1. COVER LETTER

Dear Sir/Madam,

Thank you for accepting to participate in this survey.

This questionnaire is part of a research project to improve the maturity of organizations using the High Reliability Organizations theory. Your responses are very important and will help deepen understanding about the extent to which different organizations exhibit the behaviours of High Reliability Organizations (HROs). It will ultimately help the research to develop a framework to assess the maturity of organizations with respect to the HRO theory and thereby assist organizations to sustain or improve their maturity levels to enhance sustainability and productivity.

I must emphasize that this questionnaire is entirely voluntary and it is up to you to decide whether or not you wish to take part. Proceeding implies informed consent.

Let me assure you that all information you provide will be treated with the strictest confidence. You will notice that you have not been asked to include your name and address anywhere on the questionnaire. Your answers and others will be used as the main data set for this research. In addition to your anonymity, the information will be stored and secured on an encrypted and locked hard drive with backup stored on the N Drive. All data will first be grouped and coded, while the code identifiers will be stored separately.

The questionnaire focuses on five key areas (described on page 2) and should take 5 to 10 minutes to complete.

Thank you for your anticipated assistance.

2. Introduction to High Reliability Organization Theory

High Reliability Organizations operate in highly hazardous environments with complex technologies, where minor lapses in judgment would result in catastrophic failures, yet continue to operate at top quartile level. These organizations have evolved over time to become well equipped to prevent catastrophic failures, withstand the consequences of eventual failures should they occur, and re-engineer themselves for future competitiveness.

Research in the High Reliability Organizations Theory began at the University of California at Berkeley, and has grown to become a body of knowledge. Research has shown that these organizations think and act differently from most others and have different processes and practices.

At the core of their practices are five key behaviours: Preoccupation to Failure: They pay close attention to weak signals of failure and view near misses as symptoms of larger problems within the system rather than proof of effective safeguards in the system Reluctance to Simplify: They avoid undue generalizations on how and why things work or fail. They probe deeper, and ask more questions to get to root causes. Sensitivity to Operations: They are constantly responsive to the details of their operations, with the right staffing, competence levels and motivation, and are able to detect and competently react to slight changes in the process. Commitment to Resilience: Their leaders and employees are competent and prepared to respond to failures despite the vagaries of external influences. They are also able to recover from the effects of...
failures, and apply the learnings from the failures. Deference to Expertise: Their leaders and supervisors are prepared to put hierarchy apart and respond to the insights from the experienced and competent staff despite their positions within the organization. The short questions in pages 4 to 8 will revolve around these five key behaviours.

3. INSTRUCTIONS:
Please select the answer you consider most appropriate from the given options based on your perceptions of your organization. Please use the following scale. Score Strongly Agree 5 Partially Agree 4 Neither Agree nor Disagree 3 Partially Disagree 2 Strongly Disagree 1 There is also a column for rank at the end of each section. For each section, rank the questions in order of how important you think the questions are in relation to the section. Assign 1 to the most important. This will also help to assign weights to the scores.

4. Demographics

5. Industry Type (Please choose closest) (Select one option)

- Academia
- Petroleum
- Construction
- Nuclear
- Health Care
- Food & Beverages Manufacturing
- Consultancy
- Engineering
- Hotels and Restaurants (Hospitality)
- Banking
- Mines & Power
- Transportation and Aviation
- Other (Please specify) __________

6. Name of Organization

(a)

7. Primary Responsibility (Please choose closest) (Select one option)

- Management
- Supervisor
- Front line Staff

8. Years of Experience (Select one option)

- Below 3 Years
- 3 Years to 7 Years
- Above 7 Years and Below 15 Years
- 15 Years to 25 Years
- Above 25 Years
9. Gender (Select one option)
- Male
- Female

10. SECTION 1: ASSESSING
PREOCCUPATION WITH FAILURE
This section assesses your organisation's perception of failure. Highly reliable organisations pay very close attention to weak signals of failure. They view near misses as symptoms of larger problems within the system, rather than proof of effective safeguards in the system.

