



# **Safety Culture Continuous Learning and Improvement**

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Task Order 4:

## **NRC Safety Culture Outreach Survey Final Report**

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January 15, 2015

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## Executive Summary

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Safety is a top priority for the Nuclear Regulatory Commission (NRC), which published its Safety Culture Policy Statement in 2011. To support continuous learning and improvement initiatives, the NRC has engaged LinkVisum Consulting Group to provide a variety of services, including a survey of Safety Culture education and outreach for its licensees and the licensees of Agreement States. As part of Task Order 4, LinkVisum, in coordination with the NRC, developed survey questions, developed the survey instrument and design, and created the process for distributing the survey link.

The survey questions, results, and considerations were all organized according to the following four topic areas:

1. **Awareness** of the NRC or Agreement State's Safety Culture Policy Statement and outreach materials
2. **Distribution** of the NRC Safety Culture education and outreach materials and how useful those materials are to organizations
3. **Products** that NRC provides on the NRC safety culture educational and outreach materials
4. **Support** provided by NRC communications

The NRC distributed the survey link via email and U.S. mail to nuclear materials licensees as well as to the Agreement State volunteers to provide to their licensees. A total of 5746 invitations were sent. There were a total of 754 respondents resulting in a 13.1% return rate.

Results were documented and compared across the aggregate results and different crosscut populations, by license type and by State licensee group. LinkVisum reviewed and analyzed all feedback and then identified themes to accurately capture responses in a meaningful and useful way. The identified themes from the survey responses can inform NRC leadership on potential opportunities for future action. Recommendations from the identified theme perspective include the following:

### **Awareness**

- Create an open forum for safety culture dialogue through NRC providing guidelines for an open forum or venue where members of the community can interact or exchange ideas on safety culture

### **Distribution**

- Enhance correspondence with automated alerts and notifications
- Continue inspections as an information sharing opportunity
- Have varying levels of information available to meet individual organization's needs so organizations can access information most relevant to them

### **Products**

- Grab audience attention with the brochure and case studies through NRC making the tools more interactive and relevant for wider and more diverse audience
- Expand use of case studies by providing overall themes and how they apply to more operational areas or fields
- Expand safety culture product offerings (online training, introduce social media)

### **Support**

- Have targeted communications for varying organizations (organizations that have a mature safety culture in place or organizations with emerging critical safety support needs)
- Review current communications plan
- Increase interactive presence with social media by enhancing efforts with online user engagement and interaction with organizations tied to NRC
- Foster the human element of support by building trust and free flow of information

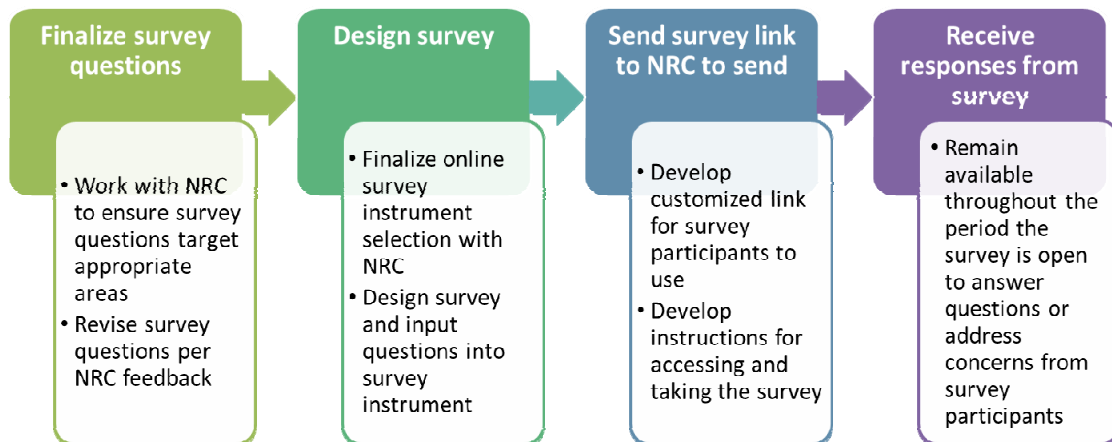
## Introduction

The Nuclear Regulatory Commission (NRC) engaged LinkVisum Consulting Group (LinkVisum) to conduct a survey of the materials regulated community under Contract number: NRC-HQ-11-C-37-0073, and the Task Order: NRC-HQ-12-T-37-0004. The survey targeted the licensees of the Office of Federal and State Materials and Environmental Management Programs (FSME) and Office of Nuclear Materials Safety and Safeguards (NMSS). In addition to NRC licensees, the NRC solicited Agreement State volunteers to distribute the survey to their licensees. The survey's main goal was to evaluate the effectiveness of the NRC's and Agreement States' education and outreach to these licensees. The survey specifically collected data regarding Safety Culture and the Safety Culture Policy Statement, policies, products and support services offered by NRC and the Agreement States. The survey questions fell under one of five focus areas:

1. Demographics
2. Awareness
3. Distribution
4. Products
5. Support

## Methodology

In order to assess the NRC's Safety Culture education and outreach, LinkVisum worked with NRC to develop and administer a survey to obtain licensee feedback. LinkVisum, in coordination with the NRC, developed and followed a four step survey approach including the finalization of survey questions that target appropriate areas, survey instrument and design, a process for distributing the survey link, and providing support to answer participation questions and concerns.



The survey questions were categorized into five focus areas in order to evaluate and assess each area in more depth. Table 1 provides a summary of questions' objective in each focus area.

Table 1: Survey Topic Areas

Topic Area	What Survey Questions Address in Each Topic Area
<b>Demographics</b>	Licensee of, job position, and facility
<b>Awareness</b>	Cognizance and knowledge of the NRC Safety Culture Policy Statement and Safety Culture educational and outreach materials on NRC’s website
<b>Distribution</b>	How organizations access the NRC Safety Culture educational and outreach materials and how useful organizations find the NRC Safety Culture Policy Statement
<b>Products</b>	Content of the NRC Safety Culture educational and outreach materials
<b>Support</b>	Whether organizations are satisfied with NRC communications and what additional tools or information could be beneficial for enhancing Safety Culture

Survey question answers were designed in the form of:

- Multiple choice: one answer, and multiple answers
- Yes or no
- Likert scale from strongly agree to strongly disagree
- Free text

The approved welcome, instructions, full list of survey questions, and thank you message included in the survey can be found in Appendix A: Safety Culture Survey on page 25. Question 1 (“Licensee of:” Dropdown menu to select NRC or a State) and Questions 3 (“Type of license:” Dropdown menu to select from 24 different license types) initially were set for survey respondents to select only one answer, however after the survey was open for three days, several people voiced concerns that choosing only one response in Question 1 “Licensee of” and Question 3 “Type of License” did not accurately depict their demographic information. As a result, the survey was modified to allow respondents from that point forward to choose more than one response in Questions 1 and 3.

### Administering the Survey

LinkVisum evaluated several different online survey tools and selected SurveyGizmo to administer the survey. Working with the NRC, LinkVisum customized the survey link to make it short and easy to remember. This enabled respondents who received the survey invitation via U.S. mail to easily type the URL into an internet browser. The NRC distributed the survey link via email and U.S. mail to licensees as well as to the Agreement State volunteers to provide to their licensees. A total of 5746 invitations were sent. LinkVisum maintained the survey and kept it open from September 8 through October 14, 2014. LinkVisum provided daily updates on the responses received and was available throughout the period the survey was open to answer questions and address any concerns from respondents. LinkVisum received no contact from survey participants.

## Data Analysis

Once survey data was collected from the respondents, LinkVisum reviewed the aggregate results per each survey question. For each Likert Scale and yes/no questions, the total number of respondents was identified and answer data was captured per answer choice as percentages of the total respondents. Results were documented in percentage form so that comparisons could be made across aggregate results and different crosscut populations. LinkVisum reviewed and analyzed all qualitative feedback from open-ended survey questions. Themes were identified to accurately capture responses in a meaningful and useful way. The qualitative themes were then compared to the quantitative results for consistency and validation. The data was also analyzed for the topic areas of Awareness, Distribution, Products, and Support.

While the data contained in this analysis is representative of the participants who chose to respond to the survey, it must be noted that a total of 754 responses were received, resulting in a return rate of 13.1%. Since this represents a low response rate, the data contained in the analysis cannot be 100% validated for its statistical robustness as it relates to the population queried as a whole. That said, the survey responses tend to be consistent in nature, therefore may be indicative of the greater population. The team cannot determine the reason for the response rate as such, if it is uncharacteristic of the population or if it is indicative of an underlying problem.

Once aggregate analysis and interpretation was complete, the survey results were analyzed per designated demographic data provided. The results were analyzed by two major demographic questions: 1. State and/or NRC licensees (see Table 2: Licensee Groups for Analysis) and 2. Type(s) of license(s) held. Due to the survey modification allowing respondents to choose more than one response in Questions 1 and 3, the following mentioned groups are not mutually exclusive. As an example, an NRC licensee survey feedback may also be counted in the survey results for the Wisconsin licensee group.

Table 2: Licensee Groups for Analysis

NRC and State Licensee Groups*
NRC Licensee
Wisconsin Licensee
Illinois Licensee
Washington Licensee
Virginia Licensee
North Carolina Licensee
Minnesota Licensee
Ohio Licensee
Rhode Island Licensee

*\*As some licensees operate across multiple states, above subpopulations are not mutually exclusive*

Originally there were 24 identified license types. These 24 types were recoded and consolidated into 16 categories by the NRC for analysis purposes (displayed in Table 3: License Type Categories for Analysis). The original 24 types are displayed in **Appendix C: License Group Categorization**.

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Table 3: License Type Categories for Analysis

License Type Categories*	
1	Portable Gauge Licensee
2	Fixed Gauge Licensee
3	Industrial Radiography or Well Logging Licensee
4	Irradiator Licensee
5	Master Materials Licensee
6	Medical Use Licensee
7	Broad Scope Licensee
8	Research and Development, Gas Chromatographs, and X-Ray Fluorescence Licensee
9	Exempt Distribution Licensee
10	Possession License for Manufacturing and Distribution
11	Commercial Radiopharmacy Licensee
12	Service Provider Licensee
13	License for Special Nuclear Material of Less Than Critical Mass
14	Spent Fuel Storage Licensee
15	Fuel Cycle Facility Licensee
16	Other

*\*As some licensees hold multiple types of licenses, above subpopulations are not mutually exclusive."*

Results were then used to develop conclusions and considerations for NRC.

## Data Analysis Findings

### Demographics of Respondents

This set of questions would identify respondents by the organization/state they are a licensee of, job position, and license(s) held. This information helps organize and analyze responses by subpopulation.

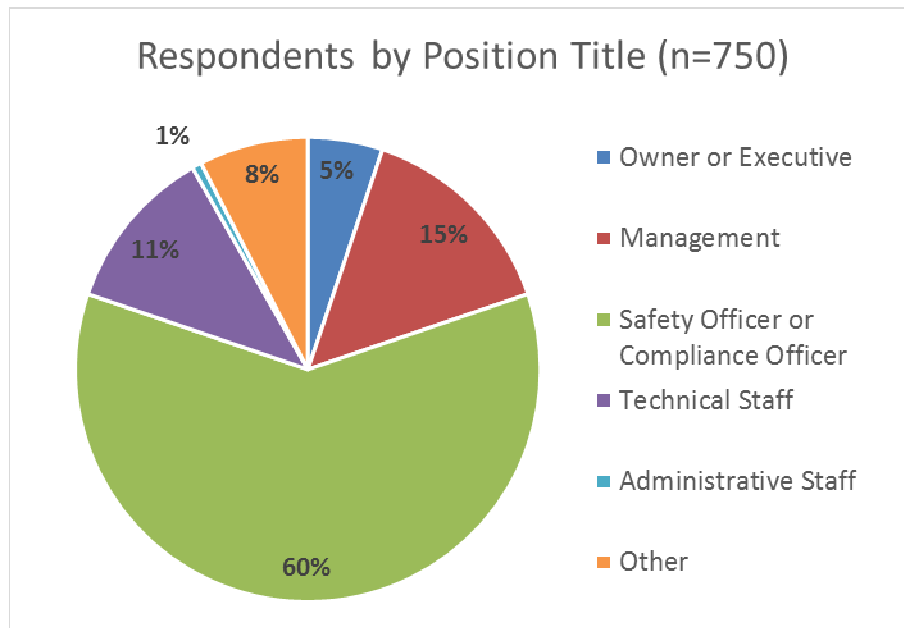
Table 4: Respondent Population by Licensee Type

Subpopulation by State*	Number of Respondents
NRC Licensee	364
Wisconsin Licensee	96
Illinois Licensee	91
Washington Licensee	80
Virginia Licensee	75
North Carolina Licensee	73
Minnesota Licensee	29
Ohio Licensee	21
Rhode Island Licensee	2

\*As some licensees operate across multiple states, above subpopulations are not mutually exclusive

There were 754 total survey respondents. Of the 754 respondents, 364 represent NRC licensees. The remaining survey respondents represented varying state licensees. Table 4 above displays survey respondents by NRC and Agreement State licensee type.

Figure 1: Respondents by Position Title



Over half the survey respondents were Safety or Compliance Officers (60%) followed by Management (15%) and then Technical Staff (11%). Those respondents who selected “Other” (8%) routinely identified their roles as some variation of Safety Officers or Management.

Due to variation in the licensee types, survey respondents were categorized by NRC into 16 license type groups. Licensee groups were re-categorized to ensure each group had a minimum of five or more respondents. Any group with less than five respondents were consolidated or placed in the “Other”



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category. These 16 license types with their corresponding number of survey participants are shown in Table 5. Survey results across all License Types is located in **Appendix D: License Group Survey Results Summary Charts**.

