

# Sample Safety Culture Survey Report

## 1. Summary

*This illustrative report presents ideas for improvement for the different safety culture factors. Implementation in an actual company would require selecting improvement ideas specific to their environment. This sample report is intended to present ideas for formatting and a starting point for constructing company specific improvements.*

This example presents an analysis of the safety culture survey. This report presents the overall results by safety factor followed by 11 chapters that analyze the individual questions organized by safety factor. The report is intended as a starting point for analysts to review and interpret the safety culture survey. It is a starting point for developing improvement for safety culture.

*Insert the key findings from the results and free text questions here based on the real data in the summary.*

## 2. Results by Safety Factor

The results of the safety culture survey are grouped into safety factors.

Safety Factors	Description
1. Leadership	Leadership commitment to safety values and actions.
2. Hazard Identification and Risk Management	Issues potentially impacting safety and environmental stewardship are promptly identified, fully evaluated, and promptly addressed or corrected commensurate with their significance
3. Personal Accountability	All individuals take personal responsibility for process and personal safety, as well as environmental stewardship
4. Work Processes	The process of planning and controlling work activities is implemented so that safety and environmental stewardship are maintained while ensuring the correct equipment for the correct work
5. Continuous Improvement	Opportunities to learn about ways to ensure safety and environmental stewardship are sought out and implemented
6. Environment for Raising Concerns	A work environment is maintained where personnel feel free to raise safety and environmental concerns without fear of retaliation, intimidation, harassment, or discrimination
7. Effective Safety and Environmental Communication	Communications maintain a focus on safety and environmental stewardship
8. Respectful Work Environment	Trust and respect permeate the organization with a focus on teamwork and collaboration.
9. Inquiring Attitude	Individuals avoid complacency and continuously consider and review existing conditions and activities to identify discrepancies that might result in error or inappropriate action.

The following report examines the results of the safety culture survey by topic.

### 3. Leadership

Leadership should embrace safety as a core value and use safety as the foundation on which decisions are made. Leadership should support continuous improvement of the safety program through communications, actions, priorities, and provision of resources, etc. Leadership should visibly demonstrate a non-wavering commitment to safety at each level of the organization. Leadership should ‘walk-the-talk’ of safety.

Question	Average	Total Responses	Agree	Slightly Agree	Neutral	Slightly Disagree	Disagree	Percent Negative
1. My supervisor ensures that safety briefings are held at the beginning of every shift.	4.27	3263	2543 (77.9%)	77 (2.4%)	94 (2.9%)	87 (2.7%)	463 (14.2%)	16.9%
2. Our managers show their commitment to safety through their actions.	4.2	3263	2492 (76.4%)	80 (2.5%)	69 (2.1%)	83 (2.5%)	540 (16.5%)	19.1%
3. Managers place a high priority on safety training.	4.21	3263	2495 (76.5%)	77 (2.4%)	94 (2.9%)	81 (2.5%)	517 (15.8%)	18.3%
4. Onshore managers never put schedule or costs above safety.	3.36	3263	1647 (50.5%)	199 (6.1%)	180 (5.5%)	153 (4.7%)	1085 (33.3%)	37.9%
5. When we have to choose between safety and production/schedule, safety is given the highest priority.	4.25	3263	2536 (77.7%)	79 (2.4%)	81 (2.5%)	77 (2.4%)	491 (15%)	17.4%
6. We have enough operations personnel on board to safely operate the asset in all operating conditions, including emergencies.	4.2	3263	2481 (76%)	84 (2.6%)	83 (2.5%)	100 (3.1%)	516 (15.8%)	18.9%

The desired activities, attitudes, and behaviors for Strong Leadership are:

1. Management/supervision commitment to engage in the safety program at a personal level.
2. Management/supervision commitment to communicate (and listen) about safety related matters with the field personnel at their workplace.
3. Management/supervision communicates safety related matters to all levels of the organization.
4. Active leadership of safety programs from all levels of management/supervision through priorities, actions, communications, provision of resources, etc.
5. Management commitment to doing what is right is demonstrated through decisions and actions.

Possible Activities for Improvement of Strong Leadership are:

1. Incorporate OH&S into the overall business model; not as a separate/auxiliary/complementary function ('woven into the fabric').
2. Increase the annual safety budget so that there are sufficient resources for safety program and systems.
3. Revise targets and controls for prompt closure of corrective action reports.

4. Revise targets and controls for the number of safety audit recommendations closed out in time.
5. Revise targets for time to implement action on complaints or suggestions.
6. Revise targets for employee (all) attendance at safety meetings.
7. Revise targets for increasing the percentage of new hires put through an induction training program.
8. Establish/revise good quality safety goals that are measurable.
9. Improve the method of how incident investigation findings, corrective actions and lessons learned are made available to employees.
10. Establish procedures to identify and impart any training required in support of safety management systems.
11. Institute periodic safety culture evaluations.
12. Highlight safety culture as an evaluation area in audits, incident investigations, etc.
13. Look for and correct causal factors of incidents and safety performance problems.
14. Hold regular safety management reviews.
15. Establish/revise annual safety objectives/goals throughout the organization.
16. Implement a policy of zero tolerance for willful violation of safety policies and procedures.
17. Effectively communicate expectations by training employees in safety policies and procedures.
18. Make safety performance and safety culture a part of every worker's performance evaluation.
19. Educate managers in safety culture, vision, expectations, roles, responsibilities, and standards (by increasing effectiveness).
  - a. Culture, vision, expectations, standards, roles, and responsibilities are discussed with new managers.
  - b. A formal training program on safety culture has been implemented for all new and current managers.
  - c. A formal training program on safety culture with periodic refresher training has been implemented and is updated as needed.
20. Demonstrate personal values, priorities, and concerns for safety through what is asked about, measured, commented on, praised, or criticized (by increasing effectiveness).
  - a. Management behaves in a fashion consistent with strong personal values, priorities, and concerns for safety.
  - b. Management seeks opportunities to proactively demonstrate their personal values, priorities, and concerns for safety.
21. Require that responsibility and accountability for safety leadership be shared at all levels of the organization (by increasing effectiveness).
  - a. Responsibilities and accountabilities are established only for middle managers and supervisors.

- b. Responsibilities and accountabilities are established only for all managerial and supervisory levels.
  - c. Responsibilities and accountabilities are established for everyone.
- 22. Ensure that managers visit the work areas frequently and that the visits are visible to the workforce. Share a safety message as one purpose of the visit and include ample time for employees to express their concerns. Handing out an inexpensive token (e.g., candy with a safety message) has been shown to increase the impact of the visit.
- 23. Train and coach new and existing managers that a key component of their jobs is to observe worker behavior and provide positive and corrective intervention as needed. Include effective intervention in the manager's performance reviews.
- 24. The work process for discipline should be revised to include consequences for good behaviors. Managers should acknowledge good safety behaviors in employees.