11. We are encouraged to report near misses (Select one option)
- 5 - Strongly Agree
- 4 - Partially Agree
- 3 - Neither Agree nor Disagree
- 2 - Partially Disagree
- 1 - Strongly Disagree
- Other (Please explain) _________

12. We are encouraged to report incidents (Select one option)
- 5 - Strongly Agree
- 4 - Partially Agree
- 3 - Neither Agree nor Disagree
- 2 - Partially Disagree
- 1 - Strongly Disagree
- Other (Please explain) _________

13. We regard near misses as potential failures (Select one option)
- 5 - Strongly Agree
- 4 - Partially Agree
- 3 - Neither Agree nor Disagree
- 2 - Partially Disagree
- 1 - Strongly Disagree
- Other (Please explain) _________

14. We regard near misses as indications of our system health (Select one option)
- 5 - Strongly Agree
- 4 - Partially Agree
- 3 - Neither Agree nor Disagree
- 2 - Partially Disagree
- 1 - Strongly Disagree
- Other (Please explain) _________

15. We maintain a database of incidents and potential failures, not our ability to avoid failures (Select one option)
- 5 - Strongly Agree
- 4 - Partially Agree
- 3 - Neither Agree nor Disagree
16. We perform a root cause analysis for all incidents and potential failures (Select one option)

- 5 - Strongly Agree
- 4 - Partially Agree
- 3 - Neither Agree nor Disagree
- 2 - Partially Disagree
- 1 - Strongly Disagree
- Other (Please specify) ________

17. We apply learning from incidents and potential failures to update our procedures (Select one option)

- 5 - Strongly Agree
- 4 - Partially Agree
- 3 - Neither Agree nor Disagree
- 2 - Partially Disagree
- 1 - Strongly Disagree
- Other (Please specify) ________

18. We focus more on failure than successes (Select one option)

- 5 - Strongly Agree
- 4 - Partially Agree
- 3 - Neither Agree nor Disagree
- 2 - Partially Disagree
- 1 - Strongly Disagree
- Other (Please specify) ________

19. We actively consider worst case scenarios in our plans and analyses (Select one option)

- 5 - Strongly Agree
- 4 - Partially Agree
- 3 - Neither Agree nor Disagree
- 2 - Partially Disagree
- 1 - Strongly Disagree
- Other (Please specify) ________

20. We often review our activities at intervals to actively seek potential hot spots (Select one option)

- 5 - Strongly Agree
- 4 - Partially Agree
- 3 - Neither Agree nor Disagree
- 2 - Partially Disagree
- 1 - Strongly Disagree
- Other (Please specify) ________

21. We do not victimize people who make mistakes (Select one option)

- 5 - Strongly Agree
- 4 - Partially Agree
- 3 - Neither Agree nor Disagree
- 2 - Partially Disagree
- 1 - Strongly Disagree
- Other (Please explain) ________
22. We actively reward personnel who own up to mistakes or near misses (Select one option)

- 5 - Strongly Agree
- 4 - Partially Agree
- 3 - Neither Agree nor Disagree
- 2 - Partially Disagree
- 1 - Strongly Disagree
- Other (Please specify) __________

23. We feel free to talk to our superiors about problems (Select one option)

- 5 - Strongly Agree
- 4 - Partially Agree
- 3 - Neither Agree nor Disagree
- 2 - Partially Disagree
- 1 - Strongly Disagree
- Other (Please specify) __________

24. Our superiors freely talk to us about problems (Select one option)

- 5 - Strongly Agree
- 4 - Partially Agree
- 3 - Neither Agree nor Disagree
- 2 - Partially Disagree
- 1 - Strongly Disagree
- Other (Please specify) __________

25. Our superiors actively seek out bad news about potential issues (Select one option)

- 5 - Strongly Agree
- 4 - Partially Agree
- 3 - Neither Agree nor Disagree
- 2 - Partially Disagree
- 1 - Strongly Disagree
- Other (Please specify) __________

26. Please rank the questions in the order of importance to you. Use 1 for the most important and 15 for the least important. [Please select exactly 15 options.]

- We are encouraged to report near misses
- We are encouraged to report incidents
- We regard near misses as potential failures
- We regard near misses as indications of our system health
- We maintain a database of incidents and potential failures, not our ability to avoid failures
- We perform a root cause analysis for all incidents and potential failures
- We apply learning from incidents and potential failures to update our procedures
We focus more on failure than successes
We actively consider worst case scenarios in our plans and analyses
We often review our activities at intervals to actively seek potential hot spots
We do not victimize people who make mistakes
We actively reward personnel who own up to mistakes or near misses
We feel free to talk to our superiors about problems
Our superiors freely talk to us about problems
Our superiors actively seek out bad news about potential issues