Table 5: Survey Respondents by License Type

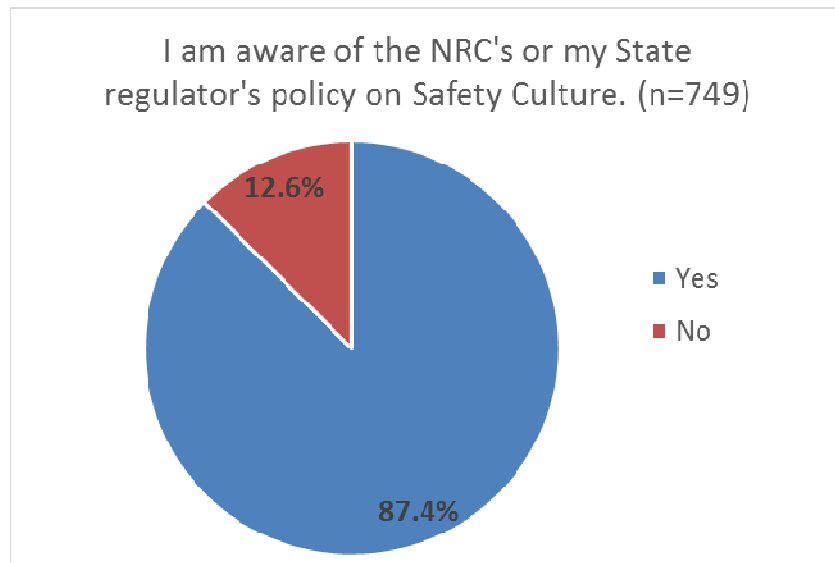
Subpopulation by License Type*	Number of Respondents
Portable Gauge Licensee	184
Fixed Gauge Licensee	77
Industrial Radiography/Logging Licensee	46
Irradiator Licensee	25
Master Materials Licensee	15
Medical Use Licensee	195
Broad Scope Licensee	82
Research and Development, Gas Chromatographs, and X-Ray Fluorescence Licensee	43
Exempt Distribution Licensee	10
Possession License for Manufacturing and Distribution	31
Commercial Radiopharmacy Licensee	12
Service Provider Licensee	23
License for Special Nuclear Material of Less Than Critical Mass	14
Spent Fuel Storage Licensee	8
Fuel Cycle Facility Licensee	5
Other	76

\*As some licensees may hold multiple license types, above subpopulations are not mutually exclusive

## Awareness of Safety Culture

Awareness of Safety Culture survey questions sought to identify the respondents' knowledge of the NRC Safety Culture Policy Statement and educational and outreach materials on NRC's website. With knowledge of these materials, respondents understand where to look for information. Three questions were asked to collect information on awareness (Survey Questions 4-6). The first question asks about self-awareness of the Safety Culture policy and the subsequent two questions ask for the respondent's perception of management and staff awareness.

Figure 2: Respondent Awareness of Safety Culture Policy



The majority of the respondents (87.4%) are aware of the NRC or their Agreement State's policy on Safety Culture. This presents positive feedback in that the population surveyed is receiving some type of communication concerning the NRC's or their State regulator's policy.

However, a small portion of respondents reported that they have not received any information from NRC or their state about Safety Culture. Several respondents stated that this survey was the first time they had been made aware there was even a Safety Culture policy. Some respondents were unable to understand the technical nature of the Safety Culture communications.

Table 6: Management and Staff Awareness of Safety Culture Policy

Management/Staff in my organization is aware of NRC’s or State regulator’s Safety Culture policy.		
	Management Awareness (n=752)	Staff Awareness (n=753)
Most (81-100%)	38.7%	37.8%
Many (61-80%)	15.3%	18.5%
About Half (41-60%)	8.1%	8.0%
Some (21-40%)	9.4%	9.0%
Few (0-20%)	15.6%	16.3%
Don't Know	12.9%	10.4%

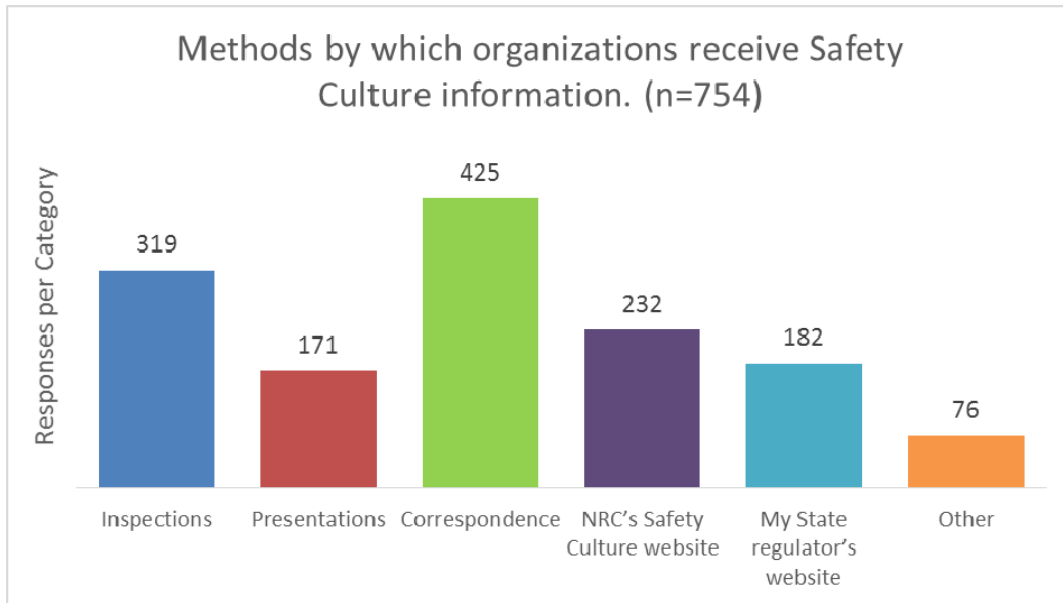
Respondents consistently believed both management and staff awareness at their organizations were roughly equivalent. When combining the “many” and “most” categories, over half of the respondents felt the many or most of management and staff at their organizations were aware. Although this is positive feedback, a significant percentage of respondents, approximately 25%, believed only a few or some management and staff in their organizations were aware of Safety Culture policy. This may pose some concern and indicates there is room to increase the awareness of NRC and Agreement State policy.

Respondents provided positive feedback regarding Safety Culture awareness stating they recognized the critical importance of safety. One respondent stated that “People need to be reminded that safety is there and everyone’s responsibility.” Another respondent said “Reminders of specific safety issues is always useful. It brings certain issues into the forefront and refreshes everyone’s commitment to safety.”

## Distribution of NRC Safety Culture Products

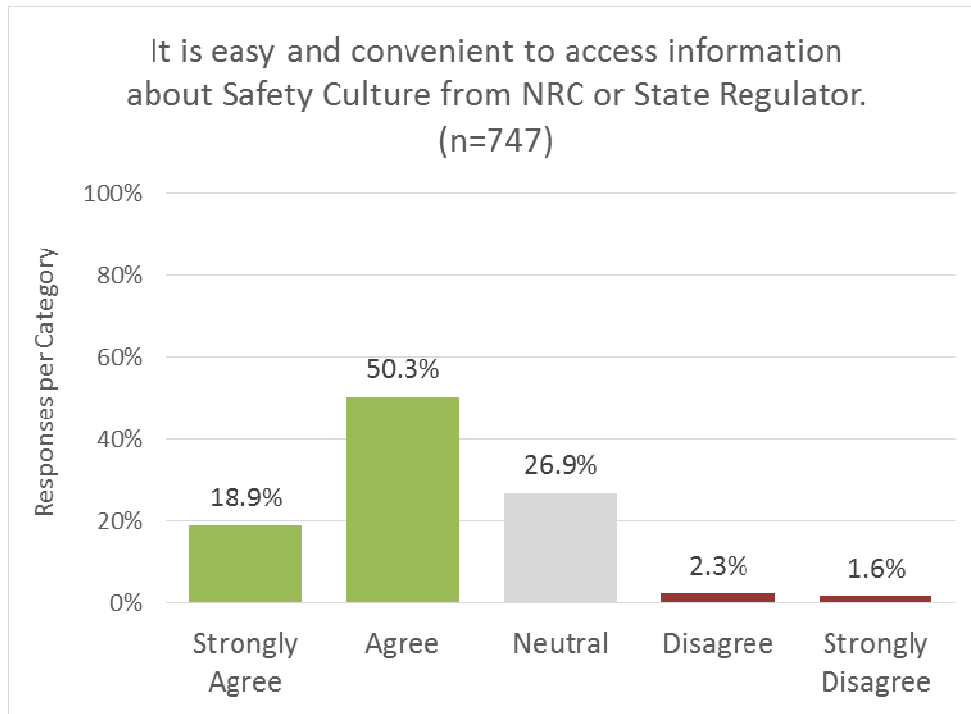
Survey questions regarding the distribution of NRC Safety Culture products help to understand how organizations access the NRC Safety Culture educational and outreach materials and help to understand how useful respondents find the NRC materials. Respondents were asked four questions concerning distribution to identify the methods by which their organizations receive Safety Culture information, determine how accessible Safety Culture information is, and how useful they find that information. This feedback can determine which methods are working as well as identify potential areas of improvement.

Figure 3: Methods by Which Organizations Received Safety Culture Information



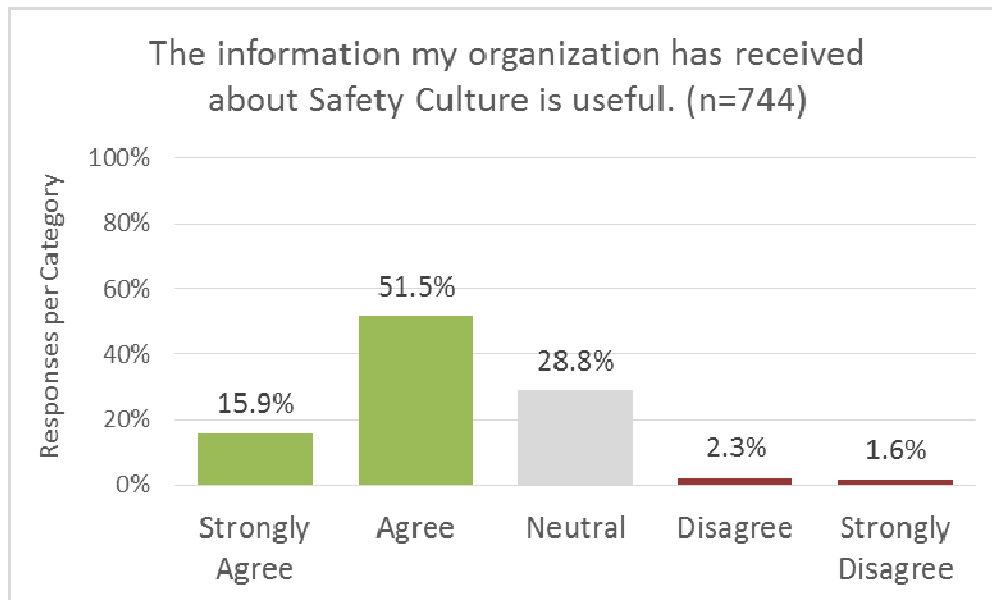
Survey respondents noted most frequently that correspondence (such as emails and letters) was the method by which their organizations received Safety Culture information. Inspections were noted second most frequently. Respondents considered the NRC website a good source of information and regarded inspections as a reinforcement of the safety messages, policies, and procedures. One respondent said, "It is always helpful when an inspector or licensee staff guide you in Safety Culture in a positive manner."

Figure 4: Ease and Convenience of Accessing Safety Culture Information



Respondents provided their agreement level with the statement “It is easy and convenient to access information about Safety Culture from NRC or my State regulator.” A large majority (69.2%) agreed or strongly agreed with this statement. Approximately 30% were either neutral or did not find it easy and convenient to access Safety Culture information. Although the majority of responses were favorable, unfavorable and neutral responses suggest further efforts are necessary to provide communications to a wider audience on the availability of Safety Culture information. Much information is currently available via both the NRC’s and the State regulator’s websites.

Figure 5: Usefulness of Safety Culture Information Received



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Respondents determined their agreement level with the following statement “The information my organization has received about Safety Culture is useful.” The majority (67.4%) agreed or strongly agreed the information was useful. Repeatedly, respondents stated the information was useful as an addition to training currently at the organization or as supplemental information for continual awareness. Despite this positive feedback, nearly a third of respondents were neutral or did not find the information useful. On specific occasions, respondents noted that the information was not useful because there was already a robust training or awareness program in place and, therefore, no additional or supplemental information was needed from NRC. One respondent provided the following explanation:

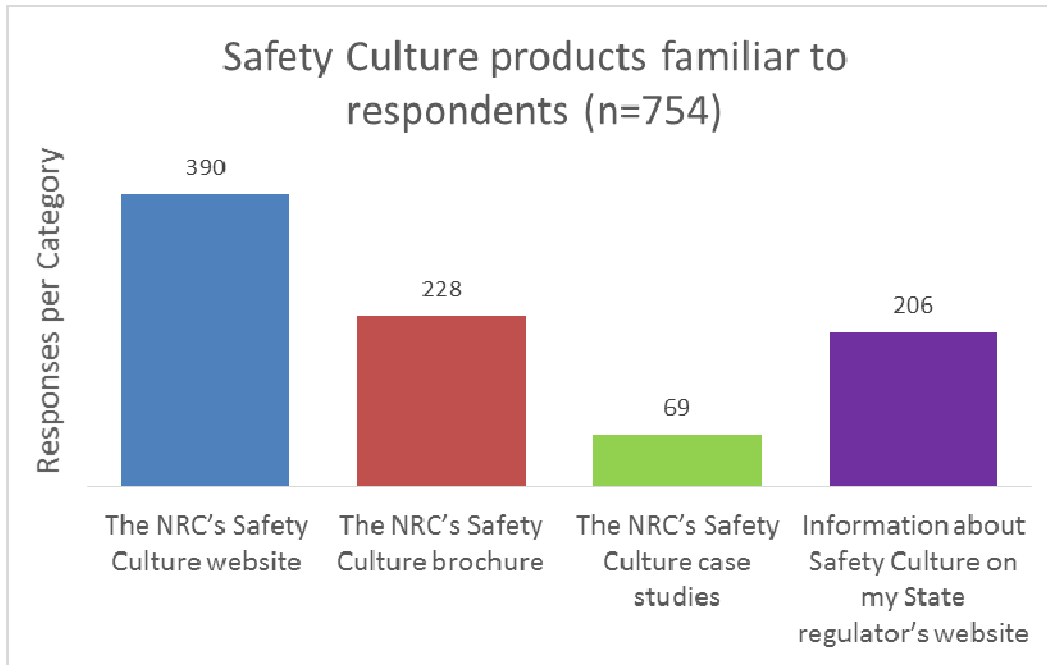
*“The company itself has a very developed plan for the Safety Culture. We have been owned by this particular company for ten years and with it came our EHS program with commitment cards which state a lot of the responsibilities noted in [the NRC’s] presentation. The Safety Culture is not new to me or my employees.”*

Respondents provided good insight for methods by which to distribute materials. They requested periodic and regular emails, webinars, letters, workshops, and online training to ensure that safety was at the forefront of their minds. These are means of distribution that NRC already utilizes.

