#### EDO Principal Correspondence Control

FROM:

DUE: 05/25/07

EDO CONTROL: G20070343

DOC DT: 05/07/07

FINAL REPLY:

Representative John Shadegg

EDATS: SECY-2007-0145

TO:

Chairman Klein

FOR SIGNATURE OF :

\*\* PRI \*\*

CRC NO: 07-0348

Chairman Klein

DESC:

ROUTING:

Security at Palo Verde

Reyes Virgilio Kane Ash Silber Ordaz

DATE: 05/16/07

Cyr/Burns Zimmerman, NSIR

ASSIGNED TO:

CONTACT:

Dyer, NRR

EDO

Shoop

Mallett, RIV Schmidt, OCA

SPECIAL INSTRUCTIONS OR REMARKS:

Template: SECT-017

E-RIDS: SECY-OI

EDATS Number: SECY-2007-0145

**Initiating Office: SECY** 

**General Information** 

Assigned To: OEDO Due Date: 5/25/2007 5:00 PM

Other Assignees: SECY Due Date: 5/30/2007 5:00 PM

Subject: Security at Palo Verde

Description:

CC Routing: NSIR; NRR; Region IV; OCA

ADAMS Accession Numbers - Incoming: NONE Response/Package: NONE

Other Information

Cross Reference Number: G20070343, LTR-07-0348 Staff Initiated: NO

Related Task: Recurring Item: NO

File Routing: EDATS

Agency Lesson Learned: NO

**Process Information** 

Action Type: Letter Priority: Medium

Sensitivity: None

Signature Level: Chairman Klein Urgency: NO

OEDO Concurrence: YES
OCM Concurrence: YES
OCA Concurrence: YES

**Special Instructions:** 

**Document Information** 

Originator Name: Representative John Shadegg

Date of Incoming: 5/7/2007

Originating Organization: Congress

Document Received by SECY Date: 5/16/2007

Addressee: Chairman Klein

Date Response Requested by Originator: 5/25/2007

Incoming Task Received: Letter

# OFFICE OF THE SECRETARY CORRESPONDENCE CONTROL TICKET

Date Printed: May 16, 2007-08:46

PAPER NUMBER:

LTR-07-0348

**LOGGING DATE:** 05/15/2007

**ACTION OFFICE:** 

**EDO** 

**AUTHOR:** 

REP John Shadegg

**AFFILIATION:** 

**CONG** 

ADDRESSEE:

CHRM Dale Klein

SUBJECT:

Concerns unauthorized access to Palo Verde-related data

**ACTION:** 

Signature of Chairman

**DISTRIBUTION:** 

RF, OCA to Ack

LETTER DATE:

05/07/2007

ACKNOWLEDGED

No

**SPECIAL HANDLING:** 

Commission Correspondence

**NOTES:** 

OCM #1068

FILE LOCATION:

ADAMS

DATE DUE:

05/30/2007

**DATE SIGNED:** 

JOHN SHADEGG

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# Congress of the United States

House of Representatives Washington, DC 20515-0304

May 7, 2007

The Honorable Dale E. Klein Chairman U.S. Nuclear Regulatory Commission Washington, DC 20555-0001

Dear Chairman Klein,

It has come to my attention that an engineer formerly employed at Palo Verde Nuclear Generating Station in Wintersburg, Arizona, may have illegally taken software codes to Iran and used those codes to gain unauthorized access to Palo Verde-related data. I understand that federal authorities have arrested this former Palo Verde employee, Mohammad Alavi, and charged him with violating the U.S. trade embargo with Iran.

An article that appeared in the *Arizona Republic* (enclosed) the day after I first learned of the incident quotes an unnamed Nuclear Regulatory Commission official as saying "this incident has not compromised plant security." I hope this is true. While I understand that this former employee was restricted from Palo Verde systems, he apparently still maintained legacy access to systems of a Palo Verde contractor.

While I have been assured that Palo Verde has taken steps to eliminate this weakness in its security arrangements, I would appreciate learning of the Nuclear Regulatory Commission's assessment of the incident, including the basis for your conclusion that this incident did not compromise plant security, and more broadly, whether any Congressional action is needed to ensure the security of U.S. nuclear power plants.

Sincerely,

John Shadegg

Member of Congress

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SUBCOMMITTEES:
ENERGY AND AIR QUALITY

HEALTH

**ENVIRONMENT AND** 

HAZARDOUS MATERIALS

REPUBLICAN STUDY COMMITTEE

Enclosure



# Palo Verde software is breached

### • Ex-employee used it during trip to Iran, officials say

Robert Anglen and Ken Alltucker The Arizona Republic Apr. 21, 2007 12:00 AM

Federal authorities are accusing a former engineer at Palo Verde Nuclear Generating Station of illegally taking software codes to Iran and downloading details of control rooms, reactors and designs of the nation's largest nuclear plant.

Officers arrested Mohammad "Mo" Alavi, 49, in Los Angeles this month and charged him with one count of violating a trade embargo, which prohibits Americans from exporting goods and services to Iran.

Authorities say there is no evidence to suggest the use of the software was linked to terrorists or the Iranian government, which has clashed with the U.S. over attempts to develop a nuclear program.

"The investigation has not led us to believe this information was taken for the purpose of being used by a foreign government or terrorists to attack us," FBI spokeswoman Deborah McCarley told *The Arizona Republic* on Friday. "This does not appear to be terrorist-related."

Officials with Arizona Public Service Co., which operates Palo Verde, said the software does not pose a security risk because it doesn't control any of the nuclear plant's operating systems and is mostly used to train employees.

