

DISASTER AND CONTINGENCY PLANNING

**CALIFORNIA STATE UNIVERSITY,
BAKERSFIELD**

**Report Number 03-38
December 10, 2003**

Members, Committee on Audit

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Roberta Achtenberg, Vice Chair
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**BOARD OF TRUSTEES
THE CALIFORNIA STATE UNIVERSITY**

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ABBREVIATIONS

A&R	Admissions and Records
AVEC	Antelope Valley Education Center (Lancaster)
CSUB	California State University, Bakersfield
DCP	Disaster and Contingency Planning
DRII	Disaster Recovery Institute International
EO	Executive Order
IT	Information Technology
SAM	State Administrative Manual
SEMS	Standardized Emergency Management System
SEVIS	Student and Exchange Visitor Information System

EXECUTIVE SUMMARY

As a result of a systemwide risk assessment conducted by the Office of the University Auditor during the last quarter of 2002, the Board of Trustees, at its January 2003 meeting, directed that *Disaster and Contingency Planning* (DCP) be reviewed. DCP was partially audited in 1997 in a sequence of audits on Seismic Safety and Disaster Readiness.

We visited the California State University, Bakersfield (CSUB) campus from June 2, 2003, through July 3, 2003, and audited the procedures in effect at that time.

In our opinion, the administration and management of DCP activities needed certain improvements to ensure reasonable preparation, response, and recovery in the event of a disaster.

The following summary provides management with an overview of conditions requiring their attention. Areas of review not mentioned in this section were found to be satisfactory. Numbers in brackets [] refer to page numbers in the report.

EMERGENCY READINESS [6]

Disaster contingency agreements for drinking water and emergency generators had not been updated in nine years, and procedures had not been established to maintain a record of emergency response skills for disaster service worker volunteers within the campus community. In addition, responsibilities for the federal Student and Exchange Visitor Information System (SEVIS) were not adequately segregated because admissions and records office evaluators singularly reviewed and approved applications for admissions and completed SEVIS reporting requirements.

FACILITY ISSUES [8]

The CSUB Antelope Valley Education Center (AVEC), which had been designated the information technology (IT) backup for the CSUB campus, did not have a backup generator to power its computing equipment in the event of a power failure.

BUSINESS CONTINUITY [9]

Written business continuity plans were not in place for six on-campus and one off-campus operation. Additionally, business continuation plans for four additional operations did not contain key elements for business resumption.

INTRODUCTION

BACKGROUND

Government Code §8680.3 defines disaster to mean:

A fire, flood, storm, tidal wave, earthquake, terrorism, epidemic, or other similar public calamity that the governor determines presents a threat to public safety.

In California Code of Regulations, Title 19, §2402, the Standardized Emergency Management System Regulations, **emergency** is defined to mean:

A condition of disaster or of extreme peril to the safety of persons and property caused by such conditions as air pollution, fire, flood, hazardous material incident, storm, epidemic, riot, drought, sudden and severe energy shortage, plant or animal infestations or disease, the governor's warning of an earthquake or volcanic prediction, or an earthquake or other conditions, other than conditions resulting from a labor controversy.

Mohammad Qayoumi, vice president for administration and finance and chief financial officer at California State University, Northridge, recently authored a book entitled, *Mission Continuity Planning*, published by the National Association of College and University Business Officers. This publication defines two types of disasters: 1) those that happen suddenly and without notice (e.g., earthquakes), and 2) phased disasters where there can be early warning of eminent danger (e.g., winter storms).

Since the September 11th terrorist attacks, there have been a number of federal initiatives affecting colleges and universities including controls over international students and registration requirements surrounding select agents and toxins. The federal Department of Homeland Security has implemented a new system called Student and Exchange Visitor Information System (SEVIS) to record and monitor information about international students. Other federal agencies including Health and Human Services and the Center for Disease Control have also issued regulations.

Two sources of industry guidance on standards and terminology are *Business Continuity: Best Practices* as defined by the Business Continuity Institute and a *Glossary of Terms* from the Disaster Recovery Institute International (DRII). In *Best Practice*, a disaster recovery plan is "a plan to resume a specific essential operation, function or process of an enterprise." The DRII's *Glossary of Terms* describes disaster recovery as an "approved set of arrangements and procedures that enable an organization to respond to a disaster and resume its critical business functions within a defined time frame."

