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Kennecott Utah Copper Corporation Safety and Health Standards		Standard No. 10.2 Material Disposal

10.2.1 **INTRODUCTION**

10.2.1.1 This standard provides general guidelines for containment and disposal of various materials. A distinction is made concerning disposal methods for specific types of materials including asbestos and non-asbestos fibrous silicates.

10.2.2 **REQUIREMENTS**

10.2.2.1 Containers for the disposal of refuse (rubbish, paper, wood, lunchroom debris, etc.) shall be strategically located throughout the work place and be sufficient in number and size to prevent littering. All containers used in lunchrooms, toilet facilities and offices shall have plastic liners. Receptacles with covers shall be provided for the disposal of waste foods and associated materials. The supervisor shall ensure that all cans are emptied at a frequency sufficient to prevent overfilling and to maintain a clean and sanitary condition.

10.2.2.2 Refuse totes shall be strategically located throughout the workplace and marked "**REFUSE**".

10.2.2.3 Waste containers for the disposal of oily materials, rags, or similar flammable material shall be properly labeled and placed in areas where such matter is generated. All oil must be absorbed before it can be placed in any waste container. A fire extinguisher shall be placed in the area where the waste can is located. Waste cans containing flammables shall be:

- Painted red and must clearly be marked **FLAMMABLE**".
- Made of metal with a foot lever to lift the self closing lid.
- Emptied into appropriate bulk refuse containers to prevent overfilling and a potential fire hazard.

10.2.2.4 Bulk containers for the collection of refuse and scrap (recyclable material; i.e., metal, copper, lead, aluminum, brass and stainless steel) material should be located throughout the plant and clearly labeled for their content. Bulk containers shall be placed outside and far enough away from equipment and buildings to prevent a fire from spreading should one occur.

10.2.2.5 When quantities of scrap cannot justify the purchase/rental of bulk container(s), scrap yards can be used under the following conditions:

References: KUC Environmental Standards Manual Facility SPCC Plan KUCC Environmental Standard 10.3 – Asbestos, Standard 10.5 – Used Container Disposal, and 10.7 – Drum Pad Management and Used Drum Disposal KUCC Safety and Facility Standard 10.1 – Hazard Communication KUCC Safety and Health Standard 5.4 Risk Management OSHA CFR 1910.1001 and 1926.1101 - Asbestos MSHA Part 56,57 5001, UOSH Hazard Communication Rio Tinto Occupational Health Standard B4 Hazardous Substances					
Signatures					
Original signed by: Frank Klobchar	8/27/07	Original Signed by: R. McGowan-Jackson	9/6/07	Original signed by: Bill Champion	9/10/07
Standards Committee Chairman	Date	General Manager HSEQ	Date	President, KUCC	Date

- Only one scrap yard per plant will be allowed and must be approved by the Environmental Department.
- Scrap yards shall be bermed on the perimeter with only one passageway. Signs identifying the area as a scrap yard are required.
- Prior to disposal, empty containers / equipment must be properly decontaminated.
- Area managers are responsible for coordinating the removal of scrap material from the scrap yard in a timely manner.

- 10.2.2.6 **HAZARDOUS SUBSTANCES DISPOSAL** Hazardous substances must be prioritized and controlled in a manner consistent with Safety and Health Standard 5.4 Risk Management, to ensure employee exposure to these substances is minimized. Reference shall be made to the KUC Environmental Standards Manual and the facility Spill Prevention Control and Countermeasure (SPCC) Plan for specific procedures for the use, storage, and disposal of identified hazardous substances. Annual compliance audits will be conducted by the HSE Department.
- 10.2.2.7 A coordinator must be assigned the accountability for maintaining the hazardous substance inventory at the plant level. (See Safety and Facility Standard 10.1) There must be a program to assess safer alternatives to current hazardous chemicals / substances, and to limit worker access to hazardous substances.
- 10.2.2.8 Each plant shall construct or assign a specific storage area in which unknown waste materials and substances can be marshaled and secured. When new substances or materials are to be brought to the waste marshaling area, the Environmental Department must be contacted for advice on identification, sampling, and labeling of the substance. Upon receipt of completed analysis, the Environment Department will provide disposal instructions, including all provisions of state and federal laws pertaining to handling, shipping, and disposal of hazardous and non-hazardous wastes.
- Storage facilities must be secure and protected from damage. They must also be designed for easy access for fire fighting. Where applicable, the storage facility must protect chemical containers from physical damage due to temperature extremes, moisture, corrosive mists or vapors, and vehicles. The storage area should be fenced and bermed to provide security and spill containment. The storage area will be conspicuously marked and equipped with adequate fire extinguishers. Storage areas must be approved by the Environmental Department prior to construction.
 - Stored hazardous substances must be adequately segregated based on:
 - Quantity of materials stored;
 - Physical state of the chemicals (solid, liquid or gas);
 - Degree of incompatibility; and
 - Known behavior of the materials.
 - All containers must be placed upon approved pallets and provisions made to cover waste materials. Each plant will assign a person to check the waste area periodically to ensure containers are not leaking. A written record of inspections will be kept. (See KUC Environmental Standard 10.7)
- 10.2.2.9 Safe working procedures and training in the safe handling, transport, and storage of hazardous substances will be provided. Appropriate PPE must be provided and used with regard to the potential hazards.
- 10.2.2.10 **DRUMS** (See KUC Environmental Standard 10.5 Used Container Disposal for detailed requirements which govern the management of drums.) The following are general requirements for drum use and disposal:

- Bung caps will be replaced and tightened, or in the case of an open top, the lid and ring will be replaced and tightened. This will ensure that the drums will not take on water that leads to contamination.
- Waste from different substances, or from different drums, must not be mixed. For example, waste oil should not be mixed with solvent, antifreeze, etc.
- Solids, or semi-solid (sludge), must not be stored in a bung style drum. Solids shall be placed in an open top drum, which is closed immediately after use.
- Drums that contain waste fluids or solids shall be marked as to source (if known) and placed on pallets on the drums storage pad.
- Drums of unknown content (not marked as to origin or content) shall be sampled by the Environmental Department and subsequently marked.
- Welding or cutting on drums is prohibited.
- Empty oil drums must be returned first to the original vendor for credit. If the vendor will not accept the drums, they must be crushed and salvaged as scrap metal as described under Hazardous Substances Disposal.

10.2.2.11

Asbestos and Non-asbestos Fibrous Silicates - This section applies to asbestos and bio-persistent non-asbestos fibrous silicates that may display asbestos-like toxicity, related to fiber diameter and length. Regulatory requirements must be followed as a minimum. (See OSHA 1910.100 and 1926.1101 or MSHA Part 56, 57 5001) In any case the following requirements must be met:

- A KUCC management program must be in place and actively pursued. (See KUCC Environmental Standard 10.3)
- No new products containing these materials should be purchased unless there is no viable alternative giving acceptable performance. The necessity of using these products must be kept under review.
- Installed materials of this type must be identified and assessed for current safety. Where 'safe in place', it should not be disturbed or removed unless part of an established planned maintenance.
- Work areas (abatement areas) must be separated by ropes or barriers and posted to restrict entry.
- Contaminated material must be placed in marked plastic disposal bags or covered containers promptly for disposal to an approved landfill and work areas must be kept clean.
- All personnel exposed to these materials (involved in an abatement, maintenance, or cleanup) must be on a register. "Exposed" means working on or near such material that has been disturbed, abraded or cut. The register must contain details of their annual medical examination and the results of occupational hygiene monitoring.
- Contractor bid specifications must be reviewed and an individual identified who is responsible for overseeing contractor performance. Asbestos contractors must be competent, registered and have adequate equipment, procedures and monitoring.
- Where required, the asbestos / bio-persistent non-asbestos fibrous silicates management program must cover work practices, training, monitoring, medical surveillance, waste handling and disposal.
- Maintenance operations must be made aware of potential cristobalite exposure hazards when disturbing non-asbestos fibrous silicates that have undergone high temperature conditions.
- The potential for occurrence of naturally occurring asbestiform materials in exploration or mining production activities must be assessed, the risk of exposure determined and appropriate control measures implemented where required.

10.2.2.12

LANDFILLS - Under no circumstances should unidentified or unknown substances or materials be disposed of at any landfill. Disposal of material into landfills is permitted as follows:

MATERIALS	LANDFILL
Scrap Tires larger than 24.5 inches	Yosemite Tire Landfill. (When plants other than the Mine are hauling to the Yosemite Tire Landfill, they shall be escorted through the Mine area.)
Scrap Tires smaller than 24.5 inches	Recycle through vendors
Refuse	Trans-Jordan Landfill Tailings Pond Landfill Smelter Landfill
Transite (Non-Friable Asbestos Containing Material - Cement Pipe)	Trans-Jordan Landfill Tailings Pond Landfill Smelter Landfill
Rubber Products (rubber lined pipe, conveyor belting, etc.)	Tailings Pond Landfill Smelter Landfill
Oily Products (oily rags, oil filters, empty oil cans, speed dry, etc.)	Tailings Pond Landfill

10.2.3 **RESPONSIBILITIES**

10.2.3.1 Supervisors are responsible for the following:

- Ensuring that all refuse cans are emptied at a frequency sufficient to prevent overfilling and to maintain a clean and sanitary condition.
- Instructing employees in the safe working procedures and provide training in the safe handling, transport, and storage of hazardous substances.

10.2.3.2 The Environmental Department is responsible for:

- Conducting an annual compliance audit of specific procedures for the use, storage, and disposal of identified hazardous substances.
- Reviewing proposed plant scrap yard locations and storage areas in which unknown waste materials and substances can be marshaled.
- Providing advice on identification, sampling, and labeling of any new substance or material brought to the waste marshaling area.
- Providing disposal instructions, including all provisions of state and federal laws pertaining to handling, shipping, and disposal of hazardous and non-hazardous wastes.

10.2.3.3 Area managers are responsible for:

- Coordinating the removal of scrap material from the scrap yard in a timely manner.
- Assigning a coordinator accountable for maintaining the hazardous substance inventory at the plant level.

REVISION HISTORY

Revision #	MOC#	Description of Change	Prepared By	Date
4	TS00125	General review and revision of standard	KUCC Safety and Health Standards Committee	05 / 2007