But they acknowledged that they changed procedures after the incident to prohibit former employees from accessing software when they leave the company. No such procedure was in place when Alavi quit APS in August after working there for 16 years.

A Nuclear Regulatory Commission official said Friday that "this incident has not compromised plant security."

The incident is the latest in a string of problems that has plagued the nuclear power plant, located 50 miles west of downtown Phoenix.

Alavi, an Iranian native who has lived in the United States as a naturalized citizen since 1976, is being held without bail in California. Alavi's lawyer said Friday that he denies any wrongdoing.

"Mr. Alavi is a U.S. citizen. He respects the court process, and he asserts his innocence," said Milagros Cisneros of the Federal Defender's Office in Phoenix. She said the government's indictment of her client is "more smoke than fire."

She declined to address specific allegations in the indictment, including whether Alavi gained unauthorized access to software and bought a laptop computer weeks before he resigned and moved to Iran.

A federal judge in Phoenix denied Alavi bail Friday, saying he posed a substantial flight risk.

"If released, it would not be difficult for him to sever electronic monitoring and leave the country by land," Judge Neil Wake said. "Ultimately, returning to Iran would require some effort but would not be difficult once he left the United States.

"Alavi's most important associations - family, home, business investment, intended employment and future plans - are all with Iran, not the United States."

Alavi faces up to 21 months in prison if convicted of the charge. One factor in determining any sentence could be whether the software and schematics of Palo Verde landed in the wrong hands, Wake said.

Alavi was arrested at Los Angeles International Airport on April 9 when he returned from Iran to join his wife, who arrived in the United States two weeks earlier to give birth to their child.

Wake said Alavi intended to immediately return to Iran to live.

"He has no intention of resuming residence in the United States," Wake said. "He is seeking employment in Iran, having invested \$60,000 in a company with the expectation of getting employment. Alavi owns a house in Tehran valued at \$150,000, in which relatives live."

Alavi's only connections to the United States, the judge said, are a \$200,000 retirement fund, his friends, citizenship "and the possibility that he may want to return if he becomes disappointed in his plan to make his life in Iran."

Authorities say he recently deposited \$98,000 into a U.S. bank account.

They also say Alavi's motivation for taking the software was to help set up his life in Iran.

After his resignation, authorities said, Alavi told fellow employees at Palo Verde and his apartment landlord that he was going to visit Iran for a few weeks and would then return to the United States and look for a new job.

But a month before giving his resignation notice, authorities said, Alavi bought a laptop computer and used it to download the 3KeyMaster software system.

The software is used to train employees on the operation of nuclear reactors.

It provides employees with emergency scenarios and instructs them to react with proper procedures. According to court records, the system contains detailed information on the reactor control rooms as well as maps, drawings, schematics and designs of the power plant.

Authorities said Alavi asked a Palo Verde software engineer to recommend a laptop and help him obtain a user name and password to access the software system.

Another employee saw Alavi with that laptop in the simulator room, with a 3KeyMasterand screen displayed. The employee didn't raise any alarms.

On Aug. 9, Alavi bought a one-way ticket to Tehran, Iran. His last day at the company was Aug. 14. Two days later, he left the country with his wife. In October, authorities say, the software system was accessed from a person using the Palo Verde user ID in Tehran.

The software's maker, Western Services in Maryland, had no idea that Alavi had resigned from Palo Verde and did not try to restrict his access, according to a federal affidavit.

Nobody from Palo Verde informed Western Services that Alavi had quit his job at the power plant, the FBI said. The nuclear plant did not instruct the software company to remove Alavi's user name or password from the company's Web site.

Western Services officials refused to respond to an interview request Friday.

Since the incident, APS has changed its policy and now requires plant managers to check a box to make sure former employees don't have access to external software systems.

"We have reviewed our policies and upgraded them," APS spokesman Jim McDonald said. "The company has taken additional measures to further strengthen controls of proprietary software in light of these events."

McDonald said the company has always cut off access to all internal computers but not to vendor computers.

The Nuclear Regulatory Commission in February downgraded Palo Verde's rating to the rank of most regulated nuclear power plant in the nation, triggering more rigorous oversight and additional inspections.

The triple-reactor power plant enjoyed a streak of largely problem-free operations through the late 1990s and into the early part of this decade.

Problems surfaced in 2004 with discovery of a "dry pipe" that could have disrupted the flow of water to the emergency core-cooling system. Other equipment problems followed, such as leaking oil seals and faulty diesel generator wiring. The problems shut down reactors more than a dozen times over the past three years.

A major trend identified by nuclear inspectors has been poor communication and poor worker performance.

In a letter sent to Palo Verde managers in March, the Nuclear Regulatory Commission noted that it cited the plant for 25 minor violations.

Among the problems noted by federal inspectors included workers not always following technical procedures during reactor startups, failing to follow procedures and not using error-prevention techniques.

APS vowed to employees and the community to do a better job. The utility said it hired Randy Edington, one of the nuclear industry's top troubleshooters, as chief nuclear officer to fix problems and restore accountability at Palo Verde.

Employees at Palo Verde first learned about the Alavi incident in an e-mail sent Friday by APS.

Reach the reporter at (602) 444-8694.

#### U.S. HOUSE OF REPRESENTATIVES

WASHINGTON, DC 20515-0303

**PUBLIC DOCUMENT** 

OFFICIAL BUSINESS

John Stadegg

The Honorable Dale E. Klein Chairman U.S. Nuclear Regulatory Commission Washington, DC 20555-0001



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