

Review of the Internal Safety Culture Task Force Results and Recommendations with the Office of the Inspector General (OIG) 2009 Safety Culture and Climate Survey Results

Staff reviewed the Internal Safety Culture Task Force (SECY-09-0068, "Report of the Task Force on Internal Safety Culture," dated April 27, 2009) results in comparison with the Office of the Inspector General (OIG)'s 2009 Safety Culture and Climate Survey results. The methodology and results of the review are described below.

Review Methodology

The OIG survey had a wider scope of focus than the Internal Safety Culture Task Force. The OIG survey contained questions on both the safety culture as well as climate of the agency. The OIG report defines safety culture and climate as the following (from OIG report 09-A-18, <http://www.nrc.gov/reading-rm/doc-collections/insp-gen/2009/oig-09-a-18.pdf>):

Safety Culture [as it relates to the agency] refers to the complex sum [or whole] of the mission, characteristics, and policies of an organization, and the thoughts and actions of its individual members, which establish and support nuclear safety and security as overriding priorities.

Climate refers to the current work environment of the agency. Climate is like a snapshot in time and can affect culture.

In its final report (Agencywide Documents and Access Management System (ADAMS) Accession No. ML090990129) the task force described safety culture as the following:

The NRC's Safety Culture is comprised of the *characteristics* of our programs and *attitudes* shared by all NRC employees that ensure the agency's mission is always at the forefront of all work activities.

The two definitions of safety culture are very similar, but the OIG survey also explored general work environment issues related to the organizational climate.

In addition to this difference in scope, the OIG and the task force used different methodologies. The task force derived its results mainly from focus groups and interviews, supported by benchmarking activities (both internal and external) to the agency and inputs through a public meeting and internal Web site entry form. These methods provided qualitative information. The OIG contractor conducted some focus groups and interviews to support the design of the overall survey. However, the OIG based the majority of the findings and conclusions on the actual survey results, which provide quantitative information. In addition, the OIG survey captured demographic information, such as office, grade level, tenure, and job function. This allows the data to be explored for various groups within the agency. The task force recorded its data at a more general level and did not break down the information by demographic categories. The OIG survey and the task force activities also differed in focus areas. The task force focused its efforts and data collection on areas for improvement. The OIG survey had a larger scope that evaluated the work environment at a broader level and provides information regarding both strengths and areas for improvement. In addition, the task force activity was the first time the agency had conducted such assessment efforts, so there is not comparable data available for trending. In contrast, the OIG survey has been conducted several times and thus allows for trending.

Because of these differences in scope and approach, the staff could not make a one-to-one comparison of the results. Instead, the review focused on comparing general topic areas evaluated by both the OIG survey and the task force. For each theme or general insight from the task force results, the staff reviewed applicable questions from the OIG survey. The survey results were analyzed from several perspectives, including consideration of the raw response rates, comparisons with previous survey results to identify trending information where available, and comparisons against the external benchmarking norms where available. In addition, the staff reviewed the data to identify general trends in demographic differences (e.g., by office, grade level, tenure, job function, etc.). This review did not focus on any office specific differences or trends, because most offices have efforts underway to analyze the data for their organization and to develop continuous improvement plans. This review focused on agencywide trends and insights. Due to the broader scope of the OIG survey, the staff identified some additional results and insights which the task force did not explore or identify; those are noted in the discussions below.

In addition to this comparison review, the HR's Division of Training and Development (HRTD) conducted a review of the survey results from an organizational development perspective using the high-performing companies framework. The elements of this framework are as follows:

- a) Highly Engaged Employees
- b) Belief in Leadership
- c) A Connection to Company Strategy
- d) Accountability and Emphasis on Achievement
- e) An Innovative Culture

Where applicable, results of HRTD's review were incorporated into the comparison review. In general, the insights from the organizational development review validated the results from the comparison review.

Review Results

Positive Trends

Overall, the 2009 OIG survey had a very high response rate of 87 percent, which was a significant increase from the 2005 survey at 71 percent response. All but one of the survey categories had statistically significant increases in positive response rates from 2005 (with six categories having double digit increases). The increases are even more significant when compared with the 2002 and 1998 results. The results also compare very favorably against the external benchmarking norms. Compared against the U.S. Research & Development norm, NRC had statistically more positive response rates in all the survey categories (with seven categories having double digit differences). When compared against the U.S. High Performance norm, NRC had statistically more positive response rates in 12 out of the 17 survey categories.

