

Installation of Cologne Eggs and Alternate 1 on Polymer Blocks. City Underground

Issue date: 10/04/08

Review date: 17/02/11

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| SWMS number: SMS-06-SW-1054 | SWMS Name: Installation of Cologne Eggs and Alternate 1 on Polymer Blocks. City Underground | | | SWMS Team: Track Review Team |
| Custodian (Position): Track Works Manager Commercial / Renewals | Assumptions: Site Specific risks are addressed and assessed in pre-work briefing | | | |
| Approving Authority (Position): Safety and Quality Manager, Commercial / Renewals | Plant/Equipment/Tools: <ul style="list-style-type: none">FlagsLightsDetonatorsElectrical Tester4 x Hilti Concrete coring drillsRail Brace TemplatePneumatic Glue ApplicatorHi-Rail truck and lightsCologne EggsBlocks and platesClips and BarsMegapoxy mixersExpansion foam applicatorMetal framesScrapersPneumatic Impact Gun | Records/Reporting: <ul style="list-style-type: none">Worksite Protection PlanPre-Work BriefCUG Tunnel RegisterPossession NotesElectrical Tester log bookSite InductionProduction ReportConstruction Shift logDaily Plant ChecklistMaterial Safety Data Sheets | Permits/licences required: <ul style="list-style-type: none">Relevant Safeworking Certifications | Content reviewed by Technical expert (SME) and RailCorp safety professional (position including Div/Group) Track Works Manager & SEQ Coordinator Asset Management Group Commercial / Renewals |
| Applicable Standards, Codes of Practice and guidance: <ul style="list-style-type: none">OH&S Act 2000OH&S Regulation 2001Rail Safety Regulation 2003RailCorp Network Rules & ProceduresRailCorp Safety Management System.MSDS for all chemicals and hazardous Substances used on site | | | Training/Qualifications required: <ul style="list-style-type: none">Construction Industry InductionTrack Safety Awareness and Electrical Awareness | |
| | | Service schedule: Team Leader | | |

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| Number | Step | Hazard or human error (Safety/Environmental hazards identified, including physical environment, human errors, plant and equipment) | Risk ranking before controls | Control (to be Implemented to eliminate or reduce the risk to the lowest practicable level) | Risk ranking after controls | Responsibility | Job step to be completed in accordance with (name associated documentation) |
|--------|---------------------------------|---|------------------------------|--|-----------------------------|---|---|
| 1 | Complete safety plans for works | Staff not qualified Not knowing risks Staff not briefed Hit by train Working in tunnels No PPE | A | Staff to be briefed Notification from Possession Officer of track possession Tunnel induction Correct PPE | C- | Supervisor Plant Operator All staff | Worksite Protection Plan Pre-Work Briefing SMS-06-FM-0163 Network Rules and Procedures CUG Induction |
| 2 | Tools and equipment | Insufficient lighting Electrical equipment not tested Tools not loaded Strained back loading gear on Hi-Rail | B+ | Adequate lighting Certified person to test % tag equipment Tools check list Use mechanical lifting device | C- | Supervisor Plant Operator All staff | On site polymer block replacement CUG Guide lines |
| 3 | Coring holes | Electrocution Noise Foreign object in eyes Sore back | A A A B+ | Circuit breakers Wear hearing protection Safety glasses Lighting | C+ C- C- C- | Supervisor Staff | Work Around Elect. Equip. SMS-06-GD-0268 PPE SMS-06-GD-0323 Manual Handling Guide SMS-06-GD-0001 |
| 4 | Install polymer sleepers | Strained back Stubbed fingers Clips flying | A B+ B+ | Trained in manual handling Gloves PPE Use clip applicators | C- C- D | All Staff | Pre-Work Briefing SMS-06-FM-0163 PPE SMS-06-GD-0323 Manual Handling Guide SMS-06-GD-0001 |

