|  |  |
| --- | --- |
| C:\Users\22387\AppData\Local\Microsoft\Windows\INetCache\Content.Outlook\RP0KGXYV\OTML_LogoRGB-Tagline.png | **JOB SAFETY ANALYSIS - (JSA Form)**  **ALL PERSONS PERFORMING WORK UNDER THIS JSA MUST COMPLETE THE SIGN-ON SECTION PRIOR TO COMMENCING WORK**  **Zero Harm - Nobody Gets Hurt** |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **OTML  Contractor:** | | |  | | | **Department:** | |  | | | **Site Name:** | |  | | | | **Location:** |  | |
| **Description of**  **the Job:** |  | | | | | | | | | | **Effective Date:**  **Is there a SWP for this task?** | | **Yes  No** | | | | **JSA No.:**  **Version No.:** | Eg MW06-ref-??? | |
|  | | | | | | | | | | | | | | | | | | | |
| **Team members that developed the JSA** | | | | | | | | | | **Equipment Name:** | |  | | | | **Equipment No.:** | | |  |
| **Name & ID** | | | | **Skill** | | | **Signature** | | | **Highest ranked risk with controls:** | |  | | | | **Work Order No.:** | | |  |
|  | | | |  | | |  | | | **Equipment/Tools Name:** | | | | | | **Equipment/Tools No.:** | | | |
|  | | | |  | | |  | | |  | | | | | |  | | | |
|  | | | |  | | |  | | |  | | | | | |  | | | |
|  | | | |  | | |  | | |  | | | | | |  | | | |
|  | | | |  | | |  | | |  | | | | | |  | | | |
|  | | | |  | | |  | | |  | | | | | |  | | | |
|  | | | |  | | |  | | |  | | | | | |  | | | |
| **Isolation Required?** | | **Yes (Group or DWA)** | | | **No** | | | | **Nil Isolation** |  | | | | | |  | | | |
| **Permit / Certificate Required?** | | | | | | | | | |  | | | | | |  | | | |
| **None** | | | | **ATW Permit** | | | **Dual Worker Authority** | | | **Control Equipment Required:**  \*(Fire Extinguisher, Rescue Plan/Equip, Barricading, etc.) | | | | |  | | | | |
| **Hot Work\*** | | | | **Radiation** | | | **High Voltage Vicinity** | | |
| **Work at Height\*** | | | | **Excavation /** | | | **High Voltage Access** | | | **Hazardous Materials or** | | | | |  | | | | |
| **Confined Space\*** | | | | **Trenching / Unearthing\*** | | | **High Voltage Test** | | | **Special PPE / Tools Required:** | | | | |
| **JSA Reviewed By**  **(Team Leader) name/sign:** | | | |  | | | | | | **JSA Reviewed By**  **(ATW Issuer) name/sign:** | | | |  | | | | | |

| **POTENTIAL HAZARD/ RISKS WHICH MAY BE COMMONLY PRESENT** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **People**   * Awkward working posture * Manual handling (Lifting lowering, pushing pulling) * Electrical Circuit energised * Can machine be accidentally started * Can the machine roll * Can I hurt someone? | **Equipment**   * Tapping into cooling systems * Breaking hydraulics lines or components * Set of fire suppression systems * Using lifting slings or cranes * Jacking machine up * Stored energy sources (air, hydraulic, etc) | | **Environment**   * Hazardous Chemical * Rotating components nearby * Operator assistance required * Noise, Compressed air * Tasks performed alone in remote are (in the field) * Follow MSDS * Chance of spills or pollution? | | **Process and procedures**   * Using electrical equipment * People working below * Falling objects * Exposure to exhaust fumes/gases * Working at height * Working near hot surfaces (eg. Turbo or exhaust * Isolation) | | **Permits**   * Hot Work (welding, grinding, oxy, cutting, brazing etc.) * Confined Space Entry * Work at Height * Excavation * Live work task * Man-lift box |
| **JSA has been developed from supporting details in the below referenced Key Control Data Sheet documents.** | | | | | | | |
| **Major Hazard Scenario** | | **Key Control Data Sheet (KCDS) No.:** | | **Major Hazard Scenario** | | **Key Control Data Sheet (KCDS) No.:** | |
|  | |  | |  | |  | |
|  | |  | |  | |  | |
|  | |  | |  | |  | |

| **Task Step Description / Identified Hazards and Risk Rating (List the steps required to perform the task in the sequence they are to be carried out)** | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Step # | Job Step / Task Description | Hazards | Controls | Risk Rating  (with controls) | Responsibility Operator / Worker | Responsibility Supervisor | In Place (Y/N) | Reviewer  Checked | Reviewer  Remarks |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Approval based on Risk Rating** | | | | | | | | | |
