FCX DEPARTMENT OF OCCUPATIONAL HEALTH AND SAFETY

POLICY ADMINISTRATION REQUIREMENTS

FCX-HS01 | APPROVED 1/22/2020 | RELEASED 1/22/2020
VERSION 1.4

Contents

1.0 Policy

Purpose	This document serves to outline the specific requirements for FCX safety policy administration. In an effort to improve understanding and implementation of FCX health and safety policy, administrative requirements have been compiled in one document.
Scope	These requirements apply to all employees, contractors, vendors and visitors unless explicitly stated otherwise. These requirements apply to the following FCX health and safety policies: FCX-HS02: Working at Heights Policy FCX-HS03: Electrical Safety Policy FCX-HS04: LOTOTO Policy FCX-HS05: Confined Space Policy FCX-HS06: Hot Work Policy FCX-HS12: HDPE Policy FCX-HS17: Hazardous Gas Policy FCX-HS19: Flagging and Barricading FCX-HS24: Roundstock Policy FCX-HS28: Sulfuric Acid Handling Policy FCX-HS29: Standard Safety Requirements FCX-HS32: Crane and Rigging FCX-HS33: Metal Fume Control **Note: Requirements under section 6.0, Variance Request and 7.0, Management of Change apply to all FCX Health and Safety Policies.**

2.0 Responsibilities and Duties

It is expected that all employees, contractors, vendors and visitors exercise stop the job authority when Critical Controls are not in place or are not effective. Managers and supervisors will encourage and empower employees and contractors to exercise stop the job authority without recrimination. Supervisors or Health and Safety Representatives must be immediately contacted if hazardous conditions are identified or actions arise which may cause injury to an employee. Work must be stopped until controls have been identified and implemented.

2.1 Management Responsibilities

It is management's (or their delegate's) responsibility to ensure compliance with this policy and the expectations outlined below.

Maintain Equipment in Good Working Order	Ensure all systems and equipment are in good working order and that regular preventative maintenance procedures are in place. Ensure that manufacturer recommendations and engineering requirements are met and followed. Where a defect or equipment issue will not allow safe operation, ensure equipment and systems are not operated until such repairs can be completed.

Ensure Proper Employee Training	Ensure that all personnel, including contractors, are properly trained per the policies and pertinent regional, federal and state regulations. Ensure employees are competent and qualified to operate equipment and complete other tasks associated with the systems. See Section 5.0, Training for additional information.
Review Contractor Requirements	Ensure that contractors working on FCX property are aware of FCX Health and Safety requirements.
Provide Equipment and Resources	Provide all necessary equipment and resources needed to operate and maintain safe work environments, including local or third party Emergency Response. Establish working relationships with outside resources (i.e., fire department, EMT, local police) as necessary to meet site rescue and emergency response needs.
Maintain Document Control	Maintain all records of completed inspections and documents according to the FCX records retention policy.
Identify Fatal Risks and Critical Controls	Ensure that Fatal Risks associated with activities are identified and Critical Controls to reduce or mitigate those risks are in place and validated by verifying implementation and effectiveness.
Perform Periodic Audits and Inspections	Ensure that regular inspections and audits of systems and equipment are conducted to ensure continued utilization of Critical Controls and their effectiveness. See section 4.0, Audits for additional information.
Evaluate MOC and Variance Requests	Evaluate all Management of Change and Variance Requests, ensuring that the highest level of controls are in place for employee safety and health. See section 6.0, Variance Requests and section 7.0, Management of Change for additional information.
Develop Site Programs	In conjunction with Health and Safety, relevant subject matter experts, steering teams and outside resources, develop and maintain programs to ensure compliance with policy and regulation. Programs include audit and inspection schedules, training requirements, records and retention, risk registers, standard operating procedures and work instructions, and other site specific information as it pertains to each policy. Managers may consider assigning responsible individuals /program administrators as necessary to manage and administer site programs. See section 3.0, Program Requirements for additional information.

