



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
612 EAST LAMAR BLVD, SUITE 400  
ARLINGTON, TEXAS 76011-4125

March 2, 2010

EA-10-024

Mr. Ross T. Ridenoure  
Senior Vice President and  
Chief Nuclear Officer  
Southern California Edison Company  
San Onofre Nuclear Generating Station  
P.O. Box 128  
San Clemente, CA 92674-0128

**SUBJECT: WORK ENVIRONMENT ISSUES AT SAN ONOFRE NUCLEAR GENERATING  
STATION – CHILLING EFFECT**

Dear Mr. Ridenoure:

The purpose of this letter is to verify Southern California Edison (SCE) is taking appropriate actions to ensure San Onofre Nuclear Generating Station (SONGS), Units 2 and 3, is a workplace that fosters an environment where employees feel free, and are encouraged, to raise safety concerns.

The Nuclear Regulatory Commission (NRC) has concluded that some employees in multiple workgroups at SONGS have the perception that they are not free to raise safety concerns using all available avenues, and that management has not been effective in encouraging employees to use all available avenues without fear of retaliation. This conclusion resulted from numerous observations, including; (1) employees expressing difficulty or inability to use the corrective action program; (2) a lack of knowledge or mistrust of the Nuclear Safety Concerns Program (NSCP); (3) a substantiated case of a supervisor creating a chilled work environment in his/her work group; and (4) a perceived fear of retaliation for raising safety concerns.

The NRC has identified that safety concerns are being raised by SONGS personnel through some communication avenues, and has not identified any safety issues that were not reported by some available avenue. The NRC has determined that some employees do not consider certain avenues available, such as discussing a concern with their immediate supervisor, but would find an alternate avenue to communicate their safety concern.

The NRC has received a significant increase of allegations from onsite sources at SONGS to nearly ten times the industry median in 2009. During this time, there was a significant increase in chilling effect, discrimination, and anonymous concerns raised to the NRC as compared to prior years. These allegations were received from multiple onsite organizations.

The NRC observed that not all SCE managers have completed Safety Conscious Work Environment training, and that SCE communications and policy statements do not clearly reflect the availability of multiple avenues for raising safety concerns. Also, the NRC's 2009 Mid-Cycle Assessment noted that this was the fourth consecutive assessment period with substantive cross-cutting issues in the areas of human performance and problem identification and resolution. SCE's corrective actions have not demonstrated adequate improvement in these areas, and the NRC continues to identify additional problems in these areas. These internal communication issues, long-term failure to correct substantive cross-cutting issues, and a potential inconsistent understanding of expectations and standards are contributors to some employees' reluctance to raise safety concerns.

Supporting details from NRC inspections, allegations, and NRC conducted focus group interviews are provided in the attachment to this letter.

**Action:**

Within 30 days of the date of this letter, the NRC requests that SCE provide:

- (1) Results of your Safety Conscious Work Environment root cause evaluation and focus group interviews, conducted on or about January and February 2010. As part of the results, provide the basis for determining the number of interviews and scope of work groups selected, as well as the questions used for the interviews. Also provide what immediate actions were taken to address these results, and what longer-term actions are planned, including descriptions, milestones, and due dates;
- (2) Your action plans to address existing Safety Conscious Work Environment issues to improve the environment at SONGS. The action plans, at a minimum, should specifically address how each avenue for raising concerns will be improved, including ease of use of the corrective action program, knowledge and use of the NSCP, availability of the NRC, and SCE's open door policy. Also include the measures that will be used to determine your action plan effectiveness;
- (3) Your plan to communicate expectations and policies concerning Safety Conscious Work Environment at SONGS, and methods used to verify that all SCE and contract personnel have received the message and clearly understand it;
- (4) Your plan to ensure that individuals who are not satisfied with the resolution of a problem can pursue the concern further through additional avenues (such as SCE management, the corrective action program, the NSCP, or the NRC) without fear of retaliation;
- (5) Through focus group interviews, the NRC has identified Safety Conscious Work Environment issues in multiple work groups, as indicated in the enclosure to this letter. For those groups, provide your actions taken and planned to address the chilled environment. This discussion should include the specific actions taken to repair the willingness of individuals in those groups to raise safety concerns, and what longer term actions you are taking or plan on taking to ensure the effectiveness of these actions;
- (6) Your plan to identify any other specific workgroup that may have Safety Conscious Work Environment issues that have not been previously identified;

(7) What actions you have taken or plan to take to ensure that actions taken against individuals are not perceived as retaliatory to avoid a further chilling of the environment at SONGS; and

(8) Your plans to inform the SONGS workforce, including contractors, of: (i) the issuance and content of this chilling effect letter; (ii) the current status of Safety Conscious Work Environment at SONGS; and (iii) your action plans to address the Safety Conscious Work Environment issues.