## Products for NRC Safety Culture Education and Outreach

These questions help elicit an understanding respondents' familiarity with various NRC Safety Culture educational and outreach materials, as well as how respondents rate certain characteristics of the products. Data was collected on several NRC specific products, including the NRC Safety Culture website, brochure, and case studies; as well as Safety Culture information available on the State regulator's website.

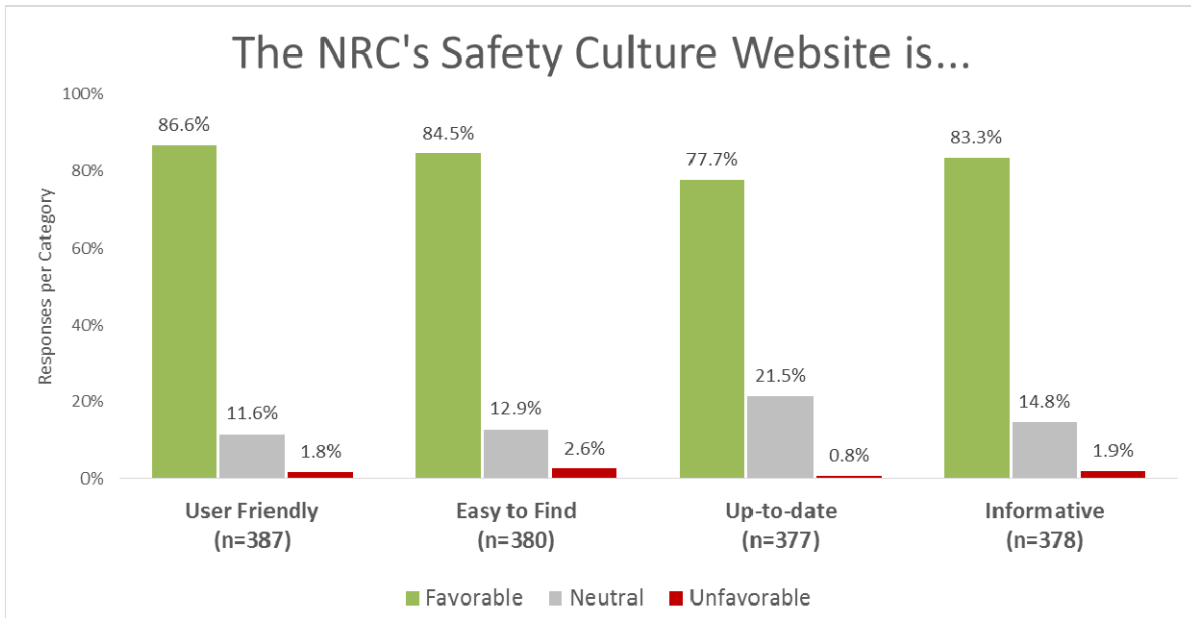
Figure 6: Safety Culture Products Familiar to Respondents



When asked what Safety Culture products they were familiar with, respondents noted the NRC Safety Culture website most frequently (390). This was followed relatively evenly by both the NRC Safety Culture brochure (228) and the State regulator's website (206). Respondents were least familiar with the NRC Safety Culture case studies (69). Several respondents stated that NRC materials were useful in educating their employees and supplementing their current training programs. Some respondents reported they had very mature and well developed Safety Culture programs in place so there was not much need for support from NRC. Some operations identified themselves as smaller and not warranting too much assistance. Some respondents were unable to understand the highly technical information within the Safety Culture brochures, case studies and websites.

## NRC Safety Culture Website

Figure 7: NRC Safety Culture Website Summary



Of the 754 survey respondents, 387 responded to questions concerning the NRC’s Safety Culture website. The majority of those surveyed responded favorably when asked about the NRC website. Most respondents reported that the NRC website was very user friendly, easy to find, up-to-date, and informative. Additional comments revealed that respondents found the website fast loading, well-designed, and easy to access. One respondent stated “core values and Trait Talks described in detail in the NRC publication of 'Safety Culture Trait Talk' bolster sound practice traits for effective leadership of upper management.” Few respondents noted improvements that could enhance the existing site. Respondents wanted more case studies, clickable squares, and automatic email notifications when new features or information is added to the website or content is updated.



## NRC Safety Culture Brochure

Figure 8: NRC Safety Culture Brochure Summary Chart (1 of 2)

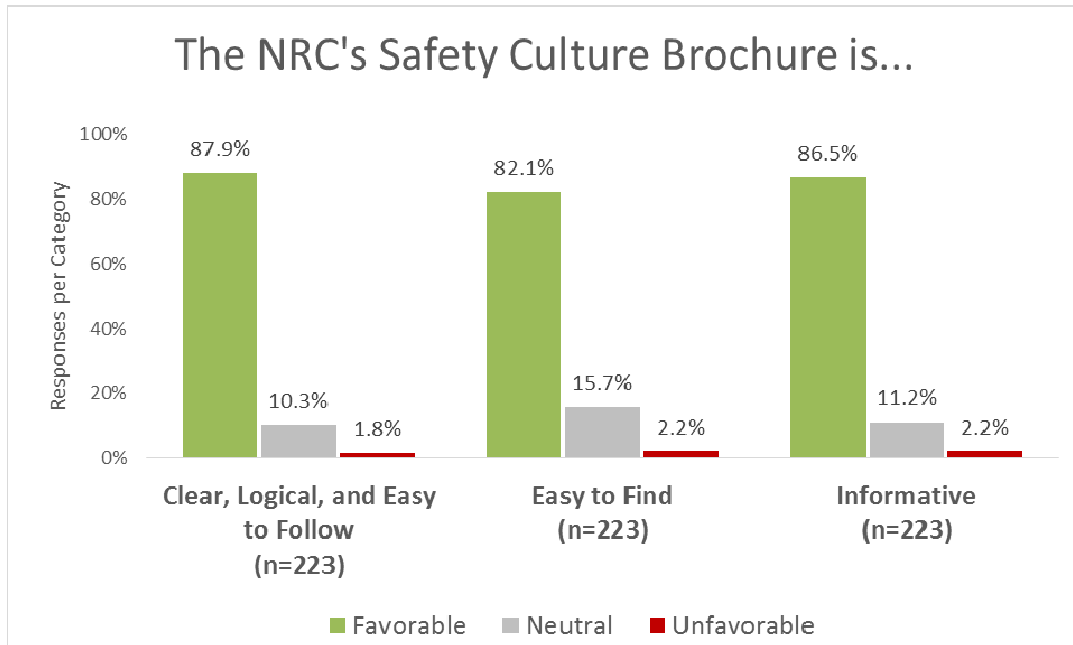
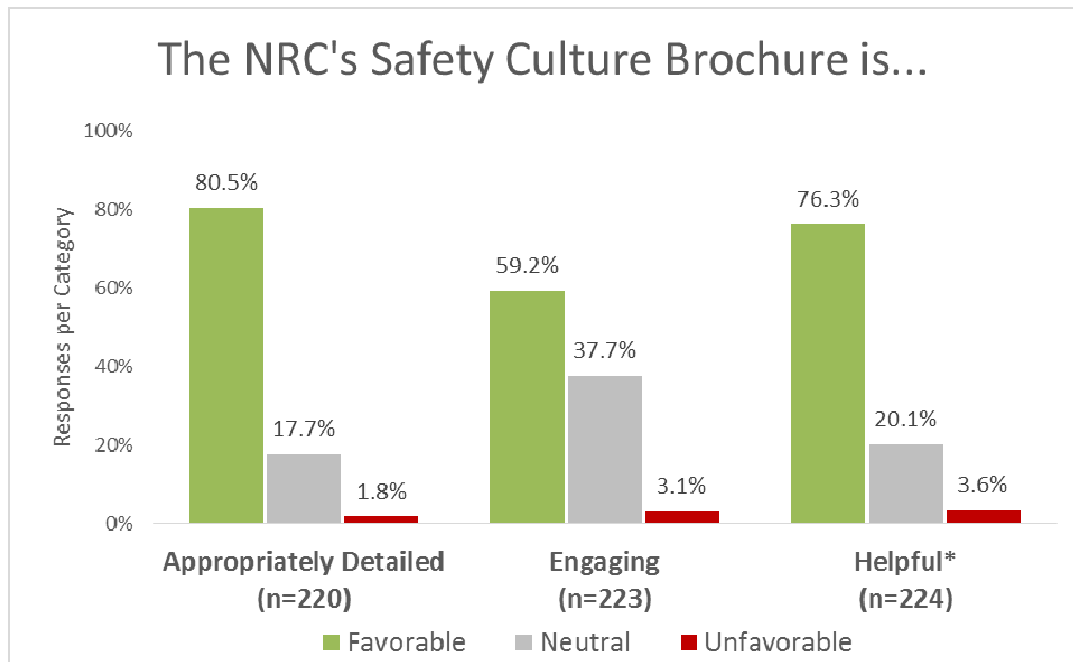


Figure 9: NRC Safety Culture Brochure Summary Chart (2 of 2)



Of the 754 total surveyed population, 224 answered questions pertaining to the NRC’s Safety Culture brochure. The majority of respondents reported that the NRC safety brochure was well-developed, appropriately detailed, informative, easy to find, and clear, logical, and easy to follow. Respondents consistently noted the brochure was utilized for various meetings and training purposes. The majority (87.9%) found the brochure to be clear, logical, and easy to follow. Despite this, a few respondents reported the brochure needed more explanation and/or simplification. There was concern that the

brochure language was rather technical in nature and could be simplified for people, other than the experts, to be able to use it for informational and educational purposes.

One survey question about the brochure yielded less positive feedback in comparison to the consistently positive feedback from other questions. When asked if the NRC Safety Culture brochure was engaging, only 59.2% responded favorably and 37.7% responded neutral. The percentage of favorable responses was much lower when compared to the results of all other brochure characteristics (informative, easy to find, etc.). This shows that even though respondents found the brochure easy to follow and appropriately detailed, improvement can be made to make the brochures more engaging.

### NRC Safety Culture Case Studies

Figure 10: NRC Safety Culture Case Studies Summary Chart (1 of 2)

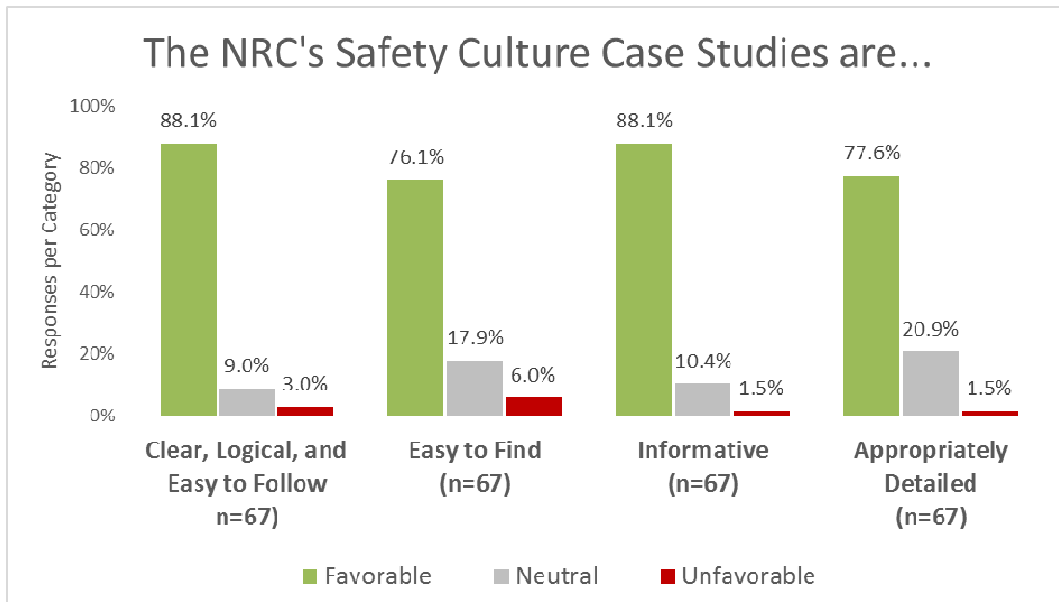
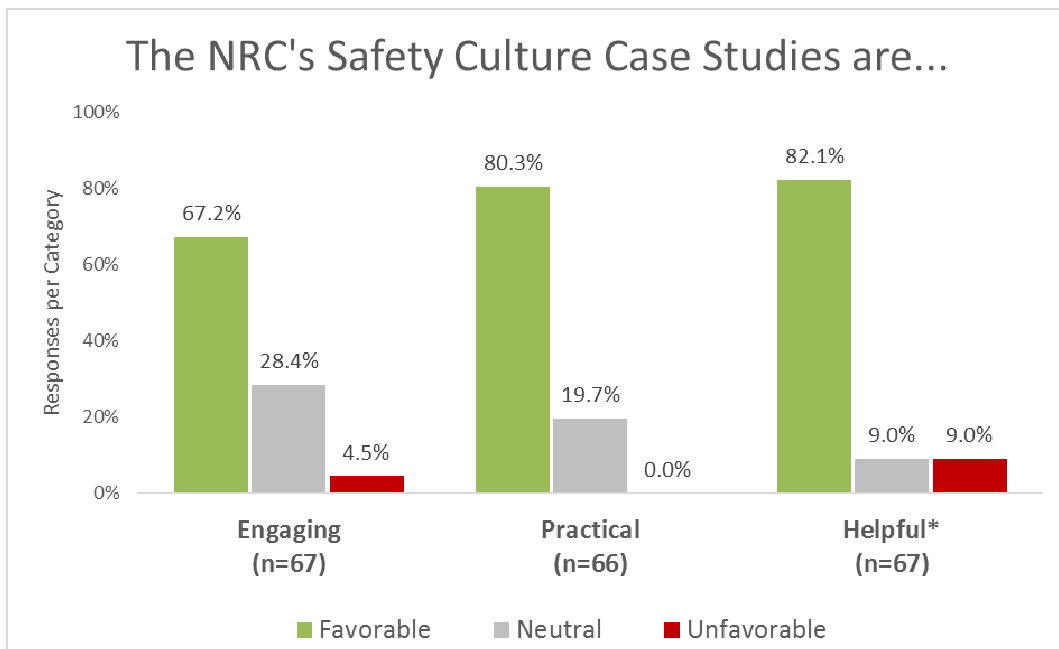


