



# Health & Safety

**A Practical Guide for  
Aggregate Operations**

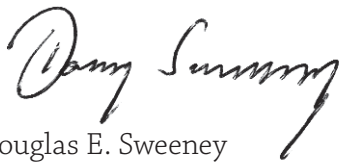


Ministry of  
Energy, Mines and  
Petroleum Resources

## A Message from the Chief Inspector

This handbook provides guidelines for safe operations and healthy workers at British Columbia's many aggregate mining operations. The regulations governing the design, equipment, and operation of aggregate mines are prescriptive, and the Code stands on its own. This booklet summarizes some highlights of the Code and includes some best practices that we believe will enhance the health and safety of every worker in our industry.

Our Province has long been respected as an international leader in mine safety, and mining has long been among the safest heavy industries in B.C. While understanding and adhering to the *Mining Act* and Code is the responsibility of every mine operator, we hope this handbook will provide some useful and practical guidelines to assist managers, supervisors, and workers in the aggregate industry to maintain the safest and healthiest possible work environments as the industry evolves.



Douglas E. Sweeney  
*Chief Inspector of Mines*

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This guide is not a substitute for your full awareness and understanding of the Code! It is your obligation to be familiar with all provisions of the *Mines Act* and Code relating to aggregate operations.



# SAFETY RESPONSIBILITIES

While aggregate mining is an important natural resource business in British Columbia, health & safety of workers and the public is the most critical responsibility of all workers and managers in the mining industry.

The B.C. *Mines Act* and the *Mine Health, Safety and Reclamation Code for Mines in British Columbia* (the Code) provide very specific health & safety Code requirements that must be followed at every mine, including sand and gravel pits and aggregate quarries. Anyone responsible for mining activities must take all reasonable care to comply with all requirements of the *Act* and the Code. Failure to comply is an offence subject to fines or imprisonment, and at a minimum will result in a halt to operations until the safety issue is corrected.

All employees have the following rights:

- The right to a safe and healthy workplace
- The right to participate in safety planning, such as the Occupational Health and Safety Committee
- The right to be informed of health & safety issues, inspection reports, and adequate health & safety training

Each owner/agent must appoint a mine manager responsible for ensuring every aspect of the operation complies with the *Mines Act*, the Code, and the *Mines Act* permit for the site. The owner/agent must provide anything the mine manager requires to do his/her job. Legal responsibilities of the mine manager include:

- Obligation to take all reasonable care to avoid contravening any *Act*, Code, or permit condition
- Responsibility to provide a safe and healthy environment for workers
- Ensure supervisors are suitably qualified to perform their duties
- Ensure workers are adequately trained and qualified to perform their duties
- Ensure workers have personal protective equipment and access to the mine plan, safety information, and safety committee minutes
- Ensure every worker has a current copy of the *Mines Act* and the Code
- Responsibility for contractors on site

The *Mines Act* and Code allow mine inspectors from the Ministry of Energy, Mines & Petroleum Resources to use their judgment to **go beyond the**

Workers must be adequately trained and qualified for the tasks they perform.



Any employee can refuse to work in any situation that he/she believes to be unsafe. No supervisor may direct employees to perform work in an unsafe manner.



**minimum requirements of the Code to ensure a safe working environment**, both in mine permitting (before a mine is allowed to operate), and in ongoing mine inspections and audits. It is the intent of the inspector to support ongoing operations that provide a safe and healthy work environment, but the inspector has the authority to halt any operations that are judged unsafe. Safety is always first.

# THE CYCLE OF SAFETY

Safety is more than a set of rules or requirements. It is a way of doing business that requires the constant attention of anyone on a mine site.

## The Safety Cycle

This handbook is organized into 11 sections dealing with all phases of mine planning and operations. Each section is organized around the Safety Cycle. The Safety Cycle has four key steps:

1. **Planning:** have an effective, organized plan in place for any activity; keep the plan up to date
2. **Training:** ensure all workers are trained and qualified to perform the activity, and that they are familiar with all aspects of the plan
3. **Operations:** conduct operations by putting the plan into action
4. **Monitor and Document:** maintain adequate records of all planning, training, and operations; continuously monitor operations to improve safety performance.

The Safety Cycle is a constant, ongoing process. Once an operation is completed and documented, the planning stage begins again. Improvements and lessons learned through experience are added to the planning process, and are reflected in training, operations, and monitoring and documentation. Improved safety performance is the outcome of the Safety Cycle.