Disaster recovery/emergency preparedness plans are required of state agencies by Government Code §8607(a) which states:

The Office of Emergency Services, in coordination with all interested state agencies with designated response roles in the state emergency plan and interested local emergency management agencies shall jointly establish by regulation a standardized emergency management system for use by all emergency response agencies.

The Standardized Emergency Management System (SEMS) is the system required by Government Code §8607(a) for managing response to multi-agency and multi-jurisdiction emergencies in California. SEMS

consists of five organizational levels, which are activated as necessary: field response, local government, operational area, regional, and state. By standardizing key elements of the emergency management system, SEMS is intended to facilitate the flow of information within and between levels of the system and facilitate coordination among all responding agencies. SEMS incorporates the use of five essential Incident Command System functions: command, operations, planning/intelligence, logistics, and finance/administration.

Business/mission continuity is considered a broader term than disaster planning. The goal of emergency planning is to address the immediate impacts of the disaster and to respond as needed to bring the emergency to closure. Business/mission continuity is a continuing cycle of preparation that includes:



PURPOSE

Our overall audit objective was to ascertain the effectiveness of existing policies and procedures related to the administration of *Disaster and Contingency Planning* (DCP) activity and to determine the adequacy of controls over the related processes to ensure compliance with relevant governmental regulations, Trustee policy, Office of the Chancellor directives, and campus procedures.

Within the overall audit objective, specific goals included determining whether:

- ▶ Campuses have developed DCP and other processes that address the most probable incidents that may affect the safety of personnel, damage assets, or cause significant business interruptions and that are also designed to comply with recent terrorism measures.

- ▶ Buildings can be safely secured and evacuated when appropriate or configured for sheltering-in-place in response to disasters or emergencies.
- ▶ The DCP plan is adequately tested and maintained.
- ▶ Equipment, information (such as the amount of hazardous materials or number of occupants in a building), supplies, and trained personnel will be available when needed.
- ▶ Campuses have a well-equipped emergency operations center.
- ▶ Buildings have been retrofitted to the extent practical and reasonable facility measures have been taken such as anchoring furniture and other potential falling objects, providing adequate fire suppression measures, and securing building ventilation and air handling systems so potential biological agents cannot be easily introduced to contaminate widespread areas.
- ▶ Campuses have done what they can to reduce the risk of power interruptions.
- ▶ Reasonable business continuity plans have been formulated according to priorities established for critical business applications, processes, and systems.
- ▶ Continuity of operations beyond initial response periods is realistically addressed.

SCOPE AND METHODOLOGY

The proposed scope of the audit as presented in Attachment B, Agenda Item 2 of the January 23-24, 2003, meeting of the Committee on Audit, stated that DCP includes program and facility readiness and resource planning for actions related to natural and man-made disasters and the recovery there from. Potential impacts include injury of students, staff, faculty, and visitors; disruption of programs and services; financial exposures; damage claims from injured parties; and property damage.

Our study and evaluation were conducted in accordance with the *Standards for the Professional Practice of Internal Auditing* issued by the Institute of Internal Auditors, and included the audit tests we considered necessary in determining that operational and administrative controls are in place and operative. This review emphasized, but was not limited to, compliance with state and federal laws, Board of Trustee policies, and Office of the Chancellor and campus policies, letters, and directives.

Industry-wide standards were also considered. The audit review period was July 1, 2001, to date. At California State University, Bakersfield, the department of public safety has overall responsibility for DCP.

Our primary focus involved the internal administrative, compliance, and operational controls over DCP management. Specifically, we reviewed and tested:

- ▶ DCP policies and procedures.
- ▶ DCP plans.
- ▶ Availability of DCP resources including communication systems, equipment, and supplies.
- ▶ Extent of exercises/tests of DCP capabilities.
- ▶ Training of DCP personnel.
- ▶ Registration and monitoring of visa students.
- ▶ Control of select agents and toxins regulated by the federal government.
- ▶ Preparation of facilities to withstand disasters.
- ▶ Business/mission continuity arrangements for critical processes.

OBSERVATIONS, RECOMMENDATIONS, AND CAMPUS RESPONSES

EMERGENCY READINESS

CONTINGENCY AGREEMENTS

Certain disaster contingency agreements had not been updated in nine years.

