# Electro-Fusion Jointing | SAFE WORK METHOD STATEMENT (SWMS)

**TASK OR ACTIVITY: Electro-Fusion Jointing**

| | | | |
|---|---|---|---|
| Business Name: | | ABN: | SWMS# |
| Business Address: | | | |
| Contact Person: | Phone: | Email: | |

## THIS SAFE WORK METHOD STATEMENT IS APPROVED BY THE PCBU OF THIS PROJECT

Under the Work Health and Safety Regulation (WHS Regulation), a person conducting a business or undertaking (PCBU) is required to ensure that a safe work method statement (SWMS) is prepared before the proposed work starts.

| | | |
|---|---|---|
| Full Name: | | |
| Signature: | Title: | Date: |

Details of the person(s) responsible for ensuring implementation, monitoring and compliance of the SWMS as well as reviews and modifications of the SWMS.

| | | |
|---|---|---|
| Full Name: | Title: | Phone: |

| ALL PERSONNEL PARTICIPATING IN ANY ACTIVITY ON THIS SWMS MUST HAVE THE FOLLOWING COMMUNICATED | NAME OF ALL RELEVANT PERSONNEL WHO HAVE BEEN CONSULTED AND COMMUNICATED TO IN THE DEVELOPMENT AND APPROVAL OF THIS SWMS |
|---|---|
| Safety meetings or toolbox talks will be scheduled in accordance with legislative requirements to first identify any site hazards, assess risk to communicate those hazards and then to further take steps to either eliminate or control each hazard. | |
| If an incident or a near miss occurs, all work must stop immediately. Depending on the severity of the incident, a meeting will be called with all workers to amend the SWMS if required. The meeting may also be an educational opportunity. | |
| Any changes made to the SWMS after an incident or a near miss must be approved by the Person Conducting Business or Undertaking and communicated to all relevant personnel. | |
| The SWMS must be kept and be available for inspection at least until the work is completed. Where a SWMS is revised, all versions should be kept. If a notifiable incident occurs in relation to which the SWMS relates, then the SWMS must be kept for at least two years from the occurrence of the notifiable incident. | |

| CLIENT OR PRINCIPAL CONTRACTOR DETAILS | |
|---|---|
| Client: | SCOPE OF WORKS |
| Project Name: | |
| Project Address: | |
| Project Manager: | |
| Contact Phone: | |
| Date SWMS supplied to Project Manager: | |

| ANY HIGH-RISK CONSTRUCTION WORK BEING CARRIED OUT | |
|---|---|
| ☐ involves a risk of a person falling more than 2 meters | ☐ is carried out on or near pressurised gas mains or piping |
| ☐ is carried out on a telecommunication tower | ☐ is carried out on or near chemical, fuel or refrigerant lines |
| ☐ involves demolition of an element of a structure that is load-bearing | ☐ is carried out on or near energised electrical installations or services |
| ☐ involves demolition of an element related to the physical integrity of structures | ☐ is carried out in an area that may have a contaminated or flammable atmosphere |
| ☐ involves, or is likely to involve, disturbing asbestos | ☐ involves tilt-up or precast concrete |
| ☐ involves structural alteration or repair that requires temporary support to prevent collapse | ☐ is carried out on, in or adjacent to a road, railway, shipping lane or other traffic corridor |
| ☐ is carried out in or near a confined space | ☐ is carried out in an area of a workplace where there is any movement of powered mobile plant |
| ☐ is carried out in/near a shaft or trench deeper than 1.5 m or tunnel involving use of explosives | ☐ is carried out in areas with artificial extremes of temperature. |
| ☐ is carried out in or near water or other liquid that involves a risk of drowning. | ☐ involves diving work. |

