

COMMITTEES:

COMMERCE, SCIENCE, AND TRANSPORTATION  
SMALL BUSINESS AND ENTREPRENEURSHIP  
FOREIGN RELATIONS

CHAIRMAN:

SUBCOMMITTEE ON INTERNATIONAL DEVELOPMENT AND  
FOREIGN ASSISTANCE, ECONOMIC AFFAIRS,  
INTERNATIONAL ENVIRONMENTAL PROTECTION, AND  
PEACE CORPS

U.S. SENATE CLIMATE CHANGE CLEARING HOUSE

## United States Senate

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June 16, 2014

The Honorable Allison M. Macfarlane  
Chairman  
Nuclear Regulatory Commission  
Rockville, MD 20852

Dear Chairman Macfarlane:

I write to request additional information about a Nuclear Regulatory Commission (NRC)-sanctioned 'job shadow' program following the May indictment<sup>1</sup> of five members of the Chinese military on charges of hacking into U.S. companies' systems and stealing trade secrets. According to the indictment, the Chinese efforts included the thefts of trade secrets from Westinghouse related to the AP 1000, a nuclear reactor designed by Westinghouse, beginning in May 2010 until at least January 2011. NRC and Westinghouse documents<sup>2</sup> also indicate that Westinghouse, a Pennsylvania nuclear technology company, was hosting a 'job shadow' program that placed dozens of Chinese personnel at several U.S. nuclear reactors for months during the identical timeframe in which the alleged thefts occurred. You confirmed that the Department of Justice was looking into the Westinghouse 'job shadow' program in response to my questions during the June 4, 2014 Environment and Public Works Committee hearing.

In addition to the requests for information I sent you in my May 20, 2014 letter (Attachment 1), I also write to request that you formally correct the June 4, 2014 Environment and Public Works Committee hearing record, during which Commissioner Apostolakis asserted that NRC regulations do not allow for Chinese nationals to obtain unescorted access to U.S. nuclear reactors. NRC regulations<sup>3</sup> clearly provide a process by which individuals could receive unescorted access to nuclear reactors. Additionally, a document (Attachment 2) I obtained indicates that Westinghouse told NRC that the Chinese nationals who were participating in the job shadow program "will meet unescorted access requirements" a few weeks before the Chinese participants were expected to arrive.

At the June 4, 2014 hearing, you referred me to the Department of Justice in response to my question about whether NRC regulations could have allowed the Chinese nationals

<sup>1</sup> <http://www.justice.gov/iso/opa/resources/5122014519132358461949.pdf>

<sup>2</sup> <http://pbadupws.nrc.gov/docs/ML1033/ML103340208.pdf>,

<http://pbadupws.nrc.gov/docs/ML1033/ML103340207.pdf>

[http://www.westinghousenuclear.com/docs/News\\_Room/E2\\_August2011.pdf](http://www.westinghousenuclear.com/docs/News_Room/E2_August2011.pdf)

<sup>3</sup> <http://www.nrc.gov/reading-rm/doc-collections/cfr/part073/part073-0056.html>

unescorted access to the nuclear reactors at which they were stationed, and told me that NRC's "security regulations were followed". However, Commissioner Apostolakis then volunteered that "No, Senator, they are not allowed to do that." However, NRC regulations clearly provide for such access, stating that "(i) Any individual to whom a licensee intends to grant unescorted access to nuclear power plant protected or vital areas or any individual for whom a licensee or an applicant intends to certify unescorted access authorization" would be subject to NRC requirements to ensure that appropriate background checks, verification of true identity, employment history evaluation, credit history evaluation, character and reputation evaluation, criminal history review, psychological assessment, and behavioral observation are conducted before such access is granted.

Moreover, in an August 16, 2010 briefing (Attachment 2) by Westinghouse officials to NRC Region I&II staff on the job shadow program, Westinghouse informed NRC that the first group of 60 Chinese personnel were expected to arrive on September 13, 2010, that most of their visas had already been issued by the State Department, and that "Chinese participants will meet US Utility unescorted access requirements."