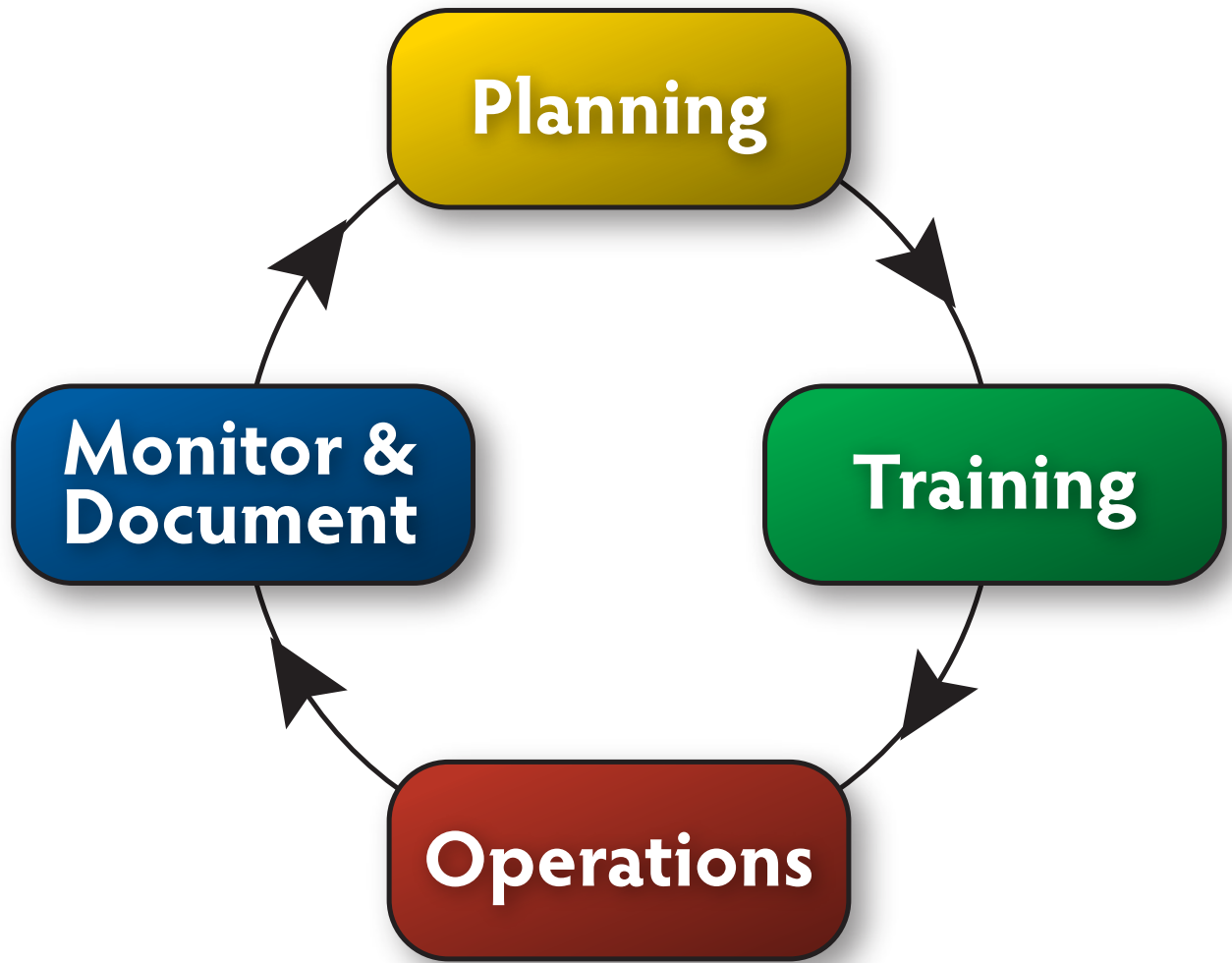
## Guiding Principles

- Safety overrules all other considerations
- Be aware of and comply with all health & safety requirements at all times
- Prevent workers and the public from exposure to any unsafe conditions
- Adequate training and orientation to safety procedures, safe equipment operation, and emergency procedures is critical to worker safety.
- Inspect and monitor activities and continuously improve safety performance

Safety is everyone's first consideration in aggregate mining. The Code puts health & safety first.



Finally, this handbook should not replace awareness of the Code and other health & safety requirements, nor should it be considered an exhaustive safety manual. Remember, a safe working environment is everyone's responsibility.



# MINE PLANNING

## Planning

Development of a comprehensive, suitable mine plan is essential to the issuance of a mine permit. Suitable adherence to the mine plan is a responsibility of the manager. The plan should include an appropriate update and revision mechanism, including inspector review.