Furthermore, the NRC requests that SCE provide at a public meeting, within six months of the date of this letter:

(9) The results of your evaluations of progress in addressing the Safety Conscious Work Environment concerns at SONGS, and;

(10) Any additional actions or changes in actions planned and taken to address Safety Conscious Work Environment issues at SONGS.

The NRC also requests that SCE provide in writing, within six months of the date of this letter:

(11) The effectiveness of actions taken to address the Safety Conscious Work Environment concerns in the specific groups identified in Action (5) above;

(12) The effectiveness of actions taken to address Safety Conscious Work Environment issues in any additional SCE identified groups with Safety Conscious Work Environment concerns; and

(13) Any additional actions or changes in actions planned and taken to address Safety Conscious Work Environment issues at SONGS.

Following receipt and review of SCE's response, we will determine if a meeting is needed to discuss SCE's approach and schedule, and the NRC's planned oversight.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room). In addition, on May 14, 1996, the Commission issued a policy statement regarding the freedom of employees in the nuclear industry to raise concerns without fear of retaliation. This policy statement is accessible from the NRC Web site at <http://www.nrc.gov/about-nrc/regulatory/allegations/scwe-frn-5-14-96.pdf>.

Because your response will be placed and made available electronically for public inspection in the NRC Public Document Room or from the PARS component of ADAMS, to the extent possible it should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the public without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your withholding claim (e.g., explain why the

disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

If you have any additional questions regarding these matters, please contact Mr. Ryan Lantz, Chief, Project Branch D, at (817) 860-8173.

Sincerely,

**/RA/**

Elmo Collins  
Regional Administrator

Dockets: 50-361, 50-362  
Licenses: NPF-10, NPF-15  
w/ Enclosure: Background Information

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Publicly Avail	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Sensitive	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Sens. Type Initials	RL
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## **Background:**

In 2008 – 2009, the NRC received 57 allegations for SONGS, including 37 allegations with 53 separate concerns related to the safety conscious work environment (SCWE) at SONGS. This included 25 allegations of fear of retaliation for raising safety concerns and 17 allegations of retaliation for raising safety concerns. An additional three concerns were related to lack of confidence in the Nuclear Safety Concerns Program. In contrast to the 2008 trend where 11 allegations were received with 19 concerns related to the SCWE at SONGS, the NRC received a significantly higher number of allegations in 2009, including 26 allegations with 34 concerns related to the SCWE at SONGS. The above include the following breakdown:

- (1) In 2008, four allegations were received alleging retaliation for raising safety issues, while in 2009, 11 allegations were received alleging retaliation for raising safety issues.
- (2) In 2008, seven allegations were received alleging fear of retaliation for raising safety issues, while in 2009, 18 allegations were received alleging fear of retaliation for raising safety issues.
- (3) In 2008, one allegation was received with a concern of lack of confidence in the Nuclear Safety Concerns Program, while in 2009, two allegations were received with a concern of lack of confidence in the Nuclear Safety Concerns Program.
- (4) From 2008 – 2009, 21% of NRC allegations were anonymous.
- (5) In 2008, 18 allegations were raised from on-site sources, which was more than six times the industry median. In 2009, 34 allegations were raised from on-site sources, which was nearly ten times the industry median.

These concerns were received from multiple on-site organizations including operations, engineering, maintenance, emergency preparedness, work control, procedure writers, procurement, painters, security, regulatory affairs, and contractor organizations. Through 2008 and 2009, the NRC's allegation staff and SCE periodically discussed and compared allegation trends, which encompassed similar work groups. In November 2009, the NRC acknowledged that SCE did substantiate a claim that a manager created a chilled work environment in his/her work group.

On December 3, 2008, the NRC issued "San Onofre Nuclear Generating Station Units 2 and 3 – NRC Problem Identification and Resolution Inspection Report 05000361/2008012 AND 05000362/2008012, and Confirmatory Order (EA-07-232) Follow-Up Inspection" (ML083390399). The inspectors determined all of the individuals interviewed during the inspection expressed a willingness to raise safety concerns and were able to provide multiple examples of avenues available, such as their supervisor, writing a notification, other supervisors/managers, the Nuclear Safety Concerns Program, and the NRC. However, all the interviewees also provided negative feedback and shared concerns about their working knowledge of SAP, which included the site's new corrective action program system. The interviewees indicated that they either did not know how to write a notification or found the process to be very difficult. Regarding effectiveness of problem resolution, some interviewees in all of the focus groups indicated that the difficulties of using SAP have started affecting their confidence in the corrective action program. Regarding management response to issues



raised, half of the focus groups explained that sometimes management does not have the proper understanding of problems due to limited presence in the field.