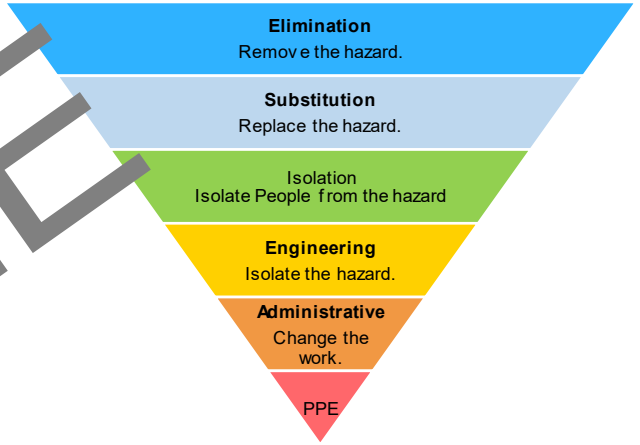
| ANY HIGH-RISK MACHINERY OR EQUIPMENT NEARBY |
|---|
| |

## RISK MATRIX

| LIKELIHOOD | INSIGNIFICANT | MINOR | MODERATE | MAJOR | CATASTROPHIC | SCORE | ACTION |
|---|---|---|---|---|---|---|---|
| ALMOST CERTAIN | 3 HIGH | 3 HIGH | 4 ACUTE | 4 ACUTE | 4 ACUTE | | |
| LIKELY | 2 MODERATE | 3 HIGH | 3 HIGH | 4 ACUTE | 4 ACUTE | 4A ACUTE | DO NOT PROCEE |
| POSSIBLE | 1 LOW | 2 MODERATE | 3 HIGH | 4 ACUTE | 4 ACUTE | 3H HIGH | Review befo work starts. |
| UNLIKELY | 1 LOW | 1 LOW | 2 MODERATE | 3 HIGH | 4 ACUTE | 2M MODERATE | Ensure control measures in place. |
| RARE | 1 LOW | 1 LOW | 2 MODERATE | 3 HIGH | 3 HIGH | 1L LOW | nitor and ke records |

**Notes on Hierarchy of Controls:** Elimination methods are the most effective and preferr en co lling a hazard. Substitution is the second most effective method of controlling a hazard. Engineering by isolation is the most e tive, while Administrative Controls by changing the work is the fourth most effective method. PPE (Personal Prote ve quipm ) is the least effective method.

HEIRARCHY OF CONTROLS






## PERS NAL P TECTIVE EQUIPMENT (PPE)

**Select the appropriate PPE abo suitable for the equipment used or the job task being performed (if applicable).**

| FOOT PROTECTION | HAND PROTECTION | HEAD PROTECTION | HEARING PROTECTION | EY PROTECTION | RESPIRATORY PROTECTION | FACE PROTECTION | HIGH-VIS CLOTHING | PROTECTIVE CLOTHING | FALL PROTECTION | SUN PROTECTION | HAIR/JEWELLERY SECURED |
|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  |  |  |  |  |  |  |  |  |  |  |
| ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

Other PPE Required:

| Permit or Licenses Requirements | Mandatory Qualifications and Training |
|---|---|
| | |

| JOB STEP | POTENTIAL HAZARDS | IR | CONTROL MEASURES | RR |
|---|---|---|---|---|
| SPECIFIC WORK STEPS | HAZARDS THAT MAY ARISE | INITIAL RISK | SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS | RESIDUAL RISK |
| 1. Preparation | Slips, trips and falls, Incorrect use of tools | 2M | - Conduct a thorough risk assessment before commencing work to identify potential hazards related to slips, trips, and falls, as well as incorrect tool use.<br>- Maintain a clean and organised work area to minimise the risk of slips, trips, and falls.<br>- Clearly mark any hazards that could contribute to slips, trips, and falls, such as wet areas, loose cords, or uneven surfaces.<br>- Provide comprehensive training for all workers on the correct use of tools required for electro-fusion jointing.<br>- Ensure all workers wear appropriate personal protective equipment (PPE) including slip-resistant footwear.<br>- Regularly inspect tools and equipment for any signs of damage or wear and replace or repair as necessary.<br>- Implement a buddy system for tasks requiring tool use to ensure safety practices are upheld.<br>- Provide non-slip mats in areas prone to becoming slippery.<br>- Keep tools and equipment properly stored when not in use to prevent accidental trips or falls.<br>- Use cord management systems to organise and secure electrical leads and hoses away from walkways.<br>- Ensure adequate lighting is available in all working areas to improve visibility and reduce the chance of accidents.<br>- Enforce a strict policy regarding the cleanliness and tidiness of the workspace at the end of each shift to prepare safely for the next period of activity. | 1L |
| 2. Setup Equipment | Electrical Hazards, Improper setup | 3H | - Conduct a thorough risk assessment before starting the job to identify potential electrical hazards and ensure all necessary control measures are in place.<br>- Ensure that only qualified and trained personnel are involved in setting up and operating the equipment to reduce the risk of improper setup.<br>- Use insulated tools and wear appropriate personal protective equipment (PPE) such as rubber gloves, safety shoes, and insulating mats to protect against electrical shocks.<br>- Verify that all electrical equipment is properly grounded before use to prevent any accidental electrical discharge.<br>- Check whether all electro-fusion equipment and accessories have intact insulation and are free from visible damage or defects.<br>- Implement lockout/tagout procedures to ensure that the equipment is not powered while it is being set up or if maintenance is required.<br>- Provide workers with clear instructions and training on the correct procedures for setting up and using the equipment safely. | 2M |