We noted that two agreements, one for drinking water and a second for emergency generators, had not been updated since 1994.

Executive Order (EO) No. 696, *Implementation of the California State University Emergency Preparedness Program*, dated January 29, 1999, delegates to each campus president the responsibility for implementation and maintenance of an emergency management system including determination acquisition and maintenance of facilities, equipment, and related supplies required for emergency preparedness.

The director of procurement and support services stated that he received direction on disaster preparedness from the director of public safety including contingency agreements. However, after the initial agreements were in place, no further directions were provided.

Non-current disaster readiness contingency agreements reduce the campus' ability to effectively respond to emergencies.

Recommendation 1

We recommend that the campus update its disaster readiness contingency agreements.

Campus Response

We concur. The director of public safety and the director of procurement will update all disaster readiness contingency agreements that are part of the campus emergency management system.

Estimated completion date: April 2004.

DISASTER SERVICE WORKER VOLUNTEERS

Procedures had not been established to compile emergency response skills for disaster service worker volunteers within the campus community.

California Code of Regulations, Title 19 §2570.1 and §2570.2 indicate, in part, that the legislature has provided a state-funded program of workers' compensation benefits for disaster service worker volunteers who contribute their services to protect the health and safety and preserve the lives and property of the people of the state. A disaster service worker is any person registered with a disaster council or the Governor's Office of Emergency Services, or a state agency granted authority to

register disaster service pursuant to the California Emergency Services Act without pay or other consideration.

Government Code §3100 states, in part, all public employees are declared to be disaster service workers subject to such disaster service activities as may be assigned to them by their superiors or by law.

EO No. 696, *Implementation of the California State University Emergency Preparedness Program*, dated January 29, 1999, requires the campus to maintain an emergency management system which should become effective when a hazardous condition or natural disaster reaches or has the potential for reaching proportions beyond the capacity of routine operations.

The interim chief of police stated that all state employees would, if needed, be conscripted into service as disaster workers in the event of a major disaster, and their skills would be used as needed at that time.

Not maintaining an inventory of emergency response skills for disaster service worker volunteers increases the risk that competent members in the campus community will not be considered.

Recommendation 2

We recommend that the campus develop an inventory of emergency response skills for disaster service worker volunteers.

Campus Response

We concur. The campus human resources department will develop a process for collecting and maintaining an inventory of emergency response skills for disaster service worker volunteers.

Estimated completion date: May 2004.

SEGREGATION OF DUTIES

Responsibilities for reviewing and approving applications for admission received from non-immigrant students were not adequately segregated from reporting responsibilities.

Campuses enrolling non-immigrant students are required to track their educational progress and report any changes in their status including personal address to the federal government via the Student and Exchange Visitor Information System (SEVIS). Admissions and records (A&R) office evaluators singularly reviewed and approved applications for admissions and performed SEVIS reporting responsibilities.

State Administrative Manual (SAM) §20050 states, in part, that the elements of a satisfactory system of internal accounting and administrative controls include a plan of authorization that provides appropriate segregation of duties.

The associate director of A&R indicated that he had not considered the risk implications of assigning A&R staff the responsibility of reviewing and approving applications for admission from non-immigrant students, entering this information into SEVIS, and issuing form I-20, Certificate of Eligibility for Non-Immigrant Student Status.

Inadequately segregating the authorization and record-keeping functions increases the risk of errors, irregularities, and the occurrence of inappropriate activities.

Recommendation 3

We recommend that the campus establish controls to ensure the appropriate segregation of duties in processing applications for admission received from non-immigrant students.

Campus Response

We concur. The campus will develop a process that will provide adequate segregation of duties to minimize the risk of error, irregularities, and the occurrence of inappropriate activities.

Estimated completion date: April 2004.

FACILITY ISSUES

The California State University, Bakersfield (CSUB) Antelope Valley Education Center (AVEC), which had been designated the information technology (IT) backup for the CSUB campus, did not have a back-up generator to power its computing equipment in the event of a power failure.

SAM §4842.2 states, in part, that agency physical security measures must provide for protection, detection, and minimization of loss or disruption of operational capabilities due to electrical power fluctuations or failure.