Figure 11: NRC Safety Culture Case Studies Summary Chart (2 of 2)

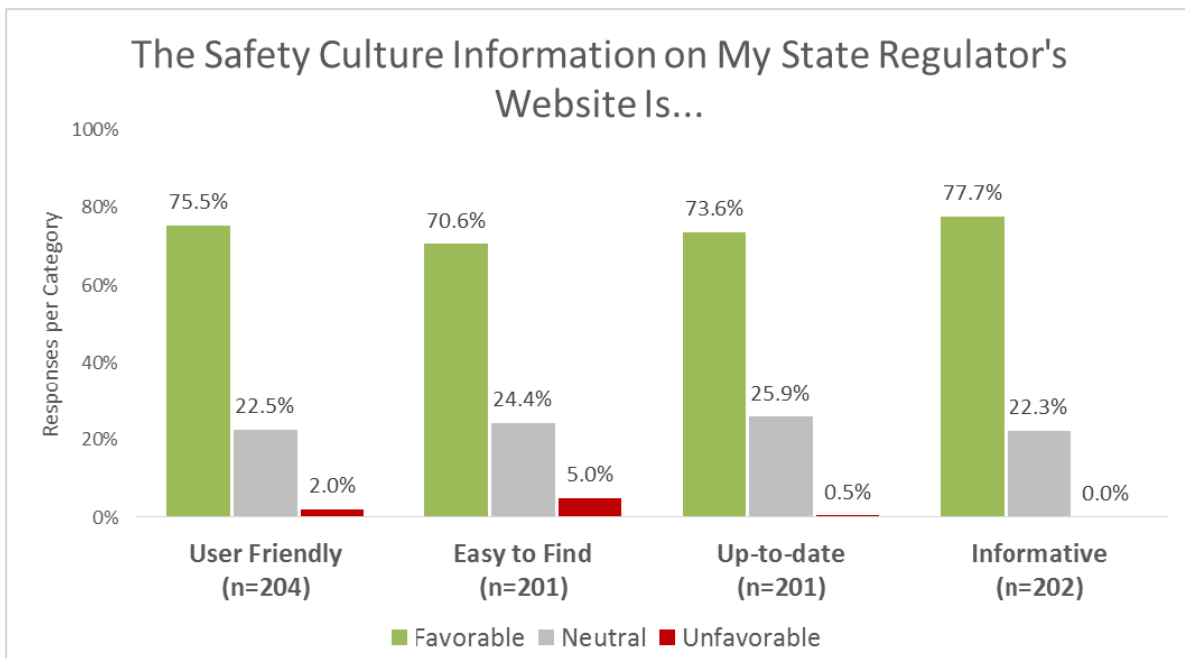


Most respondents appreciated the case studies and said they used them for training and informational purposes. One respondent stated “The few case studies and "Trait Talks" have been useful as examples of safety culture implementation needs.” Over 88% favorably found the case studies to be informative and clear, logical, and easy to follow. As was the case with the NRC’s Safety Culture brochure feedback, a smaller percentage of respondents (67.9%) found the case studies engaging and a higher percentage (28.4%) replied neutral in comparison to the other case studies characteristics. This shows that even though respondents found the case studies easy to follow and informative, improvements can be made to make the brochures more engaging.

It is important to note only 67 of the 754 survey respondents answered questions pertaining to the case studies. Of that small population, few respondents suggested more examples and more specific case studies (e.g. with specific radioactive cases) be developed because they did not find the current ones applicable to their daily work. This low response rate indicates an opportunity to increase the awareness and utilization of case studies.

### State Regulator Website Safety Culture Information

Figure 12: State Regulator’s Website Feedback Summary



Of the 754 total survey respondents, 204 answered questions pertaining to the Safety Culture information on the State regulator’s website. Majority of respondents found their State regulator’s website to be user friendly, easy to find, up-to-date, and informative. In contrast, several respondents commented their State regulator websites were difficult to navigate and not user friendly. A respondent from Washington said that his or her website just provides a link to the NRC website. “The website does not appear to be a great safety resource in itself. It instead directs questions about Safety Culture to the NRC website.”

## NRC Communications Support

The questions concerning NRC communications support help assess whether organizations are satisfied with the level and quality of NRC communications and how NRC or the State regulator can improve communications for enhancing Safety Culture. Three questions were included to obtain data concerning NRC support.

Figure 13: Level of Satisfaction with Level of Communications



When asked overall if the respondent's organization is satisfied with the level of communications that it has received concerning Safety Culture and the Safety Culture Policy Statement, over 62% of respondents replied favorably. When combining the neutral and unfavorable responses, nearly 40% respondents were not satisfied. This indicates room for improvement. Respondents would like to see more consistent communications and more readily available information concerning Safety Culture. One respondent remarked, "We have not been contacted regarding 'Safety Culture.' and this survey is the first we have heard of it." Another noted, "We were unaware that it is available. We have created our culture of safety program...." There is evidence that although some locations are not aware of NRC's Safety Culture Policy, their own organizations have provided their own Safety Culture policy and guidelines.

Figure 14: Level of Satisfaction with Quality of Communications



Respondents were also asked their level of satisfaction with the quality of communications received about Safety Culture and the Safety Culture Policy Statement. Remaining consistent with the above mentioned survey question, nearly 64% responded favorably, 27% indicated neutral and nearly 9% responded unfavorably. Concerning quality of communications, there is some room for improvement.

### *Suggestions for Improvement Concerning NRC Communications*

When respondents were asked how the NRC could improve communications concerning Safety Culture, respondents provided numerous ideas. Feedback from the respondents has been categorized and summarized below. The identified themes from the survey responses can inform NRC leadership on potential opportunities for future action.

**More Communication and Diverse Mediums** – Some of the respondents requested more communication from NRC using different methods, including regular website updates, monthly newsletters, specific/relevant case studies, email reminders, webinars, safety workshops, online training, safety tips, frequent questions and answers, face-to-face discussions, ongoing advertisements and invitations to mailing lists, and forums to reinforce concepts of safety.

**Metric or Dashboard** – A few respondents emphasized developing and displaying metrics or dashboards regarding safety at the NRC level to serve as reminders for safety.

**Ensure Communication is Received by Everyone** – A number of respondents reported that they had not heard about NRC’s Safety Culture or gotten any communication material from NRC about safety before they received this survey. Several respondents suggested that NRC send out the mailers, emails, brochures and website updates directly to the Safety Officers, Compliance Officers, and Executive Management Representatives of the firms rather than through the Agreement States.

**Mandatory Training** – Respondents suggested regular (or annual) regional safety workshops, mandatory training and certifications for safety officers to keep them updated on current issues pertaining to safety and implementation of safety guidelines.

**Engage Public** – Respondents suggested that the public should be engaged in the safety programs to hone in the message that “safety is everyone’s responsibility.” They indicated that an overall federal government voice for safety would be beneficial rather than “just NRC.”

**Better Understanding of Message** – Respondents suggested making the content of communication simpler, easier to understand and more relevant while providing pertinent or specific safety examples. Respondents also highlighted the inspector’s role for presenting Safety Culture information during inspections in a positive manner, rather than “traditional compliance inspections.”

## Considerations for NRC

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The NRC has developed the Safety Culture Policy Statement and created educational and outreach materials and messages to increase Safety Culture awareness. From the data analysis, we developed the considerations for NRC outlined below. While feedback was generally positive, some negative or neutral feedback indicates room for growth. Considerations below are outlined in the same categories as the Safety Culture Survey topic areas: Awareness, Distribution, Products, and Support. Some of the considerations may need additional NRC input or study to assess whether practical for the NRC, given its authority, stakeholders, and regulated community.

### Awareness

Survey respondents thought they as individuals were more aware than the relative management and staff populations at their organizations. Most respondents (87.4%) report they are individually aware of the NRC's and/or State regulator's policy on Safety Culture but only about 38% of respondents feel most (81-100%) of the management and staff at their organizations are aware. In fact, about 25% of survey respondents thought 40% or less of the management and staff at their organizations were aware. This data indicates there is room to increase awareness of NRC and Agreement State Safety Culture policy across licensee organizations.

**Create an Environment for Open Safety Culture Dialogue:** The discrepancy between personal awareness and that of others could be a misconception due to the absence of dialogue surrounding Safety Culture policy at an organization. NRC can create a culture of awareness at the organizational level by developing and providing guidelines for an open forum, or the establishment of a venue where members of an organization can interact and exchange ideas and information about Safety Culture. These guidelines will enable open dialogue and can be tailored based on the organization's needs. NRC could work with Agreement States and licensee groups to develop discussion topics which could be used at lunch and learns that are both applicable and adaptable to all groups. NRC can market and share the open forum concept with different organizations. Awareness can be increased not only through the participation in such open forums and/or lunch and learns but through the discussions which take place prior to and after the forums. By encouraging open dialogue, the NRC can engage a wider audience and increase awareness.

### Distribution

**Enhance Correspondence with Automated Alerts and Notifications:** 425 out of 754 survey respondents noted that correspondence (such as emails, letters, etc.) was the method by which they received Safety Culture information. As this was the most noted method, NRC may want to consider providing correspondence more frequently. NRC can reinforce Safety Culture information by continuing to provide regular updates to the NRC Safety Culture website, setting up automatic notification when relevant content is added to the website, provide emails with links to refresh knowledge of programs, safety tips, webinars, safety workshops, online training, relevant case studies. In addition, NRC may encourage those on their distribution list to actively share information with others in their organization.

**Continue Inspections As an Information Sharing Opportunity:** 319 respondents out of 754 stated Inspections as an important source of receiving Safety Culture information. Numerous respondents have appreciated the role of inspectors in presenting Safety Culture information in a positive manner during inspections. "It is always helpful when an inspector or licensee staff guides you in Safety Culture in a positive manner." Thus there is opportunity for NRC to further arm the inspectors with Safety Culture brochures, materials, and talking-points about Safety Culture to provide to individuals when conducting inspections. Conversations among inspectors and individuals at the sites help to increase awareness of

how Safety Culture pertains to the individual sites as opposed to the broader concepts. NRC can ensure inspectors are equipped with the proper information and that each inspector has the interpersonal skills and talking points necessary to engage with audiences at the specific sites.

**Have Varying Levels of Information Available to Meet Individual Organization's Needs:** Of the 744 respondents, 67.4% agreed or strongly agreed the information their organizations received on Safety Culture was useful. Usefulness of the information may be limited by the current format of the information. Some respondents found the information too technical in language while others stated the information was good information for management level but not necessarily the workers. NRC faces the challenge of having a very diverse audience (by license type, organizational maturity, and location to name a few). Organizations with well-established Safety Culture programs may not find NRC provided materials useful in their current form because it either mimics the Safety Culture established there and does not provide more detailed guidelines of continuous improvement of a Safety Culture. Conversely, organizations with less robust Safety Culture programs may find the information very useful as it supplements or helps lay the foundation for Safety Culture awareness and education. To appeal to different organizations, NRC may consider having general tools and information concerning Safety Culture policy available with varying levels of detail. This would allow the organizations to access the information most relevant to them and their needs at any given time. For example, a company with a robust Safety Culture policy can access information relative to continuous improvement whereas an organization with a newer established Safety Culture may be seeking information related to developing a more robust Safety Culture.

## Products

Respondents' feedback concerning all NRC products was favorable. Data showed that users find the NRC Safety Culture website, NRC Safety Culture brochure, and the case studies helpful, informative, easy to find and up-to-date. NRC should continue to utilize these products to educate their audiences about Safety Culture.

**Grab Audience Attention with the Brochure and Case Studies:** Overall, the survey respondents were appreciative of the NRC website (especially the new initiative Trait Talk), NRC brochure, and case studies, but fewer respondents found the NRC brochure or case studies engaging. There may be opportunities to make these NRC products more engaging for the agencies. Creative development, marketing and presentation can enable the "eye catching" quality. They can be made more interactive and relevant for a wider or more diverse audience. Some ideas to make them interactive are including an intriguing question or a scenario to draw a reader's attention, or formatting the case studies in a manner similar to web-based training where someone could enter information or answer a question and receive information based on their input.