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<td>27. RELUCTANCE TO SIMPLIFY</td>
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<td>This section assesses how your organisation balances simplification and standardization of processes with actively seeking to avoid undue generalizations on how and why things work or fail. Highly reliable organisations have standardized processes. They however put a lot of emphasis on probing deeper, and asking more questions to get to root causes of failures or potential failures.</td>
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<td>28. We encourage people to challenge procedures and processes</td>
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<td>29. We reward people who think outside the box</td>
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<td>30. We do not victimize people who challenge the norm</td>
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<td>31. We are not attacked when we report information that could disrupt operations</td>
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| 32. We respect different viewpoints                                     | 1 - Strongly Disagree  
Other (Please specify) ________ |
| 33. We value constructive criticisms                                   | 1 - Strongly Disagree  
Other (Please specify) ________ |
| 34. We value skeptics                                                   | 1 - Strongly Disagree  
Other (Please specify) ________ |
| 35. We trust one another                                                | 1 - Strongly Disagree  
Other (Please specify) ________ |
| 36. We encourage people to deepen their understanding of the process    | 1 - Strongly Disagree  
Other (Please specify) ________ |
| 37. We encourage people to deepen their analyses to better grasp the    | 1 - Strongly Disagree  
Other (Please specify) ________ |
38. We are encouraged to listen carefully to other viewpoints (Select one option)

- 5 - Strongly Agree
- 4 - Partially Agree
- 3 - Neither Agree nor Disagree
- 2 - Partially Disagree
- 1 - Strongly Disagree
- Other (Please specify) __________

39. Everyone's views rarely go unheard. (Select one option)

- 5 - Strongly Agree
- 4 - Partially Agree
- 3 - Neither Agree nor Disagree
- 2 - Partially Disagree
- 1 - Strongly Disagree
- Other (Please specify) __________

40. Please rank the questions in the order of importance to you. Use 1 for the most important and 12 for the least important. [Please rank all option(s).]

- We encourage people to challenge procedures and processes
- We reward people who think outside the box
- We do not victimize people who challenge the norm
- We are not attacked when we report information that could disrupt operations
- We respect different viewpoints
- We value constructive criticisms
- We value skeptics
- We trust one another
- We encourage people to deepen their understanding of the process to better challenge it.
- We encourage people to deepen their analyses to better grasp the nature of problems that arise
- We are encouraged to listen carefully to other viewpoints
- Everyone's views rarely go unheard.
### 43. We hold regular team meetings to ensure everyone knows what everyone is doing

- 5 - Strongly Agree
- 4 - Partially Agree
- 3 - Neither Agree nor Disagree
- 2 - Partially Disagree
- 1 - Strongly Disagree
- Other (Please specify) ____________

### 44. We assist other teams outside our own jobs

- 5 - Strongly Agree
- 4 - Partially Agree
- 3 - Neither Agree nor Disagree
- 2 - Partially Disagree
- 1 - Strongly Disagree
- Other (Please specify) ____________

### 45. Our managers constantly monitor our day to day activities

- 5 - Strongly Agree
- 4 - Partially Agree
- 3 - Neither Agree nor Disagree
- 2 - Partially Disagree
- 1 - Strongly Disagree
- Other (Please specify) ____________

### 46. Our managers make inputs to our day to day activities as required

- 5 - Strongly Agree
- 4 - Partially Agree
- 3 - Neither Agree nor Disagree
- 2 - Partially Disagree
- 1 - Strongly Disagree
- Other (Please specify) ____________

### 47. Someone with authority is readily available to frontline for prompt decision making

- 5 - Strongly Agree
- 4 - Partially Agree
- 3 - Neither Agree nor Disagree
- 2 - Partially Disagree
- 1 - Strongly Disagree
- Other (Please specify) ____________

### 48. Everyone is expected to take decision, such as operations shutdown to forestall catastrophic failure

- 5 - Strongly Agree
- 4 - Partially Agree
- 3 - Neither Agree nor Disagree
- 2 - Partially Disagree
- 1 - Strongly Disagree
- Other (Please specify) ____________
49. People have discretion to resolve unexpected frontline problems without differing to leadership (Select one option)

- 5 - Strongly Agree
- 4 - Partially Agree
- 3 - Neither Agree nor Disagree
- 2 - Partially Disagree
- 1 - Strongly Disagree
- Other (Please specify) __________

50. There is constant open communication between leadership and frontline, to build a clear picture of current situations (Select one option)

