



**HEALTH & SAFETY
PROGRAM**

Safety Standard C6

CRANES & LIFTING EQUIPMENT

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STANDARD

1.0 Scope

This standard applies to all cranes including vehicle-mounted cranes, equipment used as cranes, hoists, and lifting /rigging equipment.

The procedures associated with this standard apply to all personnel who operate cranes and utilize lifting/rigging equipment for the purpose of performing work, to include:

- Borax Employees
- Contractors
- Vendors

Safe lifting and rigging practices shall be maintained through the training of affected personnel, use of safe work practices, completion of pre-task and pre-job risk assessments, and implementation of critical lift plans for high hazard work.

This standard does not apply to personnel hoists (man-trips) and elevators.

1.1 Definitions

- **Competent Person** - A person who is trained in the proper use of hand signals, rigging techniques and, who through experience and/or training, is able to identify hazardous or dangerous conditions when performing work with cranes and when utilizing rigging equipment.
- **Critical Lifts** – Lifts which require the completion of a documented risk assessment and formal Critical Lift Plan to ensure the protection of employees, and to reduce the risk of loss to the business when cranes and lifting equipment are utilized for the purpose of hoisting materials, machinery, plant equipment, and personnel under specific hazardous conditions.
- **High Hazard Work** – Work identified through a risk assessment which is scored as high risk. High Hazard Work includes all lifts defined by this standard as requiring development of a Critical Lift Plan.
- **Lifting Equipment** – Engineered devices which include bridles; spreader bars; specialized lifting equipment and man-baskets utilized for the purpose of hoisting materials, machinery, plant equipment, and personnel with a crane.
- **Consumables (also referred to as Rigging)** – Slings; shackles; eye bolts; hooks; D rings; and come-a-longs.
- **Qualified Person** - A person with a recognized degree of training in the operation of cranes, rigging analysis, evaluation and specification, and crane operation.

- **Risk Assessment** – A formal method for evaluating and analyzing probabilities and consequences when performing work utilizing cranes and lifting equipment for the purpose of hoisting materials, machinery, plant equipment, and personnel.

1.2 Responsibility

PERSONNEL	RESPONSIBILITY
<p align="center">Department Management</p>	<ul style="list-style-type: none"> • Implement the requirements of this standard for all affected Borax employees and contractors. • Ensure that employees and contractors under their supervision who are required to utilize cranes and lifting equipment are trained and qualified as required by this standard and external regulatory requirements. • Facilitate lifting equipment risk assessments, critical lift plans, procedures, work practices and training programs. • Audit work practices to ensure compliance with this standard. • Review and approve the design and selection of cranes and lifting equipment to ensure compliance with this standard.
<p align="center">Safety Department</p>	<ul style="list-style-type: none"> • Administer the crane and lifting equipment safety standard. • Review and approve procedures, instructions, SOPs, and training. • Audit work practices to ensure compliance with the standard. • Assist procurement with implementation of this standard with regard to the purchase of cranes and lifting equipment, and the contracting of crane operation services.
<p align="center">Maintenance Management</p>	<ul style="list-style-type: none"> • Ensure that cranes and lifting equipment are inspected upon delivery to Borax and prior to being placed into service. • Maintain an equipment register, maintenance logs, and all certificates of inspection for Borax owned, rented or leased cranes. • Ensure that all cranes are registered with their respective OEM and/or supplier for warranty, recall and safety notification purposes. • Coordinate and conduct quarterly inspections of cranes to ensure compliance with external regulatory requirements. • Coordinate the annual inspection and certification process for all cranes.
<p align="center">Employees</p>	<ul style="list-style-type: none"> • Follow the requirements of this standard when performing work involving cranes and lifting equipment. • Always pre-inspect cranes and lifting equipment for defects prior to use. • Notify supervision when new critical lifts are identified or when a non-compliance or hazardous condition exists. • Participate in risk assessments and development of critical lift plans.
<p align="center">Rio Tinto Procurement</p>	<ul style="list-style-type: none"> • Develop working knowledge of the requirements of this standard. • Ensure that the specifications for the purchase, renting/leasing of cranes and lifting equipment are in accordance with this standard and applicable Cal/OSHA and MSHA requirements. • Inform contractors of the requirements of this standard during the bid process. • Inform contractors of the California Mobile Crane Operators certification requirement during the bid process.

2.0 General Requirements

The following requirements shall apply when cranes and lifting equipment are utilized for the purpose of hoisting.

2.1 A detailed critical lift plan shall be developed and utilized when:

- Multiple cranes are required to perform the lift.
- The lifting load exceeds **75%** of the charted capacity of the crane.
- The total weight on the hook exceeds 35 tons.
- There is a danger to personnel.
- Lifting loads adjacent to or over power lines. (Additional form SAF-C6-004 required)
- Lifting over operating facilities in areas which could pose a risk to personnel and rated as **“High”** or **“Critical”** on Take-5 risk assessment.
- Lifting over operating facilities in areas which would pose a risk to the business and rated as **“High”** or **“Critical”** on Take-5 risk assessment.
- Lifting personnel using a man basket. (Additional forms SAF-C6-005 and SAF-C6-006 required)

2.1.1.1 Critical lift plans shall include the following information:

- Lift Data: Equipment weight, rigging weight, total weight, and height of lift, radius of lift, center of gravity and equipment surface area.
- Equipment Data: Manufacture, model, size, boom length, jib length, load block, material size.
- Rigging Data: Sling diameter, sling length, sling configuration, capacity, hook type, shackle size and capacity.
- Lift Computations: Boom length, radius of lift, equipment capacity, size of outrigger foot plates and wind speed.
- Proximity to Power Lines and Process Areas: Mobile cranes working in the proximity to energized power lines must operate under a proximity permit, which must define the exclusion zones and spotter duties.
- Local Hazards and Controls: To include the route of the crane, ground stability, proximity of people or equipment, and an agreed upon communication method.

Critical lift plan: if the total load of multiple crane lifts that are less than 75% capacity of the smallest crane shall be performed by a qualified person. If the total load exceeds 75% of the smallest crane capacity a Qualified Engineer is required.

- 2.2 Crane Operators and all personnel associated with lifting equipment or directing a critical lift shall participate in the development of the Critical Lift Plan. All other affected personnel shall be informed of the Critical Lift Plan and required safe work procedures prior to initiating the lift.
 - 2.3 All lifts shall be assessed using a pre-lift risk assessment.
 - 2.4 When the weight of material to be lifted cannot be determined using known calculations, and the load cannot be manually weighed prior to a lift, the crane making the lift shall be equipped with a load cell or load moment indicator which provides a visual load weight display to the crane operator, and that prevents the crane from exceeding its rated load capacity through a control override safety mechanism.
 - 2.5 Cranes utilized at Borax shall be equipped with anti two-block or control limit switches which prevent the hook block from over-running the hoist block.
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3.0 Operational Requirements

- 3.1 Newly purchased or rented cranes and lifting equipment shall be inspected to ensure that all critical components are in place and properly functioning prior to the equipment being placed into service.
- 3.2 Lifting equipment shall be pre-operationally inspected and the findings documented prior to each use.
 - 3.2.1 Mobile cranes and overhead cranes shall be pre-inspected by a trained and qualified person prior to each shift used.
 - 3.2.2 Rigging equipment shall be pre-inspected by a trained and competent person prior to use.
 - 3.2.3 Pre-inspection shall include a check of the following:
 - All functional mechanisms to ensure proper adjustment.
 - The operation of all limit switches without a load on the hook.
 - Lines, tanks, valves, pumps, and other parts of air or hydraulic systems for deterioration or leakage.
 - Hooks for deformation and cracks.
 - Hoist and load attachments for excessive wear, twist, distortion, or stretching that would interfere with safe operation.
 - Excessive wear, broken wires, kinking, twisting of ropes, and rope slings; including end connections.

- 3.3 Cranes with identified defects or malfunctioning safety devices shall be removed from service, tagged, and not be operated until repaired.
- 3.4 All lifting and rigging equipment shall be pre-inspected for proper operation of safety devices and for defects which could impact the safety of affected workers.
 - 3.4.1 Defective rigging equipment shall be immediately removed from service, tagged to identify the defect, rendered unusable, and disposed of.
- 3.5 All lifting hooks (except grab hooks) shall be equipped with a safety latch unless designed for a specific use in accordance with manufacturer supplied guidelines.
- 3.6 Loads shall not be swung over occupied buildings unless adequate safe-guards are established to protect the personnel within the structure from falling material.
 - 3.6.1 Personnel shall not cross under, stand under, or be placed in a position under a suspended load.
 - 3.6.2 Barricades or other suitable controls shall be used to protect personnel throughout a hoisted loads swing radius or traverse route.
 - 3.6.3 Barricades shall be placed around mobile cranes to identify and protect personnel and equipment from entering into the swing radius of the load, machinery house, and counter-weight.
- 3.7 Crane operators shall not leave the controls of a crane unattended while a load is suspended.
- 3.8 Overhead cranes shall be equipped with an audible travel alarm or equivalent warning device.
- 3.9 Tag lines shall be utilized when a load requires steadying or guidance while suspended.
- 3.10 Personnel who provide signals and direction to a crane operator (designated signal person) must utilize standardized hand signals or standardized over-the-radio voice commands to direct movement of the crane or suspended load.
 - 3.10.1 When radios are utilized, a dedicated channel shall be used to ensure that other radio communications do not interfere with instructions given to the crane operator.

3.10.2 When hand-signals are utilized, the designated signal person must remain clearly visible to the crane operator.

- The crane operator shall follow only the commands given by the designated signal person, except when an emergency stop signal is given. Any person who identifies a hazard or dangerous condition may give an emergency stop signal.
- If the crane operator loses sight or radio contact with the spotter, the crane operator shall stop all movements until contact is re-established.

3.11 Lifting devices which have been used for towing shall not be used for hoisting.

3.11.1 Lifting devices designed for towing purposes shall be clearly marked by tag or other means such as luminescent paint to identify their intended use.

3.12 Mobile cranes shall be equipped with a manufacturer provided load chart which is affixed to the crane and is visible to the crane operator from the control station.

3.13 Controls on mobile cranes shall be located such that the operator is protected from swinging loads and from contacting the crane boom/jib during movement.

3.14 Slew pins (house locks) shall be secured prior to traveling with a mobile crane.

3.15 Outrigger must be inspected for integrity prior to commencing a lift.

3.16 Crane and lifting work conducted near electrical power lines shall be conducted in accordance with Cal/OSHA Title 8 CCR Article 37.2946 (High Voltage Safety Orders).

3.16.1 Work conducted closer than 20 feet to an electrical power line shall require completion of a Critical Lift Plan and approval of a Proximity Permit.

- Whenever practicable, power lines should be de-energized and isolated.

3.16.2 When power lines cannot be de-energized, the following chart provides the required safe distances for crane and lifting work in proximity to electrical power lines.

PHASE TO PHASE VOLTAGE		MINIMUM OSHA DISTANCE	ISOLATE (LOTO) IN ALL CASES (CLOSE PROXIMITY PERMIT REQUIRED)
600	50,000	10 FEET	
50,000	75,000	11 FEET	
75,000	125,000	13 FEET	
125,000	175,000	15 FEET	

175,000	250,000	17 FEET	
BORAX MINIMUM SAFE DISTANCE		20 FEET	ISOLATE (LOTO) IN ALL CASES PRACTICABLE
250,000	370,000	21 FEET	MAINTAIN MINIMUM DISTANCE OR ISOLATE (LOTO)
370,000	550,000	27 FEET	
550,000	1,000,000	42 FEET	
REF: CAL/OSHA TITLE 8 CCR, SECTION 2946			

4.0 Maintenance Requirements

- 4.1 Cranes purchased, leased or rented for use at U.S. Borax shall be registered with the maintenance or other designated department.
 - 4.1.1 All slings and hoisting equipment purchased by U.S. Borax shall be equipped with a semi-permanent identification tag or stamping to indicate manufacturer and rated capacity.
 - 4.1.2 Slings that are not equipped with an identification tag shall be considered unserviceable and shall be destroyed and disposed of.
 - 4.1.3 Slings shall be inspected for the presence of an identification tag and to verify proper size and safe condition prior to each use.
 - 4.1.4 Each site will conduct an annual inspection of consumables and lifting equipment to verify safe condition. Consumables will be marked with an appropriate colored device or indelible marker to verify that it was inspected.

Annual Consumable Inspection Color Code:

2010	Red	2014	Red
2011	Blue	2015	Blue
2012	Green	2016	Green
2013	Yellow	2017	Yellow

- 4.2 Cranes purchased, leased or rented for use at U.S. Borax shall have a current annual certificate of inspection, must be pre-use safety inspected to ensure that the crane is serviceable and appropriate for the intended work, and must comply with all requirements of Cal/OSHA Title 8 CCR, Chapter 7, Section 4884 (Cranes and Other Hoisting Equipment).

Note: See the Procedures section of this standard.

- 4.3 Cranes shall receive quarterly maintenance inspections and shall be certified annually pursuant to Cal/OSHA Title 8 Sections 5021(a) and 5031(c).

- 4.3.1 Quarterly maintenance inspections shall cover the following:

- Mechanical and electrical components subject to wear
- Controls
- Cables and lifting attachments
- Structural components to include: hoist, brakes, wheels, hooks, hook-blocks, and rails

- Integrity of load limiting devices to include: safety devices, limit switches, fail-safe devices, emergency stops, bumpers, and dead-man controls.
- 4.3.2 Records of inspection shall be maintained to include the equipment number, manufacturer name, equipment serial number, inspection findings, repairs made, and the name of the person conducting the inspection and repairs.
- 4.4 Repairs made to cranes and hoisting equipment shall comply with manufacturer's specifications and applicable regulatory requirements.
- 4.5 Records of inspection, testing and certification shall be kept pursuant to the Procedures section of this standard.

5.0 Training Requirements

- 5.1 Personnel who operate cranes and/or utilize lifting equipment shall be authorized, task trained, tested, and determined to be competent or qualified to perform those tasks which fall under the requirements of this standard.
- 5.1.1 **Competent Persons:** Competent Persons shall be trained in the following:
- Cranes and lifting related hazard recognition and control
 - Rigging equipment inspection
 - Rigging equipment use
 - Giving crane signals (hand & verbal signals)
- 5.1.2 **Qualified Persons:** In addition to the training and skills required to be considered a Competent Person, Qualified Persons who are authorized to operate light vehicle cranes, bridge cranes, jib cranes, and small utility hoists shall be trained in and demonstrate additional competency with regard to:
- Rigging design and use
 - Load analysis
 - Hoisting equipment limitations
 - Crane pre-inspection
 - Crane and hoist operation

- 5.2 **Mobile Crane Operator Certification – California:** Qualified Persons who are authorized to operate mobile cranes must be tested and must possess a current NCCCO Certificate of Qualification pursuant to Cal/OSHA Title 8 CCR, Subchapter 7, Group 13, Article 98, Section 5006.
- 5.2.1 Mobile crane operators must be retested and re-certified pursuant to NCCCO requirements every five years.
- 5.2.2 Operators of the following types of mobile cranes are exempt from this requirement:
- Mobile cranes with a boom length of less than 25 feet or a maximum rated load capacity of less than 15,000 pounds.
 - Line trucks covered under Title 8 CCR, Section 2700 and 2940.7 of the Cal/OSHA Electrical Safety Orders.
- 5.3 The competency and qualification of employees covered under this standard shall be verified through an annual refresher training program and/or skills competency testing.

PROCEDURES

Overview

Work that involves the use of cranes and lifting equipment shall be governed by the requirements of U.S. Borax Safety Standard C6, applicable Cal/OSHA requirements published in Title 8 of the California Code of Regulations and Mine Safety & Health Administration requirements published in 30 CFR Part 56.

The safe use of cranes and lifting equipment will be ensured through employee training, competency testing, equipment pre-inspection, use of pre-lift risk assessments and critical lift plans.

Use of Cranes & Lifting Equipment

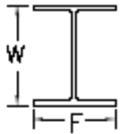
Crane Operation

1. Only trained, tested and qualified personnel are authorized to operate cranes.
2. Cranes must be pre-inspected by the operator prior to use.
 - a. The inspection must be documented and must follow a checklist specific to the class of crane being inspected.
 - b. Pre-inspection records must be maintained for a period of one year.
 - See Section 3.2.3 of this Safety Standard
3. A pre-lift assessment must be conducted prior to each job that involves cranes and lifting equipment.
4. Crane Operators and Riggers must participate in the development of all critical lift risk assessments and Critical Lift Plans.
5. Crane Operators must not leave a crane's controls unattended while a load is suspended.
6. Crane load capacities must be reduced in winds over 20 MPH.
 - Crane operators must ensure that appropriate capacity adjustments and safety factors are provided for under heavy wind load conditions.
7. Cranes must only be used when situated on stable ground.
8. Inspections and repairs must comply with applicable manufacturer and regulatory requirements.

Use of Lifting Equipment:

1. Only trained, tested, and qualified or competent personnel shall use lifting equipment.
2. Lifting equipment and anchorages must be specifically designed for its intended use and must comply with the requirements of this standard.
3. Consumables equipment must be pre-inspected prior to use and inspected and color coded annually.
4. Lifting equipment will be inventoried and inspected annually, and will be marked with the appropriate color to signify completion of said inspection.
5. Defective lifting equipment must be removed from service, tagged to identify the defect and must be destroyed and disposed of or be returned to the manufacturer for additional inspection and testing.
6. In conjunction with the crane operator, a pre-lift assessment must be conducted prior to each job that involves cranes and lifting equipment.
7. Crane Operators and Riggers must participate in the development of all critical lift risk assessments and Critical Lift Plans.
8. Inspections and repairs to lifting and rigging equipment must comply with applicable manufacturer and regulatory requirements.
 - R.. When a temporary anchorage has unwanted movement or can be dislodged, the anchorage must be secured.

Safe Lifting Capacities				
Pipe-Schedule 40				
The loads listed below include a 400% lifting impact load, self weight, and cold liquid at 62.4 lbs/ft ³ . Steam lines or hot liquor pipes should be de-energized. This also assumes that the clear spans are well supported, the pipes are welded and there are no flanges, valves, or other loads. For pipes, which are insulated, the capacities should be reduced 10%. 6/08				
Size	5' Span	10' Span	20'Span	
2"∅	150 lbs			
3"∅	480 lbs	240 lbs		
4"∅	950 lbs	480 lbs	150 lbs	
5"∅	1500 lbs	700 lbs	240 lbs	
6"∅	2800 lbs	1350 lbs	550 lbs	
8"∅	4800 lbs	2400 lbs	950 lbs	
10"∅	8000 lbs	4000 lbs	1400 lbs	
12"∅	14400 lbs	7200 lbs	2800 lbs	

Safe Lifting Capacities Wide Flange Steel Beams [Yield Stress (Fy) 36 KSI]			
The below capacities are based on a design factor of 4. The supports for the beam need to be designed to support the rated load of the beam at a minimum.			
4/08			
Size (W" x F")	10' Span	20' Span	
4x4	2500 lbs	500 lbs	
6x4	1100 lbs	200 lbs	
8x8	13700 lbs	3800 lbs	
10x4	1200 lbs	200 lbs	
10x10	20400 lbs	10200 lbs	
12x8	21100 lbs	5800 lbs	
12x12	28400 lbs	17600 lbs	
14x8	25000 lbs	6300 lbs	
14x10	31300 lbs	14300 lbs	
16x10	38700 lbs	16300 lbs	

Crane Purchase, Rental & Leasing

Borax Purchased/Owned Cranes and Equipment

1. The Mine Mobile Maintenance Department (Truck Shop) or facility maintenance department will register each company owned mobile crane with the manufacturer in order to receive safety updates and product safety bulletins.
2. The Refinery Services Department or Mine Mobile Maintenance Department (Truck Shop) will register any new bridge or jib type cranes with the manufacturer in order to receive safety updates and product safety bulletins.
3. Quarterly maintenance inspections will be conducted in accordance with Cal/OSHA requirement to verify the safety and serviceability of each crane.
4. Annual certification inspections will be conducted in accordance with Cal/OSHA requirements.

5. Each crane will be maintained per Original Equipment Manufacturer specification and shall be kept current with regard to all product safety updates and product safety bulletins.
6. An operator's manual will be provided with each crane in the area of the cranes installation. On mobile cranes, the operator's manual will be kept in the cab.
7. Maintenance manuals will be kept in the maintenance shop responsible for each crane. Mobile crane maintenance manuals will be kept by the Truck Shop or facility maintenance department.
8. Crane certification documents will be kept in the maintenance shop responsible for each crane.
 - A copy of the certification will be kept with each crane.
9. Operators will be tasked trained specific to the operation of each crane or type of crane they are responsible for operating.
 - Mobile crane operators must also be certified in accordance with Cal/OSHA and NCCCO requirements.
10. A pre-use safety inspection checklist will be developed specific to each crane or class of crane.
11. A documented pre-use safety inspection will be completed each shift prior to crane use.
 - Completed Inspection checklists will be kept for a period of one year.

Rented & Leased Cranes

To ensure that rented and leased cranes and associated lifting equipment meets applicable standards and are correct for their intended use, Rio Tinto Procurement, in conjunction with Borax management, shall assist in facilitating development and implementation of master rental/lease agreements. In that regard, the following requirements will be applied:

1. Rental companies shall ensure that rental cranes are registered with the manufacturer in order to receive safety updates and product safety bulletins.
2. Each rented crane must be maintained per Original Equipment Manufacturer specifications and shall be kept current with regard to all product safety updates and product safety bulletins.

3. Rental companies must provide documented proof that a pre-delivery safety inspection was completed and that any rented crane is in safe operable condition and fit for its intended duty.
4. Rented cranes must be delivered only to an identified and approved rental drop-off area at the facility.
5. Rental companies must provide the following documentation to Borax at the time of a cranes delivery:
 - A copy of the current annual certification.
 - A copy of the most recent quarterly maintenance inspection report.
 - A copy of the operating manual specific for the type of crane delivered.
 - A copy of the maintenance manual specific to the type of crane delivered (if Borax will be performing maintenance on the crane).
6. Rental companies will be responsible for providing instructors who are capable of giving competent and/or qualified person or train-the-trainer task training to Borax personnel for each crane delivered to Borax.
 - Borax will be responsible for ensuring that mobile crane operators are certified pursuant to Cal/OSHA and NCCCO requirements.
7. Working with the Rental Company's agent, Borax will conduct a pre-acceptance safety inspection of each rented crane at the time of delivery.
 - The Truck Shop (Boron) or facility maintenance department will maintain a register of each rental crane on Borax Property.
 - A copy of the acceptance inspection document will be kept with the operator's manual in the cab of the crane.
 - If a pre-shift inspection form is not provided with the crane, or an existing Borax form is not applicable, Borax will work with the Rental Company to develop a specific pre-shift safety inspection form for the rented crane.
8. Upon completion of a crane's rental agreement, the equipment will be returned to the previously identified and approved rental distribution/drop-off area and the rental company will be notified.

- Borax personnel shall note any findings or concerns in the pre-shift safety inspection log book and then remove the book from the crane.
- The pre-shift safety inspection log book will be filed at the Truck Shop or in the facility maintenance department office for one year or until the same crane is rented again, at which time the book may be re-issued for use.