2.2 Health and Safety Department Responsibilities

Health Monitoring and Sampling	Health and safety departments will monitor potential exposures and consult on appropriate controls and PPE selection. This includes data

	analysis, reporting, and partnering with operations to develop control strategies.
Fatal Risks and Critical Controls	Ensure that Fatal Risks associated with activities are identified and Critical Controls to reduce or mitigate those risks are in place. Ensure that leadership defines a verification process of these controls continued utilization and effectiveness
Support Site Programs	Programs include audit and inspection schedules, training requirements, records and retention, risk registers, standard operating procedures and work instructions, and other site specific information as it pertains to each policy. See section 3.0, Program Requirements for additional information.
Collect, Maintain and Report Required Information as it Pertains to Policies	This may include employee and contractor hours, incident information, regulatory reporting requirements, and other information as necessary.
Evaluate MOC and Variance Requests	Evaluate all Management of Change and Variance Requests, ensuring that the highest level of controls are in place for employee safety and health. See section 6.0, Variance Requests and section 7.0, Management of Change for additional information.

2.3 Supervisors

Report Injuries, Illnesses and Near Misses	Adhere to site reporting requirements for incidents, injuries, illness and near misses. Participate in root cause analysis when required.
Identify Fatal Risks and Implement Critical Controls	Using the principles of Fatal Risk Management and the Hierarchy of Controls, supervisors are to work in partnership with employees and managers to identify Fatal Risks and implement corresponding Critical Controls to eliminate or mitigate those risks.
Support Site Health and Safety Programs	Accommodate workloads to support employee involvement and attendance in training, monitoring and other mandatory health and safety activities. Monitor employee behaviors and follow up with feedback, formal discipline when necessary. Through observations and evaluations, ensure employees are qualified to perform work as assigned. Ensure employees attend scheduled medical exams and training. Participate in audits, inspections and other risk-reduction activities. Provide feedback to managers and resources to employees as necessary to achieve safe production goals.

2.4 Employees

In line with the principles of Fatality Prevention, the roles and responsibilities for all employees and contractors are outlined below.	
Training and Qualification	Employees are required to have completed appropriate task training prior to beginning work. Documentation of training is required. It is required that the worker follow and perform tasks in accordance with established methods and means to meet the policy and program requirements.
Identify Fatal Risks and Implement Critical Controls	Using the principles of Fatal Risk Management and the Hierarchy of Controls, employees should partner with supervisors and managers to identify Fatal Risks in work areas and implement Critical Controls to eliminate or mitigate them.
Support Site Health and Safety Programs	Participate and attend training, monitoring and other mandatory health and safety activities. Participate in audits, inspections and other risk-reduction activities. Provide feedback to supervisors as necessary to achieve safe production goals.
Report Injuries, Illnesses and Near Misses	Adhere to site reporting requirements for incidents, injuries, illnesses and near misses. Participate in root cause analysis when required.

2.5 Contractors

All contractors are expected to comply with FCX Policies (including this document), the FCX Contractor Health and Safety manual and local, regional and national regulations as applicable.	
Comply with all FCX, Local, regional and national Laws	Prior to performing work on FCX sites, contractors must evaluate full scope of work and be in compliance with all applicable FCX, local, regional and national laws.
Support Site Health and Safety Programs	This includes but is not limited to: • Fatality Prevention • Only perform tasks as trained and maintain training and documentation • Participate in periodic inspections and audits • Record and submit hours • Report incidents, injuries, illness and near misses according to site reporting requirements • Participate in Root Cause Analysis as necessary • Monitor employee behavior and work conditions • Identify Fatal Risks and implement Critical Controls • Ensure employees are qualified to perform work safely • Safe production

- Reference the Contractor Safety and Health Manual for additional information

2.6 Project Managers and Contract Management

Verify Contractor Training	Verify that contractors provide Health and Safety training to employees at least equivalent to FCX expectations.
Risk Assessment	Using Hazard Identification, Risk Assessment and Determination of Controls (HIRADC), project managers, and contracts management should work with local supervisors and Health and Safety Departments to identify Fatal Risks in work areas and tasks.
Ensure Communication of FCX Policies, and that Contractors Meet the Requirements	Provide contractors with appropriate FCX policies and documents to ensure safe production. Verify that contractors meet the requirements as outlined in policy and the Contractor Safety Manual on a continuous basis.

