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| <br>NORTH ATLANTIC<br>PROJECT GROUP | <b>Field Level Hazard Assessment</b><br><b>FLHA</b><br><b>NAPG-RA-SPI-0003</b> |  | <b>Revision</b> |  |
|  |  | #  | Date            |  |
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### ISSUE/REVISION INDEX



| Issue Code | Revision |    |        |      |            | Revision Details |
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|            | No.      | By | Rev'd. | App. | Date       |                  |
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Issue Codes: RC = Released for Construction, RD = Released for Design, RF = Released for Fabrication, RI = Released for Information, RP = Released for Purchase, RPA = Released for Permit Application, RQ = Released for Quotation, RR = Released for Review and Comments.

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## 1.0 INTRODUCTION

The North Atlantic Project Group developed a suite of risk management tools to identify hazards, risk scenarios and the control measures to either prevent or mitigate harm. The tools are all designed to analyze “how” work will be completed through the lens of 4 questions: What could go wrong? How bad could it be? What has to be done to manage the scenario? And finally, is it enough?

The three tools: Pre-Mobilization Risk Assessment (PMRA), Job Hazard Analysis (JHA) and the Field Level Hazard Assessment (FLHA) are targeted at addressing consequence severity classifications with overlap on each tool. PMRA highlights Catastrophic, Critical and Serious severity events. The JHA incorporates the controls identified in the PMRA as well as highlighting the events with Serious and Moderate severity ratings. The JHA also acts as a communication tool at the start of shift line-up to inform workers of the hazards and necessary controls to manage the associated risk. Finally, the FLHA is a worker enabled tool to assess workplace conditions in union with the assigned work and risk management briefing supplied at the start of shift line-up. The intent of this tool is to provide workers with an ongoing process to continually assess the work environment for change thus avoiding harm. Deviations identified with the FLHA process that cannot be addressed by the worker are escalated to the supervisor.

The tools incorporate the concept of continuous improvement by incorporating learnings into the catalogs of risk scenarios and controls as well as identifying unsatisfactory workplace conditions that could harm people or property. The documents directing the use of the tools and containing the history of the various project contracts are “live” documents, meaning they are updated through routine reviews or as dictated through incidents, worker observation/feedback or changes to work scope or environment. See Figure 1

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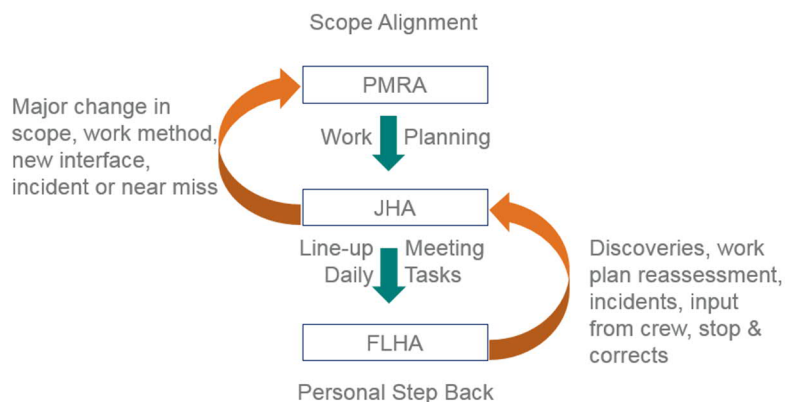




Figure 1

## 2.0 PURPOSE & SCOPE

Field Level Hazard Assessments (FLHA) is a worker initiated, supervisor checked, hazard identification, risk management tool meant to compliment the PMRA and JHA processes to eliminate workplace hazards or manage the associated risk of the hazard.

Experience has shown that when people stop to actively identify hazards, the associated risk scenarios and implement control measures in a planned, consistent manner they, others, property and the environment are less likely to be harmed. The JHA is intended to identify both higher level project risk and task-specific risk, and more specifically the required controls in the planning of how work will be accomplished. Whereas the FLHA tool is intended to be utilized just prior to the task activities beginning in the field. The FLHA tool process should confirm the necessary controls for the work as communicated in the JHA and then help identify hazards that may be present as a result of changing conditions, specific interactions with personnel or the job environment or hazards created as a result of controls that were implemented (e.g. traffic routing) that were not or could not be anticipate in the work planning stage.

This risk management tool applies to all North Atlantic Project Group (NAPG) personnel, contractors and subcontractors performing work (typically identified as “hands on” work) on a NAPG site.

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### 3.0 ROLES AND RESPONSIBILITIES

**All:** Participate in the FLHA process as required.

**NAPG Project Director:** Ensure resources are available for the implementation and maintenance of the FLHA program on the project.

**NAPG Construction Manager:** Participate and support the FLHA activities for project work under their responsible area(s). Assure that the required controls are in place.



**NAPG Construction Superintendents:** Participate to support the FLHA process for contract work under their responsible area(s). Provide guidance and coaching to contractors on the process and expectation. Assure the required controls are in place.

**NAPG HSE Manager:** Ensure that the FLHA procedure is followed. Ensure there is a process in place to periodically conduct field checks and interactions to ensure the required programs are in place and that the FLHA process is executed as per procedure.

**NAPG HSE Department:** Ensure the proper implementation and communication of this procedure and provide guidance to contractor and subcontractor teams in terms of the FLHA process, requirements and expectations. Periodically or as specified inspect and monitor the FLHA cards during work activities to ensure completeness and effective use of the cards. Engage workers on the FLHA process.

**Contractor Superintendent:** Act as a liaison between NAPG Project Construction Superintendent and contractor team, and provide guidance to the contractor and subcontractor teams in terms of the FLHA process, requirements and expectations. Ensure the appropriate stakeholders (e.g. contractor HSE personnel, contractor supervisor, contractor workers and subcontractors) are participating in these programs as described in this procedure. FLHA cards will be reviewed to assist with continuous improvement of the risk management tools, assist in the incident analysis process and therefore the cards must be organized and readily accessible.

**Contractor Supervisor:** The supervisor shall review at the onset of work all of the known hazards and risk control measures of the task to be completed. The supervisor shall periodically throughout the shift check, at the place of the task, that all the anticipated hazards and any new hazards due to, for example: workplace conditions, environmental conditions or change in work are identified and the associated risk is managed. A minimum of two checks per shift are required – once at the beginning of the shift and once at mid shift. The supervisor will verify the review by recording the time and signing the FLHA card at each review.

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**Contractor Worker:** Workers are responsible to ensure that FLHA cards are filled out in the field for each task and submitted to their direct supervisor at the end of each shift. Workers are responsible for communicating any known and potential hazards that may be encountered during the work to their supervision.

**Contractor HSE Personnel:** To provide guidance to contractor and subcontractor teams in terms of the FLHA process, requirements and expectations. Daily inspection and audit the FLHA cards during work activities to ensure completeness and effective use of the cards. Engage workers on the FLHA process. Maintain storage of completed FLHA cards and provide to records as required.

#### 4.0 DEFINITIONS

Hazard – A hazard is a source of harm (often identified as a source of energy) or potential harm or a situation with a potential to cause loss including personal injury, occupational illness, damage to equipment, damage to the environment or loss to process.



Control – Controls are the means of managing the risk posed by potential hazards. Ideally, the controls identified should be preventative in nature, meaning that the controls minimize the risk scenario from developing. Controls can also be mitigating in nature, in that they minimize the impact of the risk scenario, should it occur. When considering controls, the following lists the five categories of controls in the “hierarchy of controls” where (5) is effective and (1) is the more effective:

- 1) Elimination
- 2) Substitution
- 3) Engineering
- 4) Administrative
- 5) PPE

Risk (scenario) – A risk is a plausible potential event that could result in harm from an interaction with a hazard. An example: Working with an energized electrical cable resulting in a worker suffering electrocution. The hazard is electricity, the scenario is the plausible potential of being electrocuted. A control for the risk scenario is to Lock-out, Tag-out and Check the cable before doing any work with the cable.

#### 5.0 METHODOLOGY

Each worker (can be any project personnel, including visitors a project site), typically those conducting “hands on” work are required to initiate and carry with them at least one FLHA card (multiple cards can be used to assess the tasks assigned throughout the day) at the



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start of each shift. Ideally, the worker(s) will combine information from the line-up (JHA) and conditions or activities where the task is to be complete.

The expectation is that this card will be used and updated throughout the shift and be used as a tool to help identify new hazards and manage associated risk introduced as a result of changing conditions or activities.

Supervisors will assist their work crews at the start of each shift in utilizing the FLHA cards by providing information about the work to be performed via the JHA/Line-up process. The supervisor shall also periodically review the cards throughout the shift and help coach the worker if there is room for improvement or commend well done assessments. The supervisor is to initial and time stamp their review of the FLHA card and process.

The contractor supervisor shall close out the FLHA cards at the end of each shift by checking off all appropriate boxes, gathering any pertinent information for further processing (identified hazards to be included in subsequent JHAs, note and respond as required to "Stop & Corrects"...etc.). FLHA cards shall be collected and stored as records in an organized manner for easy accessibility.

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**Step 1:**

Start at the top left of card under the “North Atlantic Project Group” brand.

**Fill out pertinent administrative and contact information,**

**AM I EQUIPPED FOR WORK**

- This section is to prompt the worker to do a self-check as to whether or not they have the very basic requirement to complete the task. If the answers to any of the questions is “No” then the worker is prompted to contact the supervisor. The supervisor must address the situation with an adequate action.

**CRITICAL COMMUNICATION INFORMATION**

- This section is to identify the appropriate response to an emergency situation. NAPG locations and work areas will have different processes to respond to various emergencies, the worker must know the appropriate primary response for their circumstance.

**Step 2:**

**LINE UP TASKS / CONTROLS (From JHA)**



- This area is for the worker to record information that is communicated directly from the JHA/Line-up meeting/supervisor. The intent of this area is to prompt the worker to create notes for themselves on what is already known of the hazards and controls for the assigned work.

**Step 3:**

**Critical Activity Requirements**

- 70% of all fatalities for Vale Global are associated with work related to these activities and titles. The checklist is a means to trigger a stop and think about key controls for these activities. If the work is not related to any of these then “N/A” is checked. If the work is related and the control is in place then the answer should be “Yes.” If the control is not in place the answer should be “No” and the supervisor is to be contacted to address the matter.



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**Step 4:**



**TASK/ HAZARD/ WHAT IS THE RISK TO ME/ OTHER?/ WHAT IS THE CONTROL?**

- At times hazards and controls can be missed during the JHA/ Line-up process. This section is for the worker to address hazards that they identify in the workplace. The process used in this section is based on three questions: What can go wrong?, How bad could it be?, How can I manage it? The boxes along the top of the sheet are thinking prompts to begin to answer the three questions.
- Another common scenario for completing this section of the FLHA is a change in the task assignment. In this case the worker(s) could complete the FLHA on his own or in conjunction with the supervisor in the field.
- The task that is being assessed is briefly described in the “TASK” column.
- The hazards that are present are listed in the “HAZARD” column. Hazards often take the form of energy sources, there are a few listed in the “WHAT CAN GO WRONG?” box.
- The “WHAT IS THE RISK TO ME/ OTHERS?” column is asking “HOW BAD COULD IT BE?” In other words how could you be injured or harmed? Could others be harmed from your work activity? Again some triggers for consideration are listed in the dialogue box.
- The last column of this section is the “WHAT IS THE CONTROL?” or HOW CAN I MANAGE IT? Control categories are listed for prompting some ideas for preventing the identified injury in the previous column. There are a range of controls that span from eliminating the hazard to using PPE to minimize the impact of the hazard and risk.
- The worker should always know that if they cannot identify or implement a control(s) that will prevent the injury/ harm from happening they are to contact their supervisor for assistance.

**Step 4:**

**UNSAFE TEAM TASK**

- This section of the card is to prompt reporting of Stop and Correct / Near Miss / or a Hazard situations.
- A Stop and Correct captures information from a workplace initiated resolve of a situation or circumstance that could have led to harm.
- The Near Miss is a report of a release of energy, usually unexpected, that could have caused harm to people or property but did not. The report is made so that follow-up by the supervisor can be initiated to resolve and if required action the situation.
- A Hazard can be an unsafe condition or an unsafe set of circumstances that require followed-up by the supervisor to analyze and implement corrective actions.

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### **Step 5:**

#### **IS IT ENOUGH?**

- This portion of the card is a prompt to check that the hazards and controls from the JHA as provided to the worker at the line-up are as anticipated. If not then the supervisor must identify the missings and respond accordingly. A follow-up action item may be to “red pen” the JHA. The supervisor is also guided to think through two questions: Has the worker(s) asked the three questions (Step 4) and how effective is the answer they arrived at for #3. In other words, “Is it enough?”
- The supervisor has a duty to carefully review the “Unsafe Task Team” section (see Step 4) to determine if any follow-up action is required.
- A supervisor should attend the workplace at least twice in a shift, typically shortly after the start of the shift and once more mid way through the shift
- A supervisor’s visit to the workplace is a chance to review workplace conditions and progress on completion of tasks. Additionally, it is an essential opportunity to set expectation of workplace standards, coach workers on opportunities for continuous improvement and commend performance when meets or exceeds expectations – the FLHA card review is intended to be the trigger for these dialogues.

## **6.0 TRAINING**



All personnel directly involved with work on a NAPG Project will have received training on the FLHA risk management tool as part of the project orientation.

Persons with responsibilities within this procedure (see Roles and Responsibilities) will be knowledgeable about the requirements of this procedure and the expectations of the FLHA program.

## **7.0 CONTINUOUS IMPROVEMENT**

The intention FLHA card reviews (see Role and Responsibilities) is to ensure, through dialogue with the worker that the use of the tool(s) is helping to identify hazards, and implementing control measures in a planned and consistent manner with greater and greater degrees of competency.

However it is not the strategy to solely look to the worker for continuous improvement – the review of the FLHA card whether it be through dialogue or post shift review is a first

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step to continuous improvements to the JHA process and by extension to the PMRA process.

A review, as suggested above is a proactive measure to promote the Continuous Improvement (CI) cycle of Plan, Do, Check, Act of our ability to use risk management processes to better identify hazards and implement effective controls. The review is the “Check” in the CI cycle of Risk Management. The review should include, but look beyond only the “administration” the card. The review should provide an assurance that the worker has adequate knowledge of how the task(s) will be performed and the capability to perform the task with the necessary control measures.

Ultimately if a review uncovers unidentified hazards or substandard/missing controls the reviewer would be prompted to initiate a check and adjustment of the JHA and perhaps even the PMRA tool.

## 8.0 REFERENCE

Pre - Mobilization Risk Assessment (PMRA) Procedure (NAPG-RA-SPI-0002)  
 Job Hazard Analysis (JHA) Procedure (NAPG-RA-SPI-0002)  
 Job Hazard Analysis Worksheet

## DOCUMENT END

### Appendix A: FLHA Card