While the specific actions that might been taken by the Chinese participants while they were in the U.S. as part of the 'job shadow' program may be under investigation by the Department of Justice, the NRC has responsibility for examining the adequacy of its regulations when circumstances may reveal weaknesses therein. NRC also has a responsibility to provide accurate information to Congress. In light of the seriousness of this issue, I request that you a) correct the June 4, 2014 Environment and Public Works Committee hearing record in writing by June 18, 2014 and b) respond to the following additional questions and requests for information by June 27, 2014:

1. How many of the Chinese visitors received unescorted access to U.S. nuclear reactors as part of the 'job shadow' program?
2. Please provide the name of the company or companies (along with any contractors or subcontractors that may have been utilized in the U.S. or China) used to conduct the background checks, verification of true identity, employment history evaluation, credit history evaluation, character and reputation evaluation, criminal history review, psychological assessment, and behavioral observation required under NRC regulations to be performed before unescorted access is granted.
3. It is evident by the existence of the Department of Justice investigation you referred to during the June 4, 2014 hearing that the 'job shadow' program may have raised concerns about granting Chinese nationals unescorted access to U.S. nuclear reactors. Please provide me with the specific steps the NRC has taken to assess the adequacy of its personnel access regulations and any strengthening thereof. If no such steps have been taken, why not?

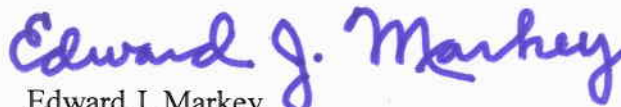


The Honorable Allison M. Macfarlane  
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4. Please provide me with an un-redacted copy of the September 30, 2010 report by the NRC Inspector General entitled "Audit of NRC's Oversight of the Access Authorization Program for Nuclear Power Plants," along with documentation demonstrating any actions NRC has taken in response to the findings and recommendations contained therein.

Thank you very much for your prompt attention to this matter.

Sincerely,



Edward J. Markey  
United States Senator

Attachments: 2

# Attachment 1

EDWARD J. MARKEY  
MASSACHUSETTS

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## United States Senate

May 20, 2014

The Honorable Allison M. Macfarlane  
Chairman  
Nuclear Regulatory Commission  
Rockville, MD 20852

Dear Chairman Macfarlane:

I write to request more information about a Nuclear Regulatory Commission (NRC)-sanctioned 'job shadow' program following yesterday's indictment<sup>1</sup> of five members of the Chinese military on charges of hacking into U.S. companies' systems and stealing trade secrets. According to the indictment, the Chinese efforts included the thefts of trade secrets from Westinghouse related to the AP 1000, a nuclear reactor designed by Westinghouse, beginning in May 2010 until at least January 2011. NRC and Westinghouse documents<sup>2</sup> also indicate that Westinghouse, a Pennsylvania nuclear technology company, was hosting a 'job shadow' program that placed Chinese personnel at U.S. nuclear reactors for months during the identical timeframe in which the alleged thefts occurred. I am concerned that this program may have facilitated or had the potential to facilitate the Chinese espionage efforts.

According to yesterday's indictment, in 2010 and 2011, one of the Chinese defendants stole proprietary and confidential information from Westinghouse's computer systems related to the design of the AP 1000 (some of which Westinghouse was contracted to build in China) and other sensitive internal business documents.

During the same timeframe in which these events allegedly occurred, NRC and Westinghouse were setting up a program that, according to an NRC document, "would enable key personnel at Sanmen and Haiyang stations to learn U.S. best practices by training with U.S. utility personnel at an operating nuclear plant. This program proposes to place two groups of staff including the plant manager, reactor operators, engineers and technicians (60 staff per group) at McGuire, Catawba, Seabrook, VC Summer, and Vogtle for a period of 2 months each. Group A would begin in September 2010, and Group B in January 2011." Westinghouse documents also describe this program, saying that as it created this program, "Westinghouse approached four U.S. utilities (Duke Energy, Florida Power & Light Company, South Carolina Electric & Gas Company, and Southern Nuclear) and six of those utilities' sites (Duke's McGuire and Catawba nuclear stations, NextEra's Seabrook Nuclear Power Plant and FPL's Turkey Point Nuclear Generating Station, SCE&G's V.C. Summer Nuclear Station, and

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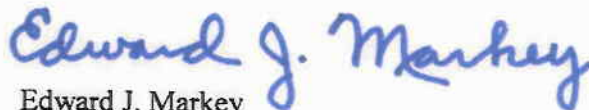
Southern's Alvin W. Vogtle Electric Generating Plant) to host the program during two different nine-week sessions in fall 2010 and early spring 2011. The six sites were asked to host anywhere from 10 to 25 Chinese guests each session. These particular utilities were chosen because they plan to build AP1000 reactors in the future and could offer and benefit the most from this type of exchange program."