The director of administrative computing indicated that while computing hardware upgrades were in process at the satellite campus, no consideration was given to the installation of a generator for back-up power.

Failure to install a back-up generator for the back-up computing services site may result in a loss of data processing in the event of a power failure.

Recommendation 4

We recommend that the campus install a back-up generator at its back-up computing services site.

Campus Response

We concur with the need to provide backup to computer services at the AVEC. The campus proposes to implement an Uninterruptible Power Supply back-up system to satisfy this requirement. The

expense affiliated with a back-up generator is not feasible at this time due to the budget constraints of the CSU.

Estimated completion date: March 2004.

BUSINESS CONTINUITY

Written business continuity plans were not in place for six on-campus and one off-campus units. Additionally, business continuation plans for four additional areas did not contain key elements for business resumption.

We noted the following:

- ▶ Business continuity plans were not in place for the campus library, children's center, student union, telecommunications, Foundation, and the AVEC.
- ▶ Key elements for business resumption were missing from business continuation plans for admissions and records, financial aid, academic affairs, and extended university.

EO No. 696, *Implementation of the California State University Emergency Preparedness Program*, dated January 29, 1999, requires the campus to ensure that management activities are accomplished in support of emergency preparedness including determination, acquisition and maintenance of facilities, equipment, and related supplies.

The manager of the CSUB Foundation, director of the student union, interim division director of university services, director of telecommunications, director of university computing services, and the director of the AVEC all indicated that they had conducted some preliminary planning, including manual workaround procedures, but had not documented their efforts. For those operations with key elements missing from their business continuation plans, we were advised by the respective directors that these plans depended heavily on campus computing services. They indicated that their intent was to acquire enough supplies to conduct business on a limited basis while providing some flexibility to reallocate resources as needed.

In the absence of comprehensive business continuity plans, campus efforts to meet the service needs of students, faculty, and staff after a disaster may result in processing delays or the inability to provide educational services.

Recommendation 5

We recommend that the campus establish procedures to ensure that comprehensive business continuity plans are in place for critical operational areas.

Campus Response

We concur. The campus will update existing business plans to ensure key elements for business resumption are included and will create business continuity plans for critical areas where plans are currently not in place. Campus procedures will be established to ensure comprehensive business continuity plans are in place and current for all critical operational areas, on an ongoing basis.

Estimated completion date: June 2004.

APPENDIX A: PERSONNEL CONTACTED

<u>Name</u>	<u>Title</u>
Tomás A. Arciniega	President
Anne Black	Fiscal Services Support Assistant
Michelle Blue	Lead Building Marshal, Print Shop/Telecommunications
Bob Brown	Director, Facilities Management
Randy Bye	Manager, CSUB Foundation
Jack Campbell	Interim Director of Public Safety
Stella Chavez	Secretary to the President
Patrick Choi	Building Marshal, Disability Services
Matthew Ducatt	Director, Student Union
Barbara Espinosa	Lead Building Marshal, Dorothy Donahoe Hall
Megan Farwell	Building Marshal, Science I & II
Kellie Garcia	Director, Human Resources
Tina Giblin	Lead Building Marshal, Business Development Center
Diane Hendrickson	Interim Division Director, University Services
Rodney Hersberger	Director, Administrative Computing Services
Karen Hurley	Assistant Director, Administration and Student Services, Intensive English Language Center
Michelle Irvin	Building Marshal, Academic Advising
Pat Jacobs	Director, Facilities Planning, Development, and Operations
Irene Leung	Director Administrative Computing Systems
Kendyl Magnuson	Associate Director, Admissions and Records
Liz McDonald	Senior Building Marshal, Library
David Merritt	Interim Director, Safety and Risk Management
Claudia Neal	Director of Public Safety
Michael Neal	Vice President, Business and Administrative Services
Bill Perry	Assistant Vice President, Student Life
John Ritter	Senior Building Marshal, Education Building
Carrie Rockwell	Lead Building Marshal, Procurement
Edwin Sasaki	Associate Vice President, Academic Affairs and Dean, Undergraduate Studies
Tonya Snyder	Lead Building Marshal, Administration Building
Michelle St. John	Director, CSUB Antelope Valley
Sharon Taylor	Associate Vice President, Fiscal Services
Denise Tucker	Building Marshal, Student Services
Dave Watts	Director, Telecommunications