The importance of an approved mine plan in ensuring a safe workplace cannot be overestimated. It is central to the safe operation of any aggregate facility. In developing the mine plan, the mine manager should:

- Ensure all workers are supervised by a suitably qualified supervisor or manager
- Employ only appropriately trained and qualified people
- Seek to implement industry best practices
- Implement prevention systems and training programs
- Comply with internal and external audits
- Utilize risk assessment tools and contingency plans
- Consider impacts (noise, dust, water effluent) outside the property
- Implement processes to improve performance

## Training

- Employees must be aware of and have access to the mine plan
- Employees should be briefed in the consequences of not following the mine plan, including liability
- Workers should have access to and understand operational plans (daily work plans, bench or face plans)
- Water control training (dam operation and safety) is required if applicable

## Operations

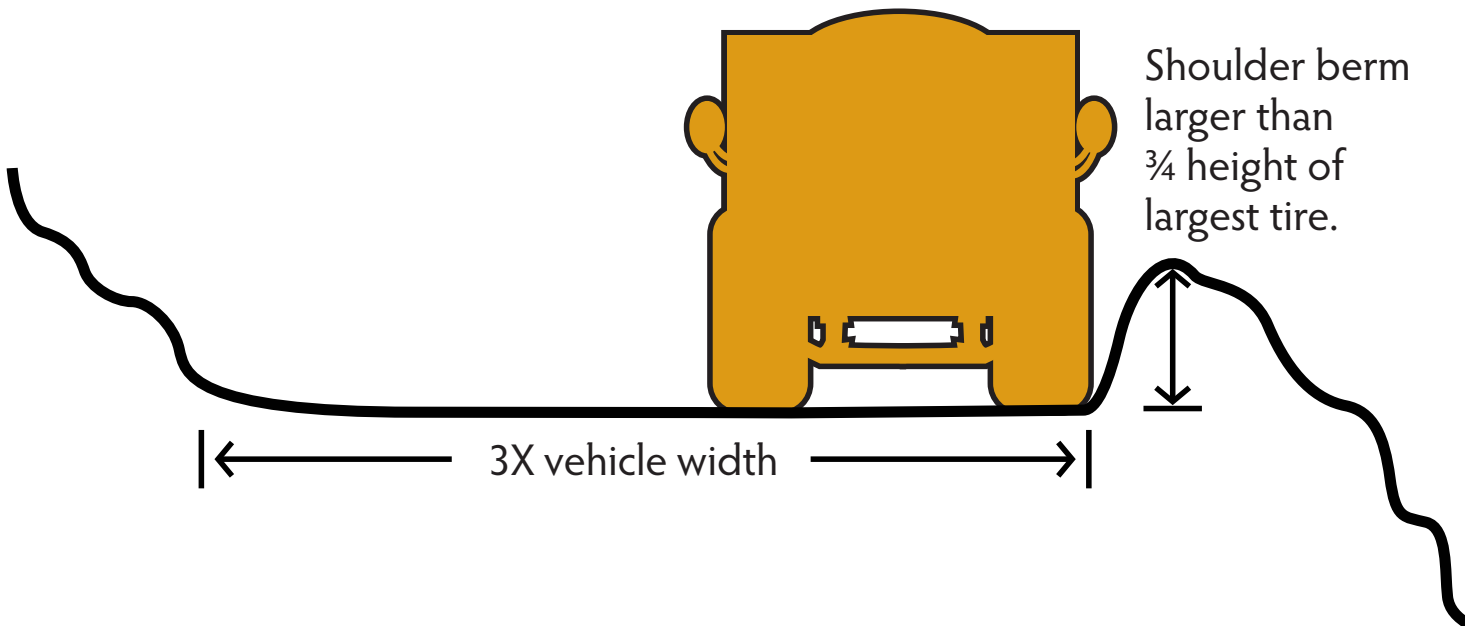
The mine plan should take into account the following considerations:

- The overall mine plan should accommodate development and implementation of operational planning (bench or face plans)
- Onsite supervision to ensure compliance with the mine plan
- Size, shape and depth of the pit or quarry

Developing a mine plan often requires external professional support: geotechnical engineering, electrical engineering, legal, surveying, environmental assessment, and other professional expertise.