#### **4. Hazard Identification and Risk Management**

Employees at every level should be vigilant for indications of weakness in the system that could lead to significant safety events. Every level of the organization should avoid complacency and have systems in place to constantly be vigilant. The organization should place the burden of proof on ensuring that activities are safe rather than unsafe. The organization should do a good job-sharing corrective actions and lessons learned from injuries, illnesses, near misses, accidents, incidents, and hazard studies.

Question	Average	Total Responses	Agree	Slightly Agree	Neutral	Slightly Disagree	Disagree	Percent Negative
7. We have enough operations personnel on board to safely operate the asset in all operating conditions, including emergencies.	4.2	3263	2481 (76%)	84 (2.6%)	83 (2.5%)	100 (3.1%)	516 (15.8%)	18.9%
8. My supervisor encourages me to report near misses.	4.29	3263	2556 (78.3%)	99 (3%)	71 (2.2%)	68 (2.1%)	470 (14.4%)	16.5%
9. We have an easy-to-understand system in place to report near misses.	4.24	3263	2512 (77%)	96 (2.9%)	72 (2.2%)	83 (2.5%)	501 (15.4%)	17.9%
10. Our near miss reporting system is effective in keeping the person submitting the event anonymous.	4.29	3263	2572 (78.8%)	76 (2.3%)	65 (2%)	81 (2.5%)	470 (14.4%)	16.9%

The desired activities, attitudes, and behaviors for Sense of Vulnerability are:

1. All parts of the organization are vigilant for indications of weakness in the system that could lead to significant safety events.
2. Avoidance of complacency. There are constant efforts to avoid the complacency that could accompany good safety records.
3. The organization always places the burden of proof on determining that activities are safe rather than unsafe.
4. The organization does a good job in sharing corrective actions and lessons learned from injuries, illnesses, near misses, accidents, incidents, and hazard studies.
5. Possible Activities for Improvement of Sense of Vulnerability are:
6. Provide safety checklists for all jobs.
7. Provide safety procedures, instructions, or rules for all jobs.
8. Provide policy/procedures for reporting unsafe conditions and near misses "and encourage their usage.
9. Set targets for the number of jobs with hazard assessments.
10. Set targets for the number of hazard analysis techniques utilized.
11. Set targets for the number of safety inspections.
12. Set targets for the number of corrective action reports originating from audits.
13. Set targets for the percentage of incident reports which have causal analysis.
14. Investigate and communicate corrective actions and lessons learned from recent accidents and incidents.
15. Provide hazard/risk awareness training.
16. Provide causal factor training to all employees.
17. Modify the incident investigation system to address more fully "what could have happened" (potential consequences) instead of only the actual incident consequences.
18. Ensure that all staff are adequately educated on, and appreciate, the hazards of operations.
19. Ensure that all staff are adequately educated on, and appreciate, the consequences of deviating from established safe operating practices and conditions.

20. Ensure that lessons learned from investigations of incidents and near misses, audits, and hazard assessments are broadly, frequently, and effectively shared (by increasing effectiveness).
21. Lessons learned are distributed to the immediately affected work group.
22. Lessons learned are widely shared throughout the organization.
23. The organization (1) seeks to gather and share lessons learned from diverse sources, including from other organizations, locations, or companies, and (2) has an effective means to validate that appropriate action has been taken.
24. Monitor for, and combat, organizational overconfidence that can be stimulated by past good performance (by increasing effectiveness). a. Managers and supervisors implement informal approaches to maintaining a sense of vulnerability within the organization. b. A formal effort has been implemented to maintain a sense of vulnerability within the organization through efforts such as: (1) effectively sharing lessons learned from recent incident and near miss investigations, both from within and outside the organization, (2) periodically refreshing memories of past significant events within the company and industry, (3) effectively sharing lessons learned from hazard assessments, and (4) providing periodic refresher training on hazards of operations. c. Item (b) and management reviews and surveys are used to determine if attitudes are softening with respect to the needs for continued safety diligence. Hazard assessment and investigation reports are audited to determine if teams are appropriately focusing on the potential for what could happen.
25. Set management expectation that all meetings, including toolbox meetings begin with a safety message.
26. Identify all locations where (1) fixed fall protection is required, (2) all locations where hot surfaces are present, (3) toxic chemicals (e.g., ammonia) are handled, rotating equipment without adequate guarding, and (5) flammable liquids are stored.
27. Establish a corporate policy/standard/procedure that addresses hazard identification.

## 5. Personal Accountability

Employees at every level should be vigilant for indications of weakness in the system that could lead to significant safety events. Every level of the organization should avoid complacency and have systems in place to constantly be vigilant. The organization should place the burden of proof on ensuring that activities are safe rather than unsafe. The organization should do a good job in sharing corrective actions and lessons learned from injuries, illnesses, near misses, accidents, incidents, and hazard studies.

Question	Average	Total Responses	Agree	Slightly Agree	Neutral	Slightly Disagree	Disagree	Percent Negative
11. My safety-related training is completed on time.	4.27	3263	2552 (78.2%)	83 (2.5%)	73 (2.2%)	68 (2.1%)	488 (15%)	17%
12. I fully understand my safety and health responsibilities.	4.86	3263	3135 (96.1%)	9 (0.3%)	14 (0.4%)	11 (0.3%)	95 (2.9%)	3.2%
13. Housekeeping is a demonstrated priority on this asset.	4.25	3263	2520 (77.2%)	93 (2.9%)	75 (2.3%)	92 (2.8%)	484 (14.8%)	17.7%

14. Workers on this asset routinely wear the required PPE.	4.23	3263	2514 (77%)	87 (2.7%)	79 (2.4%)	81 (2.5%)	503 (15.4%)	17.9%
15. My co-workers follow the safety procedures for the jobs they will perform.	4.26	3263	2530 (77.5%)	85 (2.6%)	96 (2.9%)	84 (2.6%)	469 (14.4%)	16.9%
16. Visitors to our asset follow our safety procedures and standards.	4.22	3263	2516 (77.1%)	66 (2%)	70 (2.1%)	97 (3%)	515 (15.8%)	18.8%

The desired activities, attitudes, and behaviors for personnel accountability are:

1. All parts of the organization are vigilant for indications of weakness in the system that could lead to significant safety events.
2. Avoidance of complacency. There are constant efforts to avoid the complacency that could accompany good safety records.
3. Individuals always places the burden of proof on determining that activities are safe rather than unsafe.
4. Individuals do a good job in sharing corrective actions and lessons learned from injuries, illnesses, near misses, accidents, incidents and hazard studies.