Overall, there were strong positive results in job satisfaction in terms of staff feeling fulfilled and considering their jobs to be important. This supports the task force's finding of staff having pride in their work and being proud of their personal accomplishments. In addition, the agency also had strong positive results in the area of engagement, (e.g., belief in the organization's goals, pride in being part of the agency, willingness to go the extra mile). This also supports the task force finding of employees feeling connected to and support for the mission.

Comparison with Overall Task Force Themes

Based on its review of the data collected, the task force identified several high-level themes as areas where the agency should continue or further increase its focus. Most of the themes were developed based on converging supporting information from multiple data sources. For each theme, staff analyzed related questions or categories of questions from the OIG survey. This section provides a summary of each theme followed by a discussion of the results of the comparison with the applicable OIG survey results.

Theme 1: Lack of clarity and confusion about the concept of safety culture

Theme description: In general, the task force found that there was some lack of clarity and confusion about what the agency means by the concept of safety culture. There was no broad, consistent level of understanding about how individuals fit into the agency's safety culture, why safety culture is important, or the agency's expectations for safety culture. During the focus groups, staff with technical responsibilities was most aware of the concept of safety culture (although knowledge levels varied), but most nontechnical staff were not certain what the term meant or if safety culture applied to them. Results from management interviews generally demonstrated an understanding of safety culture and what supports a strong internal safety culture.

OIG survey results comparison: There was only one question related to this area, which was regarding employees having a clear understanding of NRC's safety culture. The results were overall very positive (88 percent positive response rate). No trending information was available since it was a new question for 2009. This information does not necessarily support the task force's finding of there being lack of clarity and confusion regarding what is meant by safety culture. However, since there was only one question without any followup questions to explore employees' level of understanding and interpretation of safety culture, there is also not enough data to refute the task force finding. The task force delved much deeper into this issue by asking individuals to explain what the concept meant to them. Therefore, the OIG survey results in this area in general were inconclusive for supporting or not supporting the task force's overall theme.

However, there were group differences from the OIG survey results that do support the task force finding among those groups. For example, on the OIG survey, staff in engineering positions and senior residents had more positive response rates than those in scientific and administrative/support positions on this question. In addition, senior management had more positive responses rates overall than other levels. These insights generally support the task force finding regarding differences in levels of understanding between technical and nontechnical staff and greater understanding from management.

Theme 2: Importance of communications, specifically in terms of feedback, expectations, and bases of decisions

Theme description: This theme centers on the importance of communications, in a variety of formats. First, input from staff indicated they strongly want consistent and timely feedback from their supervisors and managers on their personal performance and information on the results and contribution of their efforts. In addition, internal input collected from all employee levels supported the need for providing clearer expectations. Staff wants to understand the expectations and standards for their performance in their current work environment. In addition,

the staff want to understand the bases of decisions, particularly where they have expressed differing views during the decision-making process.

OIG survey results comparison: There were a number of OIG survey questions related to understanding the goals and objectives of the organization, and there were fairly high positive response rates (in the 80-90's percentage range). There were also a couple of questions regarding office/regional management communicating matters affecting the agency and decisions made by the agency, which, even though improved from 2005, had room for improvement (positive response rates in the 70-80's percentage range). Similarly, another area for improvement is the communications of resolution of differing views by supervisors, which only had a 50 percent positive response rate. Finally, there were a number of questions related to performance management that had overall lower positive responses rates (some in the 50-70's percentage range), even though the results were generally improved from 2005 and better than the norms. The OIG contractor indicated that performance management is typically an area where organizations tend to have less positive responses rates. Overall the results show improvements in this area, but there is an opportunity for continued focus. These results in general support the task force insights in this area.

Theme 3: Leaders modeling safety culture behaviors

Theme description: This theme was derived based on insights from the external benchmarking process. Agencies and organizations that had a focus on safety culture described having strong leaders throughout the organization who modeled safety culture behaviors and were engaged and present. In addition, their organizational systems, processes, and goals were aligned with the organization's safety culture principles.