I am concerned that this program may have provided additional opportunities for Chinese personnel to engage in espionage. In light of the seriousness of this issue, I request your prompt assistance in responding to the following questions and requests for information:

1. Please provide me with a copy of all documents (including but not limited to emails, memos, telephone logs, voicemails, presentations, trip reports and other materials) related to the NRC-sanctioned job shadow program with China.
2. Under which office of NRC did this program fall, and who at NRC authorized its creation?
3. Were any of the Chinese visitors granted unescorted access to the NRC facilities they visited? If so, please provide all details associated with such access.
4. Was there any review of this program by NRC, and if so please provide me with all related documents.

Thank you very much for your prompt attention to this matter. Please provide your response no later than June 27, 2014.

Sincerely,



Edward J. Markey  
United States Senator



# China Job Shadowing Program

## NRC Region I & II Information Brief

Rich DeLong

Westinghouse Program Manager

Keith Allen

Westinghouse Project Manager

August 16, 2010

# Job Shadow Program-What is it?

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- Program to familiarize select Chinese AP1000 utility staff with how a high performing US nuclear station operates.
- 2 groups of 60 Chinese Utility personnel will visit US Host Sites for 60 days starting on September 13th, 2010 (Group A), January 17th, 2011 (Group B)
  - Group A: Vogtle-25, Summer-10, McGuire-15, Seabrook-10
  - Group B: Vogtle-25, Summer-10, Calwebb-15, Turkey Point-10
- Set program of reading, activities and interviews to complete (Job Familiarization Guidelines)
- China Participants will meet US Utility unescorted access requirements

# Job Shadow – China Staff Composition

China Staff Composition				
Group	Discipline	Number of Individuals	Depot(s) (member)	Start date
A	Plant Managers	2	2	Total 20 personnel
	AD-2202	24	2	
	U.S.C. Maintenance Engineers	8	2	
	Electrical Maintenance Engineers	6	2	
	Mechanical Maintenance Engineers	8	2	
	QA/QC, Chemistry, Thermal Safety Administrators	11	2	
	Plant Managers	2	2	
	AD-2202	24	2	
	U.S.C. Maintenance Engineers	8	2	
	Electrical Maintenance Engineers	6	2	
B	Mechanical Maintenance Engineers	8	2	Total 20 personnel
	QA/QC, Chemistry, Thermal Safety Administrators	11	2	
	Plant Managers	2	2	
	AD-2202	24	2	
	U.S.C. Maintenance Engineers	8	2	



# Job Shadow – Program Status

- On 4/15/10, the Department of Energy General Consul (NA-243) agreed with the Westinghouse assessment that the job shadowing activity by the Chinese nationals involved in building the AP 1000 would fall within the existing 1985 Part 810 authorization for the AP1000.
- Job Shadowing Program Overview has been submitted to and reviewed by the State Department
- Association for International Practical Training (AIP T) is the State Department Sponsor for the program
- 58 of 60 J-1 Visas are issued for Group A

# Site Logistics for Job Shadow Program

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- Westinghouse will be the lead facilitator for all logistic needs for Chinese guests, lodging, transportation, etc.
- On-site Westinghouse Site Coordinator (Station Retiree) to work with Utility Lead to coordinate activities based on plant schedule.
- Host plant assigned leads for each Discipline for interaction with Chinese guests per scheduled activities.
- Job Familiarization Guidelines introduce Chinese personnel to key activities selected to depict important concepts for Operational Excellence

Based on Industry best practice performance objectives and criteria

## **J-1 Visa After-action Requirements**

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- Assessment of Participant performance will be conducted periodically and at the end of the program.
- Participant feedback will be solicited and completion certificate issued at the end of program.
- Post visit-report regarding the program results will be developed by Westinghouse and submitted to AIPT.