Possible Activities for Improvement of personnel accountability are:

1. Ensure that all test and inspection activities are completed on time.
2. Equipment deficiencies are identified and corrected in a timely manner.
3. Managers consistently and frequently stress individual ownership of personal safety.

## 6. Work Processes

Employees at every level should demonstrate on a daily basis a high standard of safety performance. Employees at any level should not tolerate willful violations of safety standards, rules or procedures. Employees should not hesitate to correct one another when a co-worker is working unsafe. All injuries, illnesses, incidents, accidents and near misses should be reported.

Question	Average	Total Responses	Agree	Slightly Agree	Neutral	Slightly Disagree	Disagree	Percent Negative
17. Operating procedures are clear, accurate, and easy to follow.	4.25	3263	2535 (77.7%)	84 (2.6%)	73 (2.2%)	73 (2.2%)	499 (15.3%)	17.5%
18. Maintenance procedures are clear, accurate, and easy to follow.	4.3	3263	2574 (78.9%)	94 (2.9%)	70 (2.1%)	69 (2.1%)	457 (14%)	16.1%
19. This offshore asset has excellent preventive maintenance practices.	4.3	3263	2565 (78.6%)	87 (2.7%)	89 (2.7%)	70 (2.1%)	453 (13.9%)	16%
20. While offshore I get adequate rest to do my job safely.	4.27	3263	2550 (78.1%)	84 (2.6%)	70 (2.1%)	83 (2.5%)	477 (14.6%)	17.2%
21. Offshore personnel have ready access to all necessary tools, including PPE, to do their jobs safely.	4.26	3263	2543 (77.9%)	65 (2%)	88 (2.7%)	84 (2.6%)	484 (14.8%)	17.4%
22. Pre-job (safety) assessments are completed for all jobs that need them.	4.23	3263	2511 (77%)	83 (2.5%)	76 (2.3%)	86 (2.6%)	508 (15.6%)	18.2%
23. Our workspaces are well designed and organized.	4.25	3263	2546 (78%)	67 (2.1%)	78 (2.4%)	80 (2.5%)	493 (15.1%)	17.6%

The desired activities, attitudes, and behaviors for high standards of work procedures are:

1. All members of the workforce exhibit a high standard of safety performance.
2. The workforce will not tolerate willful violation of safety standards, rules or procedures.
3. The workforce does not hesitate correcting one another if someone is doing something unsafe.
4. All injuries, illnesses, incidents, accidents and near misses will be reported.

Possible Activities for Improvement of High Standards of work procedures are:

1. Make sure all work activities are reasonable documented.
2. Have clear procedures for JSA.
3. Provide training matrices to persons involved in new-hires or in transfers of personnel between positions to show adequate competency.
4. Establish/revise training program for safety awareness.
5. Establish a mechanism where employees feel comfortable correcting each other.



6. Enforce the expectation that the workforce will be dealt with even-handedly.
7. Provide training in analysis of job tasks and associated hazards, including hazards affecting quality of work.
8. Enforce the expectation that all injuries, illnesses, incidents, accidents, and near misses be reported.
9. Provide awareness training on workplace hazards/risks and accident statistics.
10. Make safety performance and safety culture a part of every worker's performance evaluation
11. Set targets for number of near misses reported per employee.
12. Implement a process for defining safety goals (by increasing effectiveness).
  - a. Safety goals are established in an informal fashion.
  - b. A formal system exists for establishing and periodically reviewing safety goals for the organization.
  - c. Employees perform a meaningful role in helping establish and review safety goals for the organization.
13. Ensure that employees know what is expected of them by effectively communicating the safety policies, goals, and plans for achieving the desired safety performance (by increasing effectiveness).
  - a. Safety performance expectations are shared with employees in an ad hoc fashion.
  - b. A formal communications system exists for sharing information on safety policies, goals, and plans to achieve the desired safety performance (for example, through written program documentation or in employee job descriptions and training).
  - c. Item (b. and the effectiveness of the communications system is monitored to ensure that this information is reaching all facility personnel.
14. Establish responsibilities and reinforce accountabilities for safety roles (by increasing effectiveness).
  - a. Responsibilities and accountabilities for safety roles are addressed in an ad hoc fashion.
  - b. Responsibilities and accountabilities for safety roles have been established and are informally reinforced.
  - c. Responsibilities and accountabilities for safety roles have been established and are periodically reviewed and updated as warranted. Management response to acceptable and unacceptable performance of safety responsibilities is timely, consistent, and fair.
15. Implement a policy of zero tolerance for willful violations of safety policies, procedures, and rules. Delineate those attitudes and behaviors that the organization will not tolerate under any circumstances (by increasing effectiveness).
  - a. Safety policies, procedures, and rules are enforced, but sometimes inconsistently.
  - b. The consequences of willful violations of safety policies, procedures, and rules have been established and are actively enforced.

16. Ensure that safety performance rewards and corrective actions are consistently applied (by increasing effectiveness).
  - a. Rewards and corrective actions are implemented in an informal fashion.
  - b. A formal system is established for implementing performance rewards and corrective actions.
  - c. Employees or their representatives have an appropriate role in determining performance rewards and corrective actions.
17. Determine and address the causes of significant or persistent non-compliances and failures to fulfill safety program deliverables (by increasing effectiveness).
  - a. The causes of non-compliances are investigated in an informal fashion.
  - b. Formal root cause analysis is conducted of significant or persistent non-compliances with the intent of identifying root causes and preventing such non-compliances in the future.
18. Establish a management change of program.
19. Ensure operating and maintenance procedures are current and accurate.
20. Develop and maintain an energy isolation procedure.
21. Develop and maintain an emergency response plan, including drills.
22. Ensure that contractors have all of the information and company oversight necessary to work safely.
23. Establish a general safe work permit where job hazards can be communicated for all jobs and not just the critical work (e.g., hot work, physical entry).

## 7. Continuous Improvement

Efforts to improve safety management systems should always be proactively pursued with the goal of continuous safety performance improvement. Continuous improvement should address all practices, processes and procedures based on benchmarking, best practices and lessons learned. Reporting must result in learning that is then used to update best practices and current processes. Processes must be living and useful; otherwise, people will begin anew to work around them, devising their own unofficial (and therefore unknown) practices. Effective processes for noticing potential OH&S problems (e.g., near miss reporting or frequent safety walk-throughs, etc.) should be available and utilized. OH&S performance indicators should be routinely tracked (such as incomplete inspections, number of injuries). Injuries and illnesses should be tracked and analyzed. Employee safety values/performance should be included in their annual performance review.