| JOB STEP | POTENTIAL HAZARDS | IR | CONTROL MEASURES | RR |
|---|---|---|---|---|
| SPECIFIC WORK STEPS | HAZARDS THAT MAY ARISE | INITIAL RISK | SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS | RESIDUAL RISK |
| | | | - Regularly inspect power cords, plugs, and sockets for damage or wear and replace them if necessary to maintain safe operation.<br>- Set up the equipment away from water sources and ensure the working area is dry to prevent electrical hazards.<br>- Keep flammable materials away from the electrical equipment to reduce fire risk in the event of an electrical fault.<br>- Install circuit breakers or appropriate overload protection to cut off power automatically in case of an overload or short circuit.<br>- Ensure adequate lighting around the work area so that workers can see clearly while handling electrical components, thereby reducing the risk of accidents.<br>- Arrange for periodic maintenance checks to ensure that the equipment continues to operate safely over time.<br>- Create an emergency plan that includes steps for dealing with electric shocks, burns, or other injuries related to electrical equipment and train employees accordingly. | |
| 3. Inspection of Materials | Incorrect materials, Damaged items | 2M | - Ensure all materials are checked against the project specifications to verify that they are correct and suitable for the application.<br>- Establish a thorough inspection checklist that must be completed before materials are used.<br>Train staff on how to identify signs of damage and defects in materials, including cracking, deformations, and any discolouration.<br>Store materials properly prior to use to prevent damage and exposure to detrimental conditions.<br>- Conduct random audits of material batches to ensure consistent quality and adherence to safety standards.<br>- Implement a clear procedure for handling and reporting defective or incorrect materials, ensuring they are not used in the project.<br>- Use only certified and approved materials that meet national safety standards for electro-fusion jointing.<br>- Require suppliers to provide certification and testing reports for each batch of materials delivered.<br>- Set up a designated inspection area with adequate lighting and space to facilitate thorough examination of materials.<br>- Provide appropriate tools for inspection, such as calipers and gauges, to measure and assess material integrity.<br>- Organise regular training sessions on new regulations and updates regarding materials used in electro-fusion jointing.<br>- Maintain documentation of all inspections and assessments carried out, keeping records of any issues found and actions taken.<br>- Ensure continuous communication between the procurement team and the on-ground workers to update any changes in material specs or quality requirements. | 1L |

| JOB STEP | POTENTIAL HAZARDS | IR | CONTROL MEASURES | RR |
|---|---|---|---|---|
| SPECIFIC WORK STEPS | HAZARDS THAT MAY ARISE | INITIAL RISK | SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS | RESIDUAL RISK |
| 4. Joint Alignment | Unsecured joints, Moving parts hazards | 3H | [redacted] | 1L |
| 5. Cleaning Pipe Ends | Chemical exposure, Sharp object injury | 2M | [redacted] | 1L |