- 5 - Strongly Agree
- 4 - Partially Agree
- 3 - Neither Agree nor Disagree
- 2 - Partially Disagree
- 1 - Strongly Disagree
- Other (Please specify) __________

51. There is constant open communication among all staff to build a clear picture of current situations (Select one option)

- 5 - Strongly Agree
- 4 - Partially Agree
- 3 - Neither Agree nor Disagree
- 2 - Partially Disagree
- 1 - Strongly Disagree
- Other (Please specify) __________

52. Resources are readily available to manage unexpected issues (Select one option)

- 5 - Strongly Agree
- 4 - Partially Agree
- 3 - Neither Agree nor Disagree
- 2 - Partially Disagree
- 1 - Strongly Disagree
- Other (Please specify) __________

53. Please rank the questions in the order of importance to you. Use 1 for the most important and 11 for the least important. Please select exactly 11 options.

Please rank the questions in the order of importance to you. Use 1 for the most important and 11 for the least important.

- We hold regular team meetings to ensure everyone knows what everyone is doing
- We assist other teams outside our own jobs
- Our managers constantly monitor our day to day activities
- Our managers make inputs to our day to day activities as required
Someone with authority is readily available to front line for prompt decision making.

Everyone is expected to take decision, such as operations shutdown to forestall catastrophic failure.

People have discretion to resolve unexpected front line problems without differing to leadership.

There is constant open communication between leadership and front line, to build a clear picture of current situations.

There is constant open communication among all staff to build a clear picture of current situations.

Resources are readily available to manage unexpected issues.

54. COMMITMENT TO RESILIENCE

SECTION 4: ASSESSING

This section assesses your organisation’s commitment to resilience. Leaders and employees in highly reliable organisations are competent and prepared to respond to failures despite the vagaries of external influences. They are also able to quickly recover from the effects of failure, and apply the learning from it.

55. My organization places high emphasis on technical competence development (Select one option)

☐ 5 - Strongly Agree
☐ 4 - Partially Agree
☐ 3 - Neither Agree nor Disagree
☐ 2 - Partially Disagree
☐ 1 - Strongly Disagree
☐ Other (Please specify) __________

56. My organization places high emphasis on attitude and behavioral competences (Select one option)

☐ 5 - Strongly Agree
☐ 4 - Partially Agree
☐ 3 - Neither Agree nor Disagree
☐ 2 - Partially Disagree
☐ 1 - Strongly Disagree
☐ Other (Please specify) __________

57. Our competencies are assessed regularly assessed (Select one option)

☐ 5 - Strongly Agree
☐ 4 - Partially Agree
☐ 3 - Neither Agree nor Disagree
☐ 2 - Partially Disagree
☐ 1 - Strongly Disagree
☐ Other (Please specify) __________

58. We have the skills required to act should unexpected problems arise (Select one option)

☐ 5 - Strongly Agree
☐ 4 - Partially Agree
☐ 3 - Neither Agree nor Disagree
☐ 2 - Partially Disagree
☐ 1 - Strongly Disagree
☐ Other (Please specify) __________
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<th>Question</th>
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<tr>
<td><strong>59. We have well defined emergency response plans</strong> (Select one option)</td>
<td>5 - Strongly Agree  4 - Partially Agree  3 - Neither Agree nor Disagree  2 - Partially Disagree  1 - Strongly Disagree  Other (Please specify) __________</td>
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<td><strong>60. Most people are aware of the details of our emergency response plans</strong> (Select one option)</td>
<td>5 - Strongly Agree  4 - Partially Agree  3 - Neither Agree nor Disagree  2 - Partially Disagree  1 - Strongly Disagree  Other (Please specify) __________</td>
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<td><strong>61. We have well defined contingency plans</strong> (Select one option)</td>
<td>5 - Strongly Agree  4 - Partially Agree  3 - Neither Agree nor Disagree  2 - Partially Disagree  1 - Strongly Disagree  Other (Please specify) __________</td>
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<td><strong>62. Most people are aware of the organization’s contingency plans</strong> (Select one option)</td>
<td>5 - Strongly Agree  4 - Partially Agree  3 - Neither Agree nor Disagree  2 - Partially Disagree  1 - Strongly Disagree  Other (Please specify) __________</td>
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<td><strong>63. We conduct regular drills to enhance preparedness in case of unexpected problems</strong> (Select one option)</td>
<td>5 - Strongly Agree  4 - Partially Agree  3 - Neither Agree nor Disagree  2 - Partially Disagree  1 - Strongly Disagree  Other (Please specify) __________</td>
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<td><strong>64. We have a number of key formal contacts we sometimes use to solve problems</strong> (Select one option)</td>
<td>5 - Strongly Agree  4 - Partially Agree  3 - Neither Agree nor Disagree  2 - Partially Disagree  1 - Strongly Disagree  _</td>
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65. We have a number of key informal contacts we sometimes use to solve problems (Select one option)