Question	Average	Total Responses	Agree	Slightly Agree	Neutral	Slightly Disagree	Disagree	Percent Negative
24. Corrective action is taken promptly when my manager is told about accidents, incidents, or near misses.	4.22	3263	2513 (77%)	79 (2.4%)	77 (2.4%)	69 (2.1%)	526 (16.1%)	18.2%
25. Causes of accidents, incidents and near misses are effectively resolved.	4.24	3263	2514 (77%)	85 (2.6%)	82 (2.5%)	86 (2.6%)	497 (15.2%)	17.9%
26. I receive timely feedback on accidents, incidents, or near misses that occur on this asset.	4.3	3263	2564 (78.6%)	91 (2.8%)	80 (2.5%)	73 (2.2%)	456 (14%)	16.2%

The desired activities, attitudes, and behaviors for Continuous Monitoring of Performance are:

1. Good process for noticing potential OH&S problems (e.g., near miss reporting or frequent safety walk-throughs, etc.).
2. OH&S performance indicators are routinely tracked (such as incomplete inspections, number of injuries).
3. Safety performance is communicated throughout the organization.
4. This company utilizes benchmarking, best practices and lessons learned for safety improvement.
5. Employee safety values/performance are included in their annual performance review.
6. Continuous improvement methods are utilized in safety improvement plans.

Possible Activities for Improvement of Continuous Monitoring of Performance are:

1. Develop an effective safety management systems that tracks a wide range of issues (problems, leading and lagging indicators).
2. Track all pertinent OH&S performance indicators are routinely tracked (such as incomplete inspections, % employees with training, etc.). This will also allow the company to develop leading safety indicators and perform a leading safety indicator assessment.
3. All business decisions should be evaluated while considering any safety implications.
4. Effective measures of an employee's value and impact on safety performance should be an integral part of their annual performance review.
5. Establish effective means to utilize benchmarking, best practices and lessons learned for continuous improvement of all practices, processes, and procedures.
6. All data collected should be used for continuous improvement or do not collect it.
7. Employees from all levels should be involved in the continuous improvement efforts.

8. Additional leading and lagging safety indicators/metrics/performance data should be measured and analyzed.
9. Regular safety culture audits should be performed and compared.
10. Implement and track a diverse set of metrics that encompasses a balanced mix of leading and lagging indicators. Trend results over time, and respond to patterns (by increasing effectiveness).
  - a. The organization places primary emphasis on measuring lagging indicators.
  - b. The organization monitors a mix of leading and lagging indicators that are directly relevant to safety culture.
  - c. The organization closely monitors leading and lagging performance trends and promptly responds to indications of weakening safety culture.
11. Maintain standards of performance with respect to timely, forthright reporting of performance statistics (by increasing effectiveness).
  - a. Reporting and follow-up occurs in an informal fashion.
  - b. Formal responsibilities and accountabilities have been established for timely, forthright reporting of performance statistics.
  - c. Item (b. and management aggressively follows up on missing or late reports.
12. Conduct periodic reviews of the organization's safety culture (by increasing effectiveness).
  - a. Informal assessments are conducted by management.
  - b. Periodic reviews are conducted by nonfacility, company personnel.
  - c. Protocols exist for special reviews by independent third parties when circumstances warrant.
13. Strive to identify and correct cultural issues that underlie failures to adequately fulfill safety responsibilities (e.g., why does the organization tolerate this?) (by increasing effectiveness).
  - a. Investigations of failures to adequately fulfill safety responsibilities are limited to the identification of the immediate causes.
  - b. Investigations of failures to adequately fulfill safety responsibilities address the identification of the management system causes.
  - c. Investigations of failures to adequately fulfill safety responsibilities are extended to identify and address any underlying cultural causes.
14. Implement an effective management review system.
15. Compare the culture assessment results from the various demographic work groups and share strengths and areas for improvement with other work groups to learn from successes and focus on topics where improvement is warranted. (see recs 14, 25, 39)

## 8. Environment for Raising Concerns

Employees at every level should have the authority and responsibility to terminate a task or activity if there are legitimate safety concerns. All employees should feel able to voice concerns and to make suggestions to improve safety. Every employee should continually try to improve safety. All of the workforce should be provided with all necessary training

and information to do their jobs safely. All members of the workforce should exhibit a high standard of safety performance.

The desired activities, attitudes, and behaviors for Individuals Empowered to Fulfill Safety Responsibilities are:

- 1) Every employee has the authority and responsibility to terminate a task or activity if there are legitimate safety concerns.
- 2) All employees feel able to voice concerns and to make suggestions to improve safety.
- 3) Every employee tries to improve safety.
- 4) All of the workforce are provided with all necessary information to do their jobs safely.
- 5) All members of the workforce exhibit a high standard of safety performance.

Question	Average	Total Responses	Agree	Slightly Agree	Neutral	Slightly Disagree	Disagree	Percent Negative
27. My coworkers are willing to report instances where safety rules are violated.	4.26	3263	2518 (77.2%)	96 (2.9%)	93 (2.9%)	84 (2.6%)	473 (14.5%)	17.1%
28. I am willing to report instances where safety rules are violated without fear of negative consequences.	4.22	3263	2517 (77.1%)	66 (2%)	87 (2.7%)	84 (2.6%)	510 (15.6%)	18.2%
29. I am encouraged to ask questions when I am unsure about the safety precautions related to my work.	4.24	3263	2532 (77.6%)	75 (2.3%)	80 (2.5%)	66 (2%)	511 (15.7%)	17.7%
30. I am able to constructively question the decisions or actions of those with more authority without fear of negative consequences.	4.23	3263	2512 (77%)	87 (2.7%)	74 (2.3%)	81 (2.5%)	510 (15.6%)	18.1%
31. My supervisor stresses that I have the authority and responsibility to stop work I consider to be unsafe.	4.21	3263	2500 (76.6%)	82 (2.5%)	81 (2.5%)	84 (2.6%)	517 (15.8%)	18.4%

Possible Activities for Improvement of Individuals Empowered to Fulfill Safety Responsibilities are:

1. Check that all employees know how to voice concerns, whether proactively as an opportunity for improvement or reactively as notice of deficiency.
2. Solicit workforce opinions on effective communication means and frequency.
3. Check that employees consistently have the resources necessary to satisfy safety responsibilities.

