

icon Mechanical	Document Number: 0002
Safety Program	
PRE-TASK PLANNING & WORKER SAFETY ENGAGEMENT	
Authorized By: Joe Shryock	Revision #: 02 Effective Date: 10/26/2018

1.0 Purpose

The purpose of this documented Safety Program is to provide icon Mechanical field management employees with icon Mechanical requirements for Pre-Task Planning and Worker Safety Engagement. This Safety Program establishes a pre-task plan process to evaluate hazards and establish safe methods of performing the work for key steps of an activity or task.

2.0 Scope

This documented safety program applies to all operations managed by where pre-task planning and worker safety engagement processes are required.

3.0 Definitions

360 Risk Assessment- The concept and awareness of a dynamic buffer zone between the Contractor Worker, various hazards and others to control the hazard(s).

Hazard - A source, situation or act with a potential for harm in terms of injury or illness, damage to property and/or processes.

Job Safety Analysis (JSA) - A form of work instructions that clearly identifies the key steps and hazards for High Risk Activities being performed and the safe control methods to mitigate those hazards.

Management of Change (MOC): Change control procedure for modifications, deviations or the identification of new hazards associated with changes to people, property or process.

Pre-Task Plans (PTP) - A developed set of work instructions that identifies the steps of the work, these are also referenced as: SOP, TIS, Standardized Work, Safety Plan, Risk Analysis etc.

Prime Contractor – A primary (or tier 1) provider of works or services under a contract with GM to perform specific business activities on behalf of GM at GM sites.

Risk – A combination of the likelihood of an occurrence of hazardous event or exposure(s) and the severity of injury/illness that can be caused by the event or exposure(s).

Risk Assessment: Process of evaluating the risk(s) arising from a hazard(s), taking into account the adequacy of any existing controls, and deciding whether or not the risk is acceptable.

Root Cause: The most basic cause (or causes) that can reasonably be identified that the site has control to fix and, when fixed, will prevent (or significantly reduce the likelihood of) the problem's recurrence.

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Safety Critical Equipment: Equipment, that if not used or maintained correctly, or if fails, has the potential to produce significant loss to people, property, and/or processes. Examples include respirators, mobile equipment and any equipment used for lifting and rigging, personal fall arrest, electrical safe work and confined space rescue.

Safety FMEA (Failure Mode and Effects Analysis)– A matrix to evaluate risk of an activity or task using the following formula: “Risk = Severity Potential Score x Probability of Occurrence Score x Frequency of Exposure Score x Number of People Exposed Score”. The result will determine the level of detail in the Pre-Task Planning process.

Safety Plan – A detailed written plan encompassing all aspects of the Work, including those performed by subcontractors at any tier that will do work at the job-site. Safety Plans must include a detailed review of all aspects of the Project, identification of all tasks that may present a health or safety hazard and contain a strategy for coordinated implementation with Subcontractors, also known as a Job Site Safety Plan.

Safety Observation Tours (SOT): Task observations focused on engaging employees and contractors in conversations about working safely and on positive/negative “work safely” behaviors and conditions.

Sentinel Event – Any work-related injury, property damage, near miss or unsafe act/condition that may result in death.

Special Safety Conditions – Safety requirements issued by GM, applicable to Contractors and its subcontractors, in addition to legal requirements.

Start of Shift meeting- A meeting held by the Contractor with the Contractor Workers to receive their daily job assignment and review the Pre-Task Plan(s) for the work or tasks they will be performing, also known as a pre-shift meeting.

Subcontractor – A secondary (or tier 2, 3, etc.) provider of services to GM under the direct control and contract of a prime or general Contractor.

Worker: Person who performs services for icon Mechanical pursuant to an agreement between GM and icon Mechanical. A Worker is not a GM employee and remains subject to the control and employment terms of the Contractor Worker's own employer.

Worker Safety Engagement Process – The site safety processes designed to engage contractor workers in safety, which includes: training and orientation, pre-task planning, take two, 360 Risk Assessment concept, and Management of Change (1+3 Approach, Change Validation Checklist).

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4.0 Requirements

4.1 Planning

Icon Mechanical's Safety Dept. has developed and published this safety program to establish minimum requirements relating to Pre-Task Planning and Worker Safety Engagement. This documented safety program has been written to meet the regulatory and contractual requirements outlined in General Motor's Special Safety Conditions. This documented safety program includes the following minimum elements:

- A pre-task plan template
- Established clear roles and responsibilities for icon Mechanical leaders and workers
- A Risk Assessment/Safety FMEA model to evaluate safety risk
- A JSA / Work Instruction template for all Medium / High Risk Tasks
- A Worker Safety Engagement tool to be used to identify changes in the work environment that pose additional risks to people, property or product.

4.2 Implementation

4.2.1 Roles & Responsibilities

The following are the minimum icon Mechanical worker roles and responsibilities:

Site or Project Senior Leader

- Assign resources to execute this Pre-Task Plan program
- Approve Medium / High Risk Activities
- Conduct weekly Safety Observation Tours on Medium / High Risk activities to review and ensure the worker safety engagement process is followed
- Respond to worker concerns regarding the program

Site or Project Managers

- Support Front Line Supervisors, General Forman and Safety Resources in conducting Risk Assessment/Safety FMEA risk assessments
- Approve JSA for Medium / High Risk activities
- Conduct weekly Safety Observation Tours on Medium / High Risk activities to review and ensure the worker safety engagement process is followed
- Lead by example, set expectations and teach and coach Front Line Supervisors regarding the Pre-Task Plan and Worker Safety Engagement process
- Require sub-contractors to comply with the companies Pre-Task Plan process and integrate them into the program