| JOB STEP | POTENTIAL HAZARDS | IR | CONTROL MEASURES | RR |
|---|---|---|---|---|
| SPECIFIC WORK STEPS | HAZARDS THAT MAY ARISE | INITIAL RISK | SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS | RESIDUAL RISK |
| | | | [redacted] | |
| 6. Fitting the Fusion Coupler | Crushing injuries, Uncontrolled movement | 3H | [redacted] | 2M |
| 7. Preparing the Fusion Machine | Incorrect setting, Handling heavy objects | 3H | [redacted] | 1L |

| JOB STEP | POTENTIAL HAZARDS | IR | CONTROL MEASURES | RR |
|---|---|---|---|---|
| SPECIFIC WORK STEPS | HAZARDS THAT MAY ARISE | INITIAL RISK | SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS | RESIDUAL RISK |
| | | | [redacted] | |
| 8. Inserting the Pipes into Machine | Moving part hazards, Pinching/crushing injuries | 3H | [redacted] | 2M |

| JOB STEP | POTENTIAL HAZARDS | IR | CONTROL MEASURES | RR |
|---|---|---|---|---|
| SPECIFIC WORK STEPS | HAZARDS THAT MAY ARISE | INITIAL RISK | SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS | RESIDUAL RISK |
| | | | [redacted] | |
| 9. Electrofusion of Joints | Heat injuries, Electrical [redacted] | 4A | [redacted] | 2M |
| 10. Cooling Period | Burns from hot surfaces, Patient handling injuries at the time of releasing the joint | 3H | [redacted] | 2M |

| JOB STEP | POTENTIAL HAZARDS | IR | CONTROL MEASURES | RR |
|---|---|---|---|---|
| SPECIFIC WORK STEPS | HAZARDS THAT MAY ARISE | INITIAL RISK | SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS | RESIDUAL RISK |
| | | | [redacted] | |
| 11. Removal of Fused Joint | Inadequate personal protective equipment, Manual handling injuries | 3H | [redacted] | 2M |

| JOB STEP | POTENTIAL HAZARDS | IR | CONTROL MEASURES | RR |
|---|---|---|---|---|
| SPECIFIC WORK STEPS | HAZARDS THAT MAY ARISE | INITIAL RISK | SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS | RESIDUAL RISK |
| | | | [redacted] | |
| 12. Testing the Joint Integrity | Exposure to pressurised system, Inadequate testing procedures | 3H | [redacted] | 2M |
| 13. Cleaning Up | Chemical exposure, slips, trips and falls | 2M | [redacted] | 1L |

| JOB STEP | POTENTIAL HAZARDS | IR | CONTROL MEASURES | RR |
|---|---|---|---|---|
| SPECIFIC WORK STEPS | HAZARDS THAT MAY ARISE | INITIAL RISK | SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS | RESIDUAL RISK |
| | | | [redacted] | |
| 14. Documentation | Improper reporting of incidents, Miscommunication | 2M | [redacted] | 1L |

| JOB STEP | POTENTIAL HAZARDS | IR | CONTROL MEASURES | RR |
|---|---|---|---|---|
| SPECIFIC WORK STEPS | HAZARDS THAT MAY ARISE | INITIAL RISK | SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS | RESIDUAL RISK |
| | | | [redacted] | |
| 15. Debrief and Equipment Pack Up | Injuries while han[redacted]g equipm[redacted]<br>Misplacement of e[redacted]ipm[redacted] | 2M | [redacted] | 1L |
| | | | | |
| | | | | |
| | | | | |

## EMERGENCY RESPONSE – CALL 000 FOR EMERGENCIES

Ensure to have an Emergency Management Plan in place as well as adequate numbers of trained first aid staff with easy access to fully stocked first aid kits, rescue equipment, material safety data sheets, adequate access to emergency communication equipment and fire-fighting equipment suitable for all classes of fire and ignition sources.

