

Internal Audit Report

Export Control Awareness Update

Report No. SC-17-05 December 2016

James Dougherty Auditor-in-Charge

Approved

Barry Long, Director Audit & Management Advisory Services



Table of Contents

I.	EXECUTIVE SUMMARY	2
II.	INTRODUCTION	
	Purpose	3
	Background	
	Scope	
III.	OBSERVATIONS REQUIRING MANAGEMENT CORRECTIVE ACTION	
	A. Awareness of Export Controls	5
APP	ENDICES	
	A. VCR email to the campus May 14, 2014	9
	B. Office of Research Export Control website	.10

I. EXECUTIVE SUMMARY

Audit & Management Advisory Services has completed an audit to evaluate the level of awareness of export controls by the campus research community and determine if actions intended to improve awareness of export controls within the principal investigator community as identified in previous internal audits have been adequately addressed.

Overall, based on a general survey of the campus research community and a survey of PBSci and BSoE department chairs, the level of awareness of export controls was relatively low among the research community and was somewhat higher for the BSOE and PBSci department chairs. There were only a few researchers we surveyed who were knowledgeable about export controls.

While this was expected given that higher education is not bound by export control regulation under the fundamental research exclusion, we anticipated a higher level of awareness given a Vice Chancellor – Research communication in May 2014 to the research community as a result of a prior internal audit report addressing this same condition.

Certain actions if taken by researchers can jeopardize the fundamental research exclusion status. As a result, knowing what to look out for and whom to contact when faced with a potential export controlled activity is critical. We did not see that the criteria used to identify the fundamental research exclusion were well understood by those we surveyed.

There are administrative controls to help ensure compliance with export regulations, such as:

- UC policy on open access that provides the free availability of scholarly literature on the public Internet, thus ensuring the fundamental research criterion of wide and open publication of research results.
- UC policy on unacceptable restrictions on access to and participation in research activities based on citizenship status.
- Office of Research resources, such as contract and grant officers, and the special agreements officer
 who help ensure that the campus does not accept "flow down" responsibilities and liabilities for export
 controls by external entities, such as project sponsors.

However, the more that researchers know about export controls the safer they would be from potential non-compliance with its consequent penalties, which can be harsh for them personally as well as for the campus.

The following observations requiring management corrective action were identified:

A. Awareness of export controls

There were opportunities for improvement of the research community's awareness of export controls

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 review was to evaluate the level of awareness of export controls by the campus research community and determine if actions intended to improve awareness of export controls within the principal investigator community as identified in previous internal audits have been adequately addressed.

Background

In FY2013, Audit and Management Advisory Services (AMAS) completed an audit of export controls to determine campus exposure and compliance with applicable federal export control regulations and compliance with the fundamental research exclusion from those regulations. There was one observation reported on, namely that 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.

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. Therefore, AMAS and the Office of Research agreed to two corrective actions:

- 1. The campus Office for Research would increase the awareness of export control regulation on campus by issuing a campus-wide communication on existing export control resources, under what circumstances and whom to contact to answer questions on export control requirements, and what licenses are required, both at the UCOP and campus level.
- The campus Office for Research would update the Office of Research website to include access to UCOP's export control resources; identifying the system-wide export control manager as the principal contact person for questions and assistance with complying with these regulations; and periodically informing the campus of this website.

The vice chancellor for Research (VCR) issued an email to the campus on May 14, 2014 that addressed the first agreement, and the Office of Research updated its website to fulfill the second agreement. A copy of the email and an image of the website are included in the Appendices.

During our annual risk assessment to determine the FY2017 program of audits, we met with the VCR and learned that he was planning action to help ensure compliance with export control regulations. To assist with this effort, AMAS decided to identify the current level of awareness of export controls among the campus research community.

We were informed by the assistant vice chancellor - Research Administration and Compliance, of plans to establish an Export Control Oversight Committee, modeled on one in existence at UC Davis that would help provide a forum for addressing export control issues and help improve the level of awareness over export control requirements and assistance to the research community given a lack of dedicated export control resource on campus.

A report issued on November 17, 2016 to UC from the federal Office of Defense Trade Controls Compliance (DTCC) favorably addressed a UC Regents response on behalf of its campuses and laboratories to observations concerning potential compliance issues with International Traffic in Arms Regulations. Agreements with management in section III.A of this report are expected to contribute to the campus export control awareness and are aligned with an anticipated system-wide export control audit planned for calendar year 2017, originating from issues raised in the DTCC report.