- Appropriate buffer zones and setbacks
- Location of facilities and stationary equipment
- Preferred access routes
- Extraction sequence
- Electrical plan (certified by a professional electrical engineer and approved by Chief Inspector *before* energizing the site)
- Engineering design (stability, geotechnical, drainage, benches, dumps, etc)
- Processing and stockpiling methods
- Storage and stockpile locations (including topsoil and overburden storage)
- Machinery and equipment requirements
- Appropriate road engineering standards, including width, grade, shoulder berms, and runouts
- Traffic control plan
- Stormwater, wastewater and erosion control, storage and treatment systems (permanent water-control structures or dams require professional design)
- Fuel storage, spill response and fire fighting
- Safe work procedures

## **Monitoring and Documentation**

- Mine plan (including site maps) are required and must be updated on a regular basis
- Maintain and provide access to all written records and documentation
- Implement and monitor safe work procedures
- If applicable, maintain a dam operation/maintenance/surveillance (OMS) manual, updated throughout the dam lifecycle to decommissioning

# EMERGENCY RESPONSE

## Planning

The mine plan must include comprehensive emergency response plans. The manager must develop, maintain and test emergency response plans for:

- Mine rescue and medical emergencies
- Hazardous material spills and fires
- Landslides and major erosion events
- Water impoundment hazards (if applicable)

## Training

- First aid training and certification as required by WorkSafe BC, including for all supervisors
- Basic fire response as appropriate (site evacuation, emergency equipment & fire extinguisher operation, basic firefighting)
- Orientation of local fire department and BC Ambulance Service with site layout and identified hazards
- Confined space training if required

## Operations

- First aid kit and/or facilities must be adequate for the size of operation (in accordance with WorkSafe BC requirements)
- Provide site plans to BC Ambulance Service and local fire department
- Maintain current emergency response contact list
- Implement confined space procedures as required
- Maintain spill kits

## Monitoring and Documentation

- Document all training; maintain records onsite
- Report and document all incidents
- All fuel and waste oil spills (over 100 litres) must be reported to the Provincial Emergency Program (PEP) at 1-800-663-3456

Emergency response plans should include liaison with other mines & local emergency response agencies for mutual aid.



# OCCUPATIONAL HEALTH

## Planning

Occupational health (or occupational hygiene) refers to anticipating and responding to hazards that, unlike accidents, accumulate gradually over time.

- Occupational Monitoring Plan is required for dust and noise management (and other applicable chemical or physical agents)
- Fully implement Workplace Hazardous Materials Information System (WHMIS) code requirements including training, labeling, Material Safety Data Sheets (MSDS), storage, handling and use, and emergency response
- Develop fuel and flammables storage plan
- Worker facilities plan (lunchroom, toilet, shower facilities) where required
- Develop audiometric (hearing) testing program plan
- Develop heat and cold stress planning and standards for employees, as applicable

Hazards can include chemical or radiologic exposure, noise, ergonomic hazards, and dust or other environmental risk factors.



## Training

- Training in WHMIS is required for workers exposed to or handling hazardous substances
- Ergonomic training can significantly reduce musculoskeletal injuries and is required for Health & Safety Committee members
- Workers handling fuels should obtain Ministry of Environment fuel transportation, storage, and handling guidelines training

## Operations

- Implement engineering controls for reducing dust and noise
- Store, transport, use and dispose of all hazardous material according to WHMIS requirements, provincial regulations and manufacturer's specifications
- All mobile and stationary fuel tanks must comply with the federal *Transportation of Dangerous Goods Act* and the federal *National Fire Code* and with the provincial *Motor Vehicle Act* and Ministry of Environment regulations/guidelines
- Use absorbent spill mats when refueling and storing equipment, promptly clean up all spills and ensure spill kits are located close to refueling and storage areas

- Use impermeable containment barriers around fuel tanks equal to or greater than 110% of the tank's capacity
- Maintain all equipment to avoid leaks of fuel, lubricants, hydraulics, or other chemicals; promptly clean up and repair all leaks
- Implement heat and cold stress procedures for occupational safety in extreme weather

## **Monitoring and Documentation**

- Maintain sampling results for noise, dust, and other applicable environmental contaminants
- Implement relevant followup activities for potential overexposure events
- All spills must be reported to the Provincial Emergency Program (PEP)
- Report, record and investigate all incidents

# MOBILE EQUIPMENT



## Planning

- Plan appropriate equipment selection, ensuring the right equipment for the job
- Ensure all equipment on the mine site conforms to B.C. requirements and standards (emergency steering, emergency braking, rollover protection, seatbelts, flashing lights, labeling, etc.). These requirements may not exist in other jurisdictions or industries



## Training

Ensure all employees have suitable training and qualification, as applicable, in:

- Vehicle operation (including prechecks)
- Startup, operation, and shutdown procedures (including air brakes)
- Proper maintenance and operation of hydraulics
- Emergency steering & braking systems
- Wheel and tire removal and maintenance
- Emergency procedures
- Proper management of logbooks



## Operations

- Moving equipment must be equipped with protection and safety features such as rollover protective structures, lights, windshields, wipers, seatbelts, and back up warning systems and maintained in good working condition
- Inspect and maintain safe access ladders and steps, guardrails and handrails
- Wheel chocks must be used when heavy equipment is unattended
- Appropriate precheck procedures (such as daily vehicle safety check, logbook entry and review, and walk-around prior to each use) must be followed
- Regular, periodic safety inspections must be performed
- Regular preventive maintenance and prompt repair of defects must be performed and logged. Suitable qualifications are required for braking, steering, hydraulics, wheel & tire maintenance

Equipment on the mine site must conform to Code requirements and standards, which are more stringent.