**Expand Use of Case Studies:** Case studies were only noted 69 times by 754 respondents as a product with which they were familiar. This was in comparison to 390 for the NRC website, 228 for NRC brochure, and 206 for the State regulator's website. This disparity in numbers may be due to people being unaware of the case studies or where they are located. This problem can be resolved by publicizing the case studies and taking about them during Q&A discussions, inspections, or sending emails or mailers specifically regarding case studies. Additionally, survey respondents requested case studies be developed specific to their daily work. This may not be feasible due to the numerous fields that NRC is associated with and the time and money it would take to develop just an extensive collection of case studies. Instead, NRC can consider making case studies more applicable to a wider audience. This can be achieved without developing all new case studies. Rather, NRC can consider developing information that highlights the main themes of each particular case study and how those themes tie to work in other operational areas or fields.



**Expand Safety Culture Product Offerings:** The respondents also suggested that NRC expand their Safety Culture products to include self-assessments, webinars, online training, annual training, certifications for Safety Officers, monthly newsletters, safety workshops and seminars. Additional channels for the NRC to communicate messages could be through social media, webinars, training sessions, workshops or pilot programs. Understanding the target audiences, which communication avenues work effectively for them, and which ones are currently lacking are all critical in determining where to focus.

## Support

There is tremendous opportunity for NRC to influence organizations and lead by example to ingrain the value of safety in the fabric of the organizations.

**Have Targeted Communications for Varying Organization Needs:** Some respondents indicated that they had well matured, structured and successful safety organizations so any help or support from NRC seemed redundant to them. On the other hand, other respondents indicated that their organization was too small or had only minor safety issues needing limited support from NRC. NRC can develop mechanisms for categorizing organizations with mature safety practices who do not need much support from NRC and focusing on organizations with emerging critical safety support needs. The well-structured safety organizations can be developed and publicized by NRC as best practice and “potential” pool of resources for continuous improvement of Safety Culture programs.

**Review Current Communications Plan:** There were some respondents who reported they have not received any information from NRC or have not heard anything about Safety Culture. Several respondents stated this survey was the first time they had been made aware there was even a Safety Culture Policy Statement. This highlights the fact that communications are not reaching all intended parties. It is recommended that NRC review its communications plan, including distribution lists, to ensure communications are frequent enough and a consistent message is reaching people through multiple channels. Additional channels for the NRC to communicate messages may be through social media, webinars, training sessions, workshops or pilot programs. Understanding the target audiences, which communication avenues work effectively for them, and which ones are less effective are all critical in determining where to focus.

**Increase Interactive Presence with Social Media:** It is not only important to broadcast data in a unidirectional manner, but it is also important that NRC continue to make data easily accessible to those who seek out the information. NRC has made strong efforts to publicize their materials and information through the use of the website, correspondence, and social media. These efforts could be enhanced by interacting more with online user engagement and organizations tied to the NRC. For example, the Twitter account could be more interactive with those tweeting their articles and asking further questions or responding to comments posted on Facebook.

**Foster the Human Element of Support:** Successful work relationships and interactions are based on trust and the free flow of information. NRC may want to continue to encourage the building of trusting and open dialogue relationships with licensees and Agreement States. NRC personnel can routinely contact state and licensee groups to act as a champion of Safety Culture. This will foster a mutually beneficial relationship. Licensees or Agreement State personnel will feel comfortable contacting their NRC POC to ask questions and raise concerns. In turn, NRC may be made aware of issues and/or additional areas requiring information on Safety Culture.

## Appendix A: Safety Culture Survey

### Survey Instructions

Thank you for taking the time to complete this survey. You have received this survey because you are a licensee of the Nuclear Regulatory Commission (NRC) or one of its Agreement State partners. This survey is voluntary and will be used to support the evaluation of the effectiveness of the NRC’s and Agreement States’ communications and outreach about Safety Culture and the Safety Culture Policy Statement. Your answers will be confidential and will not be attributed to or used to identify your organization or you personally.

This survey should take no longer than 20 minutes of your time.

If you have any questions about the survey instrument, please contact Eric Cross at LinkVisum Consulting Group ([ecross@linkvisum.com](mailto:ecross@linkvisum.com) or 703.442.4573). If you have any questions regarding the survey content, please contact Stephanie Morrow, Safety Culture Program Manager, at the Nuclear Regulatory Commission ([stephanie.morrow@nrc.gov](mailto:stephanie.morrow@nrc.gov) or 301-415-1986).

Please note that a government agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. Burden is estimated to average 20 minutes per response. Please send comments regarding this burden estimate or any other aspect of this collection for information, including suggestions for reducing the burden to: Records and FOIA/Privacy Services Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by e-mail to [Infocollects.Resource@NRC.gov](mailto:Infocollects.Resource@NRC.gov).

OMB Control Number: 3150-0222

Expiration: 07/31/2017

In order to progress through this survey, please use the following navigation buttons:

- Click the *Next* button to continue to the next page.
- Click the *Back* button to return to the previous page.
- Click the *Submit* button to finish and submit your survey.

Question	Type of Question
<b>Demographics</b>	
1. Licensee of: <ul style="list-style-type: none"> <li>a. Nuclear Regulatory Commission (NRC)</li> <li>b. Illinois (IEMA)</li> <li>c. Minnesota</li> <li>d. North Carolina</li> <li>e. Ohio</li> <li>f. Rhode Island</li> <li>g. Virginia</li> <li>h. Washington</li> <li>i. Wisconsin</li> </ul>	Drop-Down Menu (Select one)
2. Your Position (please select the most relevant position title): <ul style="list-style-type: none"> <li>a. Owner or Executive</li> <li>b. Management</li> <li>c. Safety Officer or Compliance Officer</li> <li>d. Technical staff</li> <li>e. Administrative staff</li> <li>f. Other: Please Specify (free text)</li> </ul>	Checkbox (Select one)

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Question	Type of Question
<p>3. Type of License:</p> <ul style="list-style-type: none"> <li>a. Portable Gauge License</li> <li>b. Fixed Gauge License</li> <li>c. Industrial Radiography License</li> <li>d. Irradiator License</li> <li>e. Master Materials License</li> <li>f. Medical Use License</li> <li>g. Broad Scope License</li> <li>h. Research &amp; Development, Gas Chromatographs, and X-Ray Fluorescence Analyzers</li> <li>i. Exempt Distribution License</li> <li>j. Possession License for Manufacturing and Distribution</li> <li>k. Commercial Radiopharmacy License</li> <li>l. Well Logging, Tracer, and Field Flood Study License</li> <li>m. License Authorizing Distribution to General Licensees</li> <li>n. Service Provider License (e.g., leak test, instrument calibration, decontamination)</li> <li>o. Possession License for Production of Radioactive Material Using an Accelerator</li> <li>p. Decommissioning Facility</li> <li>q. Uranium Recovery License</li> <li>r. Waste Disposal License</li> <li>s. License for Special Nuclear Material of Less than Critical Mass</li> <li>t. License for Special Nuclear Material of Greater than Critical Mass (Including Universities and Research Centers)</li> <li>u. Spent Fuel Storage License</li> <li>v. Fuel Transportation License</li> <li>w. Fuel Cycle Facility (Conversion/De-Conversion, Enrichment and Fuel Fabrication)</li> <li>x. Other: Please Specify (free text)</li> </ul>	<p>Drop-Down Menu (Select one)</p>
<b>Awareness</b>	
<p>Based on your knowledge and experience within your organization, please respond to the following questions to the best of your ability.</p>	<p>Yes or No</p>
<p>4. I am aware of the NRC’s or my State regulator’s policy on Safety Culture (e.g., the Safety Culture Policy Statement).</p>	
<p>5. In general, management in my organization is aware of the NRC’s or my State regulator’s policy on Safety Culture (e.g., the Safety Culture Policy Statement).</p>	<p>Most: 81%- 100%; Many: 61% - 80%; About Half: 41% - 60%;</p>
<p>6. In general, staff in my organization is aware of the NRC’s or my State regulator’s policy on Safety Culture (e.g., the Safety Culture Policy Statement).</p>	<p>Some: 21% - 40%; Few: 0% - 20% Don’t Know</p>
<b>Distribution</b>	
<p>Based on your knowledge and experience within your organization, please respond to the following questions to the best of your ability.</p>	
<p>7. My organization has received information on Safety Culture from (select all that apply):</p> <ul style="list-style-type: none"> <li>a. Inspections</li> <li>b. Presentations (meetings, conferences, etc.)</li> <li>c. Correspondence (letters, email, etc.)</li> <li>d. The NRC’s Safety Culture website</li> <li>e. My State regulator’s website</li> </ul>	<p>Checkbox (select all that apply)</p>

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Question	Type of Question
f. Other (free text)	
8. It is easy and convenient to access information about Safety Culture from the NRC or my State regulator.	Likert Scale (Strongly Agree to Strongly Disagree)
9. The information my organization has received about Safety Culture is useful.	
10. Please provide examples of why your organization has or has not found information about Safety Culture to be useful.	Free Text
<b>Products</b>	
<p>The following set of questions asks for feedback on the NRC’s Safety Culture website (<a href="http://www.nrc.gov/about-nrc/regulatory/enforcement/safety-culture.html">http://www.nrc.gov/about-nrc/regulatory/enforcement/safety-culture.html</a>), and products available on the website such as the Safety Culture Case Studies and Safety Culture Brochure. Please indicate the products you are familiar with to provide feedback about those products. If applicable, select option “d” to provide feedback about Safety Culture information and materials on your State regulator’s website.</p>	<p>Qs 12, 13, 14, and 15 will only be asked if respondent indicates they are familiar with the products (Q11).</p>
<p>11. Which of the following Safety Culture products are you familiar with? (select all that apply):</p> <ul style="list-style-type: none"> <li>a. The NRC’s Safety Culture website.</li> <li>b. The NRC’s Safety Culture brochure.</li> <li>c. The NRC’s Safety Culture case studies.</li> <li>d. Information about Safety Culture on my State regulator’s website.</li> </ul>	<p>Checkbox (select all that apply)</p>
<p>12. The NRC’s Safety Culture website is:</p> <ul style="list-style-type: none"> <li>a. User friendly</li> <li>b. Easy to find</li> <li>c. Up-to-date</li> <li>d. Informative</li> <li>e. Please provide any additional feedback about the NRC’s Safety Culture website. (free text)</li> </ul>	
<p>13. The NRC’s Safety Culture brochure is:</p> <ul style="list-style-type: none"> <li>a. Clear, logical, and easy to follow</li> <li>b. Easy to find</li> <li>c. Informative</li> <li>d. Appropriately detailed</li> <li>e. Engaging</li> <li>f. Helpful in increasing my organization’s knowledge and understanding of Safety Culture</li> <li>g. Please provide any additional feedback about the Safety Culture brochure. (free text)</li> </ul>	<p>Likert Scale (Strongly Agree to Strongly Disagree)</p>

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Question	Type of Question
<p>14. The NRC’s Safety Culture case studies are:</p> <ul style="list-style-type: none"> <li>a. Clear, logical, and easy to follow</li> <li>b. Easy to find</li> <li>c. Informative</li> <li>d. Appropriately detailed</li> <li>e. Engaging</li> <li>f. Practical</li> <li>g. Helpful in increasing my organization’s knowledge and understanding of Safety Culture</li> <li>h. Please provide any additional feedback about the Safety Culture case studies. (free text)</li> </ul> <p>15. The Safety Culture information on my State regulator’s website is:</p> <ul style="list-style-type: none"> <li>a. User friendly</li> <li>b. Easy to find</li> <li>c. Up-to-date</li> <li>d. Please provide any additional feedback about the Safety Culture information on your State regulator’s website. (free text)</li> </ul>	<p>Likert Scale (Strongly Agree to Strongly Disagree)</p>
<p>16. Have you received or accessed any other Safety Culture products? If so, please list. (free text)</p> <p>17. Do you have suggestions for additional Safety Culture products or resources? (free text)</p>	<p>Free text</p>
<b>Support</b>	
<p>18. Overall, my organization is satisfied with the level of communications we have received about Safety Culture and the Safety Culture Policy Statement.</p> <p>19. Overall, my organization is satisfied with the quality of communications we have received about Safety Culture and the Safety Culture Policy Statement.</p>	<p>Likert Scale (Strongly Agree to Strongly Disagree)</p>
<p>20. How can the NRC or your State regulator continue to improve its communications about Safety Culture and the Safety Culture Policy Statement?</p>	<p>Free text</p>

**Survey Thank You Page**

Thank you for completing this survey on the communications and outreach about Safety Culture and the Safety Culture Policy Statement. We know you are busy and appreciate the time you have taken to complete the survey. Your feedback is invaluable to continuously improving the NRC’s and your State regulator’s communications about Safety Culture. If you seek additional information on Safety Culture, please visit the NRC’s Safety Culture webpage at the following link:

<http://www.nrc.gov/about-nrc/regulatory/enforcement/safety-culture.html>



## Appendix B: Summary of Qualitative Feedback

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In this Appendix we have summarized the open-text answers to survey questions first at the aggregate level and then at the state level, including some interesting direct quotes from the survey respondents.

### *Aggregate*

Summary feedback about usefulness of information on Safety Culture

- Material from NRC is useful to supplement current training for some respondents
- Some respondents have appreciated material from NRC and have used them to educate people
- Respondents have stressed the importance of Safety Culture and recognized its importance
- Some respondents report they have very mature and well developed safety programs and do not need much support from NRC
- Some respondents report that they have not received information from NRC or do not understand them or how it applies to them
- Some respondents report that they have not heard anything about it

Summary feedback about NRC website:

- Almost all respondents reported that NRC website was very useful, user-friendly, easy access, fast loading, well-designed
- Few respondents wanted more case studies, clickable squares, email notifications when things are added

Summary feedback about NRC Safety Culture brochures:

- Most respondents reported that the brochure was well-developed, informative, easy to read and attractive and they used it for their meeting and training. It helped people to cooperate with each other for safety
- Few respondents reported that the brochure needs more explanation, is not for common people but only for experts

Summary feedback about Safety Case Studies:

- Most respondents appreciated the case studies and said that they were used for training purposes and information
- Few respondents suggested more examples and more specific case studies (e.g. with specific radioactive cases).

