DROPPED OBJECT PREVENTION

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The following is a step by step procedure on how to complete a specific task or meet a facility specific requirement. Standard Operating Procedures (SOPs) are written for all identified critical tasks. By virtue of the hazard or complexity associated with critical tasks it is paramount that the SOP be followed as written. SOPs contain a listing of high-level hazards associated with the task, for detailed hazard analysis reference the applicable Task Hazard Assessments. SOPs do not replace the requirements contained in the company Standards, Codes, and Processes nor does it replace the need to comply with required legislation. Section 8.0 references documentation that the worker shall understand before work commences.

1.0 PURPOSE

- To establish a company standard to safely and effectively carry out work as it applies to controlling and preventing the hazards associated with dropped objects.

2.0 SCOPE AND APPLICATION

- This document applies to all company Heavy Construction Mining operations. Ensure all site-specific requirements are being met or exceeded before performing the task.

3.0 HAZARDS AND CONTROLS

- Uncontrolled movement of objects from an elevated location.
    - All objects must be secured and prevented from falling from an elevated location in an uncontrolled manner.
    - Where objects cannot be secured from movement (examples: material build-up in haul truck boxes or snow and ice falling from buildings), an exclusion zone must be established to prevent personnel from entering the area. The exclusion zone must take into consideration the potential deflection of the object. Refer to task-specific SOPs as required.
    - When working from heights, ensure tools and materials are secured or prevented from falling. This can include the use of tool lanyards or tethers as well as the use of toe boards or screens to prevent tools and materials from falling over the edge. Only tools less than 4.4 lbs. may be tethered to worker.
    - When leaving a worksite, inspect the area and ensure that any materials stored at heights have been removed or secured so that they do not present a potential dropped object hazard.
    - When transporting, loading, and unloading materials or cargo, ensure the object has been adequately secured prior to lifting and moving. Where possible, secure materials to pallets and ensure proper alignment of loader/forklift forks when lifting and moving the cargo.
    - Use bags, buckets, or pouches to lift tools to the designated work area.
- Line of fire hazards caused by dropped or falling objects.
    - Never stand under a suspended load, and never pass a suspended load over workers.

- Never work under an unsecured load or object. Never stand in the line of fire of a dropped object.
- When working from heights, set up an exclusion zone beneath the area if there is a potential for materials to fall and there is a potential for personnel to be in the line of fire below. The use of safety netting is also acceptable.
- All objects must be secured and prevented from falling in an uncontrolled manner. If an object must drop to the level below, ensure all workers have cleared the area and are at least twice the distance that the object falls away from it.
- Never lift, position, or carry an object exceeding the worker's physical limitations. If an object weighs more than 51 lbs., use multiple people or a mechanical/manual lifting/positioning aid. Refer to 962C-SOP-009 Manual Lifting, Positioning, and Carrying Heavy Objects for more information.

4.0 CHECKLIST

- ☐ Attend all preparatory meetings (IE, daily PSI, job scope, review of JSA's and SOP's for the job).
- ☐ Complete FLRA cards before starting the work.
- ☐ Ensure all personnel involved in the task are aware of the hazards and the controls to be used, as identified in the SOP's; JSA's; and FLRA's
- ☐ Conduct a pre-job inspection of all equipment to be worked on and tools to be used.
- ☐ **Standard of Training required for working on this job: On-the-job training.**

5.0 DEFINITIONS

5.1 Company

Means North American Construction Group Ltd. (NACG) and all directly or indirectly owned subsidiary companies, including joint ventures.

5.2 Company Personnel

Includes the Company's employees, officers, directors, agents, associates, consultants/contractors, temporary employees, and third-party processors.

5.3 HSE

Refers to the Health, Safety & Environment department.

5.4 Dropped Object

An object that falls from its previous height and either causes or has the potential to cause injury, death, or damage. The object can be of any size or mass, can fall from any height and may be dropped unintentionally or intentionally.

5.5 Static Dropped Object

An object that falls from its original position under its own weight. Most common type of dropped object.

5.6 Dynamic Dropped Object

An object that falls from its original position due to an applied force or energy.

5.7 Exclusion Zone

Restricted area that prevents access to personnel.

5.8 Deflection

The distance an object will deflect or travel when it strikes a surface below. Deflection is dependent on the size and shape of the object as well as the distance of the fall. Generally speaking, a static dropped object will deflect up to twice the distance of its fall.

6.0 PROCEDURE

1) Complete a hazard assessment prior to all tasks. Identify potential dropped object hazards.

2) Set up exclusion zones to prevent access to areas where there is a potential for dropped or falling objects.

3) Lower and lift objects in a controlled manner.

4) Use tool tethers and lanyards when working from heights. Ensure screening or toe boards are used to prevent materials from falling over the edge.

5) When transporting objects or cargo, ensure the material is secured and prevented from falling from the equipment (i.e. forks).

6) When leaving a worksite, inspect the area and ensure proper housekeeping has been completed. Ensure that materials stored at heights have been secured or prevented from falling.

7.0 NOTES

If this task is to be done by a method different than described in this SOP, the work must **STOP,** and the alternate method must be **DOCUMENTED** with an adequate hazard assessment tool such as a JSA. The document must be **APPROVED** by a supervisor before such procedures are implemented.

8.0 REFERENCES

- ANSI 121-2018 Dropped Object Prevention Solutions
- Energy Safety Canada Dropped Objects Prevention Revision 1
- Alberta Occupational Health and Safety Act, Regulation and Code – Part 22, Safeguards
- 950C-C-022 - General Housekeeping Code
- 960C-SOP-004 - Flagging Tagging and Barricading Hazardous Areas
- 962C-SOP-009 - Manual Lifting Positioning Carrying Heavy Objects

9.0 APPENDICES

No appendices.