- Appropriate operating procedures must be followed, including: safety procedures, standard operating procedures (right-of-way, priorities, loading, dumping, speed, equipment startup/shutdown)
- Crane arms and other load-bearing components require annual non-destructive testing (NDT)

## **Monitoring and Documentation**

- Training and qualification records must be maintained on site
- Maintenance records and equipment logbook must be maintained and accessible

# SITE PREPARATION

## **Planning**

Site preparation involves the clearing of any trees and vegetation as well as the stripping and retaining of topsoil and overburden prior to extraction of the aggregate.

- All aspects of site preparation must conform to the approved mine plan, and is not a trivial exercise

## **Training**

- Workers must be aware of the plan
- Specialized operations will require specific skills and training
- Overburden (topsoil, clay cover, etc.) is different material from aggregate, with different behaviours
- Stripping steep overburden requires specialized skills

## **Operations**

- Cutting trees on Crown land requires a license or permit from the Ministry of Forests and Range and requires specialized falling skills, and must be performed by suitably trained and equipped workers
- Avoid topsoil/overburden stripping during excessively dry weather conditions that could create undesirable levels of dust
- Avoid stripping topsoil in excessively wet weather as this can impact haulage
- Any excavation must be set back at least 5 metres from the mine property boundary
- Topsoil stockpiles should be stable and limit dust and slumping

## **Monitoring and Documentation**

- Plan should be updated regularly to reflect site preparation operations

Site preparation may require specialized equipment and methods not used in other mining activity.





# BUILDINGS & FIXED EQUIPMENT

## Planning

Fixed equipment includes all stationary processing and conveying equipment, including crushers, screens, and conveyors.

- Layout of fixed equipment and buildings must be in accordance with the Code, the mine plan and all applicable regulations. Compliance requirements include: B.C. Building Code, Canadian Electrical Code, and other standards listed in the Code
- Consider mine traffic patterns, mining operations, and other mining hazards

## Training

- Ensure worker qualifications to comply with B.C. Building Code, Canadian Electrical Code, and natural gas code as appropriate
- Ensure all workers are trained and oriented to emergency procedures, fire protection, evacuation, and emergency equipment. Provide Confined Spaces certification training if required

## Operations

B.C. Building Code and Canadian Electrical Code—including CSA Standard M421-00, *Use of Electricity in Mines*—specifies requirements for all mine buildings, equipment and machinery and must be followed. Building and fixed equipment design and construction must incorporate these appropriate safety considerations, as applicable:

### Structures and Buildings

- Fall-arresting devices and guardrails on elevated work structures
- Railings and guardrails
- Designation of appropriate walkways and travelways
- Designation and signage for access/egress locations (emergency exits)
- Dust suppression and collection, atmospheric contaminant management
- Physical separation of master control station (MCC) from hazardous materials
- Fire protection for buildings, equipment and machinery, including fire extinguishers

Fixed equipment and buildings must be in accordance with the mine plan and all other applicable codes, including the BC Building Code and the Canadian Electrical Code.



- Ventilation and monitoring requirements for exhaust and other gases
- Provision of suitable storage and WHMIS labeling for lubricants, fuel, and other hazardous materials

## Processing Equipment

- Guards and protective structures on moving parts, including conveyors
- Startup alarms
- Pull cords (emergency stop for processing and conveyor equipment)
- All electrical installations (permanent and temporary wiring, cable handling, grounding, lighting, emergency lights, and signage) must comply with applicable codes

## Mine Site

- Gates, fences, signage or other barriers at mine access points to ensure the mine site is secure against unauthorized and accidental entry
- Marking and maintaining the legal mine property boundary
- Appropriate and safe sump design, layout, guarding, signage

## Monitoring and Documentation

- Periodic maintenance/inspection records (including all code requirements)
- Maintain all training records
- Maintain dust, noise and other environmental monitoring as required

# EXTRACTION

## Planning

Extraction refers to all methods of removal of aggregate from its natural position, including quarrying.