Regarding the nuclear safety concerns program, participants in four of the six groups did not have an opinion because they have not had any experience with the program or a need to use it. Two of the focus groups expressed some concerns regarding the effectiveness of the program in resolving problems, believing it to be of limited effectiveness. However, they indicated they would use the nuclear safety concerns program if necessary. None of the interviewees expressed any concerns or awareness of retaliation for raising safety concerns. Two of the individual interviewees explained that due to perceptions around a recent management change, they had some concerns about potential negative reactions for raising safety issues in general.

### **Safety Culture Assessments:**

On March 4, 2009, in "Annual Assessment Letter – San Onofre Nuclear Generating Station (NRC Inspection Reports 05000361/2009001 and 05000362/2009001)," (ML090640307) the NRC requested SCE perform an independent assessment of the safety culture at SONGS as described in NRC Manual Chapter 0305 "Operating Reactor Assessment Program," (ML082770835) on the basis of having two substantive cross-cutting issues open for three consecutive assessment periods. On September 1, 2009, in the letter titled "Midcycle Performance Review and Inspection Plan – San Onofre Nuclear Generating Station," (ML092450392) the NRC requested SCE provide a letter discussing the results of this assessment and any associated planned actions and projected completion dates.

On October 29, 2009, SCE sent letter titled "Independent Safety Culture Assessment Results and Action Plans (Response to NRC Mid-Cycle Performance Review Letter for the San Onofre Nuclear Generating Station)," (ML100151707) to the NRC, describing the results of the independent safety culture assessment and associated planned actions and projected completion dates to address those actions. Overall, SCE's independent safety culture assessment determined that the safety culture at SONGS is sufficient to support safe plant operations. The independent safety culture assessment identified five areas of performance (Action Areas) in which action is necessary for SONGS to preserve and improve its safety culture, and eleven specific site groups in which there are particular safety culture issues warranting attention. The Action Areas included accountability and disciplined follow-through, change management and site engagement, utilization of oversight and external input, functions and roles of key programs, and consistent strategic vision and approach. In response to the survey results, SONGS developed action plans and corrective actions to address the issues.

From November 16 – 20, 2009, the NRC performed a focused problem identification and resolution team inspection to assess SCE's independent safety culture evaluation results and the inspection team conducted eleven focus group interview sessions involving 102 personnel as documented in NRC Inspection Report 05000361; 362/2009009. The interviewees represented various functional organizations and included both contractors and SCE staff. From the interviews, the NRC identified degradation in aspects of safety culture of the facility. The weaknesses were apparent across several functional groups at the site. This is of concern because it indicates that, as an overriding priority, nuclear plant safety issues may not always receive the timely, focused attention warranted by their significance. The inspection team determined that the safety culture at SONGS was adequate; however, several areas were identified that needed improvement.

- (1) All of the individuals interviewed expressed a willingness to raise safety concerns and were able to provide multiple examples of avenues available, such as their supervisor, writing a notification, other supervisors/managers, or the Nuclear Safety Concerns Program; however, approximately 25% of those interviewed indicated that they perceived that individuals would be retaliated against if they went to the NRC with a safety concern if they were not satisfied with their management's response.
- (2) Most of the interviewees provided negative feedback and shared concerns about their working knowledge of SAP, which included the site's corrective action program. Many interviewees indicated that they either did not know how to write a notification or found the process to be very difficult. Regarding training on the system, most of the interviewees explained that they either did not receive any, or the training they received was of limited effectiveness. The interviewees provided examples of current workaround practices such as going directly to their supervisors or other individuals with safety issues instead of entering them into SAP. There was general concern expressed by all the interviewees about not feeling comfortable using SAP for all the tasks needed for their specific job functions.
- (3) Regarding the Nuclear Safety Concerns Program, approximately half of the participants interviewed (mostly contract personnel) were unaware it existed or how to use it. The remaining personnel interviewed had little or no experience dealing with Nuclear Safety Concerns Program, but indicated they would use the program if necessary.
- (4) Regarding effectiveness of problem resolution, multiple interviewees in most of the focus groups indicated that obtaining feedback on notifications was difficult, and that in some cases notifications on the same issue had to be generated multiple times in order for the problem to be addressed and corrected.
- (5) When asked about the 2009 nuclear safety culture assessment, all of the individuals interviewed remembered having attended a briefing session on the results. However, only the general result of "safety culture was adequate" was recalled by those interviewed.
- (6) Also, about half of those personnel interviewed indicated that procedures in place had confusing or inadequate steps, but that the enhancement rate was improving.