4. Clearly define accountability for safety systems.
5. Celebrate employee safety decision/action successes.
6. Institute an off-the-job safety program.
7. Promote highlighting of employee safety concerns through formal and non-traditional means.
8. See that employee safety concerns and suggestions are resolved in a credible, timely fashion.
9. Establish safety committees that include a vertical slice of the organization.
10. Establish clear, documented accountabilities for safety.
11. Create an anonymous safety issue reporting system.
12. Provide safety checklists for all jobs.
13. Provide safety procedures, instructions or rules for all jobs.
14. Provide and document all required safety training.
15. Provide reasonable time to safely perform tasks.
16. Continually reinforce that all employees have responsibilities to themselves, their co-workers, the company, and the community (by increasing effectiveness).
  - a. Such responsibilities are reinforced in an informal fashion.
  - b. Employees are given formal training on these issues.
  - c. Managers and supervisors, through training, written and oral communications, meetings, performance reviews, and so forth, make a conscientious effort to ingrain these concepts within the culture.
17. Provide employees with the resources necessary to achieve their safety responsibilities (by increasing effectiveness).
  - a. Resources are provided for the more critical initiatives.
  - b. Safety initiatives are properly resourced, or alternative approaches to suitably achieve objectives with available resources are identified.
  - c. Resource requirements in support of safety initiatives are given explicit consideration in the budgeting process and quality resources are assigned to the initiative.
18. Give employees the necessary authority and support commensurate with their safety responsibilities (by increasing effectiveness).
  - a. Individual authority is implicitly associated with the safety responsibilities.
  - b. Authorities are explicitly addressed, for example in job descriptions that outline safety responsibilities.
  - c. Management provides support when necessary to reinforce an individual's authority.
19. Improve the incident/condition reporting system with better guidance/procedures, clear management expectations, and user-friendly reporting tools.

## 9. Effective Safety and Environmental Communication

Organizations should have communications that are open and effective. Healthy communication channels should exist vertically and horizontally within the organization.

Managers/supervisors should listen as well as speak. Everyone should understand the information required for safe operations. Communication channels should be monitored for their effectiveness.

Question	Average	Total Responses	Agree	Slightly Agree	Neutral	Slightly Disagree	Disagree	Percent Negative
32. My supervisor tells me about safety issues that were discussed in management meetings.	4.24	3263	2511 (77%)	94 (2.9%)	82 (2.5%)	84 (2.6%)	493 (15.1%)	17.7%
33. We have good communication during hitch handover so that important information is transferred.	4.32	3263	2603 (79.8%)	59 (1.8%)	80 (2.5%)	81 (2.5%)	441 (13.5%)	16%
34. We have good communication during shift handover so that important information is transferred.	4.26	3263	2523 (77.3%)	88 (2.7%)	88 (2.7%)	94 (2.9%)	471 (14.4%)	17.3%
35. Offshore personnel have adequate training in emergency procedures.	4.2	3263	2483 (76.1%)	81 (2.5%)	100 (3.1%)	75 (2.3%)	525 (16.1%)	18.4%
36. All of the workers onboard have sufficient language skills to perform their jobs safely.	4.25	3263	2537 (77.8%)	77 (2.4%)	73 (2.2%)	83 (2.5%)	494 (15.1%)	17.7%

The desired activities, attitudes, and behaviors for Open and Effective Communications are:

1. Managers/supervisors listen as well as speak.
2. The entire workforce is provided with all necessary information to do their jobs safely.
3. The workforce is informed of outcomes of incident investigations, audits, etc., in a timely manner.
4. Mismatches between practices and procedures (or standards. are quickly resolved to prevent normalization of deviance.
5. Employee concerns are resolved quickly.

Possible Activities for Improvement of Open and Effective Communications are:

1. Increase the number of mechanisms for communicating safety to employees (e.g., newsletters, toolbox talks, meetings, training, and incident findings).
2. Increase safety training (including printed formats. in native languages.
3. Provide a mechanism for anonymous input to management so that those fearful of reprisal have an alternate communication pathway.
4. Emphasize the importance of, and expectations of management for, timely and effective communication throughout the chain of command.

5. Provide positive, public reinforcement of communications even bad news. Do not shoot the messenger.
6. Provide communications training to everyone.
7. Create newsletters and other modes of management communication.
8. Include safety messages in periodic newsletters or other communications.
9. Provide access to internet sites that have regulatory activity that affects the organization.
10. Disseminate relevant information from management reviews which indicate continuance or change of direction in policies and/or procedures.
11. Increase safety and/or information meeting frequency and effectiveness.
12. Distribute summaries of external incidents and communicate how the lessons learned from them might apply locally.
13. Disseminate organizational policies for health, safety, and environmental (OH&S).
14. Disseminate bulletins throughout the organization regarding lessons learned or alerts regarding incidents that could have company-wide application.
15. Develop an expectation for safety training attendance, record attendance, and provide feedback.
16. Implement an employee suggestion/feedback program.
17. Increase the percentage of employees who have their performance appraised annually.
18. Establish a feedback system to employees on safety audits, issues, and concerns.
19. Encourage suggestions from employees for improvements through the corrective/preventative action system, with corresponding follow-up for effectiveness once decisions are made and plans implemented.
20. Establish and communicate a policy from the top management to all levels of the organization that it is acceptable and encouraged that people appropriately question safety issues.
21. Discuss QHSE policies, objectives, and progress made during OH&S meetings.
22. Communicate lessons learned from internal and external audits.
23. Enable employees to fulfill their responsibilities for sharing concerns by listening to them and acting in response (by increasing effectiveness).
  - a. Management listens to employee concerns, but response may be slow.
  - b. Management promptly responds to relevant employee concerns.
  - c. Management has implemented a proactive system for soliciting and responding to employee concerns.
24. Stress the importance of timely communication of information (by increasing effectiveness).
  - a. Training or counseling is provided on this topic in an ad hoc fashion.
  - b. This topic is covered with new employees during basic orientation and safety management training.



- c. Managers and supervisors seek additional opportunities to reinforce these concepts, for example through incorporation into incident investigation lessons learned or table top drills.
25. Assess relevant avenues of communication to ensure that messages are properly communicated and acknowledged, and that they are not filtered as they are relayed (by increasing effectiveness).
- a. Management relies on anecdotal information to gain confidence that safety messages are properly communicated.
  - b. Management relies on personal conversations with employees to gain confidence that safety critical messages are getting through.
  - c. Management monitors a variety of information sources to gain confidence that safety critical messages are communicated. Information sources include meeting minutes, employee surveys, formal suggestion programs, and personal conversations.
26. Establish a system for ensuring that management is accessible to the workforce for reporting potential hazards and providing input on operational safety management policy, issues, and needs (by increasing effectiveness).
- a. Management relies on ad hoc mechanisms for receiving such information.
  - b. Multiple means exist for the workforce to report potential hazards and to provide input to management on operational safety management policy, issues, and needs.
  - c. Supplemental, secure means exist for anonymous reporting by staff members who may otherwise fear repercussions from reporting.

