



Aberdeen Proving Ground
Hazardous Materials Management Procedures Manual

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Definitions

Activity distribution site (ADS). A location, within an activity, where hazardous materials are received and issued and where data regarding transfers, use, and disposal are maintained.

De minimis. Small or trifling.

Hazardous chemical. The phrase “hazardous chemical” is defined in sections 335 and 370 of 40 Code of Federal Regulations (CFR), which implemented the Emergency Planning and Community Right-to-Know Act (EPCRA). The definition in 40 CFR is the same as the definition in 29 CFR, 1910.1200(c) except that, under 40 CFR, the phrase does not include the following substances:

- Any food, food additive, color additive, drug, or cosmetic regulated by the Food and Drug Administration.
- Any substance present as a solid in any manufactured item when exposure to the substance does not occur under normal conditions of use.
- Any substance that is used for personal, family, or household purposes or that it is present in the same form and concentration as a product that is packaged for distribution to and used by the general public.
- Any substance that is used in a research laboratory or a hospital or other medical facility under the direct supervision of a technically qualified individual.
- Any substance that is used in routine agricultural operations or is a fertilizer for sale to retail customers.

Hazardous material. A hazardous material is defined in “Federal Standard, Material Safety Data, Transportation Data and Disposal Data for Hazardous Materials Furnished to Government Activities” (FED-STD-313C, 3 Apr 96). The standard, authorized by the General Services Administration (GSA) for use by all federal agencies, includes the following substances:

- Any item or chemical that is a health hazard or physical hazard as defined by the Occupational Safety and Health Administration (OSHA) in 29 CFR 1910.1200.
 - Chemicals that are carcinogens; toxic or highly toxic agents; reproductive toxins; irritants; corrosives; sensitizers; nephrotoxins; neurotoxins; agents that act on the hematopoietic system; and agents that damage the lungs, skin, eyes, or mucus membranes.

- Chemicals that are combustible liquids, compressed gases, explosives, flammable liquids, flammable solids, organic peroxides, oxidizers, pyrophorics, unstable (reactive), or water-reactive.
- Chemicals that, in the course of normal handling, use, or storage operations, may produce or release dusts, gases, fumes, vapors, mists, or smoke that have any of the above characteristics.
- Any item or chemical that is reportable or potentially reportable or notifiable as inventory under the requirements of Hazardous Chemical Reporting (40 CFR Part 370) or as an environmental release under the requirements of Toxic Chemical Release Reporting: Community Right To Know (40 CFR Part 372), which includes chemicals with special characteristics that, in the opinion of the manufacturer, can cause harm to people, plants, or animals when released by spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discard of barrels, containers, and other receptacles).
- Any item or chemical that, when being transported or moved, is a risk to public safety or an environmental hazard and, as such, is regulated by one or more of the following regulators:
 - Department of Transportation Hazardous Materials Regulations (49 CFR 100-180).
 - International Maritime Dangerous Goods Code of the International Maritime Organization.
 - Dangerous Goods Regulations of the International Air Transport Association.
 - Technical Instructions of the International Civil Aviation Organization.
 - U.S. Air Force Joint Manual, Preparing Hazardous Materials for Military Air Shipments (AFJMAN 24-204).

Note: *The words hazardous material and hazardous chemical are synonymous for this document. Hazardous material will be used to avoid any confusion.*

HAZMART. The Aberdeen Proving Ground (APG) HAZMART, or Hazardous Materials Pharmacy, serves as the Installation's primary point of entry for hazardous materials; provides a complete hazardous material (HM) inventory; simplifies EPCRA Tier II and Toxic Release Inventory (TRI) reporting; facilitates the sharing of

excess materials among activities; generates reports to guide pollution prevention activities; and maintains a material safety data sheet (MSDS) library.

The HAZMART is in building E5137, telephone 410-436-7480/7481/7482, fax 410-436-4719, or e-mail hazmart@usag.apg.army.mil.

Persistent, bioaccumulative, and toxic (PBT) chemicals. PBTs are chemicals that are toxic, persist in the environment, bioaccumulate in food chains, and thus pose risks to human health and ecosystems

Procedures

Maintaining hazardous materials inventory data. The barcoding determination for a hazardous material, as a general rule, is based upon the manufacturer's environmental precautionary statement.