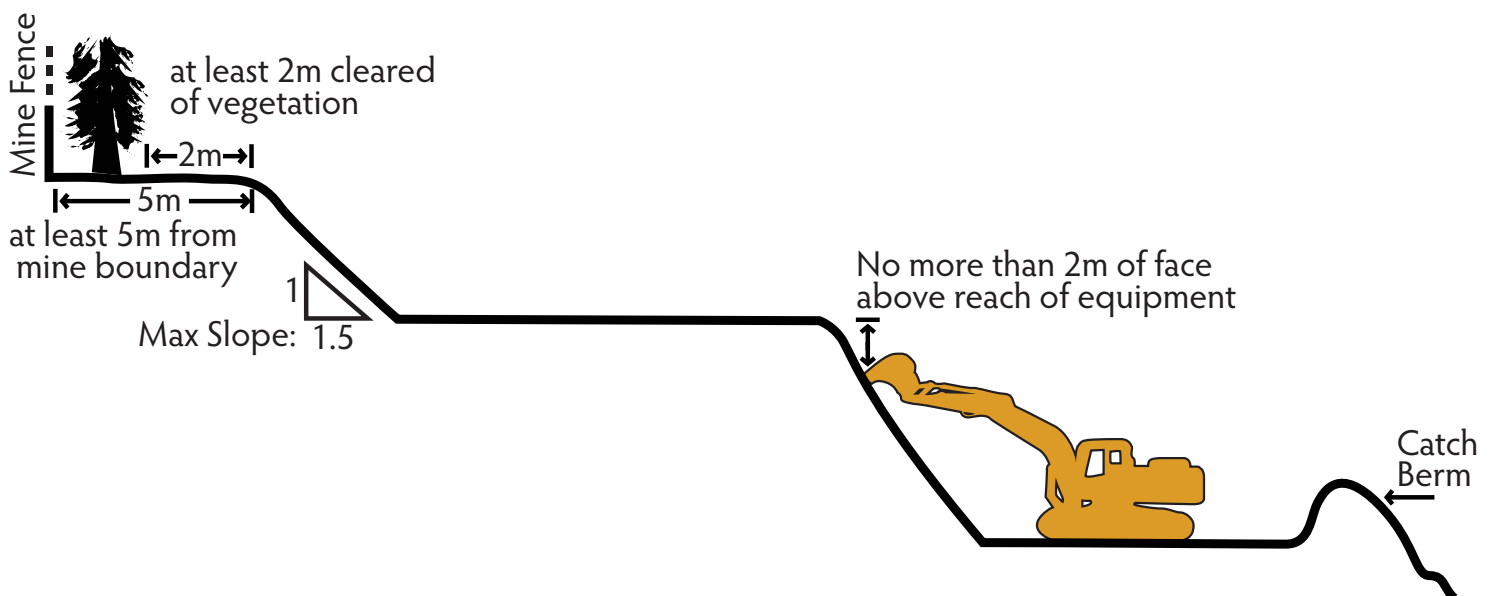
- Develop an operational (bench) plan for daily or weekly operations
- Consistency with the mine plan must be maintained
- Ensure that the equipment for the job at hand is appropriate

## Training

- Ensure workers are suitably trained and qualified to perform tasks to which they are assigned

## Operations

- Excavation must be set back at least 5 metres from the mine property boundary and the slope from this setback must be no steeper than 1.5:1 (horizontal:vertical)
- Maintain the pit face height not more than 2m above the reach of loading equipment



- Remove all trees, vegetation and overburden within 2 m of the edge of the pit/quarry rim as well as all dangerous trees within striking distance of workers (may require specialized qualifications)
- Start excavating at the top of the slope working downward using a sequence of benches and lifts
- Maximum slope lengths and slope angles must conform to the mine plan and *Mines Act* permit
- Mark all setbacks and buffers and maintain excavation within those limits
- Maintain shoulder barriers on all drop-off hazards, including benches and haul roads
- Maintain proper road widths on all mine roads
- Ensure all slopes and material are left in a stable state during any temporary shutdown or closure
- Ensure the mine site is not used for any purpose other than mining

### **Monitoring and Documentation**

- Monitor operations for consistency with approved mine plan (production rate, tonnage, pit design)
- If amendments to mine plan are required, the manager must reapply to the Chief Inspector

# EXPLOSIVES

## Planning

Trends in B.C. point to increased use of quarrying technology in aggregate extraction, so the use of explosives in aggregate production is increasing.

- Establish blasting plans in accordance with good engineering standards regarding blasting operations, in accordance with Part 8 of the Code.