Summary feedback about State Regulator's website:

- Did not get much feedback except that one respondent finds it useful and the other reported that the State offered several services related to safety

Summary feedback about how NRC and State can continue to improve their communication:

- More communication, more ways of communication, reinforce concepts, monthly newsletters, numerous case studies, frequent Q&A and discussions, ongoing advertisements and invitations to mailing lists and forums
- Continue to update website, continue communication, send reminders with links to refresh programs, safety tips, conduct webinars, online training, continue what NRC is doing
- Send out physical information including letters, mailers and pamphlets and training material
- Trend metric or dashboard will be helpful to show NRC environment
- Focus more on larger firms and medical areas as they need services more

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- Sending information and communication directly to Executive Management Representatives, (and not only to RSOs) and not through the States
- Regional safety workshops by NRC for licensees
- Email RSOs as more guidelines and newsletters are produced, mandatory training and certifications for RSO's
- Overall federal government voice for safety will be good rather than "just NRC"
- Involve and engage public to enhance safety consciousness culture, the message that "safety is everyone's responsibility"
- Make them easier to understand, simple message, more relevant, "bold note" on Safety Culture information, pertinent or specific examples
- Inspectors should present it during inspections, "boots on the ground", emphasis on Safety Culture inspections rather than "traditional compliance inspections"
- Potential for adding this to audit program requirements/review by the Rad Safety Program
- Few respondents report that no communication has reached them

### *NRC Only*

Summary feedback about Information on Safety Culture:

- Send regular updates (if any) to RSO
- Address safety culture in a positive manner
- Improve dissemination of data and information

### *Illinois*

Summary feedback about Information on Safety Culture:

- Difficult to find information on the website, website is "very unfriendly"
- Increase awareness of safety, serve as positive reinforcement to our safety program
- Reminders for safety issues are useful, "It brings certain issues into the forefront and refreshes everyone's commitment to safety", "nuclear Safety Culture as the core of values and behaviors setting goals to ensure protection of people and the environment", was very helpful in development of Radiation Accidents Policy/Procedure
- "State regulatory agency does a good job of managing and organization of safety information"
- "Our CEO has worked energetically over several years to institute an organization wide Safety Culture." We have our own safety program, strong internal mechanism for all types of laboratory safety, "Safety Culture statement and philosophy was in agreement with our own"
- Received different emails concerning Safety Council
- Added "check list" to our work process to ensure that all necessary checks are made every time a procedure is carried out
- "Working on become accredited through the Joint Commission and seek information often. Our culture at FHN is centered-around patient safety..."
- Good general basic information which goes well with patient care and serves as good reminders
- "Learnt a lot about safety from this survey"
- "I'm the compliance and regulatory administrator. I research and present safety information to our team at our monthly safety meetings"
- "It was suggested by the NRC that we embrace Safety Culture. We hired a well-experienced consultant... We have found Safety Culture very useful, most employees now know about it"
- Received brochures, handouts, posters displayed them on employee boards, reinforce our own training, "vigilant in our participation and application of training program"

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- Few respondents reported that they did not know about the Safety Culture

### *Minnesota:*

Summary feedback about Information on Safety Culture:

- Some respondents reported that they had no prior knowledge of policy implementation, not received any information and they tried in vain to locate it on the Minnesota website
- “Use information with staff in annual refresher training to work safely with radioactive material”
- “Do not use radioactive materials Safety Culture info we do take care in fostering appropriate Safety Culture for a heavy industrial setting...”
- “It is always helpful when an inspector or license staff guide you in Safety Culture in a positive manner”, “the officials have always kept us up to date on safety issues and the changes that are coming”, “the information keeps us aware and up to date”
- “Have not received anything from Minnesota Dept. of Health regarding this”, “once I heard about it, I was able to find all of the info. I just feel it took a long time for Agreement States to get the word out”
- “Continue what you’re doing”. “I have found it to be useful”. It is concise and well stated, it reinforces common practices and guidelines for reducing radiation exposure to staff and public and safekeeping of radioactive material”
- “Send correspondences via email, update, pamphlets, etc.”
- “Send regular updates to RSO”
- “We hired a consultant that had previous experience with NRC and the Safety Culture and he provided information. We have found Safety Culture to be very useful in our organization...”

### *North Carolina:*

Summary feedback about Information on Safety Culture:

- “It is redundant to our own policies promoting Safety Culture in our organization”
- “It makes employees aware of the importance of our jobs as manufacturers in the nuclear and nuclear medicine shipping and storage packages”
- “This really has little impact on an organization with a good safety process and culture, and fails to add value for resources expended in education of this initiative by the federal agency”
- “Although many of the traits of a Positive Safety Culture seems to be common sense, actually having them printed should make more of an impact. Leadership and accountability should be foremost and the other traits will follow”
- “One of the best ways to make good practices a part of one's daily work is to create a way of thinking about safety in the organization that promotes openness, clear lines of communication, awareness of standards, and an educated approach to the use and disposal of radioactive materials”
- “Presentations at local level are very helpful- example local “safety schools” sponsored by NC”
- “We can review examples of ways our site demonstrate Safety Culture traits during inspections”
- “maybe put a link on ncradiation.net website to the NRC Safety Culture & Policy statement”, information on websites, provide list of training resources



### *Ohio:*

Summary feedback about Information on Safety Culture:

- “Send regular updates via email to RSO”, “send more information to license holders”
- “Address Safety Culture in a positive manner”
- “Continue your outreach program. It is one of the best ways to engage people from multiple locations”
- “Ohio Department of Health Radiation Program is made up of former RTs and HP technicians. They are ignorant of managerial skills, organizational behavior and medical /health physics”
- “Add information on it to the state’s license renewal page”
- “Encourage self-identification and correction of problems during inspections”
- “I would like to receive guidance on specific actions that can be taken to establish and maintain a positive Safety Culture environment in my organization”

### *Rhode Island:*

Summary feedback about Information on Safety Culture:

- “If licensees are forced to tolerate this ridiculous, ill-conceived initiative, at least put it into a regulation with specific, achievable compliance expectations (after a reasonable comment period, which of course the NRC will merely defend their efforts rather than heed licensee complaints)”
- “Send regular updates (if any ) to RSO”

### *Virginia:*

Summary feedback about Information on Safety Culture:

- Some respondents are not aware or have no information about the Safety Culture propagated by NRC but some of them follow their own policies and guidelines
- “...the Safety Culture does not seem to add value to the organization but probably does create enhanced safety for the state. It is more work, such as the review of individuals with fingerprinting and background checks to have to go through the process again after 10 years. The GTRI initiative has also created slightly more safety but many more problems with the equipment, monitoring and reports”
- “Our company policies usually are more stringent than regulatory safety programs. We utilized the information from many regulatory agencies and integrate them into our own culture”
- “Leadership Safety Values and Actions our facility leads by example, Personal Accountability is important so that each employee is responsible for his her day to day safe work habits. Environment for Raising Concerns is probably the most important due to the open door policy on any concerns to any manager”
- “We have always a practiced a culture of safety but the information provided by the NRC is useful as well”
- “It’s too broad and isn’t directed to my market segment”
- Keeps us up to date on safety issues, solutions and upcoming changes, reconfirms/reinforces that we are already trying to accomplish in culture change, “provides good talking points for daily safety job briefs”, “found the poster information useful for educating staff”, “makes employees aware of the company and individual responsibility towards a safe workplace”

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- Posted posters for employees, used hand out brochures regarding Safety Culture for training, website is very user friendly
- “It is always helpful when an inspector or licensee staff guide you in Safety Culture in a positive manner”
- “Important to include radioactive material safety into our safety programs including I2P2”
- “However, it is more than ideal it is a core value for the NRC, and it allows the company an opportunity to stand up a Safety Culture that is transparent and viable”
- Send regular updates to RSO or those who have a license with Federal & state government, updates to be easily accessible via email or website, better notification when new information is available, periodic reminders and updates addressing Safety Culture in a positive manner
- Request for more case studies and actual scenarios, mailings, brochures, webinars and newsletters and utilization of website and public face to face meetings
- “Provide policy statement template”
- “Make sure companies hiring new employees are aware of you and ensure they have access to the information or even training materials”
- “By sincerely implementing the idea that part of Safety Culture is a two-way discussion of safety problems as they occur, near misses (or good catches depending on your point of view), and ideas for safety improvement, WITHOUT FEAR OF RETRIBUTION. I am not sure it is the case that all licensees believe that such conversations can be had with regulators in such an open environment.”

### *Washington:*

#### Summary feedback about Information on Safety Culture:

- Some respondents reported that they did not receive the information, were unaware or that the information was not needed since they have their own program and policies
- “Radiation safety program is well managed and other areas of safety, are beginning to review to see if it can be duplicated”
- “Washington State Provides Regular Bulletins and Updates. Company policy requires regular review and update of the on-site Radiation Safety Manual and associated training of personnel”
- “As a large research University the topic of laboratory safety and everyone's attitude about safety is high priority. We appreciate the NRC and State's reinforcement that safety is important every day and always”
- “The Safety Culture information is helpful because it is in a concise format that states clearly what is expected. It is helpful when training new employees to enforce the principles of accountability, work processes and a questioning attitude”
- “Just because NRC/Agreement State also promotes a Safety Culture, it does not have an additional effect but just reinforces all of the other positive messages on safety. We also have engineered our equipment with multiple safety interlocks and have a great record of no mishaps in over twenty years. We also consistently show nearly zero exposure year after year.”
- “Safety Culture has to start with upper management, and rolling it out takes years to do, as you need to actually change how people think and work”
- “The brochure about Safety Culture is short and well organized, and easy to find on the DOH.WA.Gov site”

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- “My organization has created a non-threatening Safety Culture whereby employees are willing to communicate radiation safety issues without fear of retribution. This has helped to promote radiation risk awareness and responsibility. Both basic and self-directed safety compliance systems have been developed (radiation safety training programs and procedures and processes to comply with regulations) to improve the quality and effectiveness of radiation safety. Good radiation safety practices and positive achievements (i.e., inspections with no items of non-compliance; decreased exposure doses to staff; purchasing needed radiation safety equipment; support of the Radiation Safety Officer) are recognized across the organization, making this culture a part of everyday life from the top down”
- Easy access, prompt response if there is questions and overall easy to understand
- “Safety Culture has not to my knowledge been part of recent communication with WA State”
- “We feel that communication materials to employees regarding Safety Culture from Federal and State Agencies let our employees know that they have a voice, and that they are an integral part of the safety community”
- ‘It is a little wordy. Also, the business-speak (stakeholders, policy statement, etc.) tend to make scientists comatose, and those are the people I generally want to reach. My facility is small enough that admin lets me handle the Radiation Safety issues and does not try to implement changes that would adversely affect the program, but they are already aware of the importance of maintaining the program as stringently as possible.”
- Needs specific examples, “as it would apply to the portable nuclear gauge industry”
- I find it extremely difficult to navigate if you are not familiar with what you are looking for. Especially when it comes to finding license renewal/application information/forms.

### *Wisconsin:*

#### Summary feedback about Information on Safety Culture:

- Information was not provided, unaware of Safety Culture website, information was not very specific, information seems vague with no clear guidelines
- Share the information with staff and technicians to establish and maintain a positive Safety Culture, useful in our annual refresher training, found the website very useful
- “Could use more direct contact i.e. newsletter or emails”
- “Over the last few years Wisconsin has made multiple changes to its website making sometimes difficult to find information that may have been easily acceptable in a previous version of their website”
- “It is always helpful when an inspector or licensee staff guide you in Safety Culture in a positive manner”
- “We have found Safety Culture to be very useful in our organization and most of our employees now know about Safety Culture”
- “The examples presented in the literature we received provided us with a guideline for our organization to implement a Safety Culture within our companies handbook”
- Posted safety posters with our other notifications/license(s) on our employee board, the NRC brochure is very wordy
- “The company itself has a very well developed plan for the Safety Culture. We have been owned by this particular company for 10 years and with it came our EHS program with commitment cards which state a lot of the responsibilities you noted in your presentation. The Safety Culture is not new to me or my employees”

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- “The information has aided our organization in its ability to maintain a level of security and awareness during the operation, transportation and storage of our portable hand held device, which keeps everyone safe”
- Like the NRC website, easy to use, especially “Trait Talks”
- State Wisconsin’s website is useful and adequate, website difficult to navigate
- Website’s usage should be promoted, suggest workshops, seminars and videos
- “Self-assessments have always helped in the updating of policies. Using this tool reminds us to update the safety policies.”
- “Continue your outreach program. It is one of the best ways to engage people from multiple locations”