2.7 Steering Teams

Certain Policies will have a steering team to assist sites with understanding, auditing and reviewing the policy to ensure continual improvement of the policy and best practices.	
Perform Periodic Inspections and Audits	Working as individual steering teams, or in conjunction with other audit groups, define criteria and focus of specialty (arc flash, hazardous gas, acid handling, etc.). Establish and conduct schedules for periodic inspections and audits. See section 4.0, Audits for additional information.
Provide Recommendations to Management, Health and Safety and Other Sites as Needed	When audits and inspections indicate a need for change, steering teams are expected to share that information as required with site and company groups as appropriate. Steering teams should be prepared to review and assist in development of new or revised policies and procedures at the site and corporate levels.
Identify Fatal Risks and Critical Controls	Using the principles of Fatal Risk Management and the Hierarchy of Controls, employees should work with supervisors and managers to identify Fatal Risks in work areas and tasks and implement Critical Controls to eliminate or mitigate them.

2.8 Rescue Teams

Maintain Training and Rescue Capabilities	Ensure that the team members meet minimum training requirements for rescue capabilities (CPR, EMT certifications, rope rescue, etc.) and compliance training (work at heights, LOTOTO, confined space, etc.). If rescue team members are not current in a rescue capability or compliance training requirements, they are excluded from participation in those specific activities until training is current.
Emergency Drills	The team is responsible for conducting emergency response drills and table top exercises on site identified high/fatal/critical risks. Exercises should include live practice, as well as table top discussions, and lessons learned or action plans should be recorded and tracked.

3.0 Site Program Requirements

Actions and activities to ensure site compliance with policies. Separate documents and procedures need not be developed when these elements are covered elsewhere in site programs.

A customizable approach will be taken for policy roll out and implementation for new and updated policies. Policy owners from DOHS and Ops/Maintenance groups will work with site teams to develop site-specific implementation plans, considering variables such as logistics, manpower issues, equipment lead times, and similar.

General sequence for policy development / update:

- **Policy updated or created by DOHS and relevant Subject Matter Experts (SME) from representative sites and corporate groups**
- **Stakeholders will review and provide feedback on the policies**
- **A final review of the policy will be sent back to stakeholders, including soliciting feedback from frontline employees and leadership**
- **Policy will be finalized with final round of feedback**
- **A roll-out team consisting of relevant stakeholders will be assigned at each site to assist in the process of roll out and implementation**
- **Sites will develop action plans that define how and when implementation will be completed**

This sequence will result in a staged roll-out, where there may be a significant difference in implementation timelines between sites. If this time difference could result in unmitigated actionable risks, additional steps will be taken to accelerate critical elements of the new policy where feasible.

Inspection Cycles	Sites will establish regular and ongoing evaluation cycles and criteria to verify policy requirements and expectations are being adhered to in the field. Required evaluations may include equipment, material, maintenance and process inspections.

Program Review/Audit	Annually, sites will review program elements. Gaps in program elements will be addressed with action plans and schedules for mitigation. See Audits, Section 4.
Standard Operating Procedures and Work Instruction	Sites will develop standard operating procedures and/or work instructions that identify hazards and risks, as well as mitigation steps through the procedures or work activities. Tasks and jobs requiring procedures and instructions will based on risk ratings with those identified as higher risk prioritized. Low risk work may not need procedures or instructions.
Risk Registers	Sites will evaluate risks based on the Risk Matrix, available on the DOHS website, for high risk jobs and tasks. Risk registers will be developed and maintained to identify mitigation efforts. Frequency of review will be determined by actions plans derived from the risk assessment process, including when gaps are identified, incidents occur or when indicated by audit and inspection findings.

Training	Sites will maintain pertinent training documentation for compliance, task and other training as required by policy and local, state and federal laws. Training documentation includes but is not limited to materials, instructors and qualifications, certifications, rosters etc. Reference section 5.0, Training for additional information.
Site Specific Supplements	When sites develop or adopt requirements in addition to those outlined in policy or regulation, those additions should be documented, communicated, monitored and trained in a manner that ensures compliance.
Additional Requirements	See Appendix A.

4.0 Audits

An audit is a snapshot in time. The purpose of an audit is to verify that the requirements laid out by management in the form of policies and procedures is being adhered to as expected in the field. Audits consider a representative sampling of data. Audits can be internal or external in nature.