## Training

Blasters must be certified by the Ministry of Energy, Mines and Petroleum Resources

## Operations

Some key Code requirements and best management practices include:

- Certification under the *Mines Act* is required for all persons conducting blasting operations
- Blasting within one kilometre of housing requires special certification
- An explosives storage and use permit is required under the *Mines Act* and all storage facilities must comply with the Canadian *Explosives Act*
- Careless acts or noncompliance with regulations involving explosives require the manager to suspend the individual from working with explosives and report the suspension to the inspector
- Issue advanced public notices of blasting times
- Avoid blasting during sensitive (weekends, holidays) or high risk times (cloudy, overcast days)
- Controlling fly rock, vibration, noise and shock is essential for mine site and public safety
- During blasting, establish noise, vibration and shock monitoring stations at critical locations near the mine site
- Blasting in close proximity to fish habitat must comply with the Federal *Fisheries Act* and Department of Fisheries and Oceans requirements

Use of explosives is highly regulated and requires special safety considerations in planning and preparation.



## **Monitoring and Documentation**

- Certification of blasters
- Magazine licence, storage and use permit on site
- Explosives and magazine logging

# PROCESSING

## **Planning**

Processing includes conveyance, crushing, grading, screening, and cleaning of aggregates, and makes use of fixed (including portable) processing plants, conveyors and equipment.

- Location of processing facilities must be consistent with mine plan siting
- Plan and document all operating procedures

## **Training**

- Ensure workers are suitably trained and qualified to perform tasks to which they are assigned
- Orient all workers to lockout procedures: safe procedures for electrical and mechanical lockouts during maintenance
- Train all employees in emergency procedures, including emergency response, evacuation, and use of shutoffs
- As applicable, provide training and certification for Confined Spaces procedures

## **Operations**

### Maintenance

- Ensure ongoing maintenance and safe operating procedures for all safety equipment (guards, alarms, pull cords, walkways and railings)
- Regularly inspect operating condition of belts, conveyers, equipment, and structures
- Perform regular conveyor maintenance (wear, roller replacement, tensioning, etc.)
- Maintain dust suppression and collection
- Maintain the mine site in an organized, efficient and clean manner free of inactive equipment and scrap parts
- Ensure ongoing cleanup of all processing and conveyor facilities
- Ensure that feed hopper ramps are built with suitable shoulder berms and guarding

## Procedures

- Use appropriate personal protective equipment (PPE) as required: eye and hearing protection, respirator, protective clothing, high-visibility vest, hardhat, protective footwear
- Implement storage procedures of lubricants, fuel, and hazardous materials
- Implement lockout procedures for methodical electrical and mechanical lockouts during maintenance and downtime
- Develop and implement a safe conveyor movement plan
  - Reduce dust and noise by limiting the height from which material is dropped, select equipment with noise and dust control options and use rubber skirts, hoods or wind breaks around drop zones
  - Establish and maintain safe travelways (designated or habitual routes in and around fixed equipment)
  - Develop and implement operating procedures for inclement weather (ice buildup/removal/clearance, etc.)
  - Employ appropriate Confined Spaces procedures where applicable

## Monitoring and Documentation

- Training/qualification documentation for all employees is required
- Maintain equipment maintenance records/plant equipment log
- Maintain appropriate shift log
- Maintain design documents



# STOCKPILING

## Planning

Stockpiling is the temporary storage of aggregate, overburden, and other material on the mine site.

- Stockpiling must be planned in accordance with overall mine plan, including stockpile and transport path locations
- Stockpiling often introduces outside contractors on the mine. Interface between mine and contract workers creates added risk.

## Training

- Workers must be trained and qualified on stockpiling equipment and procedures
- Orientation/training for contractors on site: emergency services, traffic patterns

## Operations

- Develop and enforce strict construction (including ramp berm construction and conveyor tunnel ) procedures
- Develop and enforce removal procedures (including frost operations)
- Restrict access to stockpiles since free-flowing aggregate can be unstable and dangerous
- Lighting the stockpiling areas should be adequate
- Material must not be stored greater than 2m above the reach of loading equipment
- Use tarps, water spray or soil stabilizers on material that is susceptible to wind erosion to reduce dust
- Appropriate PPE must be worn

## Monitoring and Documentation

- Training documentation
- Material and location logging

The mine manager is responsible for everything that occurs within the mine boundaries—including any contractor activities.



# PRODUCT TRANSPORT

## **Planning**

Transport refers to movement of finished product from stockpile to off site.