## Appendix C: License Group Categorization

Original License Category	New Assigned License Category
A. Portable Gauge License	<b>A. Portable Gauge License</b>
B. Fixed Gauge License	<b>B. Fixed Gauge License</b>
C. Industrial Radiography License	<b>C. Industrial Radiography &amp; Well Logging</b>
D. Irradiator License	<ul style="list-style-type: none"> <li>License L (Well Logging, Tracer, and Field Floor Study)</li> </ul>
E. Master Materials License	<b>D. Irradiator License</b>
F. Medical Use License	<b>E. Master Materials License</b>
G. Broad Scope License	<b>F. Medical Use License</b>
H. Research & Development; Gas Chromatographs, and X-ray Fluorescence Analyzers	<b>G. Broad Scope License</b>
I. Exempt Distribution License	<b>H. Research &amp; Development; Gas Chromatographs, and X-ray Fluorescence Analyzers</b>
J. Possession License for Manufacturing and Distribution	<b>I. Exempt Distribution License</b>
K. Commercial Radiopharmacy License	<b>J. Possession License for Manufacturing and Distribution</b>
L. Well Logging, Tracer, and Field Floor Study License	<ul style="list-style-type: none"> <li>License M (Authorizing Distribution to General Licensees)</li> <li>License O (Possession for Production of Radioactive Material)</li> </ul>
M. License Authorizing Distribution to General Licensees	<b>K. Commercial Radiopharmacy License</b>
N. Service Provider License (e.g. leak test, instrument calibration, decontamination)	<b>N. Service Provider License</b>
O. Possession License for Production of Radioactive Material Using an Accelerator	<b>S. License for Special Nuclear Material Less than Critical Mass</b>
P. Decommissioning Facility	<b>U. Spent Fuel Storage License</b>
Q. Uranium Recovery License	<ul style="list-style-type: none"> <li>License V (Fuel Transportation)</li> </ul>
R. Waste Disposal License	<b>W. Fuel Cycle Facility (Conversion/De-conversion, Enrichment and Fuel Fabrication)</b>
S. License for Special Nuclear Material of Less than Critical Mass	<b>X. Other*</b>
T. License for Special Nuclear Material of Greater than Critical Mass (including Universities and Research Centers)	<ul style="list-style-type: none"> <li>License P (Decommissioning Facility)</li> <li>License Q (Uranium Recovery)</li> <li>License R (Waste Disposal)</li> <li>License T (Special Nuclear Material of Greater Than Critical Mass)</li> </ul>
U. Spent Fuel Storage License	
V. Fuel Transportation License	
W. Fuel Cycle Facility (Conversion/De-conversion, Enrichment and Fuel Fabrication)	
X. Other (Please Specify)	

*\*Individually specified "Other" licensees were assigned to varying categories above*

## Appendix D: License Group Survey Results Summary Charts

The tables included in this appendix view survey responses based on license type. Each table provides a summary of all license types for survey questions. The tables show answers by response percentage based on the n (or number of respondents) per question. Table 7 below summarizes the N per each survey question by license type group. Percentages highlighted **green** reveal a 10% or greater positive response while those in **red** reveal a 10% or greater negative response in comparison to the aggregate survey responses. Insights can be gained by reviewing the charts from this perspective. For example, if 80% of the aggregate results agreed with a statement of satisfaction and one license group had 60% of respondents agree with the statement, the 60% would be noted in red. NRC leadership, equipped with this information and associated recommendations contained within this report, can determine the best course of action to address any negative perception by license type.

Table 7: License Group Respondents by Survey Question:

Question	Portable Gauge	Fixed Gauge	Industrial Radiography and Well Logging	Irradiator	Master Materials	Medical Use	Broad Scope	R&D, Gas	Chromatographs, X-ray Fluorescence Exempt Distribution	Possession -Manufacturing and Distribution	Commercial Radiography	Service Provider	Special Nuclear Material of Less than Critical Mass	Spent Fuel Storage	Fuel Cycle Facility	Other
<b>Total Respondents</b>	<b>184</b>	<b>77</b>	<b>46</b>	<b>25</b>	<b>15</b>	<b>195</b>	<b>82</b>	<b>43</b>	<b>10</b>	<b>31</b>	<b>12</b>	<b>23</b>	<b>14</b>	<b>8</b>	<b>5</b>	<b>76</b>
Individual Awareness	183	77	46	25	15	194	82	42	10	31	11	22	14	7	5	74
Management Awareness	183	77	46	25	15	194	82	43	10	31	12	23	14	7	5	76
Staff Awareness	184	77	45	25	15	195	82	43	10	31	12	23	14	8	5	76
Methods by Which Information Received	184	77	46	25	15	195	82	43	10	31	12	22	14	8	5	76
Ease and Convenience of Information Access	181	77	45	25	15	194	82	43	10	31	12	23	14	8	5	76
Usefulness of Information	181	77	46	25	14	193	82	43	9	31	12	23	14	8	5	75
Safety Culture Product Familiarity	184	77	46	25	15	195	82	43	10	31	12	23	14	8	5	76
Website- User Friendly	88	42	26	14	8	101	48	21	5	17	7	12	5	6	4	45
Website- Easy to Find	86	41	26	14	8	100	48	21	5	16	7	12	5	6	4	42
Website- Up-to-Date	86	41	26	14	7	98	48	21	5	16	7	12	5	5	4	42
Website- Informative	86	41	26	14	8	99	48	21	5	16	7	11	5	6	4	42
Brochure- Clear, Logical, & Easy to Follow	57	19	18	8	5	48	39	12	5	7	2	5	2	6	3	24
Brochure- Easy to Find	57	19	18	8	5	49	39	12	5	7	2	4	2	6	3	24
Brochure- Informative	57	19	18	7	5	48	39	12	5	7	2	5	2	6	3	24
Brochure- Appropriately Detailed	56	19	18	8	5	48	39	12	5	7	2	5	2	6	3	22
Brochure- Engaging	57	19	18	8	5	48	39	12	5	7	2	5	2	5	3	24
Brochure- Helpful	57	19	18	8	5	48	39	12	5	7	2	5	2	6	3	24
Case Studies- Clear, Logical, & Easy to Follow	14	6	9	3	2	13	13	7	0	3	0	5	1	2	1	9
Case Studies- Easy to Find	14	6	9	3	2	13	13	7	0	3	0	5	1	2	1	9
Case Studies- Informative	14	6	9	3	2	13	13	7	0	3	0	5	1	2	1	9
Case Studies- Appropriately Detailed	14	6	9	3	2	13	13	7	0	3	0	5	1	2	1	9
Case Studies- Engaging	14	6	9	3	2	13	13	7	0	3	0	5	1	2	1	9
Case Studies- Practical	13	6	9	3	2	13	13	7	0	3	0	5	1	2	1	9
Case Studies- Helpful	14	6	9	3	2	13	13	7	0	3	0	5	1	2	1	9
State Website- User Friendly	46	25	16	6	2	54	23	18	2	6	4	6	4	0	1	23
State Website- Easy to Find	46	25	15	6	2	53	23	17	2	6	4	6	4	0	1	23
State Website- Up-to-Date	45	25	16	6	2	53	23	17	2	6	4	6	4	0	1	23
State Website- Informative	46	25	15	6	2	54	23	17	2	6	4	6	4	0	1	23
Satisfaction with Level of Communication	182	77	46	24	14	192	82	43	10	31	12	23	14	7	5	75
Satisfaction with Quality of Communication	181	77	45	25	15	192	81	43	10	31	12	23	14	8	5	74

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Awareness			Aggregate	Portable Gauge	Fixed Gauge	Industrial Radiography and Well Logging	Irradiator	Master Materials	Medical Use	Broad Scope	R&D, Gas Chromatographs, X-ray Fluorescence	Exempt Distribution	Possession License for Manufacturing and Distribution	Commercial Radiography	Service Provider	Special Nuclear Material of Less than Critical Mass	Spent Fuel Storage	Fuel Cycle Facility	Other
Individual Awareness	Yes	87%	<b>90%</b>	88%	<b>98%</b>	92%	<b>80%</b>	84%	<b>91%</b>	88%	<b>80%</b>	84%	<b>82%</b>	91%	<b>86%</b>	<b>100%</b>	<b>100%</b>	89%	
	No	13%	<b>10%</b>	12%	<b>2%</b>	8%	<b>20%</b>	16%	<b>9%</b>	12%	<b>20%</b>	16%	<b>18%</b>	9%	<b>14%</b>	0%	<b>0%</b>	11%	
Management Awareness	Most (81-100%)	16%	<b>14%</b>	21%	<b>17%</b>	16%	<b>20%</b>	15%	<b>13%</b>	7%	<b>0%</b>	23%	<b>8%</b>	22%	<b>14%</b>	<b>0%</b>	<b>0%</b>	16%	
	Many (61-80%)	9%	<b>9%</b>	12%	<b>13%</b>	<b>0%</b>	<b>20%</b>	9%	<b>10%</b>	16%	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>14%</b>	14%	<b>0%</b>	<b>0%</b>	13%	
	About Half (41-60%)	8%	<b>10%</b>	8%	<b>9%</b>	8%	<b>7%</b>	4%	<b>11%</b>	12%	<b>10%</b>	6%	<b>0%</b>	22%	<b>7%</b>	0%	<b>0%</b>	8%	
	Some (21-40%)	15%	<b>21%</b>	16%	<b>9%</b>	<b>28%</b>	<b>13%</b>	14%	<b>20%</b>	21%	<b>10%</b>	19%	<b>0%</b>	9%	<b>21%</b>	0%	<b>20%</b>	9%	
	Few (0-20%)	39%	<b>37%</b>	34%	<b>46%</b>	40%	<b>33%</b>	40%	<b>33%</b>	23%	<b>50%</b>	45%	<b>75%</b>	<b>48%</b>	<b>36%</b>	<b>86%</b>	<b>60%</b>	42%	
	Don't Know	13%	<b>9%</b>	10%	<b>7%</b>	8%	<b>7%</b>	19%	<b>13%</b>	21%	<b>30%</b>	6%	<b>17%</b>	0%	<b>7%</b>	0%	<b>20%</b>	12%	
Staff Awareness	Most (81-100%)	16%	<b>12%</b>	21%	<b>13%</b>	16%	<b>27%</b>	17%	<b>12%</b>	16%	<b>0%</b>	23%	<b>17%</b>	26%	<b>14%</b>	<b>0%</b>	<b>20%</b>	20%	
	Many (61-80%)	9%	<b>9%</b>	13%	<b>13%</b>	8%	<b>0%</b>	9%	<b>7%</b>	12%	<b>0%</b>	3%	<b>0%</b>	4%	<b>21%</b>	13%	<b>20%</b>	12%	
	About Half (41-60%)	8%	<b>11%</b>	4%	<b>7%</b>	0%	<b>0%</b>	9%	<b>10%</b>	5%	<b>0%</b>	10%	<b>8%</b>	13%	<b>0%</b>	0%	<b>20%</b>	3%	
	Some (21-40%)	18%	<b>24%</b>	23%	<b>16%</b>	20%	<b>27%</b>	15%	<b>21%</b>	16%	<b>10%</b>	19%	<b>17%</b>	9%	<b>29%</b>	<b>38%</b>	<b>0%</b>	12%	
	Few (0-20%)	38%	<b>36%</b>	27%	<b>49%</b>	<b>52%</b>	<b>33%</b>	36%	<b>39%</b>	37%	<b>60%</b>	39%	<b>50%</b>	48%	<b>29%</b>	<b>50%</b>	<b>20%</b>	42%	
	Don't Know	10%	<b>8%</b>	12%	<b>2%</b>	4%	<b>13%</b>	13%	<b>11%</b>	14%	<b>30%</b>	6%	<b>8%</b>	0%	<b>7%</b>	0%	<b>20%</b>	12%	

Green = 10% or more positive response than aggregate; Red: 10% or more negative than aggregate. NR = No responses



# Distribution

Distribution Questions	Answer Options	Aggregate	Portable Gauge	Fixed Gauge	Industrial Radiography and Well Logging	Irradiator	Master Materials	Medical Use	Broad Scope	R&D, Gas Chromatographs, X-ray Fluorescence	Exempt Distribution	Possession License for Manufacturing and Distribution	Commercial Radiography	Service Provider	Special Nuclear Material of Less than Critical Mass	Spent Fuel Storage	Fuel Cycle Facility	Other
Methods by Which Information is Received	Inspections	42%	45%	42%	57%	60%	1%	38%	44%	47%	30%	39%	42%	30%	64%	50%	20%	43%
	Presentations	23%	23%	13%	41%	36%	2%	15%	33%	19%	40%	29%	8%	30%	14%	63%	60%	25%
	Correspondence	56%	56%	57%	52%	76%	67%	54%	63%	49%	60%	61%	50%	65%	71%	63%	60%	49%
	NRC's Safety Culture website	31%	32%	21%	46%	36%	20%	28%	49%	26%	30%	29%	25%	30%	29%	75%	60%	32%
	My State regulator's website	24%	24%	27%	35%	24%	7%	24%	26%	40%	20%	13%	17%	26%	21%	0%	20%	28%
	Other	10%	10%	14%	9%	4%	13%	10%	7%	19%	10%	19%	8%	17%	14%	0%	0%	21%
Ease and Convenience of Information Access	Favorable	69%	67%	64%	73%	80%	60%	69%	74%	70%	80%	74%	67%	78%	71%	88%	100%	75%
	Neutral	27%	28%	32%	24%	8%	40%	27%	23%	30%	20%	16%	33%	17%	29%	13%	0%	22%
	Unfavorable	4%	4%	4%	2%	12%	0%	4%	2%	0%	0%	10%	0%	4%	0%	0%	0%	3%
Usefulness of Information	Favorable	67%	69%	60%	74%	72%	50%	65%	67%	70%	78%	77%	58%	65%	71%	88%	100%	69%
	Neutral	29%	27%	33%	26%	20%	50%	32%	29%	26%	22%	19%	42%	22%	29%	13%	0%	27%
	Unfavorable	4%	4%	7%	0%	8%	0%	3%	4%	5%	0%	3%	0%	13%	0%	0%	0%	4%

Green = 10% or more positive response than aggregate; Red: 10% or more negative than aggregate. NR = No responses