## LEGISLATIVE REFERENCES

RELEVANT LEGISLATION AND CODES OF PRACTICE. DELETE THE LEGISLATIVE REFERENCE IN ANY STATE THAT ARE NOT APPLICABLE

**Queensland & Australian Capital Territory**
Work Health and Safety Act 2011
Work Health and Safety Regulations 2011
Legislation QLD: https://www.worksafe.qld.gov.au/laws-and-compliance/work-health-and-safety-laws
Codes of Practice QLD: https://www.worksafe.qld.gov.au/laws-and-compliance/codes-of-practice
Legislation ACT: https://www.worksafe.act.gov.au/laws-and-compliance/acts-and-regulations
Codes of Practice ACT: https://www.worksafe.act.gov.au/laws-and-compliance/codes-of-practi

**New South Wales**
Work Health and Safety Act 2011
Work Health and Safety Regulations 2017
Legislation NSW: https://www.safework.nsw.gov.au/legal-obligations/legislation
Codes of Practice NSW: https://www.safework.nsw.gov.au/resource-library/list-of-all-codes-of-practice

**Northern Territory**
Work Health and Safety (National Uniform Legislation) Act 201
Work Health and Safety (National Uniform Legislation) Regulations 20
Legislation NT: https://worksafe.nt.gov.au/laws-and-compliance/workplace-safety-law
Codes of Practice NT: https://worksafe.nt.gov.au/forms-and-resources/codes-of-practice

**South Australia**
Work Health and Safety Act 2012 (SA)
Work Health and Safety Regulations 2012 (S
Legislation for SA: https://www.safework.sa.gov.au/resources/legislation
Codes of Practice for SA: https://www.safework.sa.gov.au/workplaces/codes-of-practice#COPs

**Tasmania**
Work Health and Safety Act 2012
Work Health and Safety (Transitional and Consequential Provisions) Act 2012
Work Health and Safety Regulations 2012
Work Health and Safety (Transitional) Regulations 2012
Legislation for TAS: https://worksafe.tas.gov.au/topics/laws-and-compliance/acts-and-regulations
Codes of Practice for TAS: https://worksafe.tas.gov.au/topics/laws-and-compliance/codes-of-practice

Details of permits, licenses or access required by regulatory bodies (add or delete as required):

- Permits from local council
- Authorisation to commence work
- Any required documents.

**Victoria**
Occupational Health and Safety Act 2004
Occupational Health and Safety Regulations 2017
Legislation VIC: https://www.worksafe.vic.gov.au/occupational-health-and-safety-act-and-regulations
Codes of Practice VIC: https://www.worksafe.vic.gov.au/compliance-codes-and-codes-practice

**Western Australia**
Work Health and Safety Act 2020
Work Health and Safety Regulations 2022
Legislation Western Australia: https://www.commerce.wa.gov.au/worksafe/legislation
Codes of Practice WA: https://www.commerce.wa.gov.au/worksafe/codes-practice

**Safe Work Australia Links**
Law and Regulation (All States): https://www.safeworkaustralia.gov.au/law-and-regulation
Model Codes of Practice: https://www.safeworkaustralia.gov.au/resources-publications/model-codes-of-practice

**Model Codes of Practice**

- Managing noise and preventing hearing loss at work
- Confined spaces
- Labelling of workplace hazardous chemicals
- Managing risks of hazardous chemicals in the workplace
- Welding processes
- First aid in the workplace
- Managing the risk of falls at workplaces
- Hazardous manual tasks
- Managing the risk of falls in housing construction
- Managing electrical risks in the workplace
- Demolition work
- Excavation work
- Work health and safety consultation, cooperation and coordination
- Managing the work environment and facilities
- How to manage work health and safety risks
- Managing risks of plant in the workplace
- Construction work

## SIGNATORIES OF THE SAFE WORK METHOD STATEMENT

The signed and dated personnel listed below have cooperated in the consultation and development of this Safe Work Method Statement which has been approved by the Person/s Conducting a Business or Undertaking (PCBU). In signing this Safe Work Method Statement each individual acknowledges and confirms that they have read this SWMS in full, having raised any questions for items on this Safe Work Method Statement that require clarification, and confirms that they are competent, skilled and knowledgeable for the task assigned to them. Every person acknowledges that they have received the relevant training and qualifications where required, before carrying out any work contained in this Safe Work Method Statement. By signing this Safe Work Method Statement each individual agrees to work safely, to follow any safe work instructions which are provided, and agrees to use all Personal Protective Equipment where appropriate.