OIG survey results comparison: Because this theme was based on external information and not internal data, there was no direct relation to the OIG survey. However some questions in the area of management and leadership were reviewed for general insights. Overall, there were fairly positive responses (overall positive response rate for the category was 74 percent), with improvements from 2005 and generally at comparable levels with the high performance norm. However, there is room for improvement identified regarding office/regional management communicating matters affecting the agency and decisions made by the agency, as discussed under the previous theme. Another area for continued focus is in trust by management in employees (71 percent positive response rate), which improved from 2005 but is lower than the high performance norm. In addition, staff in administrative/support functions and in lower grade levels had lower positive responses rates in this area.

Theme 4: Effectiveness of differing views processes

Theme description: The inputs gathered from the task force showed indications of questions on the effectiveness of the agency's differing views processes (e.g., Open Door Policy, Non-Concurrence Process, and the Differing Professional Opinions (DPO) Program). The data indicated continuing perceptions that engaging in these processes may lead to some form of adverse consequences in the workplace (e.g., being excluded or viewed negatively). Managers interviewed stated continued support for using those processes. In general, the input from staff indicated the desire to understand the basis of outcomes of issues entered into these systems.

OIG survey results comparison: The OIG survey questions showed significant improvements in awareness of the Non-Concurrence Process and Open Door Policy, and some improvements in awareness of the DPO Program. However, when asked about perspectives on the

effectiveness of the programs (new questions for 2009), the positive response rates were fairly low (40's-50's percentage range). The survey results showed that while 70 percent of employees would be willing to use the DPO Program if necessary, only 37 percent believe the program would not have a negative effect on their career. In addition, there was a very high "?" rate (47 percent) for this question.

Regarding general comfort level in raising and communicating issues, there were improvements from 2005. The survey results also showed that the comfort levels in expressing differing views generally decreased as interactions go up levels of the organization (i.e., from coworker, to supervisor, to office/regional management, and to senior management), even though the results were improved generally from 2005, particularly for the office/regional management and senior management levels. In addition, there were generally less positive response rates from administrative/support function employees in this category of questions. Additional insights from the survey results warranting continued focus were in the communications of resolution of differing views by supervisors (only 50 percent positive response rate) and positively recognizing employees for raising differing views (58 percent positive response rate, with no change from 2005). Regarding negative reaction for raising differing views, the survey results showed definite room for improvement (positive response rates only in the 60's percentage range).

Overall, these survey results support the task force's theme that there are continuing questions on the effectiveness of the differing views processes (even though awareness has increased); there still being perceptions of potential negative consequences for engaging in these processes; and improved communications on resolution of differing views being needed.

Theme 5: Balancing the focus of quality and production/timeliness

Theme description: The challenge in communicating and demonstrating the appropriate focus in meeting the potentially conflicting goals of quality and production or timeliness appeared as a common theme from the task force focus group results and was supported by insights from management interviews and some employee inputs. The focus group results indicated there was a perception among some participants that the agency may be too "metrics" oriented, versus "quality-driven," in the production of deliverable work products.

OIG survey results comparison: Under the Quality Focus category, the OIG survey results showed significant room for improvement (positive response rates only in the 40's to 50's percentage) on questions related to not sacrificing the quality of work to meet established metrics or to satisfy a personal or political need, although these results were improved from 2005. When asked whether the quality of the work performed in the individual's work unit is excellent, 91 percent responded positively. Additional analysis could provide insights on this difference in positive response rate regarding the high quality of the work within the individual's work unit and potential factors for sacrificing the quality of the work. The results generally support the task force theme about the importance of continuing to focus on the balance between quality and timeliness/metrics.

Additional Focus Group Insights

In addition to the themes described above, the task force also identified two issues from its focus group results that were supported by the OIG survey results. The first area is in knowledge management, where the task force results indicated concerns about capturing and transferring knowledge from people leaving the agency or their position. The survey results

showed significant improvement in the positive response rate on this question (40 percent) as compared to 2005 (23 percent), but there was still much room for improvement.

The task force focus groups also indicated concerns about turnover rates in supervisors. On the OIG survey, management responded much more positively than staff on this topic. In addition, there was no improvement from the 2005 results (59 percent overall positive response rate), which is an interesting insight when considering that there were improvements in general on all the survey categories and on the majority of the questions.