Scope

We conducted this review by means of the following

- Interviewed:
 - Assistant Vice Chancellor Research Administration and Compliance, and the director of Research Compliance
 - System-wide manager of Export Control
- Reviewed:
 - AMAS SC-13-15 audit report and supporting work papers, as well as actions taken in fulfillment of corrective action agreements
 - Export control regulations and guidance provide by the US Department of State and the Department of Commerce
 - UCOP website on export controls
 - o UC policies relevant to export controls
 - Campus procedures relevant to export controls
- Developed a methodology to survey the campus research community on their awareness of export controls
- Distributed surveys to 211 researchers identified in the campus research community and distributed surveys to 16 department chairs in BSOE and PBSci.

III. OBSERVATIONS REQUIRING MANAGEMENT CORRECTIVE ACTION

A. Awareness of Export Controls

There were opportunities for improvement of the research community's awareness of export controls.

Risk Statement/Effect

Although the risk of non-compliance with export control regulations is low due to the fundamental research exclusion, there is still the potential for these regulations to apply to campus research. The penalties for non-compliance can be harsh for both individual researchers and the campus.

Agreements

A.1	The Office of Research will develop and implement a strategy for creating and sustaining awareness of export controls that corresponds to the level of risk the campus faces from noncompliance with these regulations. One suggested strategy would be the development of one-page guides in	Implementation Date 7/3/2017
		Responsible Manager
	the Office of Research website addressing the most likely risks, such as the shipment of export controlled items; signing I-129 Export Control Compliance Certification forms; technology control plans; or accepting publishing restrictions that jeopardize the fundamental research exclusion from such regulations. (Such guidance may already exist on the UCOP website.)	Assistant VC for Research Administration and Compliance
A.2	The Office of Research will introduce export control guidance to new faculty during their orientation, and periodically notify existing faculty by an email.	Implementation Date
		7/3/2017
		Responsible Manager
		Assistant VC for Research Administration and Compliance

A. Survey of research community's awareness of export controls – Detailed Discussion

General Survey of the UCSC Research Community

We invited 211 UCSC academics to fill out a survey using Google Forms. These were chosen on the basis of overseas travel; a BSoE list of faculty fellows and academy members; and faculty in UCSC's Biomedical Research, which includes both BSoE and PBSci faculty members. This survey asked the following questions:

General Survey of the UCSC Research Community

- 1. Do you travel to foreign countries and carry a laptop with unpublished, restricted technology information, source code or software, whether experimental or proprietary, that does not arise during or result from your fundamental research?
- 2. If yes, how do you determine if an export license is required?
- 3. Do you take or ship abroad research materials, technical information, or equipment that could potentially be used for military purposes, e.g., chemical or biological specimens, missile technology, encryption source code or object code software, etc.?
- 4. If yes, prior to taking or shipping that research equipment or materials out of the country, how would you determine whether an export license is required?
- 5. If you had a concern that the country you intend to ship to had export restrictions, or the person you intend to ship to may be a proscribed person, what would you do?
- 6. What would you do if your research data concerns a patentable invention?
- 7. What would you do if a project sponsor asked you to accept restrictions on access to or dissemination of information?
- 8. What would you do if a project sponsor or other third parties asked you to provide citizenship, nationality, or visa status information, or agree to background checks for project participants, such as students?¹
- 9. What would you do if you were asked to attend or deliver a presentation at a meeting from which foreign nationals are barred?
- 10. We would appreciate any other remarks you may have about complying with export control regulations.

Questions 1-5 were intended to identify potential exports, as defined by export control regulations, of research information, equipment or other items exported overseas.

Questions 6-9 were "what if" scenarios to identify knowledge of essential features of fundamental research that qualify fundamental research for an exclusion from export control regulations.

Question 10 was a request for any further remarks on complying with export controls.

6

¹ There are grants that limit participation based on citizenship or resident status, such as the NSF Research Experiences for Undergraduates (REU) in which undergraduate student participants must be U.S. citizens, U.S. nationals, or permanent residents of the United States. An REU program has operated at UCSC for many years. This is not the type of research project that concerned us.

There were 65 responses to this survey; a 31% response rate.