| Worker Name | Signature | Date |
|---|---|---|
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| | | |
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## SAFE WORK METHOD STATEMENT MONITORING AND REVIEW

**The SWMS must be reviewed regularly** to make sure it remains effective and must be reviewed (and revised if necessary) if relevant control measures are revised. The review process should be carried out in consultation with workers (including contractors and subcontractors who may be affected by the operation of the SWMS and their health and safety representatives who represented that work group at the workplace.

When the SWMS has been revised the PCBU must ensure that all persons involved with the work are advised that a revision has been made and how they can access the revised SWMS, including all persons who will need to change a work procedure or system as a result of the review are advised of the changes in a way that will enable them to implement their duties consistently with the revised SWMS. All workers that will be involved in the work must be provided with the relevant information and instruction that will assist them to understand and implement the revised SWMS.

**The SWMS must be monitored regularly** for the effectiveness of ensuring hazard controls are effective in reducing the risk of incidents, keeping the workplace safe for all personnel. The person responsible for monitoring the effectiveness of the Safe Work Method Statement should employ a multi-faceted approach which includes but is not limited to:

1. Spot Checks.
2. Consultation with workers, contractors and sub-contractors.
3. Internal audits on a continual basis.

An approach of continuous improvement, promptly recording inconsistencies or deficiencies, followed up by immediate corrective action and consultation with all relevant personnel ensures that the PCBU is consistently developing ever-improving systems of safe work principles.

| REVIEW NUMBER | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| NAME | | | | | | | |
| INITIALS | | | | | | | |
| DATE | | | | | | | |

## SAFE WORK METHOD STATEMENT REVIEW CHECKLIST

This Safe Work Method Statement Review Checklist is to be followed and used upon initial development of the SWMS to help ensure that all steps have been adequately taken before work commences. Think of this document as an internal audit review checklist before commencing work, and may form part of a Toolbox Talk (safety meeting) and may be used as an opportunity for education and training.

| ITEMS WHICH MUST BE INCLUDED IN THE SWMS | COMPLETED | COMMENTS |
|---|---|---|
| The company details have been entered, including the project name and address. | ☒ | |
| All relevant personnel consulted during the development of the SWMS. | ☒ | |
| Name, signature, position and date signed of the person approving the SWMS. | ☐ | |
| Specific personnel and qualifications, experience is noted in the SWMS. | ☒ | |
| Provides a step-by-step process of tasks required to carry out the activity or task. | ☒ | |
| Adequate risk assessment of any identified hazards has been completed. | ☒ | |
| Foreseeable hazards are identified and documented for each step. | ☒ | |
| Any hazards listed in any site risk assessments have been added to the SWMS. | ☒ | |
| SWMS initial risk (IR) column as well as residual risk (RR) column completed. | ☒ | |
| Check control measures added to the SWMS are the most effective solutions. | ☒ | |
| Responsible person is assigned and listed on the SWMS for the implementation of control measures. | ☒ | |
| Permit or licenses requirements specified, such as Hot Work, Electrical Work, Work at Heights etc. | ☒ | |
| SWMS identifies plant and equipment to be used | ☒ | |
| Details of inspection checks required for any equipment listed are noted on the SWMS. | ☒ | |
| Describes any mandatory qualifications, experience, training or skills required to perform the work. | ☒ | |
| Applicable personal protective equipment is selected on the SWMS. | ☒ | |
| Reflects and documents any legislative references and/or Australian Standards. | ☒ | |
| Identifies any hazardous substances used with specific control measures in line with any SDS. | ☒ | |

| | | | |
|---|---|---|---|
| **REVIEWED BY** | | **DATE REVIEWED** | |
| **SIGNATURE** | | **DATE COMPLETED** | |