Annual Program Audit	Site managers are responsible for ensuring that site programs (the site-specific procedures and requirements) meet the expectations of FCX health and safety policies. Program Reviews (Program Audits) are expected to be conducted at least annually, but more often if findings indicate gaps or generate Corrective and Preventative Action Plans. Audit teams should be cross functional and include members of Management, Health and Safety, Operations and Maintenance as necessary and appropriate. Annual program audits should cover all aspects of site programs including • Emergency response • Training • Documentation • Compliance • Roles and Responsibilities • Accountability All audits should be documented with action items tracked as required. Annual program audits may be conducted in conjunction with internal health and safety system audits.
Emergency Response Team Audits	Conduct regular interval audits of training, supplies, qualifications, certifications, equipment, drills and actual rescue lessons learned. When outside entities are used in lieu of site emergency response, ensure those entities meet site requirements including escort plans as necessary. At a minimum, evaluate emergency response to: confined space, fall from height, hazardous gas exposure and vehicle interaction as appropriate.

More Frequent Audits	Some FCX safety policies require more frequent audits based local, regional and national requirements. See Appendix B.

5.0 Training

Training requirements listed in Appendix C.	
Awareness Training	Must be provided to all employees, contractors, and visitors who have, or have the potential to work around, with or have contact with Fatal Risks outlined in FCX safety policy. This training should be provided upon initial assignment (induction) to the site or facility, and annually thereafter. This training should include an overview of the applicable policy and regulations, as well as the hazards and mitigations.
Technical / Task Training	Must be provided to all employees, contractors, and visitors who are authorized, affected, competent or qualified to perform specific tasks. This training should be provided upon initial assignment to the site, area, department or facility. Refresher training should be provided annually as required by local, regional and national laws, or when indicated through audits/inspections/incidents.
Annual/Refresher Training	Must be provided to all employees, contractors, and visitors who are authorized, affected, competent or qualified to perform tasks associated with Fatal Risks outlined in FCX Policy. This training is provided annually. It must include a review of existing policies and regulations and should review any new or existing hazards and mitigations. **NOTE: Annually is defined as once in a twelve-month period.**
Contractor and Vendor Requirements	Contractors and vendors (their company or organization) may complete equivalent training, and provide proof of such training prior to being admitted on to a site or facility. **NOTE: Site visitors, when accompanied and escorted 100% may be exempt from certain training requirements. It is the responsibility of individual sites to set expectations for visitor training requirements.**

6.0 Variance Requests

****This section applies to all FCX Health and Safety Policies****

Controls specified in Health and Safety Policies are minimum controls based on regulations, best practices, expert reviews and past experience. FCX does not accept non-compliance or allow deviations from policy, but does recognize that strict compliance with every policy at all times may not be feasible. FCX has established this process to allow for justifiable variances from the policies.

When a Health and Safety Policy cannot be met for <u>any</u> reason, a Variance Request must be completed and reviewed and approved.

The Variance Request must:

- **Specify the reason the policy cannot be met**
- **Outline the alternative controls to ensure an equivalent level of protection to employees and/or contractors**
- **Must be documented in the MOC system located in Site Ops Call Center**
- **Site Ops Call Center is the archive for MOC ticket and associated documents**

Short-Term Variance

Situations that are temporary in nature where work is in progress and the specific conditions of the work area or other parameters may not allow for full compliance with a policy.

- One-time events
- Emergency situations
- Work in regions where equipment to comply is not immediately available
- Site conditions which do not allow for compliance
- Where alterations to the facility would be required

Short-term variances should be restricted to non-routine work activities where unanticipated conditions make compliance infeasible or more hazardous. Short-term variances should be evaluated as part of continuous improvement of safe work practices.

Work may only proceed when all levels of approval are complete. Process for completion and approval:

Requestor & Supervisor	Provide description of request, justification for variance and additional/alternate control measures. Use the MOC system to submit the request. Include the site responsible H&S Director (and others as necessary) using the "Notifier" option.
Area Superintendent	Determines if Engineering Review is required. If so, forward the request to the appropriate engineer. Review the variance request for applicability and acceptability. Approve or decline within the MOC system.
Division or Area Manager	Review the variance request for applicability and acceptability. Approve or decline within the MOC system.
Health and Safety Manager	Review the variance request for applicability and acceptability. Approve or decline within the MOC system.