Front Line Supervisors / General Forman

- Conduct Risk Assessment/Safety FMEA Risk Assessments with support from Safety Resources and Site or Project Managers
- Approve JSA for Medium / High Risk activities
- Review JSA with contractor workers during Start of Shift meetings
- Require and support workers in completing the Worker Safety Engagement process and drive hazard recognition on the shop floor

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- Conduct daily Start of Shift meetings to review daily work assessments and review JSAs and de-brief meetings to address lessons learned with workers
- Conduct daily Safety Observation Tours on Medium / High Risk activities to review and ensure the worker safety engagement process is followed
- Lead by example, set expectations and teach and coach Front Line Supervisors regarding the Pre-Task Plan and Worker Safety Engagement process

Safety Representatives

- Support Front Line Supervisors, General Foreman, and Site Project Managers in conducting Risk Assessment/Safety FMEA risk assessments
- Provide technical expertise into the JSA process
- Approve Work Instructions / JSA for Medium / High Risk activities
- Conduct daily Safety Observation Tours on Medium / High Risk activities to review and ensure the worker safety engagement process is followed
- Provide workers with hazard recognition training to support the Worker Safety Engagement process
- Provide workers with continuous improvement in hazard recognition
- Lead by example, set expectations and teach and coach Front Line Supervisors, General Foreman, and Project Managers regarding the Pre-Task Plan and Worker Safety Engagement process

Workers

- Conduct hazard recognition, evaluation and control each shift and during the work activities using the Worker Safety Engagement process.
- STOP work when new hazards are recognized or a deviation is necessary from the standardized work or JSA
- Notify your Front Line Supervisor of any safety concerns identified

4.3 Part 1 – Job Safety Analysis / Work Instructions

The General Foreman will complete a JSA / Work Instructions for all Medium / High Risk Tasks. The following are the minimum requirements of the JSA process:

- A hazard analysis matrix will be used that includes the following 4 columns:
 1. Critical Risk Indication: A visual Indicator to highlight Critical or Higher Risk Steps that involve the safety of the worker
 2. Key Steps: The key steps to the activity to be performed
 3. Hazards: The hazards associated with the key steps
 4. Safe Method/Control: The safe method(s) or control(s) to be used to mitigate the identified hazards.

4.4 Part 2 – Risk Assessment/Safety Failure Modes Affect Analysis (FMEA)

For each activity on site, the icon Mechanical's Safety Coordinator will conduct a Risk Assessment/Safety FMEA to evaluate the level of risk for the given task following these minimum requirements:

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- The following formula will be used: Risk = Severity Potential Score x Probability of Occurrence Score x Frequency of Exposure Score x Number of People Exposed Score
- The following criteria and justification will be used to determine the scores, used in the above formula:

(SP) - SEVERITY POTENTIAL - [WITHOUT Controls in Place]		
SCORE	CATEGORY	DESCRIPTION (JUSTIFICATION OF SCORE)
15	Fatality	Death of one or more people
10	Critical Life Altering Injury	Loss of two limbs/eyes, both hands, both feet, Paralysis, or serious permanent illness (permanent loss of respiratory function, above mild hearing loss, non terminal disease). Full thickness/third degree burn of > 9% of body. Any injury requiring greater than a week-long hospitalization.
6	Major Life Altering Injury	Loss of one limb/eye, a hand, a foot. Partial thickness/second degree burn of >9% of body. Any injury requiring 2-7 days in the hospital.
4	Life Altering Injury	Loss of digits (fingers/toes), break of major bone (e.g. skull, arm, back, pelvis, leg, rib) or minor permanent illness (e.g. mild hearing loss). Full thickness/third degree burn of <9% of body. Any injury requiring a hospital overnight stay.
2	Reversible Injury	Break of minor bone (fingers, hand, toes, foot) or minor temporary illness (e.g. concussion, sprain or repetitive strain injury). Partial thickness burn 1% to 9% of body. No overnight hospitalization required.
1	Minor Reversible	Laceration or minor ill-health effect or Partial thickness/secondary degree burn <1% of body. First Aid only.

(P) - PROBABILITY OF OCCURRENCE - [Layers of Control in Place]		
SCORE	CATEGORY	DESCRIPTION (JUSTIFICATION OF SCORE)
15	CERTAIN	Typically risks in this category have NO or Minimum controls in place . 80-to 100% chance an injury will occur due to the hazards. An injury will occur immediately when a person comes into contact with the hazard. A person is in the danger zone, or it is highly likely that an accident will happen, such as in the case of a mezzanine without handrails, or a live wire exposed in an occupied area.
8	POSSIBLE	Typically risks in this category are mitigated solely with administrative controls such as standardized work, pre task plans, warning signs, or PPE. The injury will occur if a single person fails to follow directions or follow procedures. 5 to 80% chance an injury will occur due to the hazards. An injury may happen if additional factors precipitate it, but it is unlikely to happen without them. In the presence of the hazard, an additional factor such as vibration, wind, or human carelessness will cause the injury. An incident occurs if a single person fails to follow directions or procedures.
2	UNLIKELY	Typically risks in this category are mitigated with engineering controls and/or several administrative controls (standardized work, pre task plans, training, warning signs and/or PPE) that rely on more than one person or checking processes are in place (e.g. safety observation tours, high risk safety equipment inspections). 1 to 5% chance an injury will occur due to the hazards. If multiple factors are in place an injury may occur, but the probability is low. Multiple people would need to fail to follow directions or follow procedures. For example a person is in an aerial platform without being tied off and the spotter does not remind the worker to use fall protection.