Additional Trends and Insights from OIG Survey

As discussed under the review methodology section, the OIG survey had a broader scope than the task force activities. As such, the OIG survey contained additional results and insights that the task force did not identify based on its activities. These are described below.

1. Employees being held to same standards of ethical behavior

There was variance in the positive response rates among offices and some differences by job functions. There would be benefit in better understanding on how the question was interpreted, which would provide clarification on what insights the results from this question are indicating in order to use this information effectively.

2. Concerns about the future of the nuclear industry

On this topic, there were some differences in positive response rates (i.e., not having such concerns) among offices, between management and staff, and between staff with different lengths of tenure with the agency. Additional information would be useful regarding what specific issues regarding the future of the industry concerns are of concern and who has those concerns.

3. Having the computer systems support needed to carry out job functions

Administrative/support functions had higher positive response rates to this question. Also, in its results presentation to the staff, the OIG survey contractor indicated there were some mixed results on this topic from the focus groups that were conducted to help develop the questions. Further analysis would assist in understanding how the staff interpreted this question in terms of what types of computer systems support they had in mind when responding to this question.

4. Empowerment of staff

The series of questions in this area include topics such as being able to challenge traditional ways of doing things, innovative ideas being able to fail without penalty, and not being afraid to make mistakes. While the positive response rates (in the 50's and 60's percentage range) has increased from 2005, there is still room for improvement. In addition, administrative/support functions and lower grade levels had lower positive response rates in this category. It should be noted that the task force's external benchmarking results highlighted the importance of empowering front line staff and giving them ownership.

5. Availability of classes and workload interfering with training

Disagreeing with the questions on these topics would be a positive response, meaning that availability of classes or workload did *not* interfere with training. Such positive response rates were low (approximately 30 percent), and there was actually a decrease in the positive response rates from 2005. In addition, there were differences in the results by group (e.g., supervisors had less positive response rates than the overall agency average; newer employees with less than one year of experience had much more positive response rates than the overall agency average; and engineering and scientific job functions had less positive response rates than administrative/legal). The use of focus groups could help illuminate how staff perceive class availability or workload as barriers to training.

6. Perceptions of effectiveness of various communication tools

This area showed mixed results. For example, questions regarding the effectiveness of the NRC public Web site (69%), Agencywide Documents Access and Management System (ADAMS) (42%), and the Executive Director for Operations (EDO) updates (66%) had the same or a decrease in the positive response rates when compared to 2005. Some other tools, such as NRC announcements, office/regional Web sites, and the NRC internal Web site, had more positive response rates than in 2005.

7. Multiple headquarters locations inhibiting communication

The results to this question showed a low positive response rate (i.e., disagreeing with this statement) (26 percent).

8. General trends noted for specific groups:

- Administrative/support functions and several corporate support offices had less positive response rates across multiple categories, although the results in general were improved from 2005.
- Those in the GG 1-10 grade levels and at the GG-14 grade level in particular had less positive response rates in several categories.

Planned Next Steps

Where there was comparable data, the OIG survey results generally supported the task force results. As such, the staff does not believe the original task force recommendations need modification. The implementation of the recommendations should appropriately consider factors and activities which may have come into play since the task force originally developed them in May 2009. For example, these include the agency's external safety culture activities for its licensees and initiatives and activities related to the subject areas of the recommendations.

Because the OIG survey identifies a number of additional trends and insights and provides a finer level of detail on some of the original task force themes, the staff intends to conduct additional analysis to fully understand these issues. The focus groups and interviews conducted by the OIG contractor to help develop the survey questions provide more insights on the additional trends and insights described above. In conducting any further analysis, the summary of insights from the interviews and focus groups that are described in the OIG contractor report should be reviewed and incorporated into followup activities as appropriate.

The further analysis could include additional engagement and discussions with employees through focus groups or other methods.

As the OIG survey contractor indicated in their presentation of the results, the high participation rate from the survey was driven in part by the staff's belief that the agency would fully consider their insights and feedback on the survey and take appropriate improvement efforts. Conducting additional analysis in order to gain full and clear understanding of the issues would directly guide the development of appropriate and effective actions for continuous improvement. This would demonstrate responsiveness to the staff, which could facilitate continued or even improved participation rates on future employee surveys and encourage further engagement on similar activities for providing employee views and feedback.