## 10. Respectful Work Environment

All workers in the organization should fully understand individual and team responsibility. Employees should respect each other. There exists a mutual trust between employees and management as well as within peer groups. All employees have confidence in a just system.

Question	Average	Total Responses	Agree	Slightly Agree	Neutral	Slightly Disagree	Disagree	Percent Negative
37. I am usually consulted on matters that affect how I do my job.	4.28	3263	2532 (77.6%)	113 (3.5%)	82 (2.5%)	76 (2.3%)	461 (14.1%)	16.5%
38. The managers on my offshore asset, are genuinely concerned about my safety.	4.21	3263	2502 (76.7%)	74 (2.3%)	86 (2.6%)	82 (2.5%)	520 (15.9%)	18.4%
39. I have not been asked to break the rules or take shortcuts to achieve a production/schedule target.	4.3	3263	2568 (78.7%)	86 (2.6%)	73 (2.2%)	88 (2.7%)	449 (13.8%)	16.5%
40. Workers treat others with respect at this asset.	4.26	3263	2537 (77.8%)	82 (2.5%)	82 (2.5%)	78 (2.4%)	485 (14.9%)	17.3%

The desired activities, attitudes, and behaviors for a Respectful Work Environment are:

1. There is a good understanding of individual and employee responsibility for safety.
2. Relationships are characterized by respect.
3. Employees trust managers to 'do the right thing' in support of safety.
4. Managers trust employees to shoulder their share of responsibility for performance, and to report potential problems and concerns.
5. Peers trust the motivations and behaviors of peers.
6. Employees have confidence that a just system exists where honest errors can be reported without fear of reprisals.

Possible Activities for Improvement of respect within the work environment are:

7. Document policies that prevent unethical behavior throughout the organization.
8. Establish a training program and targets for ethics training.
9. Communicate the need/expectation for reporting all incidents and near misses.
10. Institute a blameless system for incident investigation, unless willful policy or procedure violations occurred.
11. Establish a system that provides fair, consistent treatment of parties involved in incidents.
12. Enforce the expectation that the workforce will be dealt with even-handedly.
13. Document hiring policy and procedures, and implement them.
14. Institute an internship training program.
15. Initiate an interviewer training program.
16. Provide attractive terms and conditions.
17. Provide training matrices to persons involved in new-hires or in transfers of between shifts/crews to show adequate competency.
18. Adopt an employee-driven behavior-based safety program including peer observations.
19. Provide appropriate accommodation for different faiths and customs.
20. Provide all procedures in native language of the employees (as well as English).
21. See that management response to acceptable and unacceptable safety performance is timely, consistent, and fair.
22. Develop a disciplinary system which has clear criteria for acceptable and unacceptable behaviors, and which distinguishes situations involving willful misconduct from human errors prompted by system causes. Apply such criteria firmly and fairly (by increasing effectiveness).
  - a. The organization has an unwritten disciplinary system that addresses these issues.
  - b. The organization has a written disciplinary system and applies it consistently.
  - c. The organization has a written disciplinary system and continuously monitors its application. The organization actively seeks to address system root causes and fairly identifies those situations in which human error can be

attributed to such causes. The organization has developed a 'no fault' policy for such instances and has communicated it effectively to employees.

23. Utilize knowledgeable resources from other facilities and/or third parties to get a fresh perspective.

## 11. Inquiring Attitude

Employees at every level should be vigilant for indications of weakness in the system that could lead to significant safety events. Inquiring attitude starts with effective training, stopping work for safety and being comfortable asking for help. Every level of the organization should avoid complacency and have systems in place to continuously improve. The organization should place the burden of proof on ensuring that activities are safe rather than unsafe.

41. I have been trained sufficiently so I am confident that I can safely operate the equipment within my area of responsibility.	4.19	3263	2474 (75.8%)	86 (2.6%)	82 (2.5%)	80 (2.5%)	542 (16.6%)	19.1%
42. My supervisor encourages us to make suggestions to improve safety.	4.26	3263	2536 (77.7%)	83 (2.5%)	83 (2.5%)	86 (2.6%)	476 (14.6%)	17.2%
43. If I am interrupted in the middle of a task, I routinely review the procedure to help make sure no steps are left out.	4.25	3263	2540 (77.8%)	70 (2.1%)	85 (2.6%)	78 (2.4%)	491 (15%)	17.4%
44. When mistakes occur, our asset managers and supervisors are more interested in solving the problem than assigning blame.	4.26	3263	2541 (77.9%)	84 (2.6%)	69 (2.1%)	82 (2.5%)	488 (15%)	17.5%
45. I am comfortable asking for help when unsure how to do a task.	4.24	3263	2528 (77.5%)	81 (2.5%)	74 (2.3%)	73 (2.2%)	508 (15.6%)	17.8%

The desired activities, attitudes, and behaviors for Inquiring Attitude are:

- 1) All employees should be trained in their area.
- 2) All parts of the organization are vigilant for indications of weakness in the system that could lead to significant safety events.
- 3) Avoidance of complacency. There are constant efforts to avoid the complacency that could accompany good safety records.
- 4) Mistakes should be resolved without blame.

Possible Activities for Improvement of Inquiring Attitude are:

1. Provide safety checklists for all jobs.
2. Provide safety procedures, instructions or rules for all jobs.
3. Provide policy/procedures for reporting unsafe conditions and near misses and encourage their usage. Avoid blame in safety investigations.
4. Set targets for the number of jobs with hazard assessments.

5. Set targets for the number of hazard analysis techniques utilized.
6. Set targets for the number of safety inspections.
7. Set targets for the number of corrective action reports originating from audits.
8. Set targets for the percentage of incident reports which have causal analysis.
9. Investigate and communicate corrective actions and lessons learned from recent accidents and incidents.
10. Provide hazard/risk awareness training.
11. Provide causal factor training to all employees.
12. Modify the incident investigation system to more fully address "what could have happened" (potential consequences) instead of only the actual incident consequences.
13. Ensure that all staff are adequately educated on, and appreciate, the hazards of operations
14. Ensure that all staff are adequately educated on, and appreciate, the consequences of deviating from established safe operating practices and conditions
15. Ensure that lessons learned from investigations of incidents and near misses, audits, and hazard assessments are broadly, frequently, and effectively shared (by increasing effectiveness).
  - a. Lessons learned are distributed to the immediately affected work group.
  - b. Lessons learned are widely shared throughout the organization.
  - c. The organization (1) seeks to gather and share lessons learned from diverse sources, including from other organizations, locations, or companies, and (2) has an effective means to validate that appropriate action has been taken.
16. Monitor for, and combat, organizational overconfidence that can be stimulated by past good performance (by increasing effectiveness).

