

The image features a dark blue background with several thin, white, parallel lines that appear to be part of a larger graphic design. The lines are arranged in a way that suggests movement or a path, starting from the bottom left and extending towards the top right. The overall aesthetic is clean and modern.

PROJECT SUMMARY

OFFICE OF MERIDIAN AND QUALITY

INTRODUCTION

Building Progressive Innovation Enterprise (BPI) is a locally registered business with a primary focus on Artisanal and Small Scale Gold Mining (ASGM). In this regard, BPI utilizes Mercury and CNLITE (a gold leaching reagent) to extract the gold and therefore, are importers of Mercury and CNLITE. To facilitate the storage of imported Mercury a storage facility was acquired at Tract "SM" being portion of parcel 3572 situated at North of Aubrey Barker Road, Plantation Ruimveldt, Georgetown, and the company is therefore seeking Environmental Authorization for the storage of mercury at the aforementioned location.

PROJECT LOCATION

The mercury storage facility will be located at Tract "SM" being portion of parcel 3572 situated at North of Aubrey Barker Road, Plantation Ruimveldt, Georgetown within a land area of 0.585 acre. A 40ft metal container will be retrofitted with ventilation, storage shelves and security to facilitate the storage of imported mercury. The areas surrounding the project location are mixed commercial and residential.



Google images showing the location for the Project



Container Storage Facility for Mercury

PROJECT DESCRIPTION

Following the Government of Guyana stipulation, the quantity of mercury permitted to be imported by an individual importer is 150 flasks per year. However, the storage facility can store 300 flasks. The facility as shown in the photo above will be used solely for the storage of mercury and CNLITE.

Metal flasks containing elemental mercury will be placed in carton boxes to ensure protective outer packaging. CNLITE is an eco-friendly gold-leaching reagent (substitute for sodium cyanide) used for gold ore beneficiation and refining, suitable for various cyanide gold extraction processes, and widely applied to various gold mines.

CNLITE is a powdery substance that is granulated and packed in two layers of plastic bags. The inner layer is a thick and translucent plastic bag while the outer plastic bag is printed with words. The net weight of each bag is $25.00\text{KG} \pm 0.20\text{KG}$, and for every 40 bags, the net weight of the leaching reagent will be 1 ton. Each ton pack will include 40 bags on a wooden pallet, entangled with a wrapping film.



CNLITE – gold leaching reagent

The storage facility will have the relevant appropriate labeling. The purpose of labeling is simply to indicate that a container holds hazardous materials and poses a potential risk to human health and the environment during storage, handling, and transport. Accurate and durable labeling of materials in storage is essential. In this regard, labeling will be done as soon as possible after the mercury flasks and CNLITE packages are secured since unlabeled containers and packages present a serious potential hazard. At the very least, each flask and package will indicate that it contains mercury and CNLITE and warn of its toxicity. International standard hazardous materials labeling will also be affixed to all containers holding mercury and packages containing CNLITE. If printed labels are not available, these images may be drawn by hand, preferably in black and red.



Further, the mercury storage facility will be labeled with a hazardous warning sign, similar to the images below.



POTENTIAL HAZARDS AND MITIGATION MEASURES

The main potential impact associated with the storage of mercury and CNLITE is the pollution of the environment caused by the sudden or non-sudden release of mercury and CNLITE during the loading and unloading of the chemicals. A release of these substances in quantities greater than 3 liters can result in severe environmental damage as well as harm to human health and or livelihoods.

Both mercury and CNLITE will remain in their original packaging at the storage facility. In this regard, there will be no decanting or repackaging of these substances.

Mitigation measures implemented at the facility will include:

Inspection

Visual inspections will be carried out regularly, once the substances are stored at the facility, and a record kept of the results. Inspections will include a test of the site security system, checking for leaks, corroded or broken containers, improper methods of storage, ventilation, the condition of the PPE and wash area, spill kit contents, and ensuring that records are up to date.

Inspections will also include an examination of the storage area, floors, and walls to ensure that the equipment and any coatings are in good condition.

Inventory

Records of the chemicals inventory will be maintained at the storage facility. This will be checked periodically against the containers stored at the facility to ensure its accuracy.

Mercury Spill Kit

Any spillage of mercury, even small droplets, will be considered hazardous and cleaned up with caution. Workers will be prepared for clean-up by getting the mercury spill kit (see below) and putting on the necessary PPE. Equipment needed to deal with spills or releases of elemental mercury will be kept in a readily accessible location and in good working order.

The spill kit, PPE, and wash area should be near (but, if possible, not in) the storage area. The type of equipment on hand should be appropriate to the size of the facility and the quantity of mercury in storage. Such equipment may include sorbent materials, chemical reagent products that can be applied to elemental mercury spills to reduce its liquidity or mobility, shovels, and other tools for picking up spilled materials, and containers in which to place cleaned-up materials.

Never use a vacuum cleaner or broom to clean up a mercury spill. The basic mercury spill kit should include the following items, to the extent possible:

- Step-by-step clean-up procedure in the form of a guide
- Flashlight
- Small plastic scoop and dustpan
- 2 silicone spatulas
- Tweezers
- Eyedropper or syringe (without the needle)
- Duct tape or sticky tape
- "DANGER: MERCURY WASTE" labels to put on waste containers
- Air-tight, sealable plastic bags (small and large sizes with thickness of 2 to 6 mils (50 to 150 microns), such as heavy-duty sealable freezer bags)
- Air-tight, puncture-resistant, rigid plastic or steel (not aluminum) jar or other container with a wide opening
- Empty 2.5-liter steel mercury storage flask
- Regular plastic waste bags with a thickness 2 to 6 mils (50 to 150 microns)
- Plastic tray or wash basin with round corners and edges
- Spill and vapor suppression agents such as sulfur powder, zinc or copper flakes, commercial absorbent pads, or mercury vapor suppressants
- Brush to gather powder or flakes
- Alcohol, vinegar, or peroxide-soaked swabs
- A signed sheet indicating when materials were used and replenished

Mercury Spill Response

Every mercury spill should be documented and, if more than a few milliliters of mercury, reported to the EPA. If there is any uncertainty as to whether a spill should be reported to the authorities, it would be advisable to report it. Documentation of any mercury spill should include the type of mercury spilled, the location, dispersal, and approximate amount of mercury spilled, the date, time, names of the persons who observed and documented the spill, the proximity of the spill to human habitations and environmentally sensitive areas, and the cleanup procedure employed.

Familiarity with the necessary cleanup resources and available cleanup materials is critical to properly responding to a mercury spill. If the spill is small and on a non-porous surface (such as linoleum or an epoxy-painted floor), it can be readily cleaned up by facility workers and disposed of in an environmentally sound manner. If the spill is larger or goes into cracks or crevices, it may be necessary to hire someone with suitable professional training if special expertise is not available at the storage facility.

The following things will NOT be done in response to a mercury spill:

- Do NOT use a vacuum cleaner or broom to clean up spilled mercury – they will simply spread the mercury further and increase the mercury concentration in the air.
- Do NOT wash contaminated clothing or fabrics in a washing machine – they will contaminate the machine and wastewater.
- Do NOT pour mercury down the drain – it will contaminate the plumbing system and septic or sewage treatment system for years to come.
- Do NOT get mercury on the bottom of your shoes, which will spread the mercury to other areas – use disposable shoe covers or decontaminate your shoes.