| **Highest Risk Rating Score (with controls included):** | | |  | | **Approval Level required:** | |  | | |
| **Approval based on Risk Rating Matrix. I have performed all notifications and received approvals relevant to the Task Hazard Ranking.** | | | | | | | | | |
| Supervisor name: |  | | | Supervisor signature: | |  | | Date: |  |
| **Approval is within the Approval Ranking matrix. I have been informed of the risks and controls in place and approve the work to be completed under this JSA.** | | | | | | | | | |
| Approver name: |  | Approver Position: | |  | | Approver signature: |  | Date: |  |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **JSA USERS SIGN-ON SHEET**  (Note: User to sign prior job execution) | | | | | | | |  |
| **No.** | **Position** | **Name** | **Signature** | **Date** | **No.** | **Position** | **Name** | **Signature** | **Date** |
| **1.** |  |  |  |  | **17.** |  |  |  |  |
| **2.** |  |  |  |  | **18.** |  |  |  |  |
| **3.** |  |  |  |  | **19.** |  |  |  |  |
| **4.** |  |  |  |  | **20.** |  |  |  |  |
| **5.** |  |  |  |  | **21.** |  |  |  |  |
| **6.** |  |  |  |  | **22.** |  |  |  |  |
| **7.** |  |  |  |  | **23.** |  |  |  |  |
| **8.** |  |  |  |  | **24.** |  |  |  |  |
| **9.** |  |  |  |  | **25.** |  |  |  |  |
| **10.** |  |  |  |  | **26.** |  |  |  |  |
| **11.** |  |  |  |  | **27.** |  |  |  |  |
| **12.** |  |  |  |  | **28.** |  |  |  |  |
| **14.** |  |  |  |  | **30.** |  |  |  |  |
| **15.** |  |  |  |  | **Supervisor** (Note: Supervisor to sign after job execution)  **Supervisor’s name: Signature: Date:** | | | | |
| **16.** |  |  |  |  |  | | | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **JSA REVIEW FOR COMPLIANCE** | | | | |
| **Comments:** | | | | |
| **JSA REVISION HISTORY (Where applicable, convert to a SWP)** | | | | |
| **Version:** | **Date:** | **Description:** | **Reviewed By:** | **Approved By:** |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Likelihood Table** | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Level** | | | **Description** | | | | | **Probability (for defined time activities)** | | | | **Criteria (read as either/or)** | | | | | | | | | | | | | |
| **A** | | | ***Almost Certain*** | | | | | 99% chance | | | | The consequence will occur.  The consequence is expected to occur many times per annum or happens often. | | | | | | | | | | | | | |
| **B** | | | ***Likely*** | | | | | 50% chance | | | | The consequence will occur under some circumstances.  The consequence is expected to occur once or twice per annum. | | | | | | | | | | | | | |
| **C** | | | ***Possible*** | | | | | 10% chance | | | | The consequence has happened elsewhere  The consequence typically occurs once in every 5 years | | | | | | | | | | | | | |
| **D** | | | ***Unlikely*** | | | | | 1% chance | | | | The consequence has happened elsewhere.  The consequence is expected to occur once in 15 years | | | | | | | | | | | | | |
| **E** | | | ***Rare*** | | | | | 0.1% chance | | | | The consequence may occur in exceptional circumstances.  The consequence has rarely occurred in the industry and is not expected in the life of the mine. | | | | | | | | | | | | | |
| **Risk Rating Matrix** | | | | | | | | | | | | | | | | | |  | | **Approval Ranking Matrix** | | | | | |
| **Likelihood** | | | | **Consequence** | | | | | | | | | | | | | |  | | **HRI** | **Risk Level** | | **Notification / Approval Level** | | |
| **1** | | | **2** | | | **3** | | | **4** | | | **5** | |  | |
| **A**  **Almost Certain** | | | | **Moderate**  **(11)** | | | **Significant**  **(16)** | | | **Significant**  **(20)** | | | **High**  **(23)** | | | **High**  **(25)** | |  | | **21 – 25** | **High** | | **GM Approval Required (refer to Major Hazard Scenario bowties for risk and control data)** | | |
| **B**  **Likely** | | | | **Moderate**  **(7)** | | | **Moderate**  **(12)** | | | **Significant**  **(17)** | | | **High**  **(21)** | | | **High**  **(24)** | |  | | **14 – 20** | **Significant** | | **Area Manager Approval Required** | | |
| **C**  **Possible** | | | | **Low**  **(4)** | | | **Moderate**  **(8)** | | | **Moderate**  **(13)** | | | **Significant**  **(18)** | | | **High**  **(22)** | |  | | **7 – 13** | **Moderate** | | **Line Manager / Superintendent Supervisor Notification Required** | | |