- Any product with the manufacturer's precautionary statement "Warning" or "Danger" shall be tracked/barcoded by container if the product is greater than 4 fluid ounces or 100 grams. If the product is less than or equal to 4 fluid ounces or 100 grams, it shall be tracked/barcoded by container only if the product contains TRI (e.g. PBT chemicals).
- Any product that has a manufacturer's precautionary statement of "Caution" and that is less than 1 gallon/5 pounds requires only a pallet/case barcode.
- Any product that is labeled "Caution" and is more than 1 gallon/5 pounds requires an individual container barcode.
- Any aerosol, irrespective of the manufacturer's precautionary statement, shall be tracked/barcoded by container.
- De minimis quantities of toxic chemicals in mixtures do not need to be tracked unless they are PBTs.

At the end of each calendar year, return any unused barcodes to the HAZMART or your AEC, and contact the HAZMART or your AEC to obtain current year barcodes.

Note: While the legal definition of "de minimis" does not denote a specific percentage, the Environmental Protection Agency (EPA) has set two levels below which the exemption will apply. If a noncarcinogenic toxic chemical is present in a mixture at a concentration below 1 percent, or an Occupational Safety and Health Act (OSHA) carcinogen is below 0.1 percent, the amount of the toxic chemical in that mixture is exempt from reporting requirements.

Note: The APG barcode system assigns color codes and a numbering scheme. Each calendar year is designated by a different barcode color (e.g., light blue for 1997, green for 1999). The first character within the eight-character barcode designates the last digit of the year you received the HM container (e.g., a container barcoded 3A000001 was received in 2003). The second character is a letter, which is "A" for all HM containers received at APG during calendar years 1996 through 2005. The letter will change to "B" in 2006 to avoid confusion with containers barcoded for 1996. The last six numbers are sequential. The HAZMART maintains and distributes barcodes.

Hazardous materials procurement. The individual who is responsible for a new product being brought onto the Installation must secure an MSDS for the installation.

- The person ordering hazardous materials is responsible for requesting that the buyer, ordering activity, and/or procurement agency notify the vendors that shipments of hazardous materials are to be accompanied by the applicable MSDSs. It is also the responsibility of the person ordering the hazardous materials to contact the Installation HAZMART if there is a conflict between the product MSDS and the label.
- Each buyer, ordering activity, and/or procurement agency is responsible for ensuring that the user's request for the MSDS is relayed to the vendor.
- Before purchasing any prohibited chemical or product, such as a Class I ozone-depleting chemical for which a purchase exemption has been granted because substitutes are not available, contact your agency environmental coordinator (AEC) or the Department of Safety, Health and Environment (DSHE) Pollution Prevention Program manager to determine if such materials are available as excess (See the section "Excess hazardous materials reissue.").
- Each activity is responsible for immediately notifying the HAZMART if any item requiring an MSDS is received without one.

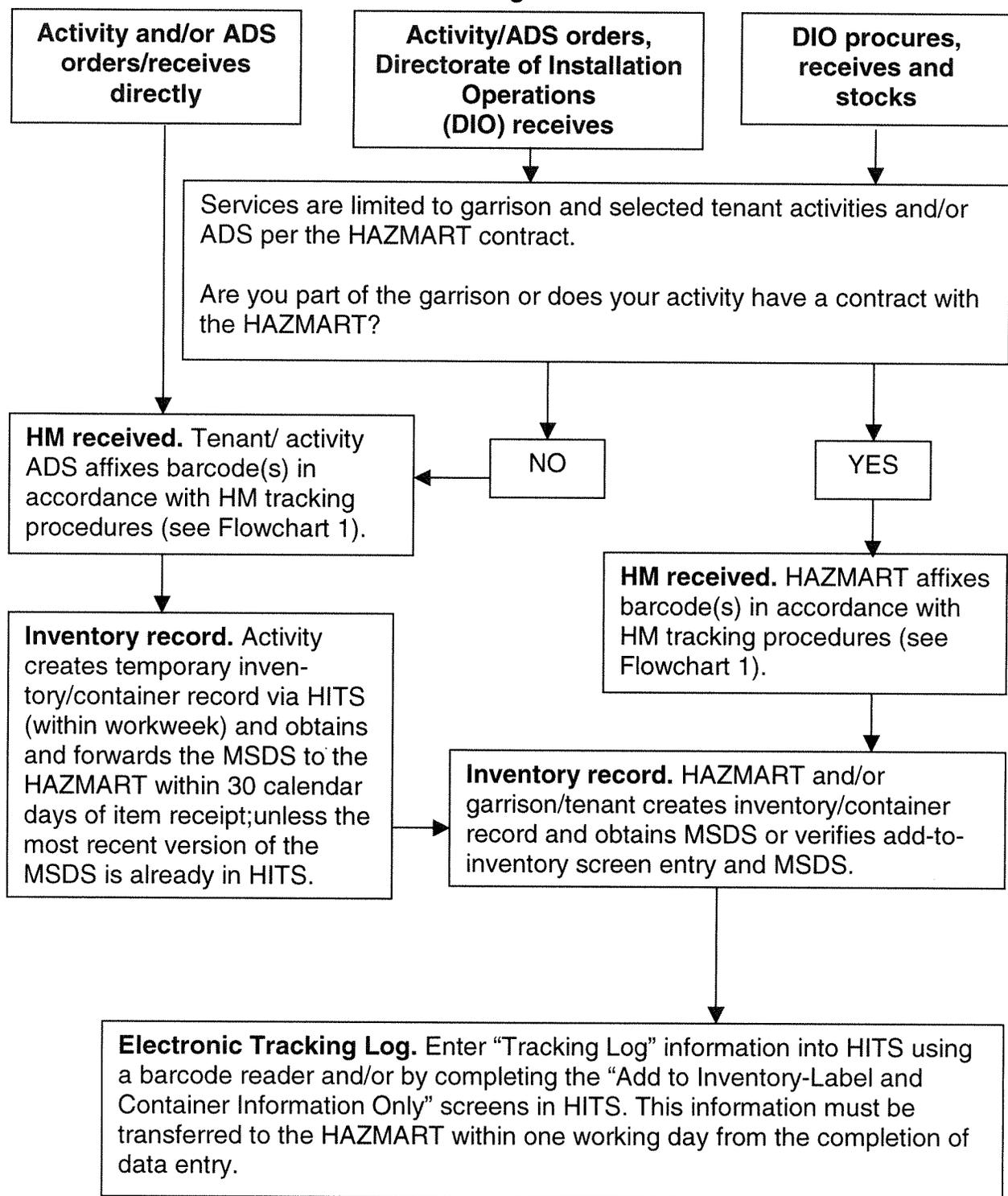
Note: *In accordance with 49 CFR, any shipment of a hazardous material is to be accompanied by an MSDS if the shipment contains a new item, if the formulation of a product has changed, or if the product label does not match the MSDS.*

Receiving hazardous materials. The following options are available to each activity to ensure that all hazardous materials delivered to APG are entered into the tracking system. In order to reduce costs, electronic reporting capabilities must be used to maintain inventories whenever possible.

- **Activity orders and directly receives hazardous materials.** A barcode label shall be applied to each container/kit/case/pallet of hazardous material in accordance with the guidelines put forth in the section "Maintaining hazardous materials inventory data." The barcode number and container label data shall be entered on the electronic HAZMART Data Input Form. The applicable MSDS shall be provided to the HAZMART at least weekly for validation and entry into the tracking system. An activity must obtain barcode labels from the HAZMART before receiving direct deliveries. The HAZMART, on request, will help an activity process occasional large orders, subject to DSHE approval and manpower availability.

- **Activity procures hazardous materials; items delivered to DIO.** An activity may elect to have hazardous materials delivered directly to the HAZMART. The HAZMART will barcode each item as appropriate and enter inventory information and MSDSs into HITS. Within 24 hours of receipt, the Directorate Installation Operations (DIO) will notify the user that the item(s) are available for pickup or will arrange to deliver the materials to the user during normal duty hours. Before delivery, the activity shall forward purchase documents to the DIO Hazardous Materials Warehouse (building E5707, telephone 410-436-3270, fax 410-436-3966) to ensure proper identification of the activity and user and to facilitate record keeping. When a tank is filled, the receiver will provide the associated delivery form to the HAZMART.
- **DIO procures, stocks, and receives hazardous materials.** For items procured or stocked by DIO, the HAZMART will apply barcodes and enter MSDS and inventory information into HITS. Within 24 hours of receipt, DIO will notify the user that the item(s) are available for pickup or will arrange to deliver the materials to the user during normal duty hours.

Flowchart 2: Receiving hazardous materials



Hazardous material tracking. Supplemental HAZMART assistance is available, when funded by the requesting activity, and may include, for example, reorganizations, major moves, and re-inventories. In order to reduce costs, electronic reporting capabilities must be used, when possible, to maintain inventories.

- **Container tracking.** An activity shall track hazardous materials by completing an electronic Hazardous Materials Tracking Log, listing barcode numbers and final locations, or by inputting data directly into HITS, using a barcode reader programmed by the HAZMART to read the colored hazardous materials barcode labels.

As stated in the section “Maintaining hazardous materials inventory data,” hazardous materials shall be tracked by container, with exceptions. If hazardous materials are tracked by the case or pallet, once the case or pallet is opened for use, the assigned barcode number must be logged out of HITS.

Data from the barcode reader must be transferred to the HAZMART within one working day from the completion of data entry. This will ensure that the locations of materials are accurate in the inventory database.

- **Container transfers.** Containers transferred from one location to another, either within or between activities, shall be logged out of the original location by using a barcode scanner or by completing an electronic Hazardous Materials Tracking Log . To complete the transaction, the receiver must acknowledge receipt of the items electronically.
- **In-container tracking.** In-container inventories can be maintained at the tracking system user’s discretion. If an in-container inventory is desired, the user shall provide the following information by letter, fax, or e-mail to the HAZMART.
 - Container barcode number
 - Product/chemical trade name
 - Container size from the manufacturer’s label
 - Unit of measure desired. The unit of measure must be small enough to ensure that all issues are in whole numbers.

If the unit of measure is not from the same system (metric or English), provide the desired conversion (e.g., 1 pound received, plan to issue in grams; 1 pound = 454 grams). Examples:

1. 7A000001

2. acetone
3. 1 gallon
4. ounces

1. 7A000001
2. acetone
3. 1 gallon
4. pints

1. 7A000001
2. acetone
3. 1 gallon
4. milliliters (1 gallon = 3785 ml)

- **Underground storage tank (UST)/aboveground storage tank (AST).** The HAZMART shall be notified of all USTs and ASTs and of their locations. The HAZMART shall be notified when USTs and ASTs are refilled and when additional ones are added to or removed from the inventory.

When storage tanks are refilled under an APG garrison contract, the HAZMART will obtain the necessary inventory data direct from DIO, regardless of the end user/activity.

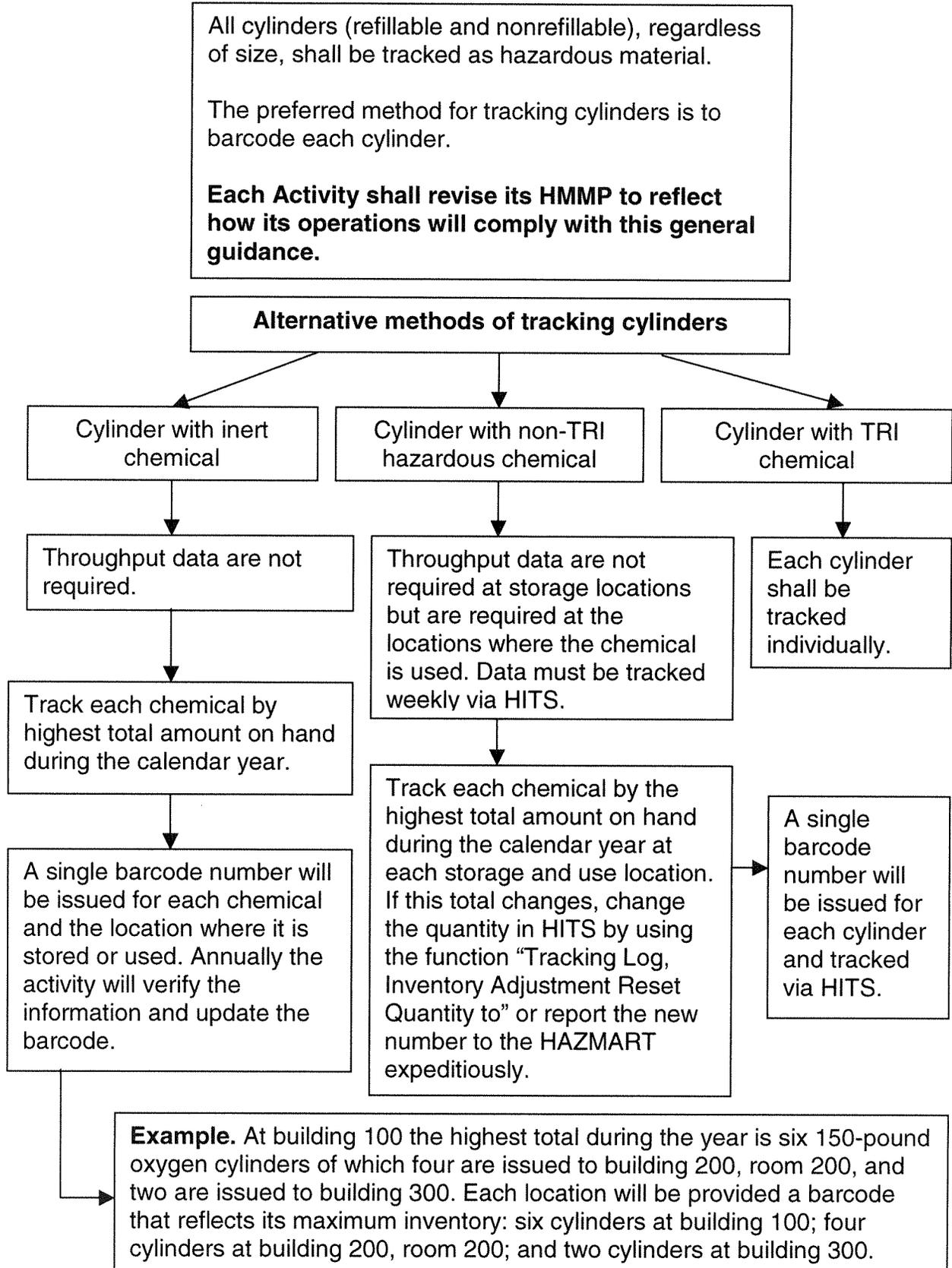
If storage tanks are refilled under a non-DIO contract, the user will provide the necessary inventory data, by sending the delivery form provided by the receiver to the HAZMART.

- **Cylinders.** All cylinders (refillable and nonrefillable), regardless of size, shall be tracked as hazardous materials in accordance with the Installation Hazardous Materials Management Policy. Each activity shall revise its Hazardous Materials Management Plan to reflect how its operations will comply with this general guidance. The recommended method is to track each cylinder individually according to established HITS and Hazardous Waste Tracking System (HWTS) procedures. However, due to the unique nature of the chemicals contained within cylinders and due to the varied supply systems for material delivery, storage, and use, the alternate methods described as follows may be used.
 - **Inert chemical tracking.** For nonhazardous inert chemicals (e.g., oxygen), throughput data are not required. Each chemical in this category will be tracked according to the total amount of chemical on hand on the date having the highest total during the calendar year. A single barcode number will be issued for each location at which such items are stored or used. At building 100, for example, the highest total during the year is six 150-pound oxygen cylinders

of which four are issued to building 200, room 200, and two are issued to building 300. Each location will be provided a barcode that reflects its maximum inventory: six cylinders at building 100; four cylinders at building 200, room 200; and two cylinders at building 300. Annually the activity will verify the information, but not change the barcode.

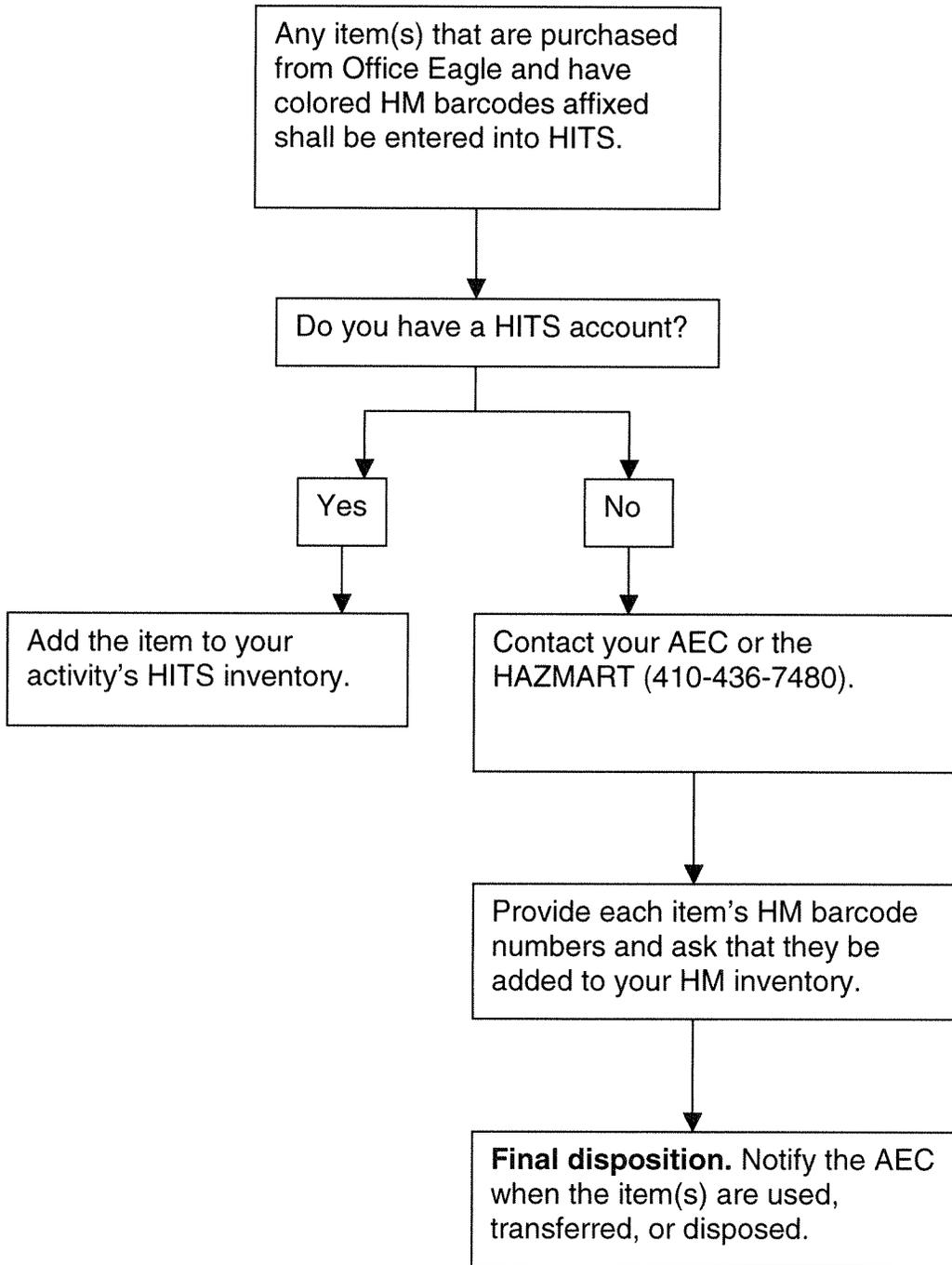
- **Non-TRI hazardous material tracking.** For any non-TRI hazardous material (e.g., acetylene), throughput data are not required at storage locations, but are required at the locations where the chemical is used. Each chemical in this category will be tracked according to the total amount of chemical on hand on the date having the highest total during the calendar year at each storage and use location. Each activity shall report the throughput data for each location on a quarterly basis. Should the on-hand maximum change, the activity shall expeditiously notify the HAZMART, via the electronic Hazardous Material Tracking Log or e-mail, so that inventories can be changed to reflect the new maximum. A single barcode number will be issued annually for each location at which such items are stored or used.
- **TRI chemical tracking.** Each cylinder containing a TRI chemical (e.g., chlorine) shall be tracked individually as outlined in the section "Procedures."

Flowchart 3: Tracking compressed gas cylinders



- **Office Eagle.** Hazardous materials purchased at the Office Eagle must be added to the purchasing activity's inventory by the purchasing activity.

Flowchart 4: Tracking hazardous materials purchased from the Office Eagle stores



Excess hazardous material reissue. Excess materials are those that are no longer needed by the original purchaser/user but that are still usable. When reissued, excess materials are free to the recipients. Two options are available to enable the reissue of excess hazardous materials on Aberdeen Proving Ground: the "Freebies" database and the Defense Reutilization and Marketing Office (DRMO) . Only after listing your materials on Freebies for ten days should you check with the DRMO first for possible sale of your unwanted materials to another government user

- **Sharing excess materials (Freebies).** The Freebies database is most easily accessed through HITS. The most common procedures for sharing Freebies data are as follows. The HAZMART, after receiving an electronic tracking log or electronic download from the user, enters the data into HITS and posts the excess hazardous material information and the point of contact on the Freebies database. If the material has not been transferred within 10 working days, the user can choose to turn in the items as waste or to maintain the information in the Freebies database. If the user chooses to maintain the data in the Freebies database, this process will repeat every 10 days. If the user chooses to turn the items in as waste, he/she must change the status of the item in HITS and proceed with normal HWTS turn-in procedures. Once items are transferred to another user, the donating and receiving activities must acknowledge receipt of the items in HITS. In order to track progress (cost savings), the receiving activity should provide cost data (what each item would have cost had it been purchased) to the HAZMART on all items received. The cost data may be provided in the "Comments" section of the electronic Hazardous Materials Tracking Log or by separate fax or e-mail to the HAZMART.

***Note:** Users without electronic communications can contact their AEC and/or the HAZMART (410-436-7480) directly for current lists.*

- **Finding excess materials.** Hazardous material users in search of particular chemicals or products should check the Freebies database or contact the Installation HAZMART or their AEC as appropriate. The HAZMART may be able to put the user or the AEC in contact with other users who may have excess materials.

***Note:** Depending on the policies of each activity, a user may be required to obtain approval from the unit's AEC to accept items from Freebies.*

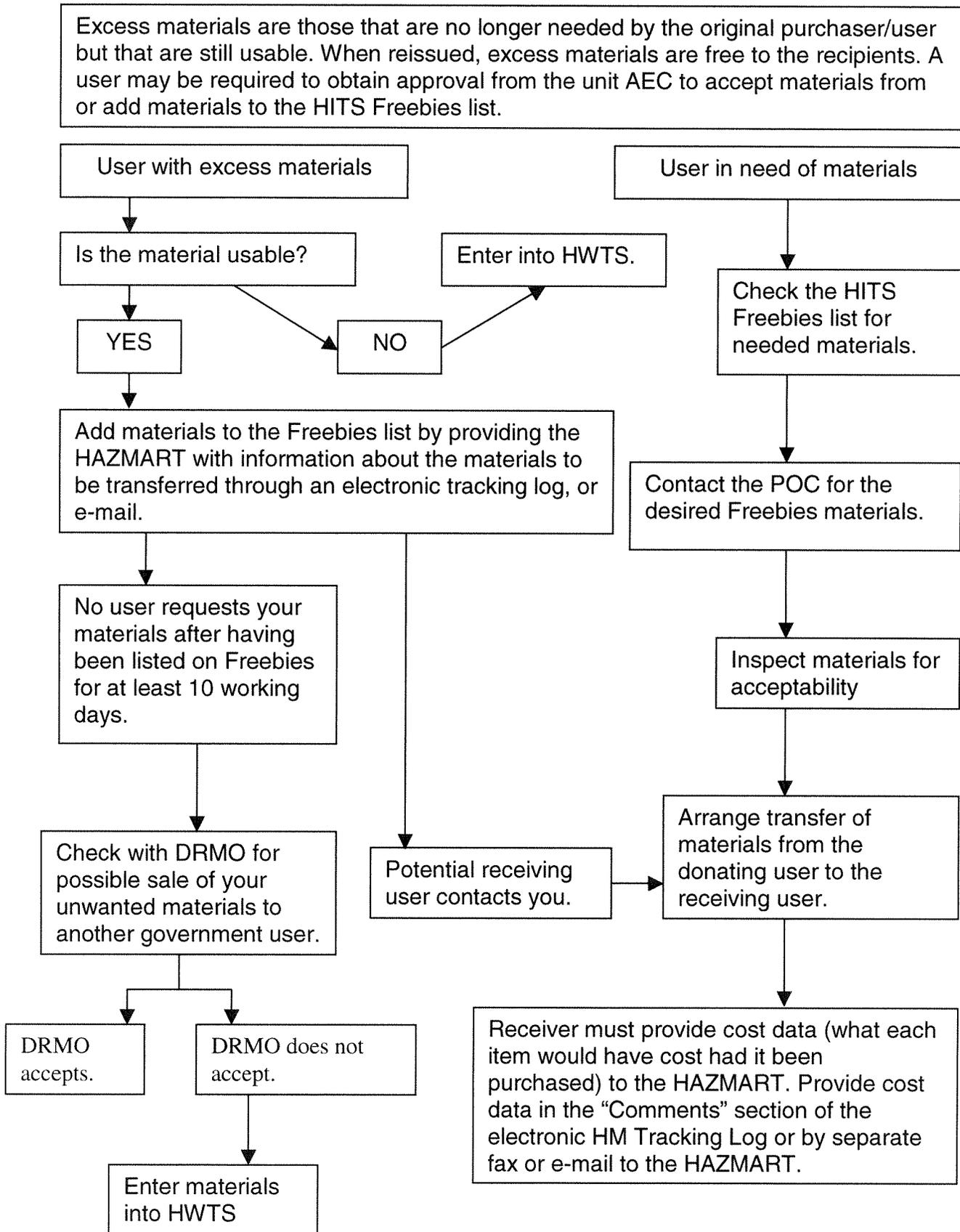
- **Precautions.** The receiving activity may, at its discretion, accept hazardous material in any condition it deems appropriate. Note that expired, useable items may also be transferred through Freebies at the discretion of the receiver. Before accepting excess hazardous materials, consider the following conditions.

- Is the material in useable condition?
- Are all container labels intact?
- Are MSDSs available, and do they match the container labels?
- Are any containers in a deteriorated condition (i.e., severely rusted, damaged, and/or leaking)?
- Is a HITS barcode affixed to each container?

Note: *Contact the HAZMART when in doubt.*

- **Getting help.** Hazardous material users can contact their AEC, the Installation HAZMART, or the Directorate of Safety, Health and Environment (DSHE) Pollution Prevention Program manager for assistance. DSHE pollution prevention specialists can visit your facility to help compile a list of your usable excess materials and can identify potential recipients. The specialists can also help you find desired materials that are excess items on the Installation. Anyone interested in receiving excess items can then contact the owners directly to inspect and arrange for the transfer of the materials.

Flowchart 5: Excess hazardous material reissue



Contractor requirements

All contractors who use hazardous materials in the performance of contracts on APG shall provide receipt, use, disposal, and MSDS information to the Installation HAZMART weekly. This information will be provided to the APG Fire Department and Emergency Services, Harford County, the State of Maryland, and EPA as required. The HAZMART will assist each contractor in establishing procedures for initial and routine submissions of required information to the Installation HAZMART. However, the contractor is solely responsible for providing the necessary information. The contractor may submit to the HAZMART written requests for inventory lists, MSDSs, and reference data.

All contractors are subject to audits or inspections by APG, state, local, and federal agencies. Failure to comply with EPCRA requirements will be referred to the appropriate regulatory agency for resolution. All contractors are responsible for ensuring that their subcontractors meet this requirement.

Activity distribution site

An activity may elect to establish and operate its own ADS, provided it can ensure a 98-percent accurate chemical list and an 85-percent accurate container list, which is verified during annual inventory validations. If the lists do not meet the accuracy standards, the AEC will receive an Inventory Adjustment Report from DSHE. The report will include the location and condition of the material, the quantity of material on hand, stock records to show actual quantities, cause(s) of the discrepancies when they are found, and corrections of any discrepancies. All data collected by the ADS must be provided expeditiously to the Installation HAZMART. Each ADS is responsible for the maintenance of its hazardous material inventory and ancillary data (e.g., MSDSs) and for all activity data that are incorporated into regulatory reports. The standard operating procedures for each ADS must be approved by the HAZMART.

Ensuring compliance

APG conducts annual hazardous material inventory validations in cooperation with the APG Fire Department. APG reserves the right to inspect sites to ensure compliance with EPCRA, the APG Hazardous Materials Management Policy, and this procedures manual. It is solely the responsibility of each activity to provide required data to the Installation HAZMART on a weekly basis via barcode reader or the electronic Hazardous Materials Tracking Log/Data Input Form.

To ensure compliance with all applicable laws and regulations regarding safety, health, and the environment, matrix inspections of facilities or work areas will be conducted as necessary. All hazardous material sites are subject to announced and unannounced inspections by APG, local, state, and federal inspectors.

Note: Make all requests for HAZMART services, particularly for reports, in writing (including e-mail).

Training

Training is an integral part of the APG Pollution Prevention Program. In addition to activity-specific pollution prevention training, DSHE offers training to the Installation community. Contact the DSHE Pollution Prevention Program manager at 410-306-2275 to schedule classes for military, civilian, and contract employees.

Classes may also be offered by tenant organizations. Contact the specific tenant AEC for more information.