## Products (1 of 4)

Q11: Product Familiarity  
Q12A-D: NRC Safety Culture Website

Products Questions	Answer Options	Aggregate	Portable Gauge	Fixed Gauge	Industrial Radiography and Well Logging	Irradiator	Master Materials	Medical Use	Broad Scope	R&D, Gas Chromatographs, X-ray Fluorescence	Exempt Distribution	Possession License for Manufacturing and Distribution	Commercial Radiography	Service Provider	Special Nuclear Material of Less than Critical Mass	Spent Fuel Storage	Fuel Cycle Facility	Other
		Safety Culture Product Familiarity	The NRC's Safety Culture website	52%	48%	53%	57%	56%	53%	53%	60%	49%	50%	55%	58%	52%	36%	75%
The NRC's Safety Culture brochure	30%		31%	23%	39%	32%	33%	26%	48%	28%	50%	23%	17%	26%	14%	75%	60%	32%
The NRC's Safety Culture case studies	9%		8%	6%	20%	12%	13%	7%	16%	16%	0%	10%	8%	22%	7%	25%	20%	12%
Information on my State regulator's website	27%		25%	30%	35%	24%	13%	28%	28%	44%	20%	19%	42%	26%	29%	0%	20%	32%
User Friendly	Favorable	87%	85%	88%	92%	100%	63%	85%	88%	90%	80%	94%	71%	92%	100%	100%	100%	91%
	Neutral	12%	11%	5%	8%	0%	25%	15%	13%	10%	20%	6%	29%	8%	0%	0%	0%	9%
	Unfavorable	2%	3%	7%	0%	0%	13%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Easy to Find	Favorable	84%	85%	83%	92%	86%	88%	84%	81%	90%	80%	81%	71%	75%	80%	100%	100%	93%
	Neutral	13%	13%	8%	8%	14%	13%	14%	19%	10%	20%	13%	29%	17%	20%	0%	0%	5%
	Unfavorable	3%	2%	10%	0%	0%	0%	2%	0%	0%	0%	6%	0%	8%	0%	0%	0%	2%
Up-to-Date	Favorable	78%	77%	73%	92%	79%	57%	78%	77%	67%	80%	81%	100%	75%	100%	80%	75%	76%
	Neutral	21%	23%	20%	8%	21%	43%	22%	23%	33%	20%	19%	0%	25%	0%	20%	25%	24%
	Unfavorable	1%	0%	8%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Informative	Favorable	83%	78%	83%	92%	93%	75%	85%	77%	90%	80%	94%	100%	82%	100%	83%	100%	81%
	Neutral	15%	19%	10%	8%	7%	25%	15%	21%	10%	20%	6%	0%	18%	0%	17%	0%	19%
	Unfavorable	2%	3%	8%	0%	0%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Green = 10% or more positive response than aggregate; Red: 10% or more negative than aggregate. NR = No responses



<div style="border: 2px solid orange; padding: 5px;"> <h2 style="margin: 0;">Products (2 of 4)</h2> <h3 style="margin: 0;">Q13A-F: NRC Safety Culture Brochure</h3> </div>		Aggregate	Portable Gauge	Fixed Gauge	Industrial Radiography and Well Logging	Irradiator	Master Materials	Medical Use	Broad Scope	R&D, Gas Chromatographs, X-ray Fluorescence	Exempt Distribution	Possession License for Manufacturing and Distribution	Commercial Radiography	Service Provider	Special Nuclear Material of Less than Critical Mass	Spent Fuel Storage	Fuel Cycle Facility	Other
Products Questions	Answer Options																	
Clear, Logical, and Easy to Follow	Favorable	88%	81%	<b>78%</b>	94%	<b>100%</b>	80%	88%	92%	<b>100%</b>	80%	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
	Neutral	10%	16%	11%	6%	0%	20%	13%	8%	0%	20%	0%	0%	0%	0%	0%	0%	0%
	Unfavorable	2%	4%	<b>11%</b>	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Easy to Find	Favorable	82%	79%	<b>67%</b>	<b>94%</b>	88%	<b>60%</b>	86%	79%	<b>100%</b>	80%	<b>100%</b>	<b>100%</b>	75%	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>96%</b>
	Neutral	16%	16%	22%	6%	13%	<b>40%</b>	14%	21%	0%	20%	0%	0%	25%	0%	0%	0%	4%
	Unfavorable	2%	5%	<b>11%</b>	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Informative	Favorable	87%	82%	<b>67%</b>	94%	86%	<b>100%</b>	88%	87%	<b>100%</b>	80%	86%	<b>100%</b>	<b>100%</b>	<b>50%</b>	<b>100%</b>	<b>100%</b>	92%
	Neutral	11%	12%	22%	6%	14%	0%	13%	13%	0%	20%	14%	0%	0%	50%	0%	0%	8%
	Unfavorable	2%	5%	<b>11%</b>	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Appropriately Detailed	Favorable	80%	73%	<b>67%</b>	<b>94%</b>	88%	<b>100%</b>	79%	82%	<b>100%</b>	80%	86%	<b>100%</b>	80%	<b>50%</b>	<b>100%</b>	<b>100%</b>	86%
	Neutral	18%	23%	22%	6%	13%	0%	21%	18%	0%	20%	14%	0%	20%	50%	0%	0%	14%
	Unfavorable	2%	4%	<b>11%</b>	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Engaging	Favorable	59%	56%	<b>44%</b>	61%	<b>88%</b>	<b>40%</b>	63%	62%	67%	<b>40%</b>	57%	<b>100%</b>	60%	<b>50%</b>	60%	67%	54%
	Neutral	38%	39%	44%	39%	13%	60%	35%	36%	33%	60%	43%	0%	40%	50%	40%	33%	42%
	Unfavorable	3%	5%	<b>11%</b>	0%	0%	0%	2%	3%	0%	0%	0%	0%	0%	0%	0%	0%	4%
Helpful	Favorable	76%	77%	<b>61%</b>	<b>94%</b>	75%	80%	81%	77%	75%	<b>60%</b>	71%	<b>100%</b>	40%	<b>50%</b>	<b>100%</b>	67%	67%
	Neutral	20%	18%	22%	6%	25%	20%	19%	21%	17%	40%	29%	0%	40%	50%	0%	33%	25%
	Unfavorable	4%	5%	<b>17%</b>	0%	0%	0%	0%	3%	8%	0%	0%	0%	<b>20%</b>	0%	0%	0%	8%

Green = 10% or more positive response than aggregate; Red: 10% or more negative than aggregate. NR = No responses



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Q14A-G: NRC Safety Culture Case Studies

Products Questions	Answer Options	Aggregate	Portable Gauge	Fixed Gauge	Industrial Radiography and Well Logging	Irradiator	Master Materials	Medical Use	Broad Scope	R&D, Gas Chromatographs, X-ray Fluorescence	Exempt Distribution	Possession License for Manufacturing and Distribution	Commercial Radiography	Service Provider	Special Nuclear Material of Less than Critical Mass	Spent Fuel Storage	Fuel Cycle Facility	Other
Clear, Logical, and Easy to Follow	Favorable	88%	<b>71%</b>	80%	<b>78%</b>	<b>100%</b>	<b>100%</b>	92%	85%	<b>100%</b>	NR	<b>67%</b>	NR	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
	Neutral	9%	14%	20%	22%	0%	0%	8%	15%	0%	NR	33%	NR	0%	0%	0%	0%	0%
	Unfavorable	3%	<b>14%</b>	0%	0%	0%	0%	0%	0%	0%	NR	0%	NR	0%	0%	0%	0%	0%
Easy to Find	Favorable	76%	<b>64%</b>	<b>40%</b>	67%	<b>100%</b>	<b>100%</b>	77%	<b>62%</b>	71%	NR	<b>100%</b>	NR	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>89%</b>
	Neutral	18%	14%	60%	33%	0%	0%	15%	38%	29%	NR	0%	NR	0%	0%	0%	0%	11%
	Unfavorable	6%	<b>21%</b>	0%	0%	0%	0%	8%	0%	0%	NR	0%	NR	0%	0%	0%	0%	0%
Informative	Favorable	88%	<b>71%</b>	80%	89%	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>77%</b>	86%	NR	<b>100%</b>	NR	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	89%
	Neutral	10%	21%	20%	11%	0%	0%	0%	23%	14%	NR	0%	NR	0%	0%	0%	0%	11%
	Unfavorable	1%	7%	0%	0%	0%	0%	0%	0%	0%	NR	0%	NR	0%	0%	0%	0%	0%
Appropriately Detailed	Favorable	78%	<b>64%</b>	<b>60%</b>	<b>44%</b>	<b>67%</b>	<b>100%</b>	<b>92%</b>	<b>54%</b>	71%	NR	<b>67%</b>	NR	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>89%</b>
	Neutral	21%	29%	40%	56%	33%	0%	8%	46%	29%	NR	33%	NR	0%	0%	0%	0%	11%
	Unfavorable	1%	7%	0%	0%	0%	0%	0%	0%	0%	NR	0%	NR	0%	0%	0%	0%	0%
Engaging	Favorable	67%	<b>43%</b>	<b>20%</b>	<b>44%</b>	67%	<b>100%</b>	<b>85%</b>	<b>54%</b>	<b>57%</b>	NR	67%	NR	<b>80%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>78%</b>
	Neutral	28%	43%	80%	44%	33%	<b>0%</b>	15%	46%	43%	NR	33%	NR	20%	0%	0%	0%	22%
	Unfavorable	4%	<b>14%</b>	0%	11%	0%	0%	0%	0%	0%	NR	0%	NR	0%	0%	0%	0%	0%
Practical	Favorable	80%	<b>69%</b>	<b>60%</b>	78%	<b>67%</b>	<b>100%</b>	77%	85%	86%	NR	<b>100%</b>	NR	80%	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
	Neutral	20%	31%	40%	22%	33%	0%	23%	15%	14%	NR	0%	NR	20%	0%	0%	0%	0%
	Unfavorable	0%	0%	0%	0%	0%	0%	0%	0%	0%	NR	0%	NR	0%	0%	0%	0%	0%
Helpful	Favorable	82%	<b>64%</b>	<b>60%</b>	89%	<b>100%</b>	<b>100%</b>	92%	77%	<b>71%</b>	NR	<b>100%</b>	NR	80%	<b>100%</b>	<b>100%</b>	<b>100%</b>	78%
	Neutral	9%	21%	20%	11%	0%	0%	0%	15%	0%	NR	0%	NR	0%	0%	0%	0%	0%
	Unfavorable	9%	14%	<b>20%</b>	0%	0%	0%	8%	8%	<b>29%</b>	NR	0%	NR	20%	0%	0%	0%	<b>22%</b>

Green = 10% or more positive response than aggregate; Red: 10% or more negative than aggregate. NR = No responses



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Q15A-D: Information on My State Regulator's Website

Products Questions	Answer Options	Aggregate	Portable Gauge	Fixed Gauge	Industrial Radiography and Well Logging	Irradiator	Master Materials	Medical Use	Broad Scope	R&D, Gas Chromatographs, X-ray Fluorescence	Exempt Distribution	Possession License for Manufacturing and Distribution	Commercial Radiography	Service Provider	Special Nuclear Material of Less than Critical Mass	Spent Fuel Storage	Fuel Cycle Facility	Other
User Friendly	Favorable	75%	74%	70%	81%	83%	50%	81%	65%	72%	100%	83%	75%	83%	50%	NR	100%	91%
	Neutral	23%	26%	26%	19%	17%	50%	17%	30%	28%	0%	0%	25%	17%	50%	NR	0%	9%
	Unfavorable	2%	0%	4%	0%	0%	0%	2%	4%	0%	0%	17%	0%	0%	0%	NR	0%	0%
Easy to Find	Favorable	71%	65%	70%	80%	83%	50%	75%	61%	71%	50%	83%	75%	67%	75%	NR	0%	87%
	Neutral	24%	30%	22%	13%	17%	50%	19%	35%	29%	50%	0%	25%	33%	25%	NR	100%	13%
	Unfavorable	5%	4%	9%	7%	0%	0%	6%	4%	0%	0%	17%	0%	0%	0%	NR	0%	0%
Up-to-Date	Favorable	74%	67%	70%	75%	83%	100%	81%	65%	65%	100%	67%	75%	67%	75%	NR	0%	83%
	Neutral	26%	33%	30%	25%	17%	0%	17%	35%	35%	0%	33%	25%	33%	25%	NR	100%	17%
	Unfavorable	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%	NR	0%	0%
Informative	Favorable	78%	78%	70%	80%	83%	100%	81%	65%	88%	100%	83%	75%	83%	75%	NR	100%	87%
	Neutral	22%	22%	30%	20%	17%	0%	19%	35%	12%	0%	17%	25%	17%	25%	NR	0%	13%
	Unfavorable	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	NR	0%	0%

Green = 10% or more positive response than aggregate; Red: 10% or more negative than aggregate. NR = No responses

Support		Support Questions	Answer Options	Aggregate	Portable Gauge	Fixed Gauge	Industrial Radiography and Well Logging	Irradiator	Master Materials	Medical Use	Broad Scope	R&D, Gas Chromatographs, X-ray Fluorescence	Exempt Distribution	Possession License for Manufacturing and Distribution	Commercial Radiography	Service Provider	Special Nuclear Material of Less than Critical Mass	Spent Fuel Storage	Fuel Cycle Facility	Other
Satisfaction with <u>LEVEL</u> of Communications	Favorable	62%	62%	57%	67%	76%	57%	63%	56%	63%	80%	71%	58%	57%	50%	86%	80%	69%		
	Neutral	27%	27%	31%	33%	12%	43%	25%	29%	23%	20%	16%	33%	26%	43%	14%	20%	17%		
	Unfavorable	11%	11%	12%	0%	12%	0%	12%	15%	14%	0%	13%	8%	17%	7%	0%	0%	13%		
Satisfaction with <u>QUALITY</u> of Communications	Favorable	64%	62%	60%	64%	75%	60%	64%	60%	65%	80%	74%	58%	61%	50%	88%	80%	76%		
	Neutral	27%	27%	28%	36%	13%	40%	28%	30%	23%	20%	13%	42%	22%	43%	13%	20%	15%		
	Unfavorable	9%	10%	12%	0%	13%	0%	8%	10%	12%	0%	13%	0%	17%	7%	0%	0%	9%		

Green = 10% or more positive response than aggregate; Red: 10% or more negative than aggregate. NR = No responses