| **D**  **Unlikely** | | | | **Low**  **(2)** | | | **Low**  **(5)** | | | **Moderate**  **(9)** | | | **Significant**  **(14)** | | | **Significant**  **(19)** | |  | | **1 – 6** | **Low** | | **Front-line Supervisor Approval Required** | | |
| **E**  **Rare** | | | | **Low**  **(1)** | | | **Low**  **(3)** | | | **Low**  **(6)** | | | **Moderate**  **(10)** | | | **Significant**  **(15)** | |  | |  |  | |  | | |
|  | | | | | |  | | | | **↓ Significant Risks ↓** | | | | | | | |  | |  | | | | | |
| **1 – 6 Low** | | | | | | **7 – 13 Moderate** | | | | **14 – 20 Significant** | | | | | **21 – 25 High** | | |  | |  | | | | | |
| **Consequence Table** | | | | | | | | | | | | | | | | | | | | | | | |
| **Level** | **Safety** | | | **Health** | | | | **Environmental** | | **Community** | | | **Reputation** | | | **Production Loss** | | **Financial** | | | **Life of Mine Impact** | | **Compliance** |
| **1** | First Aid Treatment | | | Reversible health effects of little concern, no known or suspected adverse health effects. | | | | < 1 day | | Individual Community Complaint. | | | Local short-term media attention and negative public reaction. | | | < 1 shift | | No effect on Work Schedule, Product and Quality – less than $50,000 loss. | | | Resource loss would have minor impact on life of mine < 1 year. | | Minor technical / legal compliance issue that is dealt with on site.  Incident requires reporting in routine internal incident report system.  Minor breach of internal standards. |
| **2** | Medical Treatment. | | | Health impact requiring medical treatment/intervention, not permanent. | | | | 1 day to 1 week | | Multiple Community Complaint. | | | Local prolonged media attention and negative public reaction. | | | <1 days | | Minimal effect on Work Schedule, Product and Quality - $50,000 - $500,000 loss. | | | Resource loss would have consequences on life of mine > 1 but < 5 years. | | Technical / legal compliance issue which may attract a low-level administrative response from regulator.  Continuing occurrences of minor breaches.  Incident requires reporting in routine reports (e.g., monthly) and to OTML corporate.  Moderate breach of internal standards. |
| **3** | Hospitalisation. | | | Health impact requiring hospitalisation, not permanent. | | | | 1 week to  1 month | | Community stops job or task. | | | Negative reaction by public, or interest groups and short-term national media attention. | | | 1 - 7 days | | Serious effect on Work Schedule, Product and Quality - production halted for 1 day to 1 week - $500,000 - $5,000,000 loss. | | | Resource loss would have substantial consequences life of mine > 5 but < 10 years. | | Serious breach of regulation.  Incident requires immediate (within 48 hours) notification to Government and OTML Corporate).  Major breach of internal standards. |
| **4** | Single fatality. | | | Chronic health effects causing illness or partial impact on body function. | | | | > 1 month | | Community shuts site. | | | Widespread public discontent  Prolonged adverse national media attention or coronial inquest. | | | > 7 days | | Major effect on Work Schedule, Product and Quality - 1 week to 1 month production suspended - $5,000,000 to $20,000,000 loss. | | | Resource loss would have severe consequences on life of mine > 10 years. | | Major breach of regulation resulting in investigation by regulator.  Prosecution, penalties, or other action likely. |
| **5** | Multiple fatalities. | | | Life threatening or permanent disability or long-term chronic health effects or illness, major impact on body function. | | | | Permanent environmental impact. | | Community outrage resulting in violence, significant damage to company property, attacks on staff. | | | Widespread public condemnation  Long-term media condemnation or formal Government inquiry. | | | > 1 month | | Project suspended for more than 1 month – more than $20,000,000 lost revenue. | | | Resource loss would have permanent consequences on life of mine. | | Operation suspended; licenses revoked. |

This Page Has Been Left Blank Intentionally