- 5 - Strongly Agree
- 4 - Partially Agree
- 3 - Neither Agree nor Disagree
- 2 - Partially Disagree
- 1 - Strongly Disagree
- Other (Please specify) __________

66. There is a high level of shared trust among all staff and management (Select one option)

- 5 - Strongly Agree
- 4 - Partially Agree
- 3 - Neither Agree nor Disagree
- 2 - Partially Disagree
- 1 - Strongly Disagree
- Other (Please specify) __________

67. Please rank the questions in the order of importance to you. Use 1 for the most important and 12 for the least important. [Please select exactly 12 options.]

- Please rank the questions in the order of importance to you. Use 1 for the most important and 12 for the least important.
- My organization places high emphasis on attitude and behavioral competences
- Our competencies are assessed regularly
- We have the skills required to act should unexpected problems arise
- We have well defined emergency response plans
- Most people are aware of the details of our emergency response plans
- We have well defined contingency plans
- Most people are aware of the organization’s contingency plans
- We conduct regular drills to enhance preparedness in case of unexpected problems
- We have a number of key formal contacts we sometimes use to solve problems
- We have a number of key informal contacts we sometimes use to solve problems
- There is a high level of shared trust among all staff and management

68. SECTION 5: ASSESSING DEFERENCE TO EXPERTISE

This section assesses by how much the leaders and supervisors in your organisation are prepared to put hierarchy aside and respond to the insights from the experienced and competent staff despite their position within the organisation.

69. People respect the nature of one another’s jobs (Select one option)

- 5 - Strongly Agree
- 4 - Partially Agree
- 3 - Neither Agree nor Disagree
- 2 - Partially Disagree
70. People are committed to doing their job well (Select one option)

- 5 - Strongly Agree
- 4 - Partially Agree
- 3 - Neither Agree nor Disagree
- 2 - Partially Disagree
- 1 - Strongly Disagree
- Other (Please specify) __________

71. People in the organization value expertise and experience over rank (Select one option)

- 5 - Strongly Agree
- 4 - Partially Agree
- 3 - Neither Agree nor Disagree
- 2 - Partially Disagree
- 1 - Strongly Disagree
- Other (Please specify) __________

72. We are encouraged to take expert decisions irrespective of hierarchy (Select one option)

- 5 - Strongly Agree
- 4 - Partially Agree
- 3 - Neither Agree nor Disagree
- 2 - Partially Disagree
- 1 - Strongly Disagree
- Other (Please specify) __________

73. In an emergency, the most experienced in that emergency takes the lead (Select one option)

- 5 - Strongly Agree
- 4 - Partially Agree
- 3 - Neither Agree nor Disagree
- 2 - Partially Disagree
- 1 - Strongly Disagree
- Other (Please specify) __________

74. Expertise for all jobs is readily available when required (Select one option)

- 5 - Strongly Agree
- 4 - Partially Agree
- 3 - Neither Agree nor Disagree
- 2 - Partially Disagree
- 1 - Strongly Disagree
- Other (Please specify) __________

75. People generally know who has the expertise for different jobs (Select one option)

- 5 - Strongly Agree
- 4 - Partially Agree
- 3 - Neither Agree nor Disagree
- 2 - Partially Disagree
- 1 - Strongly Disagree
- Other (Please specify) __________

76. People typically feel responsible for problems until they are resolved (Select one option)

- 5 - Strongly Agree
- 4 - Partially Agree
- 3 - Neither Agree nor Disagree
- 2 - Partially Disagree
- 1 - Strongly Disagree
- Other (Please specify) __________
77. Please rank the questions in the order of importance to you. Use 1 for the most important and 8 for the least important. [Please select exactly 8 options.]

- People respect the nature of one another's jobs
- People are committed to doing their job well
- People in the organization value expertise and experience over rank
- We are encouraged to take expert decisions irrespective of hierarchy
- In an emergency, the most experienced in that emergency takes the lead
- Expertise for all jobs is readily available when required
- People generally know who has the expertise for different jobs
- People typically feel responsible for problems until they are resolved