- Ensure that all haul roads conform to mine road specifications and are located in conformance to the mine plan
- Any equipment brought on site must be adequate (DOT decal) and a plan for over-the-road equipment on the mine should be made to protect highway users (keep outside vehicles on “clean side” or develop rock removal/cleaning procedures)

## **Training**

- Ensure all workers are trained and qualified in product transport, including daily or weekly work (face) plans
- The safety of all persons on the mine site, including offsite contractors, is the responsibility of the mine manager. At a minimum, all workers—including contractors—require orientation to the traffic control plan and familiarization with emergency procedures

## **Operations**

- Including a tallying procedure will ensure vehicles and workers (especially contractors) are not overlooked in an emergency
- Do not overload trucks
- Reduce vehicle speeds to limit dust, noise and vibration
- Upgrade or pave roads near property entry/exits
- Prevent material from falling off haul trucks while on public roads by keeping trucks clean, covering loads and removing material lodged in dual tires
- Once vehicles leave the mine property, they are under the authority of other government agencies and laws

## **Monitoring and Documentation**

- Tally records (check-in/check-out)
- Training/orientation documentation

# GLOSSARY OF TERMS

**Act:** *Mines Act* (Revised Statutes of B.C. 1996, Chapter 293)

**Aggregate :** Sand, gravel and crushed rock

**Code:** Health, Safety and Reclamation Code for Mines in British Columbia, updated 2003

**Hazard:** An unsafe or harmful condition, substance, or circumstance

**Manager:** A person appointed to be responsible for management and operation of a mine. There must be a manager acting in that capacity at all times, and the manager must attend the site daily

**Mine:** A place where mechanical disturbance of the ground or any excavation is made to explore for or to produce coal, minerals, placer minerals, rock, limestone, earth, clay, sand or gravel; all buildings used in connection with mining activities; or a place designated by the Chief Inspector as a mine

**Mining :** Any activity related to the exploration, development and production of a mineral, a placer mineral, coal, sand, gravel or rock including the reclamation of a mine

**MSDS:** Material safety data sheets, which contain information on potential hazards and safe working procedures for hazardous materials

**Owner:** A person who is the immediate holder, proprietor, lessee, occupier or permittee of a mine or any part of a mine. The owner must designate a manager and provide the manager with every facility for conducting the operation of the mine in accordance with the Act and Code

**PPE:** Personal Protective Equipment, including hardhat, ear protection, respirators, protective clothing and high-visibility vests

**Suitable:** Suitable to the satisfaction of the inspector

**Supervisor:** A person who instructs, directs, trains, or controls workers in the performance of their duties and is authorized to take or recommend disciplinary action against workers

**WHMIS:** Workplace Hazardous Materials Information System, the Canadian national standard for communication of hazards

**Worker:** Any non-supervisory employee

# RELEVANT REGULATIONS & LEGISLATION

## Health, Safety & Reclamation Code for Mines in British Columbia

- *Mines Act* RSBC 1996, ch. 293  
[Updated to July 16, 2002]
- CSA Standard M421-00,  
*Use of Electricity in Mines*
- Spill Reporting Regulation (B.C. Regulation 263/90). Under the authority of the *Environmental Management Act*.
- Confined Spaces Regulation (OHS Regulation Part 9. B.C. Regulation 296/97 amended by B.C.Reg. 185/99 and 253/2001). Under the authority of the *Workers Compensation Act*.

This document is not a substitute for your own awareness and understanding of the *Mines Act* and Code. Whether manager, supervisor, or worker, it is your obligation to be familiar with all provisions of these regulations.



# FOR FURTHER INFORMATION

## Government Resources

Additional information on provincial statutes, regulations and mining resources can be found on the Internet at: [www.gov.bc.ca](http://www.gov.bc.ca) and [www.em.gov.bc.ca/Subwebs/mining/](http://www.em.gov.bc.ca/Subwebs/mining/)

Local Ministry of Energy, Mines and Petroleum Resources offices nearest you can be located by calling Enquiry BC at: 1•800•663•7867 or by email: [EnquiryBC@gov.bc.ca](mailto:EnquiryBC@gov.bc.ca)

## Safety, Occupational Health and Relevant Engineering

Information about qualified professionals who can assist with aggregate operation health & safety can be found on the following websites:

### Industry Associations

- Aggregate Producers Association of BC  
[www.gravelbc.ca](http://www.gravelbc.ca)

### Occupational Health & Safety Organizations

- Canadian Centre for Occupational Health & Safety  
[www.canoshweb.org](http://www.canoshweb.org)
- WorkSafe BC  
[www.worksafebc.com](http://www.worksafebc.com)
- Health Canada Occupational Health & Safety  
[www.hc-sc.gc.ca](http://www.hc-sc.gc.ca)
- Mine and Aggregates  
Safety & Health Association  
[www.masha.on.ca](http://www.masha.on.ca)

### Professional Associations with Health & Safety Expertise

- The Association of Professional Engineers and Geoscientists of British Columbia  
[www.apeg.bc.ca](http://www.apeg.bc.ca)
- Canadian Bar Association of British Columbia  
[www.cba.org/BC/home/main](http://www.cba.org/BC/home/main)



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