- Questions 1-4: Only one responder, an assistant professor in Molecular Cell & Developmental Biology
 Department, answered positively to either question 1 or 3; he shipped items that could be covered by
 export controls. The low frequency of such activity indicates a lower risk of non-compliance with export
 control regulations.
- Question 5: 37 responders regarded this as irrelevant to their research, either explicitly or by not replying to this question. The majority of the rest would seek guidance from an administrative office, e.g. Office of Research.²
- Question 6: 38 responders would disclose their patentable research and would eventually be joined by 8
 others. One would publish anyway. Once patented or a patent application available from or at any patent
 office, the research result is in the public domain and excluded from export controls. Otherwise, it should
 be published to enjoy the exclusion.
- Question 7: 25 responders would seek guidance from administrative offices, including the Office of Research; 7 would accept the limitation; 1 did not know it was an issue; 6 would negotiate; 8 would refuse; and 1 referred to the Open Access Policy.
 - -- It appears that most of the responders did not know of the UC Open Access Policy, nor the importance of unlimited freedom to publish to ensure the fundamental research exclusion from export controls.
- Question 8: 24 would seek guidance from an administrative office; 13 would not comply; 1 knew that
 campus administration would refuse this request; 8 would comply with the request; 5 said it depended
 on the project; 3 did not believe this would happen; and 4 did not respond.
 - -- It appears that most of the responders did not know that fundamental research allows for access by foreigners, and that UC generally does not accept public or private sponsors' restrictions of research based on citizenship due to UC Nondiscrimination and Affirmative Action Policy, and also UC policy regarding unacceptable restrictions on access to and participation in research activities based on citizenship status.
- Question 9: Although UCOP recommends avoiding meetings that are exclusive of foreign nationals, this
 may not affect the fundamental research exclusion so long as the material presented in widely published
 or part of a university registered course.
- Question 10: Only a few recommendations were provided. They included:
 - A required course in export controls especially for PIs that included additional references.
 - A key compliance control would be having access to an expert to answer questions about whether or not export controls cover one's research; this person should be able to quickly research whether items are on control lists; this person should ascertain if a license is needed or not, and if needed, help obtain it - all in good time.

² There is a systemwide subscription out of the UCOP Ethics, Compliance and Audit Services Division for software for restricted party screening to check the recipients for regulated shipments. It is called Visual Compliance and is used by EH&S for hazardous shipping.

Survey of Department Chairs

We did an additional survey of department chairs of PBSci and BSoE to supplement the general survey. This department chairs survey consisted of three questions in an email message; the questions were:

- 1. What experience or familiarity have you had with export control regulations?
- 2. How would you advise or direct someone in your department who was concerned that these regulations pertained to their research?
- 3. Do you have an opinion that you can share with us about the guidance provided to the campus on complying with export control regulations?

Emails were sent to 16 department chairs, and three professors of the METX PBSci department, as recommended by the METX chair. 12 of the 16 chairs we sent our survey to responded, as well as two of the three METX professors. We learned the following:

• First question:

- o Seven chairs had no experience or familiarity with export controls.
- Five had experience or familiarity: 1 with covered encryption; 1 with shipping software; 1 with a
 one-time shipment of equipment, 1 signed an I-129 Export Control Compliance Certification form
 for a faculty member H-1B visa application; and 1 expressed having a little knowledge of the
 subject.
- Two of the three professors of METX responded: one professor of METX had experience with shipping specimens; the other had no experience or familiarity with export controls.

Second question:

- Eight chairs believed they could adequately advise or direct concerns per export controls: five of them referenced the Office of Research; one the Dean's Office; one referenced his office manager and Google search; one referenced EH&S; and one did not say
- One professor of METX recommended EH&S for shipping export controlled items.³
- One chair reviewed export control information provided on the Office of Research website as a result of a campus-wide memo sent by the VC for Research to increase awareness of export control regulations. This memo and improved information on the website were agreements between the VC for Research and Audit & Management Advisory Services in an audit of campus export controls in FY13. That chair believed the export control information on the website was thorough.

Third question:

One c

- One chair recommended that information on export controls be made more easily accessible/findable on a research website.
- One of the METX professors expressed a positive experience working with EH&S to ship research specimens.
- One chair stated that export control is not a high priority for him. This opinion may be fair to say applied to the others who did not respond to this third question.

³ All outgoing shipments of infectious substances, genetically modified micro-organisms, patient specimens, and other hazardous materials must be processed by the Environmental Health and Safety (EH&S) Department. However, not all export controlled items are hazardous materials. While EH&S will help with export control regulations for shipments of hazardous materials, it does not provide export control management for the campus.

APPENDIX A – VCR Email to the campus May 14, 2014

Export Control Awareness

To: UCSC Community

From: Vice Chancellor Research Scott Brandt

May 14, 2014

This email is being sent to increase awareness about export control regulations.

Export control regulations cover shipment of controlled physical items, such as scientific equipment that require export licenses from the United States to a foreign country, and transfers of controlled information, including technical data. The University must also comply with federal regulations when faculty and students travel to certain sanctioned or embargoed countries for purposes of teaching or performing research.

Information regarding University of California export control policies and practices may be found at: http://officeofresearch.ucsc.edu/orca/othercompliance/export.html

For general questions about export control in research or material transfer agreements, please contact Office of Research Special Agreements Officer Lisa Coscarelli, 459-3346, lcoscare@ucsc.edu.

APPENDIX B - Office of Research Export Control website