Long-Term Variance

Long-term variances are not permanent. To obtain a long-term variance there must be a proposal of alternate means of control that provide equal or greater

protection to employees, or diminish the risk to the lowest level reasonably possible. An approved long-term variance must be review annually and move through the approval process, checking for improved controls and mitigation of risk.

Work may only proceed when all levels of approval are complete. Process for completion and approval:

Requestor & Supervisor	Provide description of request, justification for variance and additional/alternate control measures. Use the MOC system to submit the request. **NOTE: set a "to-do" for a one-year review of the variance.
Area Superintendent	Determines if Engineering Review is required. If so, include the appropriate engineer with a feedback/review and approve. Review the variance request for applicability and acceptability. Approve or decline within the MOC system.
Division or Area Manager	Review the variance request for applicability and acceptability. Approve or decline within the MOC system.
Health and Safety Manager	Review the variance request for applicability and acceptability. Approve or decline within the MOC system.
Site General Manager	Review the variance request for applicability and acceptability. Approve or decline within the MOC system.
DOHS Director	Review the variance request for applicability and acceptability. Approve or decline within the MOC system.

Expiration

Short-term variances have a strictly defined beginning and ending time and date and are limited to a specific unique task. Close short-term variances in the MOC system at the completion of the work.

Long-term variances must be submitted annually to validate the need for the variance to remain in effect. If the scope of work changes, the variance must be re-evaluated and a new variance approved if still required. Close long-term variances in the MOC system at the expiration of the variance.

All variances will be valid only for the timeframe listed on the request or until the action plan to comply is completed, whichever comes first.

7.0 Management of Change (MOC)

This section applies to all FCX Health and Safety Policies	
Process Overview	Sites will utilize a formal action tracked, and documented process of review of Management of Change activities. The process will include all relevant parties including engineering, safety, environmental GSC, operations and maintenance as appropriate.

8.0 Common Standard Definitions

Audit	A safety audit involves measuring and collecting information about the reliability and effectiveness of the safety inspections, programs, training, plans and systems within a workplace. The relationship between a safety inspection and a safety audit is that a safety audit is used to determine whether the safety inspection is returning accurate, reliable, and complete results. A safety audit is verification that the safety programs are working.
Authorized Individual	A qualified person who has the permissions, need, and knowledge to perform a specific task in a specific area. This person is accountable for the safety of the work they are performing.
Barricade	A physical obstruction used to deter the passage of persons or vehicles.
Buddy System	A procedure in which two people, the "buddies", operate together as a single unit so that they are able to monitor and help each other.
Caution	Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury. Shall be used in minor hazard situations where a non-immediate or potential hazard or unsafe practice presents a lesser threat of employee injury. Caution signage will be yellow in color.
Competent Person	One who has demonstrated the capability of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.
Contractor	General or Prime Contractor, Subcontractor or supplier on the FCX site.
Critical Control	A device, system, or process implemented to eliminate or reduce the risk for a task/job, and if missing or overlooked has the potential to lead to catastrophic outcomes such as serious injury or death.
Danger	Indicates a hazardous situation that, if not avoided, will result in death or serious injury. The signal word "DANGER" is to be limited to the most extreme situations. DANGER [signs] should not be used for property damage hazards unless personal injury risk appropriate to these levels is also involved. Shall be used in major hazard situations where an immediate hazard presents a threat