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FEB - 2 2004

THE CALIFORNIA STATE
UNIVERSITY

February 2, 2004

Mr. Larry Mandel, University Auditor
c/o The California State University
401 Golden Shore, Suite 433
Long Beach, CA 90802

**Re: Campus Response to Recommendations of Audit Report Number 03-38,
Disaster and Contingency Planning, California State University, Bakersfield.**

Dear Mr. Mandel:

In accordance with the Policies and Procedures for the Office of the University Auditor, enclosed is the campus response to recommendations one through five of the Disaster and Contingency Planning Audit Report Number 03-38. A Diskette with the electronic version of the response document is also enclosed. This response is respectfully submitted to the Chancellor for review and acceptance.

Please do not hesitate to contact me should additional information be required.

Cordially,

Tomás A. Arciniega
President

/vj

Enclosure

c: Mr. Michael A. Neal, Vice President for Business & Administrative Services
Ms. Sharon A. Taylor, Assistant Vice President for Fiscal & Support Services

DISASTER AND CONTINGENCY PLANNING

**CALIFORNIA STATE UNIVERSITY,
BAKERSFIELD**

REPORT NO. 03-38

EMERGENCY READINESS

CONTINGENCY AGREEMENTS

Recommendation 1

We recommend that the campus update its disaster readiness contingency agreements.

Campus Response

We concur. The director of Public Safety and the Director of Procurement will update all disaster readiness contingency agreements that are part of the campus emergency management system. (Apr '04)

DISASTER SERVICE WORKER VOLUNTEERS

Recommendation 2

We recommend that the campus develop an inventory of emergency response skills for disaster service worker volunteers.

Campus Response

We concur. The campus Human Resources Department will develop a process for collecting and maintaining an inventory of emergency response skills for disaster service worker volunteers. (May '04)

SEGREGATION OF DUTIES

Recommendation 3

We recommend that the campus establish controls to ensure the appropriate segregation of duties in processing applications for admission received from non-immigrant students.

Campus Response

We concur. The campus will develop a process that will provide adequate segregation of duties to minimize the risk of error, irregularities and the occurrence of inappropriate activities. (Apr '04)

FACILITY ISSUES

Recommendation 4

We recommend that the campus install a back-up generator at its back-up computing services site.

Campus Response

We concur with the need to provide back up to computer services at the Antelope Valley Education Center. The campus proposes to implement an Uninterruptible Power Supply backup system to satisfy this requirement. The expense affiliated with a back up generator is not feasible at this time due to the budget constraints of the CSU. (Mar '04)

BUSINESS CONTINUITY

Recommendation 5

We recommend that the campus establish procedures to ensure that comprehensive business continuity plans are in place for critical operational areas.

Campus Response

We concur. The campus will update existing business plans to ensure key elements for business resumption are included and will create business continuity plans for critical areas where plans are currently not in place. Campus procedures will be established to ensure comprehensive business continuity plans are in place and current for all critical operational areas, on an on going basis. (June '04)

THE CALIFORNIA STATE UNIVERSITY
OFFICE OF THE CHANCELLOR

BAKERSFIELD February 10, 2004

CHANNEL ISLANDS

CHICO

MEMORANDUM

DOMINGUEZ HILLS

FRESNO

TO: Mr. Larry Mandel
University Auditor

FULLERTON

HAYWARD

FROM: Charles B. Reed
Chancellor

HUMBOLDT

LONG BEACH

SUBJECT: Draft Final Report Number 03-38 on *Disaster and Contingency Planning*, California State University, Bakersfield

LOS ANGELES

MARITIME ACADEMY

In response to your memorandum of February 10, 2004, I accept the response as submitted with the draft final report on *Disaster and Contingency Planning*, California State University, Bakersfield.

MONTEREY BAY

NORTHRIDGE

CBR/bth

POMONA

SACRAMENTO

Enclosure

SAN BERNARDINO

cc: Dr. Tomás A. Arciniega, President
Mr. Michael A. Neal, Vice President for Business and Administrative Services
Ms. Sharon Taylor, Assistant Vice President for Fiscal and Support Services

SAN DIEGO

SAN FRANCISCO

SAN JOSE

SAN LUIS OBISPO

SAN MARCOS

SONOMA

STANISLAUS