Contractor Provided Cranes

To ensure that contractor provided cranes and associated lifting equipment meets applicable standards and are correct for their intended use, the following requirements will apply:

1. Contractors must ensure that owned or rental cranes are registered with the manufacturer in order to receive safety updates and product safety bulletins.
2. Contractor provided or rented cranes must be maintained per Original Equipment Manufacturer specifications and shall be kept current with regard to all product safety updates and product safety bulletins.
3. Contractor provided or rented cranes must be delivered only to an identified approved drop-off area at the facility.
4. Contractors must have the following documents available on site for contractor owned or rented cranes:
 - A copy of the current annual certification.
 - A copy of the most recent quarterly maintenance inspection report.
 - A copy of the operating manual specific for the type of crane delivered.
5. Contractors are responsible for ensuring that only task trained, tested, competent and qualified (certified) personnel operate cranes and work with lifting equipment.
 - Contractors are responsible for providing task training and testing to ensure competency and qualification of personnel responsible for cranes and lifting equipment.
 - Contractors are responsible for ensuring that mobile crane operators are certified pursuant to Cal/OSHA and NCCCO requirements.

- Contractors must be able to provide Borax with proof of crane and lifting equipment competent/qualified person training, and mobile crane operator Cal/OSHA and NCCCO certification upon request.
6. If contractors utilize rented cranes, contractors must conduct a pre-acceptance safety inspection of each rented crane at the time of delivery.
- If an equipment specific pre-shift inspection form is not provided with the rented crane or an existing contractor or Borax form is not applicable, the contractor will be responsible for working with the Rental Company to develop a specific pre-shift safety inspection form for the rented crane.
7. Upon completion of a crane's rental agreement, the equipment will be returned to the previously identified and approved rental distribution drop-off area and the rental company notified.

DOCUMENT CONTROL

Record Retention

- All completed Safety Standard C6 forms shall be maintained by the department originating the document.
- Completed forms shall be maintained for the current calendar year plus one year.

References & Approvals

Compliance References:					
Rio Tinto Safety Standard C6 – Cranes & Lifting Equipment California Code of Regulations, Title 8, Subchapter 7, Group 13 (GISO Cranes & Hoisting Equipment) California Code of Regulations, Title 8, Section 2946 (Electrical Safety Orders – Overhead Power Lines) California Code of Regulations, Title 8, Section 5006 (Mobile Crane & Tower Crane Operator Certification) 30 CFR 56.16003-16017 (Surface Metal/Non-Metal Safety & Health Regulations) ASME B30.5-2000 (Mobile & Locomotive Cranes)					
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Revision Log

Revision Number	Reason for Change(s)	Date
000	Draft Standard Developed & Implemented (Jerry Bates)	January 2005
001	Format Changed & Regulatory Requirements Amended To Standard(Jim French, Jerry Bates, Ron Hyatte)	March 30, 2005
002	Forms Revised & Final Formatting Completed (Jim French)	April 22, 2005
003	Text edits and form corrections (French, Bates, Davenport)	May 13, 2005
004	Text edits and form corrections (French, Davenport w/comments from PSOs). Critical Lift Form, Pre-Lift Assessment Form, Close Proximity Permit Form – Updated. USB>RTM logo change.	February 7, 2006
005	Addition of safe lifting capacities	January 31, 2008
006	Update and additional lifting forms Personnel platform lift planning and authorization form; Personal lift platform pre-lift inspection. Removal of the outdated risk matrix from section 2	October 4 th 2010
007	Update to meet revised 2009 Rio Tinto Standard and OSHA updates for critical lifts.	January 7 2011

FORMS

Saf-C6-002 Pre-Lift Assessment Form For Cranes & Lifting Work (SAF-C6-002)

Saf-C6-003 Critical Lift Plan Form For Cranes & Lifting Work (SAF-C6-003)

Saf-C6-004 Close Proximity Permit Form (SAF-C6-004)

Saf-C6-005 Personnel Lift Platform Planning and Authorization Form (SAF-C6-005)

Saf-C6-006 Personnel Lift Platform Pre-Lift Inspection