	of death or serious injury to employees. Danger tags shall be used on in these situations. Danger signage shall be red in color.
Emergency Drills	A key process to simulate events for the purpose of testing the developed emergency response plan, to determine problems or weaknesses in the plan and procedures, and to develop corresponding corrective actions. Both Tabletop Drills and full Drills and the emergency response process are detailed with the FCX Crisis Management Guideline.
Fatal Risk	A risk that if not controlled has the potential to lead to catastrophic outcomes such as serious injury or death.
Guarding	An object placed between personnel and hazards. Designed to keep any portion of the body from contact (intentional or inadvertent) with a hazard. Shielded, fenced, or enclosed by covers, casings, shields, troughs, spillways or railings, or guarded by position or location. Examples of guarding methods are guarding by location (positioning hazards so they are inaccessible to employees) and point of operation guarding (using barrier guards, two-hand tripping devices, electronic safety devices, or other such devices).
Inspection	A safety inspection looks at the physical conditions and work practices in a workplace. Equipment is examined to determine whether all safeguards are in place and whether its operation presents any hazards. Air, water, and other samples may be obtained to test for hazardous substances. Work practices are observed to identify unsafe actions. The overall goal of a safety inspection is to identify hazards so they can be eliminated, guarded, or protected against.
Near Miss	An unplanned event that did not result in physical injury or illness to people, damage to property, or loss to process or production, but had the potential to do so.
Qualified Person	One who, by possession of a recognized degree, certificate or professional standing or who by knowledge, training, and experience, has successfully demonstrated his ability to solve or resolve problems relating to the subject matter, the work or the project.
Safety Equipment	Equipment designed and utilized to mitigate and control risk. EXAMPLES: Block and bleed valves, audible and visual alarms, local exhaust ventilation systems, building roof fans designed for ambient air exchange, process scrubbers, intrinsically safe tools and systems etc.
Spotter/Safety Watch	A qualified person, designated by the supervisor, who performs all the observation duties assigned for the task. This individual may be equipped with an emergency communication device, and be outfitted with PPE as required for the task. It is the sole responsibility of this individual to perform only the observation activities that apply to the task, and no other functions or tasks.
Warning	Indicates a hazardous situation that, if not avoided, could result in death or serious injury. WARNING [signs] should not be used for property damage hazards unless personal injury risk appropriate to this level is also involved.

9.0 Records Retention

Records applicable to policies must be retained according to the FCX Records Retention Policy	
Required Documents	• Annual program review documents • Variance Documents • Audit findings and action items • Employee training records • Engineering reports • Third party findings • Others as appropriate

10.0 Revision History

Initial Release	May, 2018 Appendix Revision: July 2018 Appendix Revision: January, 2019 Variance Management Adjustment: January, 2019 Appendix Revision: August, 2019 Appendix Revision: January 2020 Appendix Revision: April 2021

Appendix A – Site Program Requirements

Policy	Other Requirements
FCX-HS02 Working at Heights	Sites will maintain monthly and annual inspections (documented) of fall protection equipment, and annual PM of permanently installed systems, including engineering review of verification of anchorage capacity as necessary.
FCX-HS03 Electrical Safety Policy	Sites will maintain: ground check program for equipment; assigned Arc Flash Engineer and a responsible person for drawing management (reference Arch Flash Management Technical Supplement for further details); Electrical Equipment Database, and/or accurate drawings and arc flash model when a database is not feasible.
FCX-HS04 Control of Hazardous Energy	Written program detailing the requirements for lockout/tagout/tryout. Survey of all hazardous energy sources and identification of complex or multiple source energy isolating devices. Written procedures for machines, equipment and processes (like items may be grouped). Procedures will include identification of the machine, equipment or process, listing of all required energy isolating devices and their locations, and specific procedural steps for shutting down, isolating, blocking, securing and relieving stored or residual energy. As well as specific procedural steps for the placement and removal of lockout devices and specific requirements for verifying that isolation and de-energization has been accomplished. Regular review hazardous energy control procedures not to exceed 3 years. When new processes/systems are installed or upgraded, any written procedures should be reviewed and amended as necessary. Inventory of as-builts and drawings of hazardous energy sources for equipment (when those sources are not obvious) , located in a common library (e.g. fuel lines, electrical lines, acid lines…)
FCX-HS05 Confined Space Entry	Risk Register and control plan. All spaces must be labeled and included on inventory regardless of permit status
FCX-HS06 Hot Work	Areas with known but not obvious combustibles, signage must identify need for Hot Work Permits. Sites will maintain documented list of fire safe designated areas.
FXC-HS12 HDPE Pipe Handling	Rigging inspection documents and engineering approval will be maintained for a period of at least one year.
FCX-HS17 Hazardous Gas	Working with divisional leadership and the Industrial Hygiene/Health and Safety Departments, each site will develop a site-specific Hazardous Gas Program. The following information should be included in the program for each department/area: • Gases of concern, including potential sources and methods of generation • Specific details on site-specific Critical Controls clarifying; Access controls, handling requirements, PPE (including respiratory protection) and engineering controls • Area Specific SOP requirements • Area and Personal Monitor Alarm set points and locations- consideration of alarm set points should ensure employees: • know to take immediate action in response to upset conditions
FCX-HS19 Flagging and Barricading	none
FCX-HS24 Rolling Stock Management	none

