided him with the most relevant categories of the CCL (CA004 or CA994) on which to base his opinion. He concluded that they are not subject to export controls. • I provided this information to the system-wide export control officer and asked what his opinion was. He concluded that based on the information he received the optic phase plates are not subject to EAR. • For any materials that are to be shipped internationally that are covered by an MTA from OMIP, the director of OMIP can ask the supplying unit if the materials are covered by export controls and direct them to the OP export control officer.

Material Transfer Agreements (MTA) - Incoming	
Work Performed	Results
<ul style="list-style-type: none"> • Interviewed OSP special agreements officer on procedures for negotiating MTAs for items coming to the campus, especially regarding export controls. • Obtained OSP’s population of incoming MTAs and chose samples for review. 	<ul style="list-style-type: none"> • The special agreements officer left UCSC and accepted a similar job at UC San Diego shortly after I interviewed her. • The special agreements officer was authorized to sign incoming MTAs on behalf of the UC Regents. Consequently, campus researchers who request such materials for their research came to her to get the relevant MTA signed. • She would review these agreements to ensure they were compatible with university policies and negotiate with the material supplier to change language to ensure compliance with policies. This activity was similar to her review of awards. • We reviewed seven incoming MTAs. Six of the seven had no reference to export controls; no restrictions on access by foreign nationals, and no restrictions on publication of research results. Consequently they did not affect the research qualification for the fundamental research exclusion. • One MTA had export control language that the supplier was not willing to change. It stated: Recipient hereby certifies that recipient shall...(4) not permit access to material or modifications by foreign entities or individuals when to do so would be in violation of export control laws;... • We assume that access by foreign nationals to the material, mosquito and mosquito DNA, would not violate export control laws. Further, an arrangement was made with the campus researcher to not accept any material from the supplier that had any confidential information associated with it. The supplier confirmed, and it is stipulated in the MTA, that all confidential information would be marked as such. Consequently, the material received would not disqualify this research project from qualifying for the fundamental research exclusion. • We confirmed this understanding with the business contracts manager, Procurement & Business Contracts, who was also involved in the negotiation of this MTA.

Awards	
Work Performed	Results
<ul style="list-style-type: none"> • Interviewed OSP special agreements officer on procedures for reviewing research award contracts to ensure their language would not disqualify resulting research from the fundamental research exclusion. • Obtained a list of privately funded awards to choose samples for review. Privately funded awards are most likely to have export control provisions. 	<ul style="list-style-type: none"> • The special agreements officer reviewed research award contracts she received from OSP C&G officers – she had trained them to look for export control wording and flag these for her. • I chose six awards out of a population of 24 for detailed testing to see if these awards involved export controls that would prevent the university from qualifying for the fundamental research exclusion. • The language of these awards did not prevent the University from qualifying for the fundamental research exclusion and avoiding both publication restrictions and restrictions of access by foreign nationals.

Nondisclosure Agreements (NDA)	
Work Performed	Results
<ul style="list-style-type: none"> • Discussed NDAs with the OSP and OMIP directors and the OSP special agreements officer. • Obtained NDAs from OSP for review. • Obtained an NDA template from OMIP. 	<ul style="list-style-type: none"> • The special agreements officer worked with NDAs if they were associated with a research agreement, but there were not many. OMIP only handles NDAs that are reported disclosures; these are inquiries from companies for IP that is available for licensing. Also, at times, in order to keep a potential research agreement on track for the PI, the special agreements officer or the OSP director would involve themselves, while working with authorized units, with certain agreements that are not strictly sponsored projects such as NDAs. • There were only three NDAs in the special agreements officer’s NDA folder. None of these had language that would jeopardize the fundamental research exclusion. • One NDA we reviewed included correspondence between the special awards officer and a company in which the company agreed no export controlled information would be transferred and agreed to change the language in the document that would become the fully executed NDA. • There was no export control language in the NDA template provided by OMIP. Keeping such language out of NDAs precludes one party assigning its export control obligations to the other party.

The UARC	
Work Performed	Results
<ul style="list-style-type: none"> • Met with the UARC compliance & subcontracts officer to learn how he managed compliance with export controls. • Obtained copies of the Data Management Records of all current UARC tasks (34) for review. 	<ul style="list-style-type: none"> • Initially, the compliance & subcontracts officer divided his time 60% for procurement/subcontracting and 40% compliance. Now this is reversed, i.e. 60% compliance. • His compliance responsibility is not only for export controls; it also includes conflict of interest, new technology reporting, publications, and proprietary information. • He is involved early in task management and participates in determining whether a task falls into Alt I or Alt II categories; what regulations apply to a task; and who is working on the task. • Task planning is a collaborative process that involves UARC management, including the executive director, research administrator, director of business operations, task manager and the compliance officer. • When deciding whether a task is Alt I or II, the compliance and subcontracts officer discussing this with the planning team and consults with NASA, such as the contracting officer and the contracting officer’s technical advisor, as NASA may designate restrictions that apply to tasks. • The task planning process includes a final review and approval by OSP. After OSP approves a task it is sent to NASA for its consideration. • All new hires go through the compliance & subcontracts officer. • He is alerted when changes occur that affect the compliance plan for a project. • He provides export control training to UARC employees on their first day of hire, annually, and task-specific training. • NASA-issued laptops cannot be taken out of the work environment without a permit issued by NASA. NASA has travel laptops that are “clean,” i.e. they do not have information on them that could get the traveler in trouble. The UARC is also planning to provide such a computer for travelers. <p>DMR review: Data Management Resource forms (DMR), required for each task, document data handling requirements, such as for proprietary information; government sensitive data; export control determination; export controls; and foreign nationals. This form is filled out for new tasks and when a task is modified.</p>

The UARC	
Work Performed	Results
	<ul style="list-style-type: none"> • There are 12 Alt I tasks and 22 Alt II tasks. • There are foreign nationals working on two Alt II tasks and one Alt I task. No export licenses were required for them. • There are 16 tasks with export controls; all are Alt II. • There are 20 tasks with proprietary information: 17 Alt II, three Alt I, and one TBD. • There are 18 tasks with government sensitive data; 17 Alt II and one Alt I. • Seven tasks include export controlled items with ITAR restrictions. <p>Should a task require a foreign national, the UARC compliance officer follows a decision tree protocol involving engagement between UARC and the campus OSP, for determining whether a license is needed for the individual(s) and steps to be taken for obtaining a license if one is needed. The decision tree includes review by the VCR who may decide not to go forward with a task that requires a license. It also includes discussion and confirmation of applicability of exclusions from licensing requirements with NASA. Further, discussions with UCOP occur to determine the course of action, such as whether to apply for a license or a technical assistance agreement. UCOP processes requests for ITAR licenses.</p> <p>Any proprietary or sensitive information that task employees will receive in the course of their work is documented in the proprietary information management record. This document includes the description of export controlled items. It is signed by all task employees. A copy is sent to the compliance & subcontracts officer.</p> <ul style="list-style-type: none"> • The process and accountability for the UARC’s management of export controls provided reasonable assurance of compliance.