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(F) - FREQUENCY OF EXPOSURE	
SCORE	CATEGORY
5	Constantly [exposed to hazard throughout the task]
4	Intermittently [more than once, exposed to the hazard throughout the task]
2.5	One Time Only [exposed to the hazard once during the task]

(NP) - NUMBER OF PEOPLE EXPOSED	
SCORE	CATEGORY
12	MORE THAN 50 PEOPLE
8	16 TO 50
4	8 TO 15
2	3 TO 7
1	1 TO 2

- Based on the results of the Risk Assessment / Safety FMEA, tasks will fall into the one of the following categories:
 - 0 to 50 – Low
 - 51-160 - Medium
 - 161 to 500 – High
 - 500 and Above – Unacceptable
- The category that the given task falls into will determine what steps will be taken, and what documents will be kept:

For Low Risk tasks the following steps will be taken:

1. When available, follow Work Instructions/Standardized Work
2. Confirm workers received Orientation Training
3. Execute Management of Change if changes occur

For Medium Risk the following steps will be taken:

1. Start of Shift Meeting
2. Emergency Response Plan
3. Applicable Special Safety Conditions
4. Establish Planned Inspections Based on Priority of Risk
 - a. (e.g. Safety Observation Tours (SOT's) or Critical Safety Equipment Inspections)
5. Ensure All Contract Worker(s) Perform Worker Safety Engagement (Part 3) during each shift
6. Planning Questions may be Applicable (See 2.4 Risk Mitigations)
7. Primary Signature from: Seller Supervisor, Seller Representative and Seller Safety Representative and Buyer to Review

For High Risk tasks the following steps will be taken:

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1. All requirements of Low & Medium and a Secondary Signature in Part 2 – Signature Page.

For Unacceptable Risk Tasks the following steps will be taken:

1. Contractor must reduce risk below 500 prior to starting work by applying safety controls.
2. Based on a second Risk Assessment / SFMEA calculation follow the action summary for either Low, Medium, or High Risks.

2.4 RISK MITIGATIONS	
The following are considered higher risk tasks and Risk Mitigation requirements are applicable. If the task involves 1-27 from the list below proceed to fill out "Part 2 - Planning Questions". (This is required regardless of the calculated SFMEA Score)	
<ol style="list-style-type: none"> 1. Use of Aerial Lift 2. Barricading, Perimeter and Opening Protection 3. Blasting 4. Chemical Control (use of Chemicals) 5. Concrete Work & Masonry 6. Working in a Confined Space 7. Demolition (of Utilities, Walls, Framing, Floors etc.) 8. Electrical Cable Pulling 9. Electrical Safety, Electrical Equipment Installation, Service 10. Use of Employee's in Training / Apprentices 11. Excavation and Trenching 12. Fall Hazard Control - Working at Heights 13. Hazardous Energy Control 14. Helicopter Lifts 	<ol style="list-style-type: none"> 15. Industrial Hygiene exposures (e.g. asbestos, lead, silica etc.) 16. Material Laydown (Storage of structural steel, piping, and other project materials) 17. Use of Mobile Cranes 18. Mold Remediation 19. Use of Powered Industrial Vehicles 20. Rigging and Lifting Operations 21. Roof Access 22. Roofing Repairs & Replacement 23. Use of Scaffolding 24. Steel Erection 25. Welding / Hot Work 26. Working in a falling objects area 27. Work over tanks with the risk of drowning

4.5 Part 2 – Planning Questions

The following Medium/High-Risk planning questions will be answered as part of the Risk Assessment/SFMEA process:

- 1) Is there any way to eliminate, substitute, or to use engineering controls to eliminate or restrict exposure to the hazards?
- 2) Are there any work instructions, previous JSAs or standardized work for this activity?
- 3) Are there any applicable GM Risk Mitigation Requirements included in GM's Medium Risk Safety Requirements or Special Safety Conditions for this activity? (noted from 2.4 Risk Mitigations)
- 4) Are there any GM specifications included in the contract for the work to be performed?
- 5) Does this work require assistance or support from a professional engineer, or safety professional, or qualified Subject Matter Expert to develop: engineering drawings, rigging calculations, working at heights anchorage point calculations, assessment of critical equipment, licenses/certifications, or other supportive documentation to be attached to this JSA?
- 6) For any critical equipment or personal protective equipment used, have you verified that required preventive maintenance has been completed?
- 7) If pre-use or pre-operational inspection is required is it a part of the work instructions?
- 8) Does this activity require a permit (e.g. confined space, roof access, hot work, etc.)?

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- 9) For work involving hazardous energy, have you considered all energy sources and the safe method of control/verification?
- 10) Is there a need for specialized training and the assigned workers have received such training?
- 11) Does the task involve the use of a Powered Industrial Vehicle? If YES, have you validated that the vehicle has been inspected (maintenance records) in the past year for all Safety Equipment (brakes, lights, horn, siren etc.)? Does the JSA include mitigation if working or parked on an incline?
- 12) Have all required permits been completed?

4.6 Signatures

All Pre Task Plans will include icon Mechanical approval and GM Review sign-off based on the Risk Score according to the following:

Low Risk (Risk Assessment/Safety FMEA score of 0 to 50)

- No icon Mechanical Approval is necessary
- No GM Review is necessary

Medium Risk (Risk Assessment/Safety FMEA score of 51 -160)

- All requirements outlined in Low Risk,
- Daily Worker Engagement Process and
- icon Mechanical approval
 - Front Line Supervisor / General Foreman for the activity must review and approve the pre task plan prior to the work beginning.
 - Prime Contractor Representative
 - In addition, any engineering or safety personnel who supported the pre task plan development must also sign off as necessary.
- GM Review:
 - One Authorized GM PTP reviewer must review and sign that the contractor followed the pre task plan process.

High Risk (Risk Assessment/Safety FMEA score of 161 - 500)

- All requirements outlined in Low and Medium
- icon Mechanical approval
 - A secondary signature from the icon Mechanical Safety Manager must approve the pre task plan
- GM Review:
 - A secondary Authorized GM Reviewer must review and sign that the contractor followed the pre task plan process.