In December 2009, due to the NRC's observations during the November 2009 focused problem identification and resolution team inspection, and following NRC management discussions with SCE on allegations relating to Safety Conscious Work Environment (SCWE), SCE initiated a root cause evaluation to analyze the potential SCWE issues. The root cause and the corrective actions are currently being developed by SCE.

In January 2010, the NRC reviewed SCE's programs and processes for establishing, maintaining, and assessing SCWE, including:

- (1) SCWE policy statements: SCE documented expectations for management behavior to encourage employees to raise concerns, unrestricted access to multiple avenues for raising concerns, and prohibitions on retaliation in Directive D-008, "SONGS Safety Conscious Work Environment and Resolution of Nuclear Safety Concerns" Revision 11; Directive D-003, "Nuclear Safety Culture," Revision 2; and Brochures

"What is a Safety Conscious Work Environment," "What is a Nuclear Safety Concern," and "Our Commitment to a Safety Conscious Work Environment." The inspectors noted that Directive D-008 and Brochure "Our Commitment to a Safety Conscious Work Environment" directed SCE employees to report safety concerns by writing a Nuclear Notification in the Corrective Action Program, contacting supervision, contacting the Nuclear Safety Concerns Program, or going to the NRC. However, for contract workers, SCE documents direct them to raise safety concerns to their employer or to SCE management, but did not direct them to contact the NRC or the Nuclear Safety Concerns Program if needed.

- (2) SCWE communications: SCWE communications, including management SCWE expectations, were sent out January 2009, November 2009, December 2009, and January 2010. The inspectors determined these communications described the SCWE policies accurately; however, there were inconsistencies in the information provided. Again for contract workers, the communications directed them to raise safety concerns to their employer or to SCE management, and did not direct them to contact the NRC or the Nuclear Safety Concerns Program if needed. Also, the Weekly Standup Package stated to go to the NRC if you have not had your nuclear safety issue resolved. The inspectors determined this direction could be read by some individuals to mean they should not raise their concern to the NRC as an available first option.
- (3) SCWE training: The NRC inspection in November 2009 identified that not all managers received the SCWE management training. Only managers enrolled in the Management and Supervisory Development Program received the training. However, it is the office Director's discretion whether a manager enters this program. Since then, SCE has performed no interim actions to ensure all managers received this training. Southern California Edison plans on incorporating this training into the Leadership Academy that starts at the end of February 2010, but due to the small size of the classes, all managers will not be trained until February 2013. Further, SCE has no action or plan to make SCWE management training continuing training.
- (4) Corrective Action Program: Procedure SO123-XV-50.CAP-1, "Writing Nuclear Notifications for Problem Identification and Resolution," Revision 2, stated, "All SONGS employees and supplemental personnel are responsible for promptly identifying, reporting and documenting problems by writing a Nuclear Notification;" however, not all SCE and contract personnel have access to write a Nuclear Notification.

On February 1-10, 2010, the NRC conducted additional focus group interviews to perform a more extensive assessment of the safety culture at the plant, as the first part of an inspection of SCE's problem identification and resolution program. This effort involved interviews with approximately 400 workers through 40 focus group interview sessions and some individual interviews as documented in NRC Inspection Report 05000361; 362/2009009. In summary, the results of the focus group interviews indicated a continued degradation in the safety conscious work environment at the plant. The February 2010 NRC-led focus groups indicated:

- 1) A majority of individuals felt comfortable raising concerns to their supervisors or managers, the Nuclear Safety Concerns Program, and the NRC, however, some individuals from multiple work groups were not comfortable raising concerns without fear of retaliation.

- 2) A majority of individuals expressed confidence in raising an issue to the Nuclear Safety Concerns Program, however, several individuals in multiple work groups indicated a lack of confidence in the Nuclear Safety Concerns Program, and a few individuals stated that people who used the Nuclear Safety Concerns Program had been punished or retaliated against.
- 3) Supervisors had not been trained on how to address potential SCWE issues involving a worker or supervisor in another organization, nor on investigation of non-nuclear safety incidents (such as occupational safety).
- 4) Several individuals indicated a lack of confidence in SCE's corrective action program (SAP). Examples cited included prioritization issues, schedule pressures due to large workload delaying more significant issues, and low priority for procedure modifications..
- 5) Many of the craft expressed the sentiment that if a person gets hurt on the job, the evaluation of the incident is cursory at best and the worker will end up fired.
- 6) Managers and Supervisors were not engaging workers in the field or their workstations. Many focus group members had never personally met their direct management above front-line supervisors.