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|--------|----------------------------|---|------------------------------|--|-----------------------------|----------------|---|
| 5 | Form up, seal and Megapoxy | Strained back Dust Skin irritation Expansion foam on skin or face Electrocution | A B+ B+ B+ A | Use correct lifting and bending techniques Eye wear Surgical gloves PPE Electrical equipment tagged and tested | C- C- D D C+ | All Staff | Pre-Work Briefing SMS-06-FM-0163 PPE SMS-06-GD-0323 Manual Handling Guide SMS-06-GD-0001 Work Around Elect. Equip. SMS-06-GD-0268 |
| 6 | Remove frames | Slip and fall Cut hands | B+ | Adequate lighting Gloves, use correct technique | C- | All Staff | Workplace Risk Management SMS-06-PR-0104 PPE SMS-06-GD-0323 |
| 7 | Tighten bolts | Sore back Slip while tensioning nuts | B+ | Job rotate repetitious bending Plant feet stable use correct technique | C- | All Staff | Manual Handling Guide SMS-06-GD-0001 |

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NOTE: Each work group or team member must sign off on the SWMS to acknowledge they have been briefed about or instructed in the SWMS

| <i>Team member name (Please print)</i> | <i>Team Member signature</i> | <i>Instructor/ Briefer name</i> | <i>Date</i> | <i>Team member name (Please print)</i> | <i>Team Member signature</i> | <i>Instructor/ Briefer name</i> | <i>Date</i> |
|--|----------------------------------|-------------------------------------|-------------|--|----------------------------------|-------------------------------------|-------------|
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| RailCorp Level 2 Risk Matrix - Regional & Local (Workplace) | | | Likelihood/Frequency | | | | | | | <u>Definition for Use - Regional & Local level (Workplace)</u> Used for workplace hazards and safety risks that do not consider the whole of the network. Indicatively this matrix is appropriate for use where the hazards under consideration are up to 10% of the total network exposure. This includes regional and local workplace risk assessments. As an example, the Level 2 scale would be used when examining the risk of slips, trips and falls on specific RailCorp platforms within a region or at a particular station, or the risk of fire within a depot. There are 3 options for descriptors which can be used to determine the frequency category. One set of descriptors is provided for frequency, one for historical likelihood, and one for predictive likelihood in the workplace. Choose the most appropriate. To score the risk, follow the steps: 1. Identify the magnitude of the credible consequence if the risk were to occur. If applicable, risks should be considered in terms of the safety (this matrix), commercial and environmental impact (using other matrices). 2. Identify the likelihood of this level of consequence occurring. (This is done after considering the effectiveness of the current controls in place) 3. Score the risk using the combination of likelihood and consequence ranking. Note: Where there are a range of credible consequences which may lead to a different level or risks and/or where the controls may be different. It may be useful to score the risk more than once. |
|--|----|--------------|-----------------------------------|---------------------------------|---|--|---|--|---|---|
| | | | Event Frequency | Less than once every 1000 years | Once every 100 to 1,000 years | Once every 10 to 100 years | Once every 1 to 10 years | More than once per year up to and including 10 times per year | More than 10 times per year | |
| | | | Historical (Likelihood) | Unheard of in the rail industry | Has occurred once or twice in the rail industry | Has occurred many times in the rail industry, but not in NSW | Has occurred once or twice in NSW | Has occurred frequently in NSW | Has occurred frequently at specific locations | |
| | | | Workplace Predictive (Likelihood) | Not expected to occur | May occur only in exceptional circumstances | Could occur at some time but not likely | You would expect it to occur at least once in the next 10 years performing similar activities | You would expect it to occur at least once this year performing similar activities | You would expect it to occur at least once this month performing similar activities | |
| Consequence | | | F1 | F2 | F3 | F4 | F5 | F6 | | |
| | | | Incredible | Improbable | Remote | Occasional | Probable | Frequent | | |
| >10 Fatalities | C6 | Disastrous | B- | B+ | A | A | A | A | | |
| 2-10 Fatalities | C5 | Catastrophic | C+ | B- | B+ | A | A | A | | |
| 1 Fatality (2-10 Major Injuries) | C4 | Critical | C- | C+ | B- | B+ | A | A | | |
| 1 Major Injury | C3 | Major | D | C- | C+ | B- | B+ | A | | |
| 1 or more Minor Injuries | C2 | Minor | D | D | C- | C+ | B- | B+ | | |
| First aid treatment, or illness/injury not requiring treatment | C1 | Negligible | D | D | D | C- | C+ | B- | | |