FCX-HSX28 Sulfuric Acid Bulk Handling	The following program requirements must be in place: Security cameras installed at acid loading/unloading areas and monitored by a control room, with the ability to record. Conspicuously located emergency stop buttons, thus labelled. Positive communication system in acid loading/unloading area with clear and obvious signage. Signage must include: emergency contact number, responsible person, site radio channel information. Windsocks installed and visible to operators working in loading/unloading areas. Secondary shut-off devices installed outside tanker Hot Zone. Emergency wash stations that meet ANSI Z358.1-2009 or equivalent and the following: • Accessible units, within 50ft (15 m) of loading/unloading areas • Integration with site emergency communication or control room • Uninterruptible flow • Accessible on rail platforms and at ground levels Preventative maintenance schedule for the following when in use: • Eyewashes, showers and water supply systems • Camlocks, hoses, gaskets and support chains • Splash guards • Pumps • Level indicators, gauges and lights • Cameras and communication systems • Metering equipment • Emergency stop systems
FCX-HS29 Standard Safety Requirements	None
FCX-HS33 Metal Fume Control	Working with divisional leadership and the Industrial Hygiene/Health and Safety Departments, each site will develop a site-specific Hazardous Gas Program. The following information should be included in the program for each department/area: • Gases of concern, including potential sources and methods of generation • Specific details on site-specific Critical Controls clarifying; Access controls, handling requirements, PPE (including respiratory protection) and engineering controls • Area Specific SOP requirements • Area and Personal Monitor Alarm set points and locations- consideration of alarm set points should ensure employees know to take immediate action in response to upset conditions

Appendix B –Audit or Review Requirements

Policy	Audit Requirements
FCX-HS02 Working at Heights	**Periodic, but at least annual**: fall protection use, component condition and maintenance, stock of components and permanently installed fall protection systems. **Annually**: Review records associated with the maintenance of all fall protection components and systems. Review and update risk registers/inventory.
FCX-HS03 Electrical Safety Policy	**At least every 5 years:** Arc flash analysis and single line drawing review by site electrical leaders. **Annually**: FCX Electrical Safety Lead (or delegate) will perform audits on the site's electrical equipment database or drawings and the Arc Flash Engineer's model, if used.
FCX-HS04 Control of Hazardous Energy	**Annual:** program review, and inspection of energy control procedure(s) in progress. The inspection must be documented and include a review of the roles and responsibilities of each individual involved.
FCX-HS05 Confined Space Entry	**Annual**: review risk register, confined space inventory, cancelled permits and observe live entries.
FCX-HS06 Hot Work	**Periodic, but at least annual,** survey of hot work requirements.
FCX-HS12 HDPE Pipe Handling	**Quarterly** field audits by site team and/or project. **Annual** PSST audit.
FCX-HS17 Hazardous Gas	Annual Review- Update site specific documents for any plant modifications that have potential to introduce new hazards. Evaluate for any gaps or effectiveness.
FCX-HS19 Flagging and Barricading	None
FCX-HS24 Round Stock Management	None
FCX-HSX28 Sulfuric Acid Bulk Handling	**Quarterly:** Health and Safety and area supervisor, audit unloading/loading activities for Critical Control use and effectiveness. **Periodic, but at least annual:** Health and Safety, jointly with contractors/carriers inspect work areas (schedule based on volume of delivery and frequency of exposure).
FCX-HS29 Standard Safety Requirements	None
FCX-HS32 Crane and Rigging	**Periodic**- various inspections are required of cranes and rigging equipment Annual
FCX-HS33 Metal Fume Control	**Annual** -Update site specific documents for any plant modifications that have potential to introduce new hazards. Evaluate for any gaps or effectiveness.