4.7 Worker Training & Communication

Supervisors will review the JSA / Work Instructions with all affected Contractor Workers at least:

- During the initial Start of Shift Meeting

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- When the JSA or Work Instructions change
- When new Contractor Workers are assigned to the work
- At Least Monthly

4.8 Part 3 – Worker Safety Engagement Process

Supervisors will require Workers to conduct a Worker Safety Engagement Process at the start of the shift that meets the following minimum requirements:

- Workers will complete the following minimum steps:
 - 1) Emergency Response Plan: Workers will write in any emergency or contingency plans for the work to be performed that includes the following minimum questions:
 - i. Is a rescue plan necessary? (e.g. working at heights, confined space rescue plan, chemical spill response)
 - ii. Is any Safety Critical Equipment necessary to perform the rescue? Is it available and inspected accordingly?
 - iii. What steps are necessary to perform the rescue?
 - 2) Worker Verification: Workers will verify that all workers assigned for this activity have met the following conditions:
 - i. Have all crew members completed Safety Orientation, Management of Change, and any other site specific training or access requirements?
 - ii. Have all workers reviewed the Job Safety Analysis (JSA) or standardized work?
 - iii. Does the JSA or standardized reviewed cover the task you are being asked to perform?
 - iv. Have all pre-inspections been conducted (e.g. mobile equipment, tools, safety critical equipment)
 - 3) On Job Site Hazard Recognition:
 - i. All workers assigned to the activity will walk the job site together and identify their individual and team's Safe Work Zone, as outlined in section 4.9 of this documented program.
 - ii. During the job site review, workers will also identify any new or additional environmental, adjacent or proximity hazards to include the following:
 - Additional Hazardous Motion
 - Additional Lockout Required
 - New Slip or Trip Hazard
 - New Pinch Points or Laceration Hazards
 - New Fall Hazard
 - New Fire/Explosion Hazard
 - Additional/Other Workers in the Area
 - New Mobile Equipment Hazard
 - Additional PPE required and Available (Example Full Face shields, Respirator, goggles, Ear Plugs, Seat Belts, etc.)
 - Additional Rigging Hazard

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- Additional Barricades/Safety Tape Needed
- New Hazardous Materials/Chemicals
- Additional Production Vehicle Activity
- Working in Isolation Now (Working Alone) or in a confined space
- Additional Permits/Interruption Requests Needed
- Has anything changed since the last shift/time the crew performed the work

- iii. During the course of the work, workers will STOP work if a new hazard is recognized or a deviation is needed from the JSA
- iv. All new hazards or deviations from the JSA will be written on the form.
- v. Supervisors will review each written item and sign off to verify the change throughout the course of the day.

- 4) Supervisor will conduct a de-brief with workers and document on the Worker Safety Engagement form. Lessons learned will be shared during the next Start of Shift Meeting and the JSA will be updated as necessary.

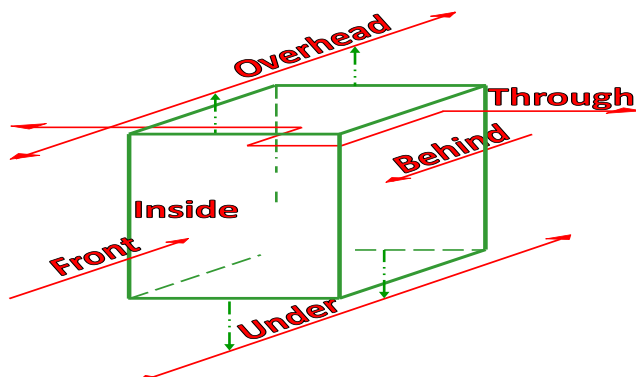
4.9 Safe Work Zone Requirements

Part 3 of the Pre-Task Plan Template requires each worker to be aware of hazards in their Safe Work Zone. The icon Mechanical agrees to utilize a Safe Work Zone process that meets the following minimum requirements:

- Identify hazards that will interact with the worker or the team's Safe Work Zone: Overhead, Through, Behind, Front, Underneath, or Inside.
- When multiple workers are present, the team must determine the team's safe work zone and account for positioning of the team.

The Safe Work Zone is a technique that assists icon Mechanical employees in hazard recognition.

As an example diagram:



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4.10 Start of Shift Meetings

icon Mechanical agrees to require its employees to discuss safety topics at the beginning of each shift. This may include:

- i)** a safety talk
- ii)** initial review of key safety steps within a work instruction or within a change to a work instruction,
- iii)** instruction to workers that they are required to stop work and contact their supervisor if a change occurs in their work area or if they need to deviate from the work instructions while performing the work.

If multiple companies are performing tasks in the same area, all companies and affected workers must be present to discuss how the tasks interact and to assess additional hazards that may be introduced by the activities of others.

4.11 Training Requirements

Upon request, icon Mechanical or its subcontractor must provide written documentation showing that its employees or its subcontractor's employee have completed required safety training.

icon Mechanical must train each employee who supervises others about GM requirements before entry onto GM premises where the work is to be performed. This training must be documented and include, (i) GM orientation requirements, (ii) site orientation for icon Mechanical representatives who supervise others, including information about icon Mechanical Safety Program, (iii) pre-task plan requirements defined in Section 4, (iv) Take Two process, including Safe Work Zone concept, and (iv) icon Mechanical's management of change process.

icon Mechanical must train or validate training of its non-supervisory employees prior to allowing the employee's entry onto GM premises to perform work. This training must be documented and include, (i) orientation for icon Mechanical workers, (ii) training required to perform the Risk Mitigation Requirements applicable to the project, (iii) all additional specific safety training related to the task (e.g., mobile equipment operator training, fall hazard training, confined space training, etc.), (iv) pre-task plan requirements to the extent required to comprehend and follow a pre-task plan, (v) Take Two process, including Safe Work Zone concept, and (vi) icon Mechanical's management of change process.

4.12 Control of Documents and Records

icon Mechanical acknowledges that we will keep all documents and records related to PTP and Worker Safety Engagement, and will ensure all documentation that might be needed by any worker or to be reviewed by GM is easily accessible and retained according to the following:

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- Work Instructions/JSA, Safety FMEA and Worker Safety Engagement forms will be made available to GM upon request
- JSAs will be available to workers at all times
- Worker Safety Engagement forms will be at the job site location for the duration of the shift and turned in once the de-brief has been completed
- Completed Worker Safety Engagement forms will be used to determine necessary updates to JSAs and to identify lessons learned to be shared at the next Job Line Up Meeting.
- Documentation pertaining to training of all workers will be retained for the duration of employment.

icon Mechanical will use the following location and method for storing completed forms: (icon job trailer)

4.13 Planned Inspection Process

icon Mechanical agrees to perform planned inspections to monitor the effectiveness of our Safety Plan on an on-going basis and correct any defects or issues in the plan or any of its components. The planned inspection program must be submitted by icon Mechanical for GM Review. At GM's discretion, it may participate in icon Mechanical's planned inspections. Where GM participates, icon Mechanical may not rely upon GM to identify safety concerns during this inspection. The following are the minimum types of planned inspections that must be part of the process:

- Medium/High Risk Tasks execution and adherence to the established Risk Control Methods
- Safety Critical Equipment Inspections
- Project Area Safety Observation and Safety Conversation Tours
- Pre-Task Plan Execution Monitoring
- Daily Worker Safety Engagement Process monitoring
- Sub-Contractor Planned Inspections
- Special Safety Conditions and Risk Mitigation Requirements Monitoring

4.14 Planning Job Board (CONSTRUCTION ONLY)

- icon Mechanical will utilize a Planning Job Board to communicate to it's workers and sub-contractor workers who are performing activities in the same area(s).
- The Planning Job Board will have a space for all PTPs, past daily Worker Engagement forms, and a chart showing the various tasks being completed that clearly identifies the risk score for those tasks. This will be done so that all identified hazards can be easily communicated with anyone working in the same areas that icon Mechanical is working.
- The chart that shows all tasks being completed with the Risk Score included will have a space for sign off on any Safety Observation Tours that are completed based on the priority of safety risk. This will help icon Mechanical keep track of the Safety

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Observation Tours that have been completed and ensure that Safety Observation Tours are completed more frequently for the tasks with higher risk scores.

Revision History

Date	Rev #	Change Made	Author(s)
10/26/2018	02	Initial document	icon Mechanical Joe Shryock

PRE-TASK PLAN TEMPLATE
PART 1 - JOB SAFETY ANALYSIS

1.1 PROJECT / TASK DESCRIPTION

Company Name:	Job# / Name:
Prepared by:	Date:
Supervisor:	Contact #:
Proposed Start Date:	Proposed End Date:
Name(s) of supporting engineer or qualified person (if necessary):	
Project / Task Description:	


1.2 JOB SAFETY ANALYSIS OR STANDARDIZED WORK (ADD PAGES IF NECESSARY)

Instructions: If Standardized Work, Task Instruction Sheets, or Standard Pre Task Plan exist, attach it to this JSA or list below. Mark the Critical Cross column for all those Steps that involve a critical hazard, and therefore have controls that must be emphasized to the worker. At a minimum consider the follow key information:

1. Key steps, hazards and control/safe method for the work to be performed
2. Emergency response plan
3. Pre work task steps and post task/cleanup activities that may be hazardous
4. Consider GM Risk Mitigations, GM Safety Specifications included in the contract, engineering drawings, calculations, diagrams, or supporting documents as necessary.

Utilize this symbol to highlight Critical or Higher Risk Steps that involve the safety of the worker



	CRITICAL 	KEY STEPS IN THE TASK	HAZARDS	SAFE METHOD/CONTROL
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				

PRE-TASK PLAN TEMPLATE

PART 2 - Risk Assessment/SAFETY FMEA

2.1 PROJECT / TASK DESCRIPTION

Company Name:	Job# / Name:
Prepared by:	Date:
Supervisor:	Contact #:
Proposed Start Date:	Proposed End Date:
Name(s) of supporting engineer or qualified person (if necessary):	
Project / Task Description:	

2.2 RISK ASSESSMENT / SAFETY FMEA (Failure Modes and Effects Analysis)

Instructions: Complete a Risk Assessment/Safety FMEA FROM THE HAZARDS LISTED FROM PART 1 (JSA) WITH THE CRITICAL IDENTIFIERS - Up to 6. Determine the risk score based on the "SFMEA Instructions" page for Severity Potential, Probability of Occurrence, Frequency of Exposure and # of People Exposed. Complete the Minimum Actions found on the Minimum Action Summary based on the activity with the Highest Risk Score for this task.

CALCULATE THE SFMEA'S FROM THE HAZARDS LISTED FROM PART 1 (JSA) WITH THE CRITICAL IDENTIFIER - Up to 6

Risk Assessment/SAFETY FMEA CALCULATION

RISK = SP (Severity Potential Score) X P (Probability Score) X F (Frequency of Exposure Score) X NP (# of People Exposed Score)

Hazard (I.e. Shock, Electrocution, Falling, Slips, Cut, Fume Inhalation, Crushed, Entangled etc.)	SP Score	P Score	F Score	NP Score	RISK Score

HIGHEST RISK SCORE

2.3 MINIMUM ACTION SUMMARY - BASED ON HIGHEST RISK SCORE FROM ABOVE

SCORE	RISK	MINIMUM ACTION SUMMARY
0- 50	LOW	1. Develop Work Instructions/Standardized Work and perform Job Safety Analysis 2. Confirm workers received Orientation Training 3. Execute Management of Change if changes occur
51 - 160	MEDIUM	1. Start of Shift Meeting 2. Emergency Response and Rescue Plan 3. Applicable Special Safety Conditions - Risk Mitigation Requirements 4. Establish Planned Inspections Based on Priority of Risk (e.g. Safety Observation Tours or Critical Safety Equipment Inspections) 5. Ensure All Contract Worker(s) Perform Worker Engagement (Part 3) During Each Shift 6. Planning Questions may be applicable (See 2.4) 7. Primary Signature from: Seller Supervisor, Seller Representative and Seller Safety Representative and Buyer to Review
161- 500	HIGH	1. All requirements of Low & Medium and a Secondary signature in Part 2 - Signature Page
>500	UNACCEPTABLE	1. Contractor must reduce risk below 500 prior to starting work by applying safety controls. 2. Based on a follow-up Risk Assessment/S-FMEA calculation follow the action summary for either Low, Medium or High Risks.

2.4 RISK MITIGATIONS

The following are considered higher risk tasks and Risk Mitigation requirements are applicable. If the task involves 1-27 from the list below proceed to fill out "Part 2 - Planning Questions". (This is required regardless of the calculated SFMEA Score)

- | | |
|---|--|
| 1. Use of Aerial Lift
2. Barricading, Perimeter and Opening Protection
3. Blasting
4. Chemical Control (use of Chemicals)
5. Concrete Work & Masonry
6. Working in a Confined Space
7. Demolition (of Utilities, Walls, Framing, Floors etc.)
8. Electrical Cable Pulling
9. Electrical Safety, Electrical Equipment Installation, Service
10. Use of Employee's in Training / Apprentices
11. Excavation and Trenching
12. Fall Hazard Control - Working at Heights
13. Hazardous Energy Control
14. Helicopter Lifts | 15. Industrial Hygiene exposures (e.g. asbestos, lead, silica etc.)
16. Material Laydown (Storage of structural steel, piping, and other project materials)
17. Use of Mobile Cranes
18. Mold Remediation
19. Use of Powered Industrial Vehicles
20. Rigging and Lifting Operations
21. Roof Access
22. Roofing Repairs & Replacement
23. Use of Scaffolding
24. Steel Erection
25. Welding / Hot Work
26. Working in a falling objects area
27. Work over tanks with the risk of drowning |
|---|--|

PRE-TASK PLAN TEMPLATE
PART 2 - Planning Questions

2.5 PROJECT / TASK DESCRIPTION

Company Name:	Job# / Name:
Prepared by:	Date:
Supervisor:	Contact #:
Proposed Start Date:	Proposed End Date:
Name(s) of supporting engineer or qualified person (if necessary):	
Project / Task Description:	

HIGHEST RISK SCORE (FROM PART 2 S-FMEA)



2.6 MEDIUM / HIGH RISK TASK PLANNING QUESTIONS

Question	Answer (Yes/No)	If "YES" add Comments
1. Is there any way to eliminate, substitute, or to use engineering controls to eliminate or restrict exposure to the hazards?	Yes or No	
2. Are there work instructions, previous JSAs or standardized work for this activity?	Yes or No	
3. Are there any applicable GM Risk Mitigation Requirements included in GM's Medium Risk Safety Requirements or Special Safety Conditions for this activity (Noted from Section 2.4)?	Yes or No	
4. Are there any GM Safety Specifications included in the contract or Scope of Requirements related to the work to be performed?	Yes or No	
5. Does this work require assistance or support from an engineer, professional engineer, or safety professional?	Yes or No	
6. Is there a need for engineering drawings, rigging calculations, anchorage point calculations, assessment of critical equipment, licenses/certifications, Safety Data Sheets (SDS) or other supportive documentation to be attached to this JSA?	Yes or No	
7. For any critical equipment or personal protective equipment used, have you verified that required preventive maintenance has been completed? If pre-use or pre-operational inspection is required, is it a part of the work instructions?	Yes or No	
8. Does this activity require a permit (e.g. confined space entry, roof access, hot work, etc.)?	Yes or No	
9. For work involving hazardous energy, have you considered all energy sources and the safe method of control/verification?	Yes or No	
10. Is there a need for specialized training? AND Have the assigned workers received such training?	Yes or No	
11. Does the task involve the use of a Powered Industrial Vehicle? If YES, have you validated that the vehicle has been inspected (maintenance records) in the past year for all Safety Equipment (brakes, lights, horn, siren etc.)? Does the JSA include mitigation if working or parked on an incline?	Yes or No	

2.7 PLANNING ACTION SUMMARY

Instructions: Based on the high risk task planning questions above, list additional documentation or actions necessary to complete prior to the start of the job.

#	Action	Responsible	Date Completed
1			
2			
3			

Project / Task Description:

RISK LEVEL	CONTRACTOR APPROVAL		GM REVIEW
	ROLE	SIGNATURE BLOCK	
Low Risk (Score ≤50)	Contractor Worker(s) - Conduct Daily Worker Safety Engagement		None Required
Medium Risk (Score 51 - 160)	1. Direct Supervisor:	SIGNATURE: _____ DATE: _____ 1. _____	1 st GM person to review: Name: _____ Date: _____
	2. Prime Contractor Representative:	2. _____	
	3. Contractor Safety Representative:	3. _____	
Note: Low Risk & Medium Risk Section must be completed.			
High Risk (Score 161 - 500)	4. Prime Contractor Senior Leader on Site:	SIGNATURE: _____ DATE: _____ 4. _____	2 nd GM person to review: Name: _____ Date: _____
Note: Low, Medium Risk and High Sections must be completed.			
Unacceptable Risk >500	Contractor must reduce risk below 500, using the hierarchy of safety controls and then conduct a second Safety FMEA to determine new risk score.		GM will not accept Risk level

GM REVIEW: GM Persons authorized to review Job Safety Analysis (JSA) include GM Contract/Project Manager, Field Safety Resource, Site SCM Champion, the Site Global Workplace Safety Leader/Resources, or anyone trained and authorized by the site champion to review JSAs.

GM Representative's review of a Contractor's JSA, or any safety measure proposed or implemented by the Contractor, is intended for the sole and exclusive benefit of GM. Contractor may not rely upon GM's review as constituting validation of the means, methods, techniques, procedures or equipment.

2.9 WORKER TRAINING & COMMUNICATION

Instructions: Direct Contractor Supervisor must review the Job Safety Analysis, at a minimum, at the following times:

1. During the Start of Shift Meeting
2. When the JSA changes
3. When new contractor workers are assigned to the work
4. At least monthly

PRE TASK PLAN TEMPLATE

PART 3 - DAILY WORKER SAFETY ENGAGEMENT

3.1 PROJECT / TASK DESCRIPTION AND EMERGENCY RESPONSE

Company: _____ Date: _____
Job # / Name: _____

EMERGENCY ACTION PLAN

Emergency Contact Number: _____
(In Plant and/or Outside Phone)

Frontline Supervisor: _____
Overall task Risk SCORE From S-FMEA: _____

DO NOT HANG UP UNTIL TOLD TO DO SO! Be prepared to give: YOUR NAME, LOCATION (building name, column #, address, etc.), and TYPE OF EMERGENCY.
Also contact the following: _____

Specific Task Location (Ex. Column/Bay #, Building)

1. Is a rescue plan necessary (e.g. working at heights rescue, confined space, chemical spill, etc.)?
2. Is any Critical Equipment Necessary to perform the rescue? Is it available and inspected accordingly?

Task Description:

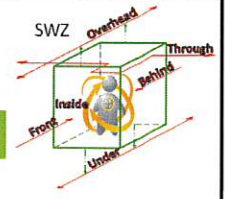
3. What steps are necessary to perform the rescue?

3.2 CREW MEMBER VERIFICATION

<input type="checkbox"/> Y	<input type="checkbox"/> N	1. Have all crew members completed Safety Orientation, Management of Change and any other site-specific training or access requirements?
<input type="checkbox"/> Y	<input type="checkbox"/> N	2. Have all crew members reviewed a Job Safety Analysis (JSA) or standardized work?
<input type="checkbox"/> Y	<input type="checkbox"/> N	3. Does the JSA or standardized work reviewed cover the task you are being asked to perform?
<input type="checkbox"/> Y	<input type="checkbox"/> N	4. Have all pre-inspections been conducted (e.g. mobile equipment, tools, critical equipment)?

3.3 DAILY HAZARD IDENTIFICATION AT THE JOB/TASK LOCATION

Prior to the start of work each shift all Contract Worker(s) **must go to the work location** and conduct individual and team Safe Work Zone evaluations. Use the questions below, and the diagram to the right as a guide to ensure all areas around the work location are evaluated for additional hazards or energy sources found that could potentially Feed Into, Back-Feed Into, Run Overhead, Run Underneath, Run Through, or Be Inside of the SWZ before beginning the task.



TAKE "2" FOR SAFETY

<input type="checkbox"/> Y	<input type="checkbox"/> N	1. Additional Hazardous Motion?	<input type="checkbox"/> Y	<input type="checkbox"/> N	9. Additional PPE required and Available? (Ex. Full-Face Shield, Respirator, Goggles, Ear Plugs, Seat Belts etc..)
<input type="checkbox"/> Y	<input type="checkbox"/> N	2. Additional Lockout Required?	<input type="checkbox"/> Y	<input type="checkbox"/> N	10. Additional Rigging Hazard?
<input type="checkbox"/> Y	<input type="checkbox"/> N	3. New Slip or Trip Hazard?	<input type="checkbox"/> Y	<input type="checkbox"/> N	11. Additional Barricades/ Safety Tape Needed?
<input type="checkbox"/> Y	<input type="checkbox"/> N	4. New Pinch Points or Laceration Hazard?	<input type="checkbox"/> Y	<input type="checkbox"/> N	12. New Hazardous Materials/Chemicals?
<input type="checkbox"/> Y	<input type="checkbox"/> N	5. New Fall Hazard?	<input type="checkbox"/> Y	<input type="checkbox"/> N	13. Additional Production Vehicle Activity?
<input type="checkbox"/> Y	<input type="checkbox"/> N	6. New Fire/Explosion Hazard?	<input type="checkbox"/> Y	<input type="checkbox"/> N	14. Working in Isolation (working alone in a remote location) or in Confined Space?
<input type="checkbox"/> Y	<input type="checkbox"/> N	7. Additional/Other Workers in the Area?	<input type="checkbox"/> Y	<input type="checkbox"/> N	15. Additional Permits/Interruption Requests Needed? (Ex. Hot Work, Confined Space Entry, Roof Access)
<input type="checkbox"/> Y	<input type="checkbox"/> N	8. New Mobile Equipment Hazard?	<input type="checkbox"/> Y	<input type="checkbox"/> N	16. Has anything changed since the last shift/time the crew performed this task?

Any questions answered **"YES"** in Section 3.3 above **MUST** have information added in Section 3.5 of this form.

3.4 MANAGEMENT OF CHANGE

During the work, if any recognized hazard, change to the JSA or standardized work occurs, STOP, and:

1. Complete Section 3.5 of this form
2. Contact your supervisor if the change requires defeating any safety devices (electronically or physically)
3. Contact your supervisor if the change creates or exposes people, property, or process to new hazards



Date: _____

PART 3 - DAILY WORKER SAFETY ENGAGEMENT

Fill in the boxes below to include additional safety information identified in 3.3 before beginning the task. **Note:** if the change introduces a new **MEDIUM/HIGH RISK HAZARD**, you must **STOP**, amend your JSA, recalculate the Risk Assessment/ SFMEA and have acceptance by your Leadership **AND** GM Contract/Project Manger **prior to restarting work.**

3.5 SAFETY ANALYSIS FROM CHANGES IDENTIFIED IN 3.3

STEPS IN THE TASK	HAZARDS	ELIMINATION / CONTROL MEASURES	Supervisor Initials
			<input type="checkbox"/> Y <input type="checkbox"/> N _____
			<input type="checkbox"/> Y <input type="checkbox"/> N _____
			<input type="checkbox"/> Y <input type="checkbox"/> N _____
			<input type="checkbox"/> Y <input type="checkbox"/> N _____

3.6 WORKER SIGNATURE BLOCK - All workers must acknowledge review of JSA/standardized work before beginning the task, and initial post task.

Printed Name:	Signature	Post-Task Initials	
			Upon completion of the task and initializing this form, I confirm to the best of my knowledge that all tasks were performed according to the JSA or standardized work and this review sheet, and that there was no injury or incident during the completion of this task that was not reported to my supervisor.

3.7 DEBRIEF - Contractor worker(s) (with the assistance of the Direct Contractor Supervisor) must answer the following questions after the work has been completed

Questions	Answer		Action(s) / Comments
During the task, did you or the team have to deviate from the JSA or was a new hazard identified requiring the use of the MOC process?	Y	N	
Did any incidents, near misses, or sentinel events occur?	Y	N	
Are all of the tools/equipment used, debris, trash, etc. cleaned up and stored properly?	Y	N	
Does the JSA or standardized work need to be updated? Or are there any lessons learned to be shared at the next job line up meeting?	Y	N	

3.8 FRONT LINE SUPERVISOR REVIEW:

Signature: _____ Date: _____ Time: _____

Review & Signature *at end of task* by the Frontline Supervisor indicates thorough completion of this document by all crew members.

GENERAL NOTES AND COMMENTS

Note: If your job includes or encounters exposure to mold, lead, asbestos or other potentially hazardous conditions, contact your Supervisor and/or Safety Professional as additional safety precautions and procedures must be followed.

Risk Assessment/SAFETY FMEA Instructions

(SP) - SEVERITY POTENTIAL - [WITHOUT Controls in Place]

SCORE	CATEGORY	DESCRIPTION (JUSTIFICATION OF SCORE)
15	Fatality	Death of one or more people
10	Critical Life Altering Injury	Loss of two limbs/eyes, both hands, both feet, Paralysis, or serious permanent illness (permanent loss of respiratory function, above mild hearing loss, non terminal disease). Full thickness/third degree burn of > 9% of body. Any injury requiring greater than a week-long hospitalization.
6	Major Life Altering Injury	Loss of one limb/eye, a hand, a foot. Partial thickness/second degree burn of >9% of body. Any injury requiring 2-7 days in the hospital.
4	Life Altering Injury	Loss of digits (fingers/toes), break of major bone (e.g. skull, arm, back, pelvis, leg, rib) or minor permanent illness (e.g. mild hearing loss). Full thickness/third degree burn of <9% of body. Any injury requiring a hospital overnight stay.
2	Reversible Injury	Break of minor bone (fingers, hand, toes, foot) or minor temporary illness (e.g. concussion, sprain or repetitive strain injury). Partial thickness burn 1% to 9% of body. No overnight hospitalization required.
1	Minor Reversible	Laceration or minor ill-health effect or Partial thickness/secondary degree burn <1% of body. First Aid only.

(P) - PROBABILITY OF OCCURRENCE -[Layers of Control in Place]

SCORE	CATEGORY	DESCRIPTION (JUSTIFICATION OF SCORE)
15	CERTAIN	Typically risks in this category have NO or Minimum controls in place . 80-to 100% chance an injury will occur due to the hazards. An injury will occur immediately when a person comes into contact with the hazard. A person is in the danger zone, or it is highly likely that an accident will happen, such as in the case of a mezzanine without handrails, or a live wire exposed in an occupied area.
8	POSSIBLE	Typically risks in this category are mitigated solely with administrative controls such as standardized work, pre task plans, warning signs, or PPE. The injury will occur if a single person fails to follow directions or follow procedures. 5 to 80% chance an injury will occur due to the hazards. An injury may happen if additional factors precipitate it, but it is unlikely to happen without them. In the presence of the hazard, an additional factor such as vibration, wind, or human carelessness will cause the injury. An incident occurs if a single person fails to follow directions or procedures.
2	UNLIKELY	Typically risks in this category are mitigated with engineering controls and/or several administrative controls (standardized work, pre task plans, training, warning signs and/or PPE) that rely on more than one person or checking processes are in place (e.g. safety observation tours, high risk safety equipment inspections). 1 to 5% chance an injury will occur due to the hazards. If multiple factors are in place an injury may occur, but the probability is low. Multiple people would need to fail to follow directions or follow procedures. For example a person is in an aerial platform without being tied off and the spotter does not remind the worker to use fall protection.

(F) - FREQUENCY OF EXPOSURE [to the hazard DURING the Task, not the Shift]

(NP) - NUMBER OF PEOPLE EXPOSED

SCORE	CATEGORY	SCORE	CATEGORY
5	Constantly [exposed to the hazard throughout the task]	12	MORE THAN 50 PEOPLE
4	Intermittently [more than once, exposed to the hazard throughout the task]	8	16 TO 50
		4	8 TO 15
2.5	One time only [exposed to the hazard once during the task]	2	3 TO 7
		1	1 TO 2

Note: Only values listed above can be used for SFMEA calculations