## 12. Demographic Analysis Appendix

Presents cross tabs by demographic factors and discusses statistical significance of differences between groups. One effective way to present demographic analysis is to present cross tabs to the reader. A color-coding scheme with arrows is often an effective method for highlighting outlying groups.

Values	Asset A	Asset B	Asset C	Asset D	Asset E	Asset F	Asset G	Total
Respondents	350	140	340	837	552	71	69	3264
1. My supervisor ensures that safety briefings are held at the beginning of every shift.	→ 4.20	↑ 4.51	→ 4.20	→ 4.27	→ 4.29	→ 4.04	→ 4.20	→ 4.27
2. Our managers show their commitment to safety through their actions.	→ 4.22	→ 4.24	→ 4.17	→ 4.22	→ 4.15	→ 4.09	→ 4.23	→ 4.20
3. Managers place a high priority on safety training.	→ 4.26	→ 4.13	→ 4.18	→ 4.29	→ 4.26	→ 4.28	↓ 3.94	→ 4.21
4. Onshore managers never put schedule or costs above safety.	↓ 3.46	↓ 3.21	↓ 3.47	↓ 3.31	↓ 3.41	↓ 3.83	↓ 3.68	↓ 3.36
5. When we have to choose between safety and production/schedule, safety is given the highest priority.	→ 4.16	→ 4.25	→ 4.29	→ 4.27	→ 4.20	→ 4.38	↑ 4.65	→ 4.25
6. We have enough operations personnel on board to safely operate the asset in all operating conditions, including emergencies.	→ 4.20	→ 4.19	→ 4.23	→ 4.21	→ 4.24	→ 4.23	→ 4.48	→ 4.20
7. My supervisor sfdasdsadme to report near misses.	→ 4.25	→ 4.24	→ 4.31	→ 4.26	→ 4.25	↑ 4.58	→ 4.33	→ 4.29
8. We have an easy-to-understand system in place to report near misses.	→ 4.18	→ 4.25	→ 4.37	→ 4.30	→ 4.22	→ 4.06	↓ 3.96	→ 4.24
9. Our near miss reporting system is effective in keeping the person submitting the event anonymous.	→ 4.20	↑ 4.51	→ 4.31	→ 4.27	→ 4.28	→ 4.17	→ 4.28	→ 4.20
10. My safety-related training is completed on time.	→ 4.27	→ 4.02	→ 4.22	→ 4.23	→ 4.35	↑ 4.55	→ 4.39	→ 4.27
11. I fully understand my safety and health responsibilities.	↑ 4.82	↑ 4.95	↑ 4.80	↑ 4.89	↑ 4.87	↑ 5.00	↑ 4.64	↑ 4.86
12. Housekeeping is a demonstrated priority on this asset.	→ 4.23	→ 4.19	→ 4.29	→ 4.31	→ 4.18	→ 4.19	→ 4.35	→ 4.25
13. Workers on this asset routinely wear the required PPE.	→ 4.28	↑ 4.59	→ 4.26	→ 4.27	→ 4.22	→ 4.13	→ 4.16	→ 4.23
14. My co-workers follow the safety procedures for the jobs they will perform.	→ 4.33	→ 4.28	→ 4.29	→ 4.23	→ 4.31	→ 4.26	→ 4.35	→ 4.26
15. Visitors to our asset follow our safety procedures and standards.	→ 4.02	→ 4.35	→ 4.25	→ 4.14	→ 4.33	→ 4.32	→ 4.13	→ 4.22
16. Operating procedures are clear, accurate, and easy to follow.	→ 4.33	→ 4.16	→ 4.37	→ 4.27	→ 4.24	→ 4.16	→ 4.30	→ 4.25
17. Maintenance procedures are clear, accurate, and easy to follow.	→ 4.25	→ 4.21	→ 4.30	→ 4.32	→ 4.25	→ 4.38	→ 4.35	→ 4.30
18. This offshore asset has excellent preventive maintenance practices.	→ 4.41	→ 4.06	→ 4.23	→ 4.38	→ 4.29	→ 4.46	→ 4.29	→ 4.30
19. While offshore I get adequate rest to do my job safely.	→ 4.21	→ 4.07	→ 4.36	→ 4.30	→ 4.23	→ 4.42	→ 4.20	→ 4.27
20. Offshore personnel have ready access to all necessary tools, including PPE, to do their jobs safely.	→ 4.23	→ 4.27	→ 4.19	→ 4.19	→ 4.29	→ 4.39	→ 4.30	→ 4.26
21. Pre-job (safety) assessments are completed for all jobs that need them.	→ 4.33	→ 4.40	→ 4.22	→ 4.21	→ 4.28	→ 4.22	↓ 3.86	→ 4.23
22. Our workspaces are well designed and organized.	→ 4.30	→ 4.22	→ 4.23	→ 4.24	→ 4.29	→ 4.01	→ 4.09	→ 4.25
23. Corrective action is taken promptly when my manager is told about accidents, incidents, or near misses.	→ 4.36	→ 4.16	→ 4.03	→ 4.25	→ 4.24	→ 4.26	→ 4.12	→ 4.22
24. Causes of accidents, incidents and near misses are effectively resolved.	→ 4.05	→ 4.23	→ 4.32	→ 4.20	→ 4.24	→ 4.33	→ 4.20	→ 4.24
25. I receive timely feedback on accidents, incidents, or near misses that occur on this asset.	→ 4.26	→ 4.21	→ 4.34	→ 4.27	→ 4.35	→ 4.12	→ 4.48	→ 4.30
26. My coworkers are willing to report instances where safety rules are violated.	→ 4.24	→ 4.21	→ 4.30	→ 4.25	→ 4.27	→ 4.36	→ 4.29	→ 4.26
27. I am willing to report instances where safety rules are violated without fear of negative consequences.	→ 4.19	→ 4.23	→ 4.19	→ 4.23	→ 4.35	→ 4.32	→ 4.17	→ 4.22
28. I am encouraged to ask questions when I am unsure about the safety precautions related to my work.	→ 4.29	→ 4.24	→ 4.37	→ 4.27	→ 4.22	→ 4.12	→ 4.06	→ 4.24
29. I am able to constructively question the decisions or actions of leadership without fear of negative consequences.	→ 4.33	→ 4.29	→ 4.26	→ 4.20	→ 4.16	→ 4.26	↓ 3.70	→ 4.23
30. My supervisor stresses that I have the authority and responsibility to stop work I consider to be unsafe.	→ 4.18	→ 4.04	→ 4.22	→ 4.14	→ 4.31	→ 4.23	→ 4.19	→ 4.21
31. My supervisor tells me about safety issues that were discussed in management meetings.	→ 4.27	→ 4.34	→ 4.23	→ 4.25	→ 4.22	→ 4.16	→ 4.26	→ 4.24
32. We have good communication during hitch handover so that important information is transferred.	→ 4.39	→ 4.25	→ 4.41	→ 4.28	→ 4.38	→ 4.12	↑ 4.54	→ 4.32
33. We have good communication during shift handover so that important information is transferred.	→ 4.21	→ 4.31	→ 4.06	→ 4.28	→ 4.28	→ 4.14	→ 4.22	→ 4.26
34. Offshore personnel have adequate training in emergency procedures.	→ 4.12	→ 4.11	→ 4.17	→ 4.24	→ 4.23	→ 4.41	→ 4.29	→ 4.20
35. All of the workers onboard have sufficient language skills to perform their jobs safely.	→ 4.17	→ 4.25	→ 4.19	→ 4.29	→ 4.20	→ 4.33	→ 4.23	→ 4.25
36. I am usually consulted on matters that affect how I do my job.	→ 4.31	→ 4.36	→ 4.29	→ 4.28	→ 4.27	→ 4.32	↑ 4.55	→ 4.28
37. The managers on my offshore asset, are genuinely concerned about my safety.	→ 4.17	→ 4.21	→ 4.30	→ 4.19	→ 4.19	→ 4.13	↓ 3.99	→ 4.21
38. I have not been asked to break the rules or take shortcuts to achieve a production/schedule target.	→ 4.27	→ 4.21	→ 4.39	→ 4.33	→ 4.23	→ 4.23	→ 4.23	→ 4.30
39. Workers treat others with respect at this asset.	→ 4.35	→ 4.35	→ 4.21	→ 4.27	→ 4.20	→ 4.22	↑ 4.57	→ 4.26
40. I have been trained sufficiently so I am confident that I can safely operate the equipment within my area of responsibility.	→ 4.11	→ 4.24	→ 4.12	→ 4.21	→ 4.14	→ 4.25	→ 4.16	→ 4.19
41. My supervisor encourages us to make suggestions to improve safety.	→ 4.31	→ 4.34	→ 4.24	→ 4.27	→ 4.19	↑ 4.55	→ 4.41	→ 4.26
42. When mistakes occur, management are more interested in solving the problem than assigning blame.	→ 4.36	→ 4.19	→ 4.29	→ 4.27	→ 4.26	→ 4.17	→ 4.03	→ 4.26
43. If I am interrupted in the middle of a task, I routinely review the procedure to help make sure no steps are left out.	→ 4.24	→ 4.46	→ 4.19	→ 4.18	→ 4.31	→ 4.23	→ 4.16	→ 4.25
44. I am comfortable asking for help when unsure how to do a task.	→ 4.37	→ 4.11	→ 4.18	→ 4.19	→ 4.24	→ 4.19	→ 4.35	→ 4.24

After cross tabs are presented, statistical analysis should show the significance of respondents. The statistical significance of the groups on the individual questions using Kruskal-Wallis Test. While many relationships might be significant due to the large sample size, the actual amount of the relationship is not established. To find strength of relationship, the table also displays Epsilon square ( $\epsilon^2$ ) and Freeman's Theta. These are measures of the predictive power of categorical responses. They range from 0 to 1 with zero being no correlation and 1 being perfect association. Epsilon square ( $\epsilon^2$ ) and Freeman's Theta do not have negative correlations since one of the demographic variables is categorical and the other variable is ordinal. The statistics are to be used with the cross tabs in the above table report.

Interpretation is similar to the interpretation of simple correlation coefficient with value going between 0 and 1. A reasonable interpretation for social science for correlations is:

- $< 0.01$  – Negligible
- $< 0.16$  - Weak
- $0.16 < 0.36$  – Moderate
- $0.36 < 0.64$  - Moderately Strong
- $0.64 < 1.00$  - Strong

The question is listed and all relationships with p-value for the Kruskal-Wallis test less than .05 are displayed. Note if you allow blank demographics for anonymous reporting, individuals who did not enter demographic information tended to have lower responses to the Likert questions.

A sample of the results would be as follows.

1. My supervisor ensures that safety briefings are held at the beginning of every shift.

- For Job Title, the Kruskal-Wallis Test (p-value =  $3.426e-07$ ) for '1. My supervisor ensures that safety briefings are held at the beginning of every shift.' shows significant relationships. The power of this relationship is estimated with a Freeman Theta of 0.208 and a square root of Epsilon Squared of 0.0969.
- For Asset, the Kruskal-Wallis Test (p-value =  $2.809e-08$ ) for '1. My supervisor ensures that safety briefings are held at the beginning of every shift ' shows significant relationships. The power of this relationship is estimated with a Freeman Theta of 0.106 and a square root of Epsilon Squared of 0.0518.

All other relationships are not statistically significant.

### 13. Free Text Appendix

Presents a summary of the free text response questions. Highlights from this summary should be included in the summary of results chapter.

An example of this analysis would be as follows:

Many employees ( $x/y = z\%$ ) responded with long comments of over 50 characters for ways to improve safety. While the questions only asked for improvements, 172 respondents had positive free text statements about safety culture and safety staff that are displayed in Appendix D. Overall, the Safety Program is perceived as a comprehensive and efficient system based on the free text responses. Most of the positive comments were short without citing specific reasons for being positive such as "Safety Program is really good" and similar comments without elaboration.

Almost all respondents were positive or neutral in tone with very few negative tone responses.

Suggestions for improvements:

- Contractor training:  $xx$  responders ( $X/Y = Z\%$ ) were concerned about contractor training and skills. Specific areas of concern were \_\_\_\_, \_\_\_\_, and \_\_\_\_.
- Excessive workload: Several respondents stated that workload is a problem on vessels. A total  $xx$  respondents ( $X/Y = Z\%$ ) commented on ideas for reducing stress and fatigue.
- Sharing of near misses: Reporting and discussing near misses was cited in  $x/Y = z\%$  of comments. The comments were mostly acknowledged that a system exists, but they are not easy to use to make reports
- PPE was only discussed by 20 employees. However, 18 of the 20 were on one vessel.
- Work life balance:  $x/y = 0.z\%$  employees stated general work life balance issues. This percentage is relatively small percentage given the preference of some employees to work from home and other approaches to work life balance.

Potential actions from the comments should be considered:

- Contractor training.
- Near miss system should be reviewed for improvements in ease of reporting and dissemination.
- More effective use of safety cases and case studies should be considered.
- Examine ways to reduce stress and fatigue especially for field workers.

After the summary, put all responses by question with identifying information removed.