Appendix C – Training Requirements

Note: Not all courses may be required in all circumstances. See MTI SharePoint for most recent course list.

Policy	Training Required	Details	MTI Course Information
FCX-HS02 Working at Heights	Initial and Annual Refresher	Specialized equipment use. Must include evaluation of understanding.	SFT_FCX1012C Working at Heights MEQ_MTI2005C Aerial Work Platform
FCX-HS03 Electrical Safety Policy	Initial and Annual Refresher	Specialized equipment use, and skills assessment. Must include evaluation of understanding.	SFT_FCX1013C Control of Hazardous Energy NFPA 70E (every 3 years) CPR / First Aid Contact Release Electrical Safety for Mining 600V Switching for Non-Electricians (initial only)
FCX-HS04 Control of Hazardous Energy	Initial and Annual Refresher	Training must include a review of past incidents and changes to the program, including new or altered equipment. Employees must be task trained to the written procedures for each unique piece of equipment/system.	SFT_FCX1013C Control of Hazardous Energy
FCX-HS05 Confined Space Entry	Initial and Annual Refresher	Specific training for various roles (entrant, attendant and supervisor). Must include evaluation of understanding.	SFT_FCX1003C Confined Space SFT_FCX1007C Minimalist Confined Space Rescue
FCX-HS06 Hot Work	Initial and Annual Refresher	Fire prevention. Task specific requirements. Must include evaluation of understanding.	SFT_FCX1022C Hot Work
FCX-HS12 HDPE Pipe Handling	Initial	Training to include: rigging, policy, awareness, use of permit, safe distances, proper use of substantial barriers, loading, off loading, storage, pulling and handling, fusing, inspection and failure prevention, incident review, hazard areas, mobile equipment use. Skills assessment required.	HYD_FCX2027C & HYD_FCX2024C HDPE Pipe Handling HYD_MTI1002C HDPE Pipe Fusing RIG_FCX1001C Technical Rigging HDPE Skills Training Datalogging
FCX-HS17 Hazardous Gas	Initial and Annual Refresher	Hazardous gases present, generation sources, controls and response to alarms (gas monitor training). Site Specific/Technical Training (no MTI courses)	N/A
FCX-HS19 Flagging and Barricading	Initial and Remedial as Necessary	n/a	SFT_FCX1020C Flagging and Barricading

FCX-HS24 Round Stock Management		Training as required to perform duties.	n/a
FCX-HS28 Sulfuric Acid Bulk Handling	Initial and Annual Refresher	Training to include: overview of policy and regulation and new or existing hazards and mitigations.	Site specific training and operator technical training SFT_FCX1017C Bulk Sulfuric Acid Handling Training

FCX-HS29 Standard Safety Requirements	Initial and Remedial	Task training may be required for some activities covered in the policy. Reference national, regional and local regulation for additional information.	n/a
FCX-HS32 Crane and Rigging	Initial and Annual Refresher (Mobile Cranes)	Operators shall be required to successfully meet the qualifications for the specific type crane which they are operating. Riggers need to be qualified for loads they are rigging. Please reference the Operator, Rigger and Signalperson Qualification TS (Training).	CRNMTI1001C Mobile crane operator training class RIGFCX1001C Technical Rigging class
FCX-HS33 Metal Fume Control	Initial and Annual Refresher	Hazardous gases present, generation sources, controls and response to alarms (gas monitor training).	Site Specific/Technical Training (no MTI courses)

Appendix D – Variance Request Form

Complete this form with a detailed description of the area and reason for the variance request. A task review by an engineer or other qualified individual to consider other controls must be completed prior to submitting for approval. The approval authority for either long-term or temporary variance request is specified at the bottom of the form.	
Site / Operation:	Variance Duration: From Date/Time _____ To Date/Time _____
Type of Variance (Check Only One) Long-term Temporary	
Location of Activity:	Policy:
Purpose of Activity:	Division Manager:
Description of Request:	
Justification for Variance:	
Additional Control Measures:	
Action Plan to Comply with Policy:	
